

# PHILOSOPHY THEN AND NOW



A LOOK BACK AT 26  
CENTURIES OF THOUGHT

Zaine Ridling, Ph.D.

# PHILOSOPHY

## Then and Now

A Look Back at 26 Centuries  
of Ideas That Have Shaped  
Our Thinking

by

Zaine Ridling, Ph.D.

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*Preface*

The concepts that lie at the heart of philosophy antedate historical record by thousands of years. In one form or another, the concept of immortality probably extends back at least to the Neanderthals some tens of thousands of years ago. They seem to have developed some notion of an afterlife, as is evident in their burial sites and symbolism. In prehistory, magic also displays unmistakable philosophical underpinnings: it appeals to causes unseen and not yet understood. Abstraction and idealized forms can be traced back to the Cro-Magnon, who lived more than ten thousand years ago. The ghastly practice of human sacrifice, which already indicates some complex set of beliefs about the world, can be traced back at least this far.

When did people first envision gods and goddesses who must be appeased? When did they first believe in forces behind the scenes and mysteries in the very stuff of life? When did they begin to speculate about the creation of the world, and in what terms? When did they move beyond the "facts" of nature to speculation, to spirituality, to wonder? When did these beliefs and speculations begin to consolidate into that cantankerous discipline that the Greeks called philosophy? How did the numerous gods and goddesses of the early ancient world become one? In 1370 B.C.E., the Egyptian pharaoh Akhenaton (Amenhotep IV) proclaimed belief in one God, centuries before the birth of Moses. Abraham, we are told, had such a belief in a single God five hundred years earlier. How much of philosophy is an effort to come to terms with that demand for unity and concern for that which is "beyond" us?

In the pages that follow, I have tried to write a history of philosophy that is simple and straightforward but captures the complexity and diversity of the subject. The reader may rightly wonder why this volume is so large, but when

I tried to cut, it was not my authorial egos that were bruised but the history itself. What is sufficiently inessential to omit? Of course, I have made such decisions, thousands of them, but, nevertheless, the richness of the subject was persuasive. At the risk of massive oversimplification, we have tried for inclusiveness. And we took heart as we read our German philosophical counterpart, Hans Joachim Störig, whose “short history” weighs in at 750 pages.

I have tried to keep my own biases out of the text – not always successfully. I have also tried to glean some sense of a global perspective on philosophy, but have not made a false attempt to avoid taking a distinctively “Western” perspective in doing so. There is no point in apologizing for this. Philosophy in all its forms and cultures is wondrous.

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### *Introduction*

This book has three basic purposes: (1) to provide an overview of the history of philosophy in the West; (2) to relate philosophical ideas and movements to their historical background and to the cultural history of their time; and (3) to trace the changing conception of the definition, the function, and the task of philosophy.

It is a paradox faced by all of those who attempt to write the history of philosophy that the “philosophy” whose history they write probably would not have been defined exactly alike by any two of the major figures whom they judge it fitting to include in their accounts. For throughout its long and varied history in the West, “philosophy” has meant many different things. Some of these have been a search for the wisdom of life (the meaning closest to the Greek words from which the term is derived); an attempt to understand the universe as a whole; an examination of man’s moral responsibilities and social obligations; an effort to fathom the divine intentions and man’s place with reference to them; an effort to ground the enterprise of natural science; a rigorous examination of the origin, extent, and validity of men’s ideas; an exploration of the place of will or consciousness in the universe; an examination of the values of truth, goodness, and beauty; an effort to codify the rules of human thought in order to promote rationality and the extension of clear thinking. Even these do not exhaust the meanings that have been attached to the philosophical enterprise, but they give some idea of its extreme complexity and many-sidedness.

It is difficult to determine whether any common element can be found within this diversity and whether any core meaning can be discovered for philosophy that could serve as a universal and all-inclusive definition. But a

first attempt in this direction might be to define philosophy either as “a reflection upon the varieties of human experience” or as “the rational, methodical, and systematic consideration of those topics that are of greatest concern to man.” Vague and indefinite as such definitions are, they do suggest two important facts about philosophizing: (1) that it is a reflective, or meditative, activity and (2) that it has no explicitly designated subject matter of its own but is a method or type of mental operation (like science or like history) that can take any area or subject matter or type of experience as its object. Thus, although there are a few single-term divisions of philosophy of long standing – such as logic, ethics, epistemology (the theory of knowledge), or metaphysics (theory of the nature of Being) – its divisions are probably best expressed by phrases that contain the preposition “of” – such as philosophy of nature, philosophy of mind, philosophy of law, or philosophy of art.

Part of what makes it difficult to find a consensus among philosophers about the definition of their discipline is precisely that they have frequently come to it from different fields, with different interests and concerns, and that they therefore have different areas of experience upon which they find it especially necessary or meaningful to reflect. St. Thomas Aquinas (a Dominican friar of the 13th century), George Berkeley (a bishop of the Irish Church in the 18th century), and Søren Kierkegaard (a Danish divinity student in the 19th century) all saw philosophy as a means to assert the truths of religion and to dispel the Materialistic or Rationalistic errors that, in their opinion, had led to its decline. Pythagoras in ancient south Italy, René Descartes in the late Renaissance, and Bertrand Russell in the 20th century have been primarily mathematicians whose views of the universe and of human knowledge have been vastly influenced by the concept of number and by the method of deductive thinking. Some philosophers, such as Plato or the

British philosophers Thomas Hobbes and John Stuart Mill, have been obsessed by problems of political arrangement and social living, so that whatever else they have done in philosophy has been stimulated by a desire to understand and, ultimately, to change the social and political behavior of men. And still others – such as the Milesians (the first philosophers of Greece); Francis Bacon, an Elizabethan philosopher; and, in the 20th century, Alfred North Whitehead, a process metaphysician – have begun with an interest in the physical composition of the natural world, so that their philosophies resemble more closely the generalizations of physical science than those of religion or sociology.

The history of Western philosophy reveals in detail the concentrated activity of a multitude of serious and able men reflecting upon, reasoning about, and considering deeply the nature of their experience. But throughout this diversity certain characteristic oppositions habitually recur, such as the division between monists, dualists, and pluralists in metaphysics; between Materialists and Idealists in cosmological theory; between Nominalists and Realists in the theory of signification; between Rationalists and Empiricists in the theory of knowledge; between Utilitarians, self-realizationists, and proponents of duty in moral theory; and between partisans of logic and partisans of emotion in the search for a responsible guide to the wisdom of life.

Many of these fundamental oppositions among philosophers will be treated in the article that follows. But if any single opposition is taken as central throughout the history of Western philosophy at every level and in every field, it is probably that between the critical and the speculative impulses. These two divergent motivations tend to express themselves in two divergent methods: that of analysis and that of synthesis. Plato's *Politeia* (*The*

*Republic*) is an example of the second. The *Principia Ethica* (1903) of G.E. Moore, a founder of linguistic philosophy, is an example of the first. Beginning with a simple question about justice, *Politeia* in its discursiveness slowly but progressively brings more and more areas into the discussion: first ethics, then politics, then educational theory, then theory of knowledge, and finally metaphysics. Starting with one specific question, Plato finally managed to make his discussion as broad as the world. *Principia Ethica* does just the opposite. Beginning with a general question – What is good? – it progressively breaks up this question into a whole series of subordinate questions, analyzing meanings ever more minutely, growing narrower and narrower but always with the utmost modesty and sincerity, striving for increasing simplicity and exactitude.

The analytic, or critical, impulse treats any subject matter or topic by concentrating upon the part, by taking it apart in the service of clarity and precision. It was essentially the method of Aristotle and of Peter Abelard, a medieval Scholastic; of David Hume, a Scottish sceptic, and of Rudolf Carnap, a 20th-century semantic Positivist; and of Russell and Moore. The synthetic, or speculative, impulse operates by seeking to comprehend the whole, by putting it all together in the service of unity and completeness. It is essentially the method of Parmenides, a Pre-Socratic monist, and of Plato; of St. Thomas and of Benedict de Spinoza, a modern Jewish Rationalist; of G.W.F. Hegel, a German Idealist, and of Whitehead. Throughout philosophy's history, each of the two traditions has made its insistent claim.

There is one philosophical tradition – that of Positivism – that sees philosophy as originating in the obscure mists of religion and coming finally to rest in the pure sunshine of scientific clarity. This represents a necessary progress, because Positivism considers it a scandal when philosophers speak a

language that is not accessible to “verification”; it holds that bold and adventuresome philosophical speculation is at best mere self-indulgence, a passing state occurring when philosophical problems are raised prematurely – that is, at a time when philosophy does not possess the means to solve them.

Though Positivism represents a partisan view that it is not necessary to hold, it does express indirectly a basic truth – that the philosophical enterprise has always hovered uncertainly between the lure of religious seriousness and that of scientific exactitude. In the earliest philosophers of Greece it is impossible to separate ideas of divinity and the human soul from ideas about the mystery of being and the genesis of material change, and in the Middle Ages philosophy was acknowledged to be “the handmaiden of theology.” But the increased secularization of modern culture has largely reversed this trend, and the Enlightenment emphasis upon the separation of nature from its divine creator has increasingly placed philosophical resources at the disposal of those interested in creating a philosophy of science.

Yet philosophy’s continuing search for philosophical truth leads it to hope, but at the same time to profoundly doubt, that its problems are objectively solvable. With respect to a total description of Being or a definitive account of the nature of values, only individual solutions now seem possible; and the optimistic hope for objective answers that secure universal agreement must be given up.

In this respect, philosophy seems less like science than like art and the philosopher more like an artist than a scientist, for his philosophical solutions bear the stamp of his own personality, and his choice of arguments reveals as much about himself as his chosen problem. As a work of art is a portion of the world seen through a temperament, so a philosophical system is a vision of the

world subjectively assembled. Plato and Descartes, Immanuel Kant, an 18th-century German Idealist, and John Dewey, a U.S. Pragmatist, have given to their systems many of the quaint trappings of their own personalities.

But if philosophy is not true in the same sense as science, it is not false in the same sense either; and this gives to the history of philosophy a living significance, which the history of science does not enjoy. In science, the present confronts the past as truth confronts error; thus, for science, the past, even when important at all, is important only out of historical interest. In philosophy it is different. Philosophical systems are never definitively proved false; they are simply discarded or put aside for future use. And this means that the history of philosophy consists not simply of dead museum pieces but of ever-living classics – comprising a permanent repository of ideas, doctrines, and arguments and a continuing source of philosophical inspiration and suggestiveness to those who philosophize in any succeeding age. It is for this reason that any attempt to separate philosophizing from the history of philosophy is both a provincial act and an unnecessary impoverishment of its rich natural resources.



# PHILOSOPHY

## Then and Now

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Zaine Ridling, Ph.D.

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# Part I

## History of Western Philosophy

## The Writing of the History of Philosophy

The writing of the history of philosophy is itself controlled by a series of cultural habits or conventions.

## Ways of Ordering the History

This chapter is divided into three sections – ancient, medieval, and modern – and this division is so pervasive today that it is difficult to remember that the threefold distinction is only as old as the end of the 17th century. This distinction – first employed in the writing of European history proper by Georg Horn of Leiden in his *Arca Noae: Sive Historia Imperiorum et Regnorum a Condito Orbe ad Nostra Tempora* (1666; “Noah’s Ark; or, The History of Empires and Kingdoms from the Beginning of the World to Our Times”) and a generation later by Christophorus Cellarius, a German historian, in 1696 – slowly spread to historical writing in all fields and was given definitive influence in philosophical writing through the series of lectures on *Philosophiegeschichte* (“History of Philosophy”) that Hegel delivered first at Jena, then at Heidelberg, and finally at Berlin between 1805 and 1830. Since Hegel, it has been taken for granted as standard practice, although a host of cultural assumptions is implied by its use.

Treatment of the total field of the history of philosophy has been traditionally subject to two types of ordering, according to whether it was conceived (1) as primarily a history of ideas or (2) as a history of the intellectual products of men. In the first ordering, certain ideas, or concepts, are viewed as archetypal (such as matter or mind or doubt); and the condensations occurring within the flow of thought tend to consist of basic

types or schools. This ordering has characterized such works as Friedrich Lange's *Geschichte des Materialismus* (1866; *The History of Materialism*), A.C. Ewing's compilation *The Idealist Tradition: From Berkeley to Blanshard* (1957), or Richard H. Popkin's *History of Scepticism from Erasmus to Descartes* (1960). In the second type of ordering, the historian, impressed by the producers of ideas as much as by the ideas themselves – that is, with philosophers as agents – reviews the succession of great philosophical personalities in their rational achievement. This ordering has produced the more customary histories such as Émile Bréhier's *Histoire de la philosophie* (1926-32), Bertrand Russell's *History of Western Philosophy* (1945), and Karl Jaspers' *Die grossen Philosophen* (1957; *The Great Philosophers*).

These two different types of ordering depend for their validity upon an appeal to two different principles about the nature of ideas, but their incidental use may also be influenced by social or cultural factors. Thus the biographers and compilers of late antiquity (among them, Plutarch, Sextus Empiricus, Philostratus, and Clement of Alexandria), impressed by the religious pluralism of the age in which they lived, thought of philosophers, too, as falling into different sects and wrote histories of the Sophists, the Sceptics, the Epicureans, and other such schools; whereas almost 2,000 years later, Hegel – living in a period of Romantic historiography dominated by the concept of the great man in history – deliberately described the history of philosophy as “a succession of noble minds, a gallery of heroes of thought.”

Moving between these two ordering principles, the article below will be eclectic (as has come to be the custom), devoting chief attention to outstanding major figures, while joining more minor figures, wherever possible, into the schools or tendencies that they exemplify.

## Factors in Writing the History of Philosophy

The type of ordering suggested above also has some relationship to the more general problems of method in the writing of the history of philosophy. Here there are at least three factors that must be taken into account: (1) the historian must understand how (at least in part) any philosopher's doctrines depend upon those of his predecessors; (2) he must understand that a man's philosophy occurs at a certain point in history and, thus, how it expresses the effects of certain social and cultural circumstances; and (3) he must understand how in part it stems from the philosopher's own personality and situation in life. This is only to say that the history of philosophy, to be at all comprehensive and adequate, must deal with the mutual interplay of ideas, of cultural contexts, and of agents.

The first factor may be called logical because a given philosophy is, in part, the intellectual response to the doctrines of its forerunners, taking as central the problems given by the current climate of controversy. Thus, many of the details of Aristotle's ethical, political, and metaphysical systems arise in arguments directed against statements and principles of Plato; much of *An Essay Concerning Human Understanding* (1690) by John Locke, an initiator of the Enlightenment, is directed against current Cartesian presuppositions; and the *Nouveaux essais sur l'entendement humain* (1704; *New Essays Concerning Human Understanding*) by Gottfried Wilhelm Leibniz, a broadly learned Rationalist, is, in turn, specifically directed against Locke.

The second factor may be called sociological because it considers philosophy, at least in part, as a direct form of social expression, arising at a certain moment in history, dated and marked by the peculiar problems and crises of the society in which it flourishes. From this perspective, the

philosophy of Plato may be viewed as the response of an aristocratic elitism to the immediate threat of democracy and the leveling of values in 5th-century Athens – its social theory and even its metaphysics servicing the thrust toward an aristocratic restoration in the Greek world. Thus, the philosophy of St. Thomas Aquinas may be viewed as an effort toward doctrinal clarification in support of the institution of the medieval Roman Church, as the saint spent his life obediently fulfilling the philosophical tasks set for him by his superiors in the church and the Dominican order. Thus, the philosophy of Kant, with all of its technical vocabulary and rigid systematization, may be viewed as an expression of the new professionalism in philosophy, a clear product of the rebirth of the German universities during the 18th-century Enlightenment.

The third factor may be called biographical, or individual, because, with Hegel, it recognizes that philosophies are generally produced by men of unusual or independent personality, whose systems usually bear the mark of their creators. And what is meant here by the individuality of the philosopher lies less in the facts of his biography (such as the wealth or poverty, the married state or bachelorhood that he shares with other men) than in the essential form and style of his philosophizing. The cool intensity of Spinoza's geometric search for wisdom, the unswerving (if opaque) discursiveness of Hegel's quest for completeness or totality, the relentless and minute analytic search for distinctions and shades of meaning that marks Moore's master passion ("to be accurate – to get everything exactly right"), these qualities mark the philosophical writings of Spinoza, Hegel, and Moore with an unmistakably individual and original character.

### Shifts in the Focus and Concern of Philosophy

Any adequate treatment of individual figures in the history of philosophy tries to utilize this threefold division of logical, sociological, and individual factors; but in a synoptic view of the history of philosophy in the West, one is particularly aware of the various shifts of focus and concern that philosophy has sustained and, indeed, of the often profound differences in the way that it defines itself or visualizes its task from age to age or from generation to generation.

Philosophy among the Greeks slowly emerged out of religious awe into wonder about the principles and elements of the natural world. But as the Greek populations more and more left the land to become concentrated in their cities, interest shifted from nature to social living; questions of law and convention and civic values became paramount. Cosmological speculation partly gave way to moral and political theorizing, and the preliminary and somewhat fragmentary questionings of Socrates and the Sophists turned into the great positive constructions of Plato and Aristotle. With the political and social fragmentation of the succeeding centuries, however, philosophizing once again shifted from the norm of civic involvement to problems of salvation and survival in a chaotic world.

The dawn of Christianity brought to philosophy new tasks. Augustine, the philosophical bishop of Hippo, and the Church Fathers used such resources of the Greek tradition as remained (chiefly Platonism) to deal with problems of the creation, of faith and reason, and of truth. New translations in the 12th century made much of Aristotle's philosophy available and prepared the way for the great theological constructions of the 13th century, chiefly those of the Scholastic philosophers Bonaventure, Albertus Magnus, Thomas



Aquinas, Roger Bacon, and Duns Scotus. The end of the Middle Ages saw a new flowering of the opposite tendencies in the Nominalist William of Ockham and the mystic Meister Eckhart.

The Middle Ages gave way to the Renaissance. Universalism was replaced by nationalism. Philosophy became secularized. The great new theme was that of the mystery and immensity of the natural world. The best philosophical minds of the 17th century turned to the task of exploring the foundations of physical science, and the symbol of their success – the great system of Newton’s physics – turned the philosophers of the Enlightenment to epistemology and to the examination of the human mind that had produced so brilliant a scientific creation. The 19th century, a time of great philosophical diversity, discovered the irrational and in so doing prepared the way for the oppositions between Analysis and Phenomenology and between Positivism and Existentialism that characterize 20th-century philosophy.

Although the foregoing capsule presentation of the history of philosophy in the West follows a strict chronology, it does not do justice to the constant occurrence and recurrence of dominant strands in the history of thought. It would also be possible to write the philosophical history of the Middle Ages simply by noting the complicated occurrence of Platonic and Aristotelian doctrines, of the Renaissance according to the reappearance of Greek Materialism, Stoicism, and Scepticism, and of the 18th century in terms of the competing claims of Rationalist and Empiricist principles. Thus, chronology and the interweaving of philosophical systems cooperate in a history of philosophy.

## Ancient Greek and Roman Philosophy

### The Pre-Socratic Philosophers

#### Cosmology and the Metaphysics of Matter

Because the earliest Greek philosophers focused their attention upon the origin and nature of the physical world, they are often called cosmologists or naturalists. Though monistic views (which trace the origins of the world to a single substance) prevailed at first, they were soon followed by several pluralistic theories (which trace it to several ultimate substances).

#### Monistic Cosmologies

There is a consensus, dating back at least to the 4th century BCE and continuing to the present, that the first Greek philosopher was Thales of Miletus, who flourished in the first half of the 6th century BCE. At that time the word philosopher (“lover of wisdom”) had not yet been coined. Thales was counted, however, among the Seven Wise Men (Sophoi), whose name derives from a term that then designated inventiveness and practical wisdom rather than speculative insight. Thales showed these qualities by trying to give the mathematical knowledge that he derived from the Babylonians a more exact foundation and by using it for the solution of practical problems – such as the determination of the distance of a ship as seen from the shore or of the height of the Pyramids. Though he was also credited with predicting an eclipse of the Sun, it is likely that he merely gave a natural explanation of one on the basis of Babylonian astronomical knowledge.

Thales was considered the first Greek philosopher because he was the first to give a purely natural explanation of the origin of the world, free from all mythological ingredients. He upheld that everything had come out of water – an explanation based on the discovery of fossil sea animals far inland. His tendency (and that of his immediate successors) to give nonmythological explanations of the origin of the world was undoubtedly prompted by the fact that all of them lived on the coast of Asia Minor surrounded by a number of nations whose civilizations were much farther advanced than that of the Greeks and whose mythological explanations differed greatly both among themselves and from those of the Greeks. It appeared necessary; therefore, to make a fresh start on the basis of what a person could observe and figure out by looking at the world as it presented itself. This procedure naturally resulted in a tendency to make sweeping generalizations on the basis of rather restricted but carefully checked observations.

Thales' disciple and successor, Anaximander of Miletus (mid-6th century), tried to give a more elaborate account of the origin and development of the ordered world (the cosmos). According to him, it developed out of the apeiron, something both infinite and indefinite (without distinguishable qualities). Within this apeiron something arose to produce the opposites of hot and cold. These at once began to struggle with each other and produced the cosmos. The cold (and wet) partly dried up (becoming solid earth), partly remained (as water), and – by means of the hot – partly evaporated (becoming air and mist), its evaporating part (by expansion) splitting up the hot into fiery rings, which surround the whole cosmos. Because these rings are enveloped by mist, however, there remain only certain breathing holes that are visible to men, appearing to them as Sun, Moon, and stars. Anaximander was the first to realize that upward and downward are not absolute but that downward means

toward the middle of the Earth and upward away from it, so that the Earth had no need to be supported (as Thales had believed) by anything. Starting from Thales' observations, Anaximander tried to reconstruct the development of life in more detail. Life, being closely bound up with moisture, originated in the sea. All land animals, he held, are descendants of sea animals; because the first humans as newborn infants could not have survived without parents, Anaximander believed that they were born within an animal of another kind – specifically, a sea animal in which they were nurtured until they could fend for themselves. Gradually, however, the moisture will be partly evaporated, until in the end all things will have returned into the undifferentiated apeiron, “in order to pay the penalty for their injustice” – that of having struggled against one another.

Anaximander's successor, Anaximenes of Miletus (second half of the 6th century), taught that air was the origin of all things. His position was for a long time thought to have been a step backward because, like Thales, he placed a special kind of matter at the beginning of the development of the world. But this criticism missed the point. Neither Thales nor Anaximander appear to have specified the way in which the other things arose out of the water or apeiron. Anaximenes, however, declared that the other types of matter arose out of air by condensation and rarefaction. In this way, what to Thales had been merely a beginning became a fundamental principle that remained essentially the same through all of its transmutations. Thus, the term *arche*, which originally simply meant “beginning,” acquired the new meaning of “principle,” a term that henceforth played an enormous role in philosophy down to the present. This concept of a principle that remains the same through many transmutations is, furthermore, the presupposition of the idea that nothing can come out of nothing and that all of the comings to be and passings

away that men observe are nothing but transmutations of something that essentially remains the same eternally. In this way it also lies at the bottom of all of the conservation laws – those of the conservation of matter, of force, and of energy – that have been basic in the development of physics. Though Anaximenes of course did not realize all of the implications of his idea, its importance can hardly be exaggerated.

The first three Greek philosophers have often been called hylozoists because they seemed to believe in a kind of living matter. But this is hardly an adequate characterization. It is, rather, characteristic of them that they did not clearly distinguish between kinds of matter, forces, and qualities nor between physical and emotional qualities. The same entity is sometimes called fire and sometimes the hot. Heat appears sometimes as a force and sometimes as a quality, and again there is no clear distinction between warm and cold as physical qualities and the warmth of love and the cold of hate. To realize these ambiguities is important to an understanding of certain later developments in Greek philosophy.

Xenophanes of Colophon (born c. 560 BCE), a rhapsodist and philosophical thinker who emigrated from Asia Minor to Elea in southern Italy, was the first to bring out more clearly what was implied in Anaximenes' philosophy. He criticized the popular notions of the gods, saying that men made their gods in their own image. But, more importantly, he argued that there could be only one God, the ruler of the universe, who must be eternal. For, being the strongest of all beings, he could not have come out of something less strong, nor could he be overcome or superseded by something else, because nothing could arise that is stronger than the strongest. The argument clearly rested on the axiom that nothing can come out of nothing and that nothing that is can really vanish.

This axiom was made more explicit and carried to its extreme consequences by Parmenides of Elea (first half of the 5th century BCE), the founder of the so-called school of Eleaticism, of whom Xenophanes has been regarded as the teacher and forerunner. In a philosophical poem Parmenides insisted that “what is” cannot have come into being and cannot pass away because it would have to have come out of nothing or to become nothing, whereas nothing by its very nature does not exist. There can be no motion either; for it would have to be a motion into something that is – which is not possible since it would be blocked – or a motion into something that is not – which is equally impossible since what is not does not exist. Hence everything is solid immobile being. The familiar world, in which things move around, come into being, and pass away, is a world of mere belief (*doxa*). In a second part of the poem, however, Parmenides tried to give an analytical account of this world of belief, showing that it rested on constant distinctions between what is believed to be positive – i.e., to have real being, such as light and warmth – and what is negative – i.e., the absence of positive being, such as darkness and cold.

It is significant that Heraclitus of Ephesus, a contemporary of Parmenides, whose philosophy was later considered to be the very opposite of Parmenides’ philosophy of immobile being, came, in some fragments of his work, near to what Parmenides tried to show: the positive and the negative, he said, are merely different views of the same thing; death and life, day and night, or light and darkness are really one.

## Pluralistic Cosmologies

Parmenides had an enormous influence on the further development of philosophy. Most of the philosophers of the following two generations tried to find a way to reconcile his thesis that nothing comes into being nor passes away with the evidence presented to men by their senses. Empedocles of Acragas (mid-5th century) declared that there are four material elements (he called them roots of everything) and two forces, love and hate, that did not come into being and would never pass away or increase or diminish. But the elements are constantly mixed with one another by love and again separated by hate. Thus, through mixture and decomposition composite things come into being and pass away. Because he conceived of love and hate as blind forces, Empedocles had to explain how through random motion living beings could emerge. This he achieved by means of a somewhat crude anticipation of the theory of the survival of the fittest. In the process of mixture and decomposition the limbs and parts of various animals would be formed by chance. But they could not survive. Only when by chance they had come together in such a way that they were able to support and reproduce themselves would they survive. It was in this way that the various species were produced and continued to exist.

Anaxagoras of Clazomenae, a 5th-century pluralist, believed that because nothing can really come into being, everything must be contained in everything, but in the form of infinitely small parts. In the beginning all of these particles had been mixed in an even mixture, in which nothing could be distinguished, much like the indefinite apeiron of Anaximander. But then nous, or intelligence, began at one point to set these particles into a whirling motion, foreseeing that in this way they would become separated from one another and then recombine in the most various ways so as to produce

gradually the world in which men live. In contrast to the forces assumed by Empedocles, the nous of Anaxagoras is not blind but foresees and intends the production of the cosmos, including living and intelligent beings; but it does not interfere with the process after having started the whirling motion. This is a strange combination of a mechanical and a nonmechanical explanation of the world.

By far of greatest importance for the later development of philosophy and physical science was an attempt by the Atomists Leucippus (mid-5th century) and (in the following generation) Democritus to solve the Parmenidean problem. Leucippus found the solution in the assumption that, contrary to Parmenides' argument, the nothing does in a way exist, viz., as empty space. There are then, however, only two fundamental principles of the physical world, empty space and filled space – the latter consisting of atoms that, in contrast to those of modern physics, are real atoms; that is, they are absolutely indivisible because nothing can penetrate to split them. On these foundations, laid by Leucippus, Democritus appears to have built a whole system, aiming at a complete explanation of the varied phenomena of the visible world by means of an analysis of its atomic structure. This system begins with elementary physical problems, such as that of why a hard body can be lighter than a softer one. The explanation is that, although the heavier body contains more atoms, they are equally distributed and of round shape; the lighter body, however, has fewer atoms, most of which have hooks by which they form rigid gratings. The system ends with educational and ethical questions. A sound and cheerful man, useful to his fellowmen, is literally well composed. Although destructive passions involve violent long-distance atomic motions, education can help to contain them, creating a better composure. Democritus also developed a theory of the evolution of culture, which



influenced later thinkers. Civilization, he thought, is produced by the needs of life, which compel man to work and to make inventions. When life becomes too easy because all needs are met, there is a danger that civilization will decay as men become unruly and negligent.

### Epistemology of Appearance

All of the post-Parmenidean philosophers, like Parmenides himself, presupposed that the real world is different from the one that men perceive. Thus the problems of epistemology, or theory of knowledge, arose. According to Anaxagoras, everything is contained in everything. But this is not what people perceive. He solved this problem, however, by assuming that, if there is a much greater amount of one kind of particle in a thing than of all other kinds, the latter are not perceived at all. The observation was then made that sometimes different persons or kinds of animals have different perceptions of the same things. He explained this phenomenon by assuming that like is perceived by like. If, therefore, in the sense organ of one person there is less of one kind of stuff than of another, he will perceive the former less keenly than the latter. This reasoning was also used to explain why some animals see better by night and others by daylight. According to Democritus, the atoms have no sensual qualities such as tastes, smells, or colors at all. Thus, he tried to reduce all of them to tactile qualities (explaining a bright white color, for instance, as sharp atoms hitting the eye like needles), and he made a most elaborate attempt to reconstruct the atomic structure of things on the basis of their apparent sensual qualities.

Also of very great importance in the history of epistemology was Zeno of Elea (mid-5th century), a younger friend of Parmenides. Parmenides had, of course, been severely criticized because of the strange consequences of his doctrine that in reality there is no motion and no plurality either because there is just one solid being. To support him, however, Zeno tried to show that the assumption that there is motion and plurality leads to consequences that are no less strange. This he did by means of his famous paradoxes, saying that the flying arrow rests since it can neither move in the place in which it is nor in a place in which it is not and that Achilles cannot outrun a turtle because when he has reached its starting point, the turtle will have moved to a further point, and so on ad infinitum – that, in fact, he cannot even start running, for, before traversing the stretch to the starting point of the turtle, he will have to traverse half of it and again half of that and so on ad infinitum. All of these paradoxes are derived from the problem of the continuum. Although they have often been dismissed as logical nonsense, many attempts have also been made to dispose of them by means of mathematical theorems, such as the theory of convergent series or the theory of sets. In the end, however, the difficulties inherent in his arguments have always come back with a vengeance, for the human mind is so constructed that it can look at a continuum in two ways that are not quite reconcilable.

### Metaphysic of Number

All of the philosophies mentioned so far are in various ways historically akin to one another. Toward the end of the 6th century, however, there arose quite independently another kind of philosophy, which only later entered into interrelation with the developments just mentioned: the philosophy of

Pythagoras of Samos. Pythagoras traveled extensively in the East and in Egypt and, after his return to Samos, immigrated to southern Italy because of his dislike of the tyranny of Polycrates. At Croton and Metapontum he founded a philosophical society with strict rules and soon gained considerable political influence. He appears to have brought his doctrine of the transmigration of souls from the East. Much more important for the history of philosophy and science, however, was his doctrine that “all things are numbers,” which means that the essences and structures of all things can be determined by finding the numerical relations contained in them. Originally, this, too, was a very broad generalization made on the basis of comparatively few observations: for instance, that the same harmonies can be produced with different instruments – strings, pipes, disks, etc. – by means of the same numerical ratios – 1:2, 2:3, 3:4 – in one-dimensional extensions; the observation that certain regularities exist in the movements of the celestial bodies; and the discovery that the form of a triangle is determined by the ratio of the lengths of its sides. But because the followers of Pythagoras tried to apply their principle everywhere with the greatest of accuracy, one of them – Hippasus of Metapontum – about 450 BCE made one of the most fundamental discoveries of the entire history of science, that of incommensurability, viz., that the quantitative relation between the side and diagonal of such simple figures as the square and the regular pentagon cannot be expressed as a ratio of integers. At first sight this discovery seemed to destroy the very basis of the Pythagorean philosophy, and the school thus split into two sections, one of which engaged in rather abstruse numerical speculations while the other succeeded in overcoming the difficulty by ingenious mathematical inventions and laid the foundations of all quantitative science. Pythagorean philosophy also exerted a great influence on the development of Plato’s thought in his later years.

The speculations described so far constitute in many ways the most important part of the history of Greek philosophy because all of the most fundamental problems of Western philosophy turned up here for the first time and one finds here the formation of a great many concepts that have continued to dominate Western philosophy and science to the present day.

### Anthropology and Relativism

In the middle of the 5th century BCE, Greek thinking took a somewhat different turn through the advent of the Sophists. The name is derived from the verb *sophizesthai*, “making a profession of being inventive and clever,” and aptly described the Sophists, who, in contrast to the philosophers mentioned so far, asked money for their instruction. Philosophically they were, in a way, the leaders of a rebellion against the preceding development, which more and more had resulted in the belief that the real world is quite different from the phenomenal world. “What is the sense of such speculations?” they asked, since men do not live in these so-called real worlds. This is the meaning of the pronouncement of Protagoras of Abdera (mid-5th century) that “Man is the measure of all things, of those which are that they are and of those which are not that they are not.” For man the world is what it appears to him to be, not something else; and, though he meant man in general, he illustrated it by pointing out that even in regard to an individual man it makes no sense to tell him that it is really warm when he is shivering with cold, because for him it is cold – for him, the cold exists, is there.

His younger contemporary Gorgias of Leontini, famous for his treatise on the art of oratory, made fun of the philosophers in a book *Peri tou me ontos*

*e peri physeos* (“On that which is not, or on Nature”), in which – referring to the “truly existing world,” also called “the nature of things” – he tried to prove (1) that nothing exists, (2) that if something existed, man could have no knowledge of it, and (3) that if nevertheless somebody knew it, he could not communicate his knowledge to others.

The Sophists were not only sceptical of what had by then become a philosophical tradition but also of other traditions. On the basis of the observation that different nations have different rules of conduct even in regard to things considered most sacred – such as the relations between the sexes, marriage, and burial – they concluded that most rules of conduct are conventions. What is really important is to be successful in life and to gain influence on others. This they promised to teach. Gorgias was proud of the fact that, having no knowledge of medicine, he was more successful in persuading a patient to undergo a necessary operation than his brother, a physician, who knew when an operation was necessary. The older Sophists, however, were far from openly preaching immoralism. They, nevertheless, gradually came under suspicion because of their sly ways of arguing. One of the later Sophists, however, Thrasymachus of Chalcedon (late 5th century), was bold enough to declare openly that “right is what is beneficial for the stronger or better one”; that is, for the one able to win the power to bend others to his will.

## The Seminal Thinkers of Greek Philosophy

### Socrates

By many of his contemporaries, Socrates (5th century BCE) was also considered to be a Sophist because of his tricky arguments, though he did not teach for money and his aims were entirely different from theirs. Although there is a late tradition according to which Pythagoras invented the word philosopher, it was certainly through Socrates – who insisted that he possessed no wisdom but was striving for it – that the term came into general use and was later applied to all earlier serious thinkers. In fact, all of the records of his life and activity left by his numerous adherents and disciples indicate that he never tried to teach anything directly. But he constantly engaged in conversations with everybody – old and young, high and low – trying to bring into the open by his questions the inconsistencies in their opinions and actions. Though he never taught directly, his whole activity rested on two unshakable premises: (1) the principle never to do wrong nor to participate, even indirectly, in any wrongdoing and (2) the conviction that nobody who really knows what is good and right could act against it. He demonstrated his unshakable adherence to the first principle on various occasions and under different regimes. When, after the Battle of Arginusae, the majority of the Athenian popular assembly demanded death without trial for the admirals, Socrates, who on that day happened to be president of the assembly (an office changing daily), refused to put the proposal to the vote because it was wrong to condemn anyone without a fair trial. He refused to do so even though the people threatened him, shouting that it would be terrible if the sovereign people could not do as they pleased.

When, after the overthrow of democracy, the so-called Thirty Tyrants, who tried to involve everybody in their wrongdoings, ordered him to arrest an innocent citizen whose money they coveted, he simply disobeyed. This he did although at that time such disobedience was still more dangerous than disobeying the sovereign people had been at the time of unrestricted democracy. Likewise, in the time of the democracy he pointed out by his questions the inconsistency of allowing oneself to be swayed by the oratory of a good speaker instead of first inquiring into his capability as a statesman, whereas in private life a sensible citizen would not listen to the oratory of a quack but would try to find the best doctor. When, after the overthrow of democracy, the Thirty Tyrants had many people arbitrarily executed, he asked everybody whether a man was a good shepherd who diminished the number of the sheep instead of increasing it and did not cease doing so when Critias, the leader of the Thirty, warned him to take heed not to diminish the number of the sheep by his own, Socrates', person. But the most fundamental inconsistency that he tried to show up everywhere was that most people by their actions showed that they considered what they found to be good, wonderful, and beautiful in others – such as, for instance, doing right at great danger to oneself – not to be good for themselves, and considered to be good for themselves what they despised and condemned in others. Though all of these stands won him the most fervent admiration of many, especially among the young of all classes, it caused also great resentment among leading politicians, whose inconsistencies were shown up publicly by him and his adherents. Though Socrates had survived unharmed through the regime of the Thirty – partly because it did not last long, partly because he was supported by some close relatives of their leader Critias – it was under the restored democracy that he was accused of impiety and of corrupting the youth and

finally condemned to death, largely also in consequence of his intransigent attitude during the trial.

After Socrates' death his influence became a dominating one through the greater part of Greek and Roman philosophy down to the end of antiquity and was more or less noticeable even in all of the rest. Many of his adherents – among them Xenophon, a military man and a historian, and Aeschines of Sphettus, one of those present at his death – tried to preserve his philosophical method by writing Socratic dialogues. Some founded schools or sects that perpetuated themselves over long periods of time, Eucleides of Megara emphasizing the theoretical aspects of Socrates' thought, and Antisthenes stressing the independence of the true philosopher from material wants. The latter, through his disciple Diogenes of Sinope, who carried voluntary poverty to the extreme and emphasized freedom from all conventions, became the founder of the sect of the Cynics. Aristippus of Cyrene, traditional founder of the Cyrenaic school, stressed man's independence from material needs in a somewhat different way, declaring that there is no reason why a philosopher should not enjoy material goods as long as he is completely indifferent to their loss. Though Aristippus renounced his son because he led a dissolute life, the school that he founded (through his daughter and his grandson) was hedonistic, holding pleasure to be the good.

## Plato

By far the most important disciple of Socrates, however, was Plato, a scion of one of the most noble Athenian families, who could trace his ancestry



back to the last king of Athens and to Solon, the great social and political reformer.

### Life of Plato

As a very young man Plato became a fervent admirer of Socrates in spite of the latter's plebeian origin. Contrary to his master, however, who always concerned himself with the attitudes of individuals, he believed in the importance of political institutions. In his early youth he had observed that the Athenian masses, listening to the glorious projects of ambitious politicians, had engaged in foolhardy adventures of conquest, which led in the end to total defeat in the Peloponnesian War. When, in consequence of the disaster, democracy was abolished, Plato at first set great hopes in the Thirty Tyrants – especially since their leader, Critias, was a close relative. But he soon discovered that – to use his own words – the despised democracy had been gold in comparison with the new terror. When the oligarchy was overthrown and the restored democracy, in 399, adopted a new law code – in fact, a kind of written constitution containing safeguards against rash political decisions – Plato again had considerable hope and was even inclined to view the execution of Socrates as an unfortunate incident rather than a logical consequence of the new regime. It was only some years later, when demagogy appeared to raise its head again, that he “despaired and was forced to say that things would not become better in politics unless the philosophers would become rulers or the rulers philosophers.” He wrote a dialogue, the *Gorgias*, violently denouncing political oratory and propaganda and then traveled to southern Italy in order to study political conditions there. Again, however, he found the much vaunted dolce vita of the Greeks there, in which the rich lived

in luxury exploiting the poor, much worse than the democracy at Athens. But at Syracuse he met a young man, Dion, brother-in-law of the ruling tyrant, Dionysius I, who listened eagerly to his political ideas and promised to work for their realization if any occasion should arise. On his return to Athens, Plato founded the Academy, an institution for the education of philosophers, and in the following years elaborated, besides other dialogues, his great work, *Politeia (The Republic)*, in which he drew the outlines of an ideal state. Because it is the passions and desires of men that cause all disturbances in society, the state must be ruled by an elite governed exclusively by reason and supported by a class of warriors entirely obedient to them. Both ruling classes must have no individual possessions and no families and lead an extremely austere life, receiving the necessities of life from the working population, which alone is permitted to own private property. The elite receives a rigid education to fit it for its task. At the death of Dionysius I, Dion induced Plato to come to Syracuse again to try to persuade Dionysius' successor to renounce his power in favor of a realization of Plato's ideals. But the attempt failed, and in his later political works, the *Politicus (Statesman)* and the *Nomoi (Laws)*, Plato tried to show that only a god could be entrusted with the absolute powers of the philosopher-rulers of his *Politeia*. Human rulers must be controlled by rigid laws, he held – though all laws are inevitably imperfect because life is too varied to be governed adequately by general rules. But the *Nomoi* still placed strict restrictions on the ownership of property.

### Philosophy of Plato

In the field of theoretical philosophy, Plato's most influential contribution was undoubtedly his theory of Ideas, which he derived from

Socrates' method in the following way: Socrates, in trying to bring out the inconsistencies in his interlocutors' opinions and actions, had often asked what it is that makes men say that a certain thing or action is good or beautiful or pious or brave; and he had asked what people are looking at when they make such statements. Plato sometimes made Socrates ask what is the Eidos, or the Idea – i.e., the image – that a person has before him when he calls something “good.” A definite answer is never given, however, because no abstract definition would be adequate, the purpose being rather to make the interlocutor aware of the fact that he somehow does look at something undefinable when making such statements.

What was at first simply a way of somehow expressing something that is difficult to express developed into a definite theory of Ideas when Plato made the discovery that something similar could be observed in the field of mathematics. No two things in the visible world are perfectly equal, just as there is nothing that is perfectly good or perfectly beautiful. Yet equality is one of the most fundamental concepts not only in mathematics but also in everyday life – the foundation of all measurement. Hence, like the notion of the good and the beautiful, it appears to come from a different world, a world beyond that of the senses, a world that Plato then called the world of Ideas. Further intimations of such a realm beyond the immediate realm of the senses may be found in the fact that men, in construing a system of knowledge, constantly prefer what is more perfect to what is less perfect; i.e., what is formed and thus recognizable to what is not, what is true to what is false, a sound logical conclusion to a logical fallacy, even an elegant scientific demonstration to a clumsy one, without considering the former as good and the latter as bad.

According to Plato, all of the things that men perceive with their senses appear to be but very imperfect copies of the eternal Ideas. The most important and fundamental one of these is the Idea of the Good. It is “beyond being and knowledge,” yet it is the foundation of both. “Being” in this connection does not mean existence, but being something specific – a man, a lion, or a house – being recognizable by its quality or shape.

Knowledge begins with a perception of these earthly shapes, but it ascends from there to the higher realm of Ideas, which is approachable to the human mind. In the famous myth of the cave in the seventh book of *Politeia*, Plato likened the ordinary person to a man sitting in a cave looking at a wall on which he sees nothing but the shadows of the real things that are behind his back, and he likened the philosopher to a man who has got out in the open and seen the real world of the Ideas. Coming back, he may be less able to distinguish the shades because he has been blinded by the light outside; but he is the only one who knows reality, and he conducts his life accordingly.

In his later thinking, in *Theaetetus*, Plato criticized a sensualist theory of knowledge, anticipating the explanations of the 17th-century English sensualists, such as Thomas Hobbes. In the *Timaeus*, he tried to build up a complete system of physics, partly employing Pythagorean ideas. Most modern Positivists do not take Plato seriously any longer. But one of the greatest physicists of the 20th century, Werner Heisenberg, has insisted that the modern physicist still has to learn a good deal from Plato concerning the foundation of his science.

## Aristotle

After Plato's death the Academy continued to exist for many centuries under various heads. When Plato's nephew, Speusippus, was elected as his successor, his greatest disciple, Aristotle, left to go first to Assus and then to the island of Lesbos, where he met Theophrastus, who became his most gifted disciple. But soon thereafter he was called to the Macedonian court at Pella to become the educator of the crown prince, who was later to become Alexander the Great. After the latter had become king, Aristotle returned to Athens and opened there a school of his own, whose members became known as the Peripatetics.

## Philosophy of Aristotle

Aristotle had become a member of the Academy at the age of 17, in the year 367 (during Plato's absence in Sicily), under the acting chairmanship of Eudoxus of Cnidus, a great mathematician and geographer. It is a controversial question as to how far Aristotle, during the 20 years of his membership in the Academy, developed a philosophy of his own differing from that of his master. But two things can be considered as certain: (1) that he soon raised certain objections to Plato's theory of Ideas, for one of the arguments against it attributed to him is discussed in Plato's dialogue *Parmenides*, which Plato must have written soon after his return from Sicily, and (2) that it was during his membership in the Academy that Aristotle began and (to a considerable extent) elaborated his theoretical and formal analysis of the arguments used in various Socratic discussions – an enterprise that (when completed) resulted in the corpus of his works on logic, a new science, which

Aristotle himself claimed to have originated and about which (until rather recent times) it used to be said that he completed it in such a way that hardly anything could be added.

Certainly quite some time before his return to Athens to open a school of his own, Aristotle declared that it is not necessary to assume the existence of a separate realm of transcendent Ideas of which the individual things that men perceive with their senses are but imperfect copies; that the world of perceived things is the real world; and that it is necessary merely to be able to say that something is generally true of certain types or groups of things in order to build up a system of knowledge about them. Thus, it would be wrong to say that, having abandoned the theory of Ideas, Aristotle was left with a completely contingent world. The last chapters of his *Analytica posteriora* (*Posterior Analytics*) show, on the contrary, that he merely replaced Plato's transcendent Ideas with something (*katholou*) corresponding to them that the human mind can grasp in individual things.

Aristotle retained another important element of the theory of Ideas in his teleology, or doctrine of purposiveness. According to Plato, individual things are imperfect copies of perfect Ideas. Aristotle pointed out, however, that all living beings develop from an imperfect state (from the seed, the semen, through the germinating plant, or embryo, to the child and young adult), to the more perfect state of the fully developed plant or the full grown mature animal or man – after which they again decay and finally die, having reproduced themselves. But not all individuals reach the same degree of relative perfection. Many of them die before reaching it; others are retarded, crippled, or maimed in various ways in the process. It is, therefore, of the utmost importance for man to find out what the best conditions are for reaching the most perfect state possible. This is what the gardener tries to do for the plants;

but it is even more important for man to do it in regard to himself. The first question, then, is what kind of perfection a human being as human can reach. In answering this question Aristotle observed that man, being the social animal par excellence, can reach as an individual only some of the perfections possible for man as such. Cats are more or less all alike in their functions; thus each can fend for itself. With bees and termites, however, it is different. They are by nature divided into worker bees, drones, and queen bees or worker termites, soldier termites, and queens. With human beings the differentiation of functions is much more subtle and varied. Men can lead satisfactory lives only on the basis of a division of labour and distribution of functions. Some human individuals are born with very great talents and inclinations for special kinds of activity. They will be happy and will make their best possible contribution to the life of the community only if they are permitted to follow this inclination. Others are less one-sidedly gifted and more easily adaptable to a variety of functions. These people can be happy shifting from one activity to another. That this is so is an enormous advantage the human species has over all other animals because it enables it to adapt to all sorts of circumstances. But the advantage is paid for by the fact that no human individual is able to develop all of the perfections that are possible for the race as a whole.

There is another possible and, in its consequences, real disadvantage to such adaptability; the other animals, tightly confined to the limits set by nature, are crippled almost exclusively by external factors; but man, in consequence of the freedom of choice granted to him through the variety of his gifts, can and very often does cripple and harm himself. All human activities are directed toward the end of a good and satisfactory life. But there are many subordinate aims that are sensible ends only as far as they serve a

superior end. There is, for example, no sense in producing or acquiring more shoes than can possibly be worn. This is self-evident. With regard to money, however, which has become exchangeable against everything, the illusion arises that it is good to accumulate it without limit. By doing so, man harms both the community and himself because, concentrating on such a narrow aim, he deprives his soul and spirit of larger and more rewarding experiences. Similarly, an individual especially gifted for large-scale planning needs power to give orders to those capable of executing his plans. Used for such purposes, power is good. But coveted for its own sake, it becomes oppressive to those subdued by it and harmful to the oppressor because he thus incurs the hatred of the oppressed. Because of his imperfection man is not able to engage in serious and fruitful activities without interruption. He needs relaxation and play, or amusement. Because the necessities of life frequently force man to work beyond the limit within which working is pleasant, the illusion arises that a life of constant amusement would be the most pleasant and joyful. In reality nothing is more tedious.

Aristotle's teleology seems to be based entirely on empirical observation. It has nothing to do with a belief in divine providence and is not, as some modern critics believe, at variance with the law of causality. It forms the foundation, however, of Aristotle's ethics and political theory. Aristotle was an avid collector of empirical evidence. He induced his students, for instance, to make collections of the laws and political institutions (and their historical developments) of all known cities and nations in order to find out how they worked and at what points their initiators had been mistaken regarding the way in which they would work. In later times, Aristotle came to be considered (and by many is still considered) a dogmatic philosopher



because the results of his inquiries were accepted as absolutely authoritative. In reality, however, he was one of the greatest Empiricists of all times.

### Disciples and Commentators

After Aristotle's death his immediate disciples carried on the same kind of work, especially in the historical field: Theophrastus wrote a history of philosophy and works on botany and on mineralogy, Eudemus of Rhodes wrote histories of mathematics and of astronomy, Meno a history of medicine, and Dicaearchus of Messene a history of civilization and a book on types of political constitutions. The next two generations of Peripatetics spread out in two different directions: literary history, in the form of histories of types of poetry, epic, tragedy, and comedy, and of biographies of famous writers, and physical science, Straton of Lampsacus creating a new kind of physics based on experiments, and the great astronomer Aristarchus of Samos inventing the heliocentric system. The school then went for some time into eclipse until, in the 1st century CE, after the rediscovery of Aristotle's lecture manuscripts, there arose a great school of commentators on his works, which had an enormous influence on medieval philosophy.

### Hellenistic and Roman Philosophy

The period after the death of Aristotle was characterized by the decay of the Greek city-states, which then became pawns in the power game of the Hellenistic kings who succeeded Alexander. Life became troubled and insecure. It was in this environment that two dogmatic philosophical systems

came into being, the Stoic and the Epicurean, which were destined to give their adherents something to hold onto and to make them independent of the external world.

## Stoics

The Stoic system was created by a Syrian, Zeno of Citium (about the turn of the 3rd century BCE), who went to Athens as a merchant but lost his fortune at sea. Zeno was consoled by the Cynic philosopher Crates, who taught him that material possessions were of no importance whatsoever for a man's happiness. He therefore stayed at Athens, heard the lectures of various philosophers, and – after he had elaborated his own philosophy – began to teach in a public hall, the Stoa Poikile (hence the name Stoicism).

Zeno's thought comprised, essentially, a dogmatized Socratic philosophy, with added ingredients derived from Heracleitus. The basis of human happiness, he said, is to live "in agreement" (with oneself), a statement that was later replaced by the formula "to live in agreement with nature." The only real good for man is the possession of virtue; everything else (wealth or poverty, health or illness, life or death) is completely indifferent. All virtues are based exclusively on right knowledge – self-control (sophrosyne) being the knowledge of the right choice, fortitude the knowledge of what must be endured and what must not, and justice the right knowledge "in distribution." The passions, which are the cause of all evil, are the result of error in judging what is a real good and what is not. Because it is difficult to see, however, why murder, fraud, and theft should be considered evil if life and possessions are of no value, the doctrine was later modified by making among the "indifferent things" distinctions between "preferable things," such as having the necessities of life and health; "completely indifferent things"; and "anti-

preferable things,” such as lacking the necessities of life or being ill – while insisting still that the happiness of the truly wise man could not be impaired by illness, pain, hunger, or any deprivation of external goods. In the beginning, Zeno also insisted that either a man is completely wise, in which case he would never do anything wrong and would be completely happy, or he is a fool. Later he made the concession, however, that there are men not completely wise but progressing toward wisdom. Though the latter might even have true insight, they are not certain that they have it, whereas the truly wise man is also certain of having true insight. The world is governed by divine Logos – a word originally meaning “word” or “speech,” then (with Heracleitus) also a speech that expresses the laws of the universe, and, finally, “reason.” This Logos keeps the world in perfect order. Man can deviate from or rebel against this order, but by doing so he cannot disturb it but can only do harm to himself.

Zeno’s philosophy was further developed by Cleanthes, the second head of the school, and by Chrysippus, its third head. Chrysippus elaborated a new kind of logic, which did not receive much attention, however, outside the Stoic school until in recent times (under the name of “propositional logic”) it has been hailed by some logicians as superior to the “conceptual logic” of Aristotle. In the mid-2nd century BCE, Panaetius of Rhodes adapted Stoic philosophy to the needs of the Roman aristocracy (whose members were then governing the known world) and made a great impression on some of the leading men of the time, who tried to follow his moral precepts. In the following century, in the time of the decay of the Roman Republic, of civil war, and of slave rebellions, Poseidonius of Apamea, who was also one of the most brilliant historians of all times, taught that the Stoic takes a position above the rest of mankind, looking down on men’s struggles as on a spectacle.

In the periods of the rising monarchy and of its established rule, Stoicism became the religion of the republican opposition. The most famous Stoic was the younger Cato, who committed suicide after the victory of Julius Caesar. It was also the guiding philosophy of Seneca the Younger, the educator and (for a long time) the adviser of Nero, who tried to keep Nero on the path of virtue but failed and finally had to commit suicide on the orders of the Emperor. In spite of the oddities of Zeno's original doctrine, Stoicism gave consolation, composure, and fortitude in times of trouble to many proud men to the end of antiquity and beyond.

### Epicureans

The thought of Zeno's contemporary Epicurus also comprised a philosophy of defense in a troubled world. It has been (and still is) considered – in many respects justly – the opposite of Zeno's. Whereas Zeno had proclaimed that the wise man would try to learn from everybody and would always acknowledge his debt to earlier philosophers, Epicurus insisted that everything he taught was the result of his own thinking, though it is obvious that his physical explanation of the universe is a simplification of Democritus' Atomism. And whereas the Stoics had taught that pleasure and pain are of no importance for a man's happiness, Epicurus made pleasure the very essence of a happy life. Moreover, the Stoics from the beginning had acted as advisers of kings and statesmen. Epicurus, on the other hand, lived in the retirement of his famous Garden, cultivating intimate friendships with his adherents but warning against participation in public life. The Stoics believed in divine providence; Epicurus taught that the gods pay no attention whatsoever to human beings. Yet in spite of these contrasts, the two philosophies had some

essential factors in common. Though Epicurus made pleasure the criterion of a good life, he was far from advocating a dissolute life and debauchery; he insisted that it was the simple pleasures that made life happy. When in his old age he suffered terrible pains from prostatitis, he asserted that philosophizing and the memory and love of his distant friends made pleasure prevail even in the grips of such pain. Nor was Epicurus an atheist. His Roman admirer, the poet Lucretius Carus (c. 95-55 BCE), in his poem *De rerum natura* (*On the Nature of Things*), praised Epicurus enthusiastically as the liberator of mankind from all religious fears; and Epicurus himself had affirmed that this had been one of the aims of his philosophy. But although he taught that the gods are much too superior to trouble themselves with paying attention to mortals, he said – and, as his language clearly shows, sincerely believed – that it is important for human beings to look at the gods as perfect beings, since only in this way could men approach perfection. It was only in Roman times that people began to misunderstand Epicureanism, holding it to be an atheistic philosophy justifying a dissolute life, so that a man could be called “a swine from the herd of Epicurus.” Seneca recognized the true nature of Epicureanism, however, and in his *Epistulae morales* (*Moral Letters*) deliberately interspersed through his Stoic exhortations maxims from Epicurus.

### Sceptics

There was still another Hellenistic school of philosophy, the sceptic school initiated by another of Zeno’s contemporaries – Pyrrhon of Elis – a school that was destined to become of great importance for the preservation of a detailed knowledge of Hellenistic philosophy in general. Pyrrhon had come

to the conviction that no man can know anything for certain nor ever be certain that the things he perceives with his senses are real and not illusory. He is said to have carried the practical consequences of his conviction so far that, when walking in the streets, he paid no attention to the vehicles and other obstacles, so that his faithful disciples always had to accompany him to see that he came to no harm. Pyrrhon's importance for the history of philosophy lies in the fact that one of the later adherents of his doctrine, Sextus Empiricus (2nd-3rd century CE), wrote a large work, *Pros dogmatikous* ("Against the Dogmatists"), in which he tried to refute all of the philosophers who had a more positive philosophy, and in so doing he quoted extensively from their works, thus preserving much that would otherwise have been lost. It is a noteworthy fact that the British sensualists of the 18th century, such as David Hume, and also Immanuel Kant derived most of their knowledge of ancient philosophy from Sextus.

#### Neo-Pythagoreans and Neoplatonists

All of the philosophical schools and sects of Athens that had originated in the 4th century BCE continued into late antiquity, most of them until the emperor Justinian I ordered all of them closed in CE 529 because of their pagan character. Within that whole period of nearly 1,000 years only two new schools were added; even these, however – the Neo-Pythagorean and the Neoplatonic schools – drew their inspiration from early Greek philosophy, though only the latter was of importance for the history of philosophy. Neoplatonism began with Ammonius Saccas (first half of the 3rd century CE), who had been brought up as a Christian but had abandoned his religion for the study of Plato and developed his own kind of Platonic philosophy. Because he

wrote nothing, his philosophy is known only through his famous disciple, Plotinus. But Plotinus did not publish anything either. His philosophy is known, however, through the *Enneads*, a collection of his writings arranged by his disciple Porphyry, who also wrote a biography of Plotinus.

The philosophy of Plotinus (and Ammonius) was derived from the study of Plato. It, moreover, used many philosophical terms first coined by Aristotle and adopted some elements of Stoic philosophy as well. Yet it is essentially a new philosophy, agreeing with the religious and mystical tendencies of its time. Plotinus assumed the existence of several levels of Being, the highest being that of the One, or the Good, which are identical but indescribable and indefinable in human language. The next lower level is that of the nous, or pure intellect or reason; the third is that of the soul or souls. There then follows the world perceivable by the senses and, finally, at the lowest level there is matter, which is the cause of all evil. The highest bliss for man is union with the One, or Good, attained by contemplation and purification. That this is not a lasting state attained once for all – like the status of the Stoic wise man, who was supposed never to lose his wisdom again – is shown by the fact that Porphyry, in his *Vita Plotini*, said that Plotinus had experienced this supreme bliss seven times in his life, whereas he, Porphyry, had experienced it only once.

The further history of Neoplatonism is extremely complicated. While Porphyry had emphasized the ethical element in Plotinus' philosophy, his disciple Iamblichus of Chalcis in Syria (died c. CE 330), founder of a Syrian branch of the sect, mingled Neoplatonism with Neo-Pythagoreanism, writing on the Pythagorean way of life and on number theory. Above all, he multiplied the levels of being, or the emanations from the One, which enabled him to incorporate the traditional Greek gods into his system. Another branch

of the school was founded in Pergamum, in western Asia Minor, by his disciple Aedesius, who with his disciple Maximus tried to revive the ancient Greek mystery religions, such as Orphism. All of these developments became of great importance in the 4th century when the emperor Julian attempted to revive paganism. In the following century the Athenian school reached a new high point when Proclus combined ideas of his predecessors into one comprehensive system. When in 529 Justinian closed all of the philosophical schools in Athens, however, a branch continued to exist in Alexandria. The Athenian Neoplatonists found refuge at the court of the Persian king Khosrow, and in 535 they were permitted to return to Athens. But gradually pagan philosophy as such died out, though it continued to exist as an influence in the development of Christian philosophy and theology.

### Medieval Philosophy

Medieval philosophy designates the philosophical speculation that occurred in Western Europe during the Middle Ages; i.e., from the fall of the Roman Empire in the 4th and 5th centuries CE to the Renaissance of the 15th century. Philosophy of the medieval period remained in close conjunction with Christian thought, particularly theology, and the chief philosophers of the period were churchmen, particularly churchmen who were teachers. Philosophers who strayed from the close relation were chided by their superiors. Greek philosophy ceased to be creative after Plotinus in the 3rd century CE. A century later Christian thinkers such as Ambrose, Victorinus, and Augustine began to assimilate Neoplatonism into Christian doctrine in order to give a rational interpretation of Christian faith. Thus, medieval philosophy was born of the confluence of Greek (and to a lesser extent of



Roman) philosophy and Christianity. Plotinus' philosophy was already deeply religious, having come under the influence of Middle Eastern religion. Medieval philosophy continued to be characterized by this religious orientation. Its methods were at first those of Plotinus and later those of Aristotle. But it developed within faith as a means of throwing light on the truths and mysteries of faith. Thus, religion and philosophy fruitfully cooperated in the Middle Ages. Philosophy, as the handmaiden of theology, made possible a rational understanding of faith. Faith, for its part, inspired Christian thinkers to develop new philosophical ideas, some of which became part of the philosophical heritage of the West.

Toward the end of the Middle Ages, this beneficial interplay of faith and reason started to break down. Philosophy began to be cultivated for its own sake, apart from, and even in contradiction to, Christian religion. This divorce of reason from faith, made definitive in the 17th century by Francis Bacon and René Descartes, marked the birth of modern philosophy.

### Early Medieval Philosophy

The early medieval period, which extended to the 12th century, saw the barbarian invasions of the Roman Empire, the collapse of its civilization, and the gradual building of a new, Christian culture in Western Europe. Philosophy in these troubled and darkened times was cultivated by late Roman thinkers such as Augustine (354-430) and Boethius (c. 480-c. 525), then by monks such as Anselm (1033-1109). The monasteries became the main centres of learning and education and retained their preeminence until

the founding of the cathedral schools and universities in the 11th and 12th centuries.

### Augustine

During these centuries philosophy was heavily influenced by Neoplatonism; Stoicism and Aristotelianism played only a minor role. Augustine was awakened to the philosophical life by reading Cicero, but the Neoplatonists most decisively shaped his philosophical methods and ideas. To them he owed his conviction that beyond the world of the senses there is a spiritual, eternal realm of truth that is the object of the human mind and the goal of all man's striving. This truth he identified with the God of Christianity. Man encounters this divine world of truth and beauty not through his senses but by turning inward to his mind, and above his mind to the intelligible light, in which he sees the truth. The Augustinian demonstration of the existence of God coincides with the proof of the existence of necessary, immutable Truth. Augustine considered the truths of both mathematics and ethics to be necessary, immutable, and eternal. These truths cannot come from the world of contingent, changing, and temporal things, nor from the mind itself, which is also contingent, mutable, and temporal. They are due to the illuminating presence in man's mind of eternal and immutable Truth, or God. Any doubt that man knows the truth with certainty was dispelled for Augustine by the certitude that even if he is deceived in many cases, man cannot doubt that he exists and knows and loves.

Augustine conceived of man as a composite of two substances, body and soul, of which the soul is by far the superior. The body, nevertheless, is not to be excluded from human nature, and its eventual resurrection from the dead is assured by Christian faith. The soul's immortality is proved by its possession of eternal and unchangeable Truth.

Augustine's *Confessions* (c. 400) and *De Trinitate* (400-416; *On the Trinity*) abound with penetrating psychological analyses of knowledge, perception, memory, and love. His *De civitate Dei* (413-426; *The City of God*) presents the whole drama of human history as a progressive movement of humanity, redeemed by God, to its final repose in its Creator.

#### Boethius

One of the most important channels by which Greek philosophy was transmitted to the Middle Ages was Boethius. He began to translate into Latin all the philosophical works of the Greeks, but his imprisonment and death by order of Theodoric, king of the Ostrogoths, cut short this project. He translated only the logical writings of Porphyry (a 3rd-century-CE Neoplatonist) and Aristotle. These translations and his commentaries on them brought to the thinkers of the Middle Ages the rudiments of Aristotelian logic. They also raised important philosophical questions, such as the nature of universals (terms that can be applied to more than one particular thing). Are universals real or only mental concepts? If real, are they corporeal or incorporeal; if incorporeal, do they exist in the sensible world or apart from it? Medieval philosophers debated at length these and other problems relating to universals. In his logical works Boethius presents the Aristotelian doctrine of

universals, that they are only mental abstractions. In his *De consolatione philosophiae* (c. 525; *Concerning the Consolation of Philosophy*), however, he adopts the Platonic notion that they are innate ideas and their origin is in the remembering of knowledge in a previous existence. This book was extremely popular and influential in the Middle Ages. It contains not only a Platonic view of knowledge and reality but also a lively treatment of providence, divine foreknowledge, chance, fate, and human happiness.

#### Greek Fathers of the Church and Erigena

Another stream from which Greek philosophy, especially Neoplatonic thought, flowed into the Middle Ages was the Greek Fathers of the Church, notably Origen (c. 185-c. 254), Gregory of Nyssa (c. 335-c. 394), Nemesius (c. 400), Pseudo-Dionysius the Areopagite (c. 500), and Maximus the Confessor (c. 580-662). In the 9th century, John Scotus, called Erigena (“belonging to the people of Erin”) because he was born in Ireland, a master at the Carolingian court of Charles the Bald, translated into Latin some of the writings of these Greek theologians, and his own major work, *De divisione naturae* (862-866; *On the Division of Nature*), is a vast synthesis of Christian thought organized along Neoplatonic lines. For him, God is the primal unity, unknowable and unnameable in himself, from which the multiplicity of creatures flows. He so far transcends his creatures that he is most appropriately called superreal and supergood. Creation is the process of division whereby the many derive from the One. The One descends into the manifold of creation and reveals himself in it. By the reverse process the multiplicity of creatures will return to their unitary source at the end of time, when everything will be absorbed in God.

## Anselm

After the breakdown of the Carolingian Empire in the 10th century, intellectual speculation was at a low ebb in Western Europe. In the next century some political stability was achieved by Otto I, who reestablished the empire, and Benedictine monasteries were revitalized by reformers such as Peter Damian. Like Tertullian, a Christian writer of the 2nd and 3rd centuries, Damian mistrusted secular learning and philosophy as harmful to the faith. Other monks showed a keen interest in dialectic and philosophy. Among the latter was Anselm, an Italian who became abbot of the French monastery of Bec and later archbishop of Canterbury.

Like Augustine, Anselm used both faith and reason in his search for truth. Faith comes first, in his view, but reason should follow, giving reasons for what men believe. Anselm's monks asked him to write a model meditation on God in which everything would be proved by reason and nothing on the authority of Scripture. He replied with his *Monologium* (1077; "Monologue"; Eng. trans., *Monologium*), the original title of which was "A Meditation on the Reasonableness of Faith." It contains three proofs of the existence of God, all of which are based on Neoplatonic thought. The first proof moves from the awareness of a multiplicity of good things to the recognition that they all share or participate more or less in one and the same Good, which is supremely Good in itself, and this is God. The second and third proofs are similar: beginning with their awareness of a multiplicity of beings that have more or

less of being, and more or less of perfection, men recognize that they share in One who is supremely Being and perfect.

Anselm's later work, the *Proslogium* (1077/78; "Allocution" or "Address"; Eng. trans., *Proslogium*), also entitled "Faith Seeking Understanding," contains his most famous proof of the existence of God. This begins with a datum of faith: men believe God to be the being than which none greater can be thought. Some, like the fool in the Psalms, say there is no God; but even the fool, on hearing these words, understands them, and what he understands exists in his intellect, even though he does not grant that such a being exists in reality. But it is greater to exist in reality and in the understanding than to exist in the understanding alone. Therefore it is contradictory to hold that God exists only in the intellect, for then the being than which none greater can be thought is one than which a greater can be thought, namely, one that exists both in reality and in the understanding. Philosophers still debate the meaning and value of this so-called ontological argument for God's existence.

#### Bernard of Clairvaux and Abelard

Anselm's inquiry into the existence and nature of God, as also his discussion of truth, love, and human liberty, aimed at fostering monastic contemplation. Other monks, such as the Cistercian Bernard of Clairvaux (1090-1153), were suspicious of the use of secular learning and philosophy in matters of faith. Bernard complained of the excessive indulgence in dialectic displayed by contemporaries such as Peter Abelard (1079-1142) and Gilbert de La Porrée. He himself developed a doctrine of mystical love, the influence

of which lasted through the centuries. The monks of the Parisian Abbey of Saint-Victor were no less intent on fostering mystical contemplation, but they cultivated the liberal arts and philosophy as an aid to it. In this spirit, Hugh of Saint-Victor wrote his *Didascalicon* (c. 1127; “Teaching”; Eng. trans., *Didascalicon*), a monumental treatise on the theoretical and practical sciences and the trivium (grammar, rhetoric, dialectic) and the quadrivium (arithmetic, music, geometry, astronomy). During the same period the School of Chartres, attached to the famous cathedral near Paris, was the focus of Christian Neoplatonism and humanism.

Urban development in the 12th century shifted the center of learning and education from the monasteries to the towns. Abelard founded several urban schools near Paris and taught in them. A passionate logician, he pioneered a method in theology that contributed to the later Scholastic method. His *Sic et non* (1115-17; Yes and No) cites the best authorities on both sides of theological questions in order to reach their correct solution. In philosophy his main interest was logic. On the question of universals he agreed with neither the Nominalists nor the Realists of his day. His Nominalist teacher Roscelin held that universals, such as “man” and “animal,” are nothing but words, or names (*flatus vocis*). Abelard argued that this does not take into account the fact that names have meaning. His Realist teacher William of Champeaux taught that universals are realities apart from the mind. For Abelard, only individuals are real; universals are indeed names or mental concepts, but they have meaning because they refer to individuals. They do not signify an essence common to individuals, as the Realists maintained (e.g., the essence “humanity” shared by all men), but signify instead the individuals in their common condition, or status, of being in a certain species, which results from God’s creating them according to the same divine idea.





## Transition to Scholasticism

In the 12th century a cultural revolution took place that influenced the whole subsequent history of Western philosophy. The old style of education, based on the liberal arts and emphasizing grammar and the reading of the Latin classics, was replaced by new methods stressing logic, dialectic, and all the scientific disciplines known at the time. John of Salisbury, of the School of Chartres, witnessed this radical change:

Behold, everything was being renovated: grammar was being made over, logic was being remodeled, rhetoric was being despised. Discarding the rules of their predecessors, [the masters] were teaching the quadrivium with new methods taken from the very depths of philosophy.

In philosophy itself, there was a decline in Platonism and a growing interest in Aristotelianism. This change was occasioned by the translation into Latin of the works of Aristotle in the late 12th and early 13th centuries. Until then, only a few of his minor logical treatises were known. Now his *Topica*, *Analytica priora*, and *Analytica posteriora* were rendered into Latin, giving the schoolmen (the teachers of Western Christian philosophy in the 13th and 14th centuries) access to the Aristotelian methods of disputation and science, which became their own techniques of discussion and inquiry. Many other philosophical and scientific works of Greek and Arabic origin were translated at this time, creating a “knowledge explosion” in Western Europe.

## Arabic Thought

Among the translations from Arabic were some of the writings of Avicenna (980-1037). This Islamic philosopher had an extraordinary impact on the medieval schoolmen. His interpretation of Aristotle's notion of metaphysics as the science of *ens qua ens* ("being as being"), his analysis of many metaphysical terms, such as "being," "essence," "existence," and his metaphysical proof of the existence of God were often quoted, with approval or disapproval, in Christian circles. Also influential were his psychology, logic, and natural philosophy. His *al-Qanun fi at-tibb* (*Canon of Medicine*) was an authority on the subject until modern times. *The Maqasid al-Falasifah* (1094; "*The Aims of the Philosophers*") of the Arabic theologian al-Ghazali, known in Latin as Algazel (died c. 1111), an exposition of Avicenna's philosophy written in order to criticize it, was read as a complement of Avicenna's works. The anonymous *Liber de causis* ("*Book of Causes*") was also translated into Latin from Arabic. This work, excerpted from Proclus' *Stiocheiosis theologike* (*Elements of Theology*), was often ascribed to Aristotle, and it gave a Neoplatonic cast to his philosophy until its true origin was discovered by Thomas Aquinas.

The commentaries of the Arabic philosopher Averroës were translated along with Aristotle's works. As Aristotle was called "the Philosopher" by the medieval philosophers, Averroës was dubbed "the Commentator." These two taught the Scholastics philosophy as a purely rational discipline, divorced from revealed religion. The Christian schoolmen often attacked Averroës as the archenemy of Christianity for his rationalism and his doctrines of the eternity of the world and the unity of the intellect for all men; i.e., the doctrine that intellect is a single, undifferentiated form with which men become

reunited at death. This was anathema to the Christian schoolmen because it contravened the Christian doctrine of individual immortality.

### Jewish Thought

Of considerably less influence on the Scholastics was medieval Jewish thought. Ibn Gabirol, known to the Scholastics as Avicbron or Avencebrol, was thought to be an Arab or Christian, though in fact he was a Spanish Jew. His chief philosophical work, written in Arabic and preserved only in a Latin translation entitled *Fons vitae* (c. 1050; *Fountain of Life*), stresses the unity and simplicity of God. All creatures are composed of form and matter, either the gross corporeal matter of the sensible world or the spiritual matter of angels and human souls. Some of the schoolmen were attracted to the notion of spiritual matter and also to Ibn Gabirol's analysis of a plurality of forms in creatures, according to which every corporeal being receives a variety of forms by which it is given its place in the hierarchy of being – for example, a dog has the forms of a corporeal thing, a living thing, an animal, a dog.

Maimonides, or Moses ben Maimon, was known to Christians of the Middle Ages as Rabbi Moses. His *Dalalat al-ha`irin* (c. 1190; *Guide of the Perplexed*) helped them to reconcile Greek philosophy with revealed religion. For Maimonides there can be no conflict between reason and faith because both come from God; an apparent contradiction is due to a misinterpretation of either the Bible or the philosophers. Thus, he showed that creation is reconcilable with philosophical principles and that the Aristotelian arguments for an eternal world are not conclusive because they ignore the omnipotence of God, who can create a world of either finite or infinite duration.

While Western scholars were assimilating the new treasures of Greek, Islamic, and Jewish thought, universities that became the centres of Scholasticism were being founded. Of these the most important were Paris and Oxford (formed 1150-70 and 1168, respectively). Scholasticism is the name given to the theological and philosophical teachings of the schoolmen in the universities. There was no one Scholastic doctrine; each of the Scholastics developed his own, which was often in disagreement with that of his fellow teachers. They had in common a respect for the great writers of old, such as the Fathers of the Church, Aristotle, Plato, Boethius, the Pseudo-Dionysius, and Avicenna. These they called “authorities.” Their interpretation and evaluation of the authorities, however, frequently differed. They also shared a common style and method that developed out of the teaching practices in the universities. Teaching was done by lecture and disputation (a formal debate). A lecture consisted of the reading of a prescribed text followed by the teacher’s commentary on it. Masters also held disputations in which the affirmative and negative sides of a question were thoroughly argued by students and teacher, before the latter resolved the problem.

### The Age of the Schoolmen

#### Robert Grosseteste and Roger Bacon

The newly translated Greek and Arabic treatises had an immediate effect on the University of Oxford. Its first chancellor, Robert Grosseteste (c. 1168-1253), commented on some of Aristotle’s works and translated the *Ethica Nichomachea* (*Nicomachean Ethics*) from Greek to Latin. He was deeply interested in scientific method, which he described as both inductive and

deductive. By the observation of individual events in nature, man advances to a general law, called a “universal experimental principle,” that accounts for these events. Experimentation either verifies or falsifies a theory by testing its empirical consequences. For Grosseteste the study of nature is impossible without mathematics. He cultivated the science of optics (*perspectiva*), which measures the behavior of light by mathematical means. His studies of the rainbow and comets employ both observation and mathematics. His treatise *De luce* (1215-20; *On Light*) embodies a metaphysics of light, presenting light as the basic form of all things and God as the primal uncreated light.

Grosseteste’s pupil Roger Bacon (c. 1220-c. 1292) made the mathematical and experimental methods the key to natural science. The term experimental science was popularized in the West through his writings. For him, man acquires knowledge through reasoning and experience, but without the latter he can have no certitude. Man gains experience through the senses and also through an interior divine illumination that culminates in mystical experience. Bacon was critical of the methods of Parisian theologians such as Albertus Magnus and Thomas Aquinas. He strove to create a universal wisdom embracing all the sciences and organized by theology. He also proposed the formation of a single worldwide society, or “Christian republic,” that would unite all men under the leadership of the pope.

### William of Auvergne

At the University of Paris, William of Auvergne (c. 1180-1249) was one of the first to feel the impact of the philosophies of Aristotle and Avicenna. As a teacher, and then as bishop of Paris, he was concerned with the threat of

pagan and Islamic thought to the Christian faith. He opposed the Aristotelian doctrine of the eternity of the world as contrary to the Christian notion of creation. His critique of Avicenna centred around the latter's conception of God and creation. The God of Avicenna, who creates the universe eternally and necessarily, through the mediation of 10 Intelligences, was opposed by William of Auvergne with the Christian notion of a God who creates the world freely and directly. Creatures are radically contingent and dependent on God's creative will. Unlike God, they do not exist necessarily; indeed, their existence is distinct from their essence and accidental to it. God has no essence distinct from his existence; he is pure existence. In stressing the essential instability and noneternity of the world, he attributed true existence and causality to God alone. William of Auvergne was a follower of Augustine, but, like others at the time, he was compelled to rethink the older Augustinian notions in terms of the newer Aristotelian and Avicennian philosophies.

#### Bonaventure

The Franciscan friar Bonaventure (c. 1217-74) reacted similarly to the growing popularity of Aristotle and his Arabic commentators. He admired Aristotle as a natural scientist, but he preferred Plato and Plotinus, and, above all, Augustine, as metaphysicians. His main criticism of Aristotle and his followers was that they denied the existence of divine ideas. As a result, Aristotle was ignorant of exemplarism (that is, God's creation of the world according to ideas in his mind) and also of divine providence and government of the world. This involved Aristotle in a threefold blindness: he taught that the world is eternal, that all men share one agent intellect (the active principle

of understanding in man), and that there are no rewards or punishments after death. Plato and Plotinus avoided these mistakes, but, because they lacked Christian faith, they could not see the whole truth. For Bonaventure, faith alone enables men to avoid error in these important matters.

Bonaventure did not confuse philosophy with theology. Philosophy is the knowledge of the things of nature and the soul innate in man or acquired by his own efforts, whereas theology is the knowledge of heavenly things based on faith and divine revelation. Bonaventure, however, rejected the practical separation of philosophy from theology. Philosophy needs the guidance of faith; far from being self-sufficient, it is but a stage toward the higher knowledge that culminates in the vision of God.

For Bonaventure, every creature to some degree bears the mark of its Creator. The soul has been made in the very image of God. Thus, the universe is like a book in which the triune God is revealed. His *Itinerarium mentis in Deum* (1259; *The Soul's Journey into God*) follows Augustine's path to God, from the external world to the interior world of the mind, and then above the mind from the temporal to the eternal. Throughout this journey, men are aided by a moral and intellectual divine illumination. The mind has been created with an innate idea of God, so that, as Anselm pointed out, man cannot think that God does not exist. In a terse reformulation of the Anselmian argument for God's existence, Bonaventure states that if God is God, he exists.

### Albertus Magnus

The achievement of the Dominican friar Albertus Magnus (c. 1200-80) was of vital importance for the development of medieval philosophy. A man

of immense erudition and intellectual curiosity, he was one of the first to recognize the true value of the newly translated Greco-Arabic scientific and philosophical literature. Everything he considered valuable in it, he included in his encyclopaedic writings. He set out to teach this literature to his contemporaries and in particular to make the philosophy of Aristotle, whom he considered to be the greatest philosopher, understandable to them. He also proposed to write original works in order to complete what was lacking in the Aristotelian system. In no small measure, the triumph of Aristotelianism in the 13th century can be attributed to him.

Albertus' observations and discoveries in the natural sciences advanced botany, zoology, and mineralogy. In philosophy he was less original and creative than his famous pupil Thomas Aquinas. Albertus produced a synthesis of Aristotelianism and Neoplatonism, blending together the philosophies of Aristotle, Avicenna, and Ibn Gabirol, and, among Christians, Augustine, and Pseudo-Dionysius.

#### Thomas Aquinas

Albertus Magnus' Dominican confrere and pupil Thomas Aquinas (1224-1274) shared his master's great esteem for the ancient philosophers, especially Aristotle, and also for the more recent Arabic and Jewish thinkers. He welcomed truth wherever he found it and used it for the enrichment of Christian thought. For him reason and faith cannot contradict each other because they come from the same divine source. In his day conservative theologians and philosophers regarded Aristotle with suspicion and leaned toward the more traditional Christian Neoplatonism. Thomas realized that



their suspicion was due, in part, to the fact that Aristotle's philosophy had been distorted by his Arabic commentators; so he wrote his own commentaries on Aristotle to show the essential soundness of his system and to convince contemporaries of its value for Christian theology.

Thomas' own philosophical views are best expressed in his theological works, especially his *Summa theologiae* (1265/66-1273; Eng. trans., *Summa theologiae*) and *Summa contra gentiles* (1258-64; *Summa Against the Gentiles*). In these works he clearly distinguishes between the domains and methods of philosophy and theology. The philosopher seeks the first causes of things, beginning with data furnished by the senses; the subject of the theologian's inquiry is God as revealed in sacred Scripture. In theology, appeal to authority carries most weight; in philosophy, it carries least.

Thomas found Aristotelianism and, to a lesser extent, Platonism useful instruments for Christian thought and communication; but he transformed and deepened everything he borrowed from them. For example, he took over Aristotle's proof of the existence of a primary unmoved mover, but the primary mover at which Thomas arrives is very different from that of Aristotle; it is in fact the God of Judaism and Christianity. He also adopted Aristotle's teaching that the soul is man's form and the body is his matter, but for Aquinas this does not entail, as it does for the Aristotelians, the denial of the immortality of the soul or the ultimate value of the individual. Thomas never compromised Christian doctrine by bringing it into line with the current Aristotelianism; rather, he modified and corrected the latter whenever it clashed with Christian belief. The harmony he established between Aristotelianism and Christianity was not forced but achieved by a new understanding of philosophical principles, especially the notion of being, which he conceived as the act of existing (*esse*). For him, God is pure being,

or the act of existing. Creatures participate in being according to their essence; for example, man participates in being, or the act of existing, to the extent that his humanity, or essence, permits. The fundamental distinction between God and creatures is that creatures have a real composition of essence and existence, whereas God's essence is his existence.

### Averroists

A group of masters in the Faculty of Arts at Paris welcomed Aristotle's philosophy and taught it in disregard of its possible opposition to the Christian faith. They wanted to be philosophers, not theologians, and to them this meant following the Aristotelian system. Because Averroës was the recognized commentator on Aristotle, they generally interpreted his thought in an Averroistic way. Hence, in their own day they were known as "Averroists"; today they are often called "Latin Averroists" because they taught in Latin. Their leader, Siger de Brabant, taught as rationally demonstrated certain Aristotelian doctrines that contradicted the faith, such as the eternity of the world and the oneness of the intellect for all men. They were accused of holding a "double truth" – of maintaining the existence of two contradictory truths: one commanded by faith, the other taught by reason. Although Siger never proposed as true philosophical conclusions contrary to faith, other members of this group upheld the right and duty of the philosopher to follow human reason to its natural conclusions, even when they contradicted the truths of faith.

This growing rationalism confirmed the belief of theologians of a traditionalist cast that the pagan and Muslim philosophies would destroy the

Christian faith. They attacked these philosophies in treatises such as Giles of Rome's *Errores philosophorum* (1270; *The Errors of the Philosophers*). In 1277 the Bishop of Paris condemned 219 propositions based on the new trend toward rationalism and naturalism. These included even some of Thomas' Aristotelian doctrines. The same year, the Archbishop of Canterbury made a similar condemnation at Oxford. These reactions to the novel trends in philosophy did not prevent the Averroists from treating philosophical questions apart from religious considerations. Theologians, on their part, were increasingly suspicious of the philosophers and less optimistic about the ultimate reconciliation of philosophy and theology.

#### Philosophy in the Late Middle Ages

In the late Middle Ages earlier ways of philosophizing were continued and formalized into definite schools of thought. In the Dominican order, Thomism (theology and philosophy of Thomas Aquinas) was made the official teaching, though the Dominicans did not always adhere to it rigorously. Averroism, cultivated by philosophers such as John of Jandun (died c. 1328), remained a live, though sterile, movement into the Renaissance. In the Franciscan order, the Englishmen John Duns Scotus and William of Ockham developed new styles of theology and philosophy that vied with Thomism throughout the late Middle Ages.

## Duns Scotus

John Duns Scotus (c. 1265-1308) opposed the rationalists' contention that philosophy is self-sufficient and adequate to satisfy man's desire for knowledge. In fact, he claimed, a pure philosopher, such as Aristotle, could not truly understand the human condition because he was ignorant of the Fall of man and his need for grace and redemption. Unenlightened by Christian revelation, Aristotle mistook man's present fallen state, in which all his knowledge comes through the senses, for his natural condition, in which the object of his knowledge would be coextensive with all being, including the being of God. The limitation of Aristotle's philosophy is apparent to Duns Scotus in the Aristotelian proof of the existence of God as the primary mover of the universe. More adequate than this physical proof, he contended, is his own very intricate metaphysical demonstration of the existence of God as the absolutely primary, unique, and infinite being. He incorporated the Anselmian argument into this demonstration. For Duns Scotus, the notion of infinite being, not that of primary mover or being itself, is man's most perfect concept of God.

In opposition to the Greco-Arabic view of the government of the universe from above by necessary causes, Duns Scotus stressed the contingency of the universe and its total dependence on God's infinite creative will. He adopted the traditional Franciscan voluntarism, elevating the will above the intellect in man.

Duns Scotus' doctrine of universals justly earned him the title "Doctor Subtilis." Universals, in his view, exist only as abstract concepts, but they are based on common natures, such as humanity, which exist, or can exist, in many individuals. Common natures are real, and they have a real unity of their

own distinct from the unity of the individuals in which they exist. The individuality of each individual is due to an added positive reality that makes the common nature to be this individual; for example, humanity to be Socrates. Duns Scotus calls such a reality an “individual difference,” or “thisness” (*haecceitas*). It is an original development of the earlier medieval realism of universals.

### William of Ockham

In the late 14th century, Thomism and Scotism were called the “old way” (*via antiqua*) of philosophizing in contrast to the “modern way” (*via moderna*) begun by such men as William of Ockham (c. 1285-1347). Ockham, no less than Duns Scotus, wanted to defend the Christian doctrine of the freedom and omnipotence of God and the contingency of creatures against the necessitarianism of Greco-Arabic philosophy. But for him the freedom of God is incompatible with the existence of divine ideas as positive models of creation. God does not use preconceived ideas when he creates, as Duns Scotus maintained, but he fashions the universe as he wishes. As a result, creatures have no natures or essences in common. There are no realities but individual things, and these have nothing in common. They are more or less like each other, however, and on this basis men can form universal concepts of them and talk about them in general terms.

The absolute freedom of God was often used by Ockham as a principle of philosophical and theological explanation. Because the order of nature has been freely created by God, it could have been different: fire, for example, could cool, as it now heats. If he wishes, he can give us the sight, or “intuitive

knowledge,” of a star without the reality of the star. The moral order could also have been different. God could have made hating him meritorious instead of loving him. It was typical of Ockham not to put too much trust in the power of human reason to reach the truth. For him, philosophy must often be content with probable arguments, for example, in establishing the existence of the Christian God. Faith alone gives certitude in this and in other vital matters. Another principle invoked by Ockham is that a plurality is not to be posited without necessity. This principle of the economy of thought, later stated as beings are not to be multiplied without necessity, is called “Ockham’s razor.”

Ockhamism was censured by a papal commission at Avignon, Fr., in 1326, and in 1474 it was forbidden to be taught at Paris: it spread widely in the late Middle Ages, nevertheless, and rivaled Thomism and Scotism in popularity. Other Scholastics in the 14th century shared Ockham’s basic principles and contributed with him to scepticism and probabilism in philosophy. John of Mirecourt (c. 1345) stressed the absolute power of God and the divine will to the point of making him the cause of man’s sin. Nicholas of Autrecourt (c. 1347) adopted a sceptical attitude regarding such matters as man’s ability to prove the existence of God and the reality of substance and causality. Rejecting Aristotelianism as inimical to the Christian faith, he advocated a return to the Atomism of the ancient Greeks as a more adequate explanation of the universe.

### Meister Eckhart

The trend away from Aristotelianism was accentuated by the German Dominican Meister Eckhart (c. 1260-1327/28), who developed a speculative

mysticism of both Christian and Neoplatonic inspiration. Eckhart depicts the ascent of the soul to God in Neoplatonic terms: by gradually purifying itself from the body, the soul transcends being and knowledge until it is absorbed in the One. The soul is then united with God at its highest point, or “citadel.” God himself transcends being and knowledge. Sometimes Eckhart describes God as the being of all things. This language, which was also used by Erigena and other Christian Neoplatonists, leaves him open to the charge of pantheism (the doctrine that the being of creatures is identical with that of God); but for Eckhart there is an infinite gulf between creatures and God. Eckhart means that creatures have no existence of their own but are given existence by God, as the body is made to exist and is contained by the soul. Eckhart’s profound influence can be seen in the flowering of mysticism in the German Rhineland in the late Middle Ages.

#### Nicholas of Cusa

Nicholas of Cusa (1401-64) also preferred the Neoplatonists to the Aristotelians. To him, the philosophy of Aristotle is an obstacle to the mind in its ascent to God because its primary rule is the principle of contradiction, which denies the compatibility of contradictories. But God is the “coincidence of opposites.” Because he is infinite, he embraces all things in perfect unity; he is at once the maximum and the minimum. Nicholas uses mathematical symbols to illustrate how, in infinity, contradictories coincide. If a circle is enlarged, the curve of its circumference becomes less; if a circle is infinite, its circumference is a straight line. As for man’s knowledge of the infinite God, he must be content with conjecture or approximation to the truth. The absolute truth escapes man; his proper attitude is “learned ignorance.”

For Nicholas, God alone is absolutely infinite. The universe reflects this divine perfection and is relatively infinite. It has no circumference, for it is limited by nothing outside of itself. Neither has it a center; the Earth is neither at the center of the universe nor is it completely at rest. Place and motion are not absolute but relative to the observer. This new, non-Aristotelian conception of the universe anticipated some of the features of modern theories.

Thus, at the end of the Middle Ages, some of the most creative minds were abandoning Aristotelianism and turning to newer ways of thought. The philosophy of Aristotle, in its various interpretations, continued to be taught in the universities, but it had lost its vitality and creativity. Christian philosophers were once again finding inspiration in Neoplatonism. The Platonism of the Renaissance was in direct continuity with the Platonism of the Middle Ages.

## Modern Philosophy

### The Renaissance and Early Modern Period

The philosophy of a period arises as a response to social need, and the development of philosophy in the history of Western civilization since the Renaissance has, thus, reflected the process in which creative philosophers have responded to the unique challenge of each stage in the development of Western culture itself.

The career of philosophy – how it views its tasks and functions, how it defines itself, the special methods it invents for the achievement of



philosophical knowledge, the literary forms it adopts and utilizes, its conception of the scope of its subject matter, and its changing criteria of meaning and truth – hinges on the mode of its successive responses to the challenges of the social structure within which it arises. Thus, Western philosophy in the Middle Ages was primarily a Christian philosophy, complementing the divine revelation, reflecting the feudal order in its cosmology, devoting itself in no small measure to the institutional tasks of the Roman Catholic Church. It was no accident that the major philosophical achievements of the 13th and 14th centuries were the work of churchmen who also happened to be professors of theology at the universities of Oxford and Paris.

The Renaissance of the late 15th and 16th centuries presented a different set of problems and therefore suggested different lines of philosophical endeavor. What is called the European Renaissance followed upon the introduction of three novel mechanical inventions from the East: gunpowder, block printing from movable type, and the compass. The first was used to explode the massive fortifications of the feudal order and thus became an agent of the new spirit of nationalism that threatened the rule of churchmen – and, indeed, the universalist emphasis of the church itself – with a competing secular power. The second, printing, made the propagation of knowledge widespread, secularized learning, reduced the intellectual monopoly of an ecclesiastical elite, and restored the literary and philosophical classics of Greece and Rome. The third, the compass, increased the safety and scope of navigation, produced the voyages of discovery that opened up the Western Hemisphere, and symbolized a new spirit of physical adventure and a new scientific interest in the structure of the natural world.

Each of these inventions with its wider cultural consequences presented new intellectual problems and novel philosophical tasks within a changed political and social environment. For, as the power of a single religious authority was slowly eroded under the influence of the Protestant Reformation and as the prestige of the universal Latin language gave way to vernacular tongues, philosophers became less and less identified with their positions in the ecclesiastical hierarchy and more and more identified with their national origins. The works of Albertus Magnus, St. Thomas Aquinas, St. Bonaventure, and John Duns Scotus had been basically unrelated to the countries of their birth; but the philosophy of Niccolò Machiavelli was directly related to Italian experience, that of Sir Francis Bacon and Thomas Hobbes was English to the core, and that of René Descartes set the standard and tone of French intellectual life for 200 years.

#### Dominant Strands of Renaissance Philosophy

Knowledge in the contemporary world is conventionally divided between the natural sciences, the social sciences, and the humanities. In the Renaissance, however, fields of learning had not yet become so sharply departmentalized: in fact, each of these divisions arose in the comprehensive and broadly inclusive area of Renaissance philosophy. For, as the Renaissance mounted its revolt against the reign of religion and therefore reacted against the church, against authority, against Scholasticism, and against Aristotle, there was a sudden blossoming of interest in problems centring on civil society, man, and nature. These three interests found exact representation in the three dominant strands of Renaissance philosophy: (1) political theory, (2) humanism, and (3) the philosophy of nature.

## Political Theory

As secular authority replaced ecclesiastical authority and as the dominant interest of the age shifted from religion to politics, it was natural that the rivalries of the national states and their persistent crises of internal order should raise with renewed urgency philosophical problems, practically dormant since pre-Christian times, about the nature and the moral status of political power. This new preoccupation with national unity, internal security, state power, and international justice stimulated the growth of political philosophy in Italy, France, England, and Holland.

In early 16th-century Italy, Niccolò Machiavelli, sometime state secretary of the Florentine republic, explored in *Il principe* (written 1512-13; *The Prince*) and in his *Discorsi sopra la prima deca di Tito Livio* (completed by 1521; “Discourses on the First Ten Books of Livy” in *Discourses*) the techniques for the seizure and retention of power in ways that seemed to exalt “reasons of state” above morality and codified the actual practices of Renaissance diplomacy for the next 100 years. In fact, Machiavelli was motivated by patriotic hopes for the ultimate unification of Italy and by the conviction that the low estate of Italian Renaissance morality needed to be elevated by restoring the ancient Roman virtues. More than half a century later in France, Jean Bodin, magistrate of Laon and a member of the Estates-General, insisted that the state must possess a single, unified, and absolute power; he thus developed in detail the doctrine of national sovereignty in all of its administrative consequences and in its role as the source of all legal legitimacy.

In the 17th century in England, Thomas Hobbes, who was to become tutor to the future Charles II, developed the fiction that in the “state of nature”

that preceded civilization life was “nasty, brutish, and short” with “every man’s hand raised against every other,” and that a “social contract” was thus agreed upon to convey all private rights to a single sovereign in return for general protection and for the institution of a reign of law. Because law is simply “the command of the sovereign,” Hobbes at once turned justice into a by-product of power and denied any right of rebellion except when the sovereign becomes too weak to protect the commonwealth and hold it united.

In Holland, a prosperous and tolerant commercial republic in the 17th century, the issues of political philosophy took a different form. Thus, when the Dutch East India Company commissioned a great jurist, Hugo Grotius (1583-1645), to provide a defense of their trade rights and of their free access to the seas, the resulting two treatises, *Mare Liberum* (1609; *The Freedom of the Seas*) and *De Jure Belli ac Pacis* (1625; *On the Law of War and Peace*), were the first significant codifications of international law. Their philosophical originality lay, however, in the fact that, in defending the rights of a small, militarily weak nation against the powerful absolutisms of England, France, and Spain, Grotius was led to a preliminary investigation of the sources and validity of the concept of “natural law” – the notion that inherent in human reason and immutable even against the willfulness of sovereign states are imperative considerations of natural justice and moral responsibility, which must serve as a check against the arbitrary exercise of vast political power.

In general, the political philosophy of the Renaissance was dualistic: it was haunted, even confused, by the conflict between political necessity and general moral responsibility. Machiavelli, Bodin, and Hobbes asserted claims that justified the actions of Italian despotism and the absolutisms of the Bourbon and Stuart dynasties. Yet Machiavelli was obsessed with the problem

of human virtue; Bodin insisted that even the sovereign ought to obey the law of nature – that is, to govern in accordance with the dictates of natural justice; and Hobbes himself found in natural law the rational motivation that causes a man to seek for security and peace. In the end, though Renaissance political necessity required that the philosophical doctrines of Thrasymachus (who held that right is what is in the interest of the strong) be implemented, it could never finally escape a twinge of Socratic conscience.

## Humanism

The Renaissance was characterized by the renewed study of mathematics, medicine, and classical literature. The first two sparked the scientific revolution of the 16th and 17th centuries; the last became the foundation of the philosophy of Renaissance humanism. From its origin, humanism – suspicious of science and generally indifferent to religion – emphasized anew the centrality of man in the universe, his supreme value and importance. Characteristic of this emphasis was the famous *Oratio de hominis dignitate* (written 1486; *Oration on the Dignity of Man*) of a late 15th-century Platonist, Pico della Mirandola, a leading member of Lorenzo de' Medici's Platonic Academy of Florence. But the new emphasis upon man's personal responsibility and on the possibility of his self-creation as a work of art was in no small part a consequence of the rediscovery of a series of crucial classical texts, which served to reverse the trends of medieval learning. Renaissance humanism was predicated upon the victory of rhetoric over dialectic and of Plato over Aristotle, as Quintilian and Cicero had triumphed over Abelard and as the cramped format of Scholastic philosophical method gave way to a Platonic discursiveness.

Much of this had been prepared by Italian scholarly initiative in the early 15th century. The recently discovered manuscript of Quintilian was used by Lorenzo Valla, an antiauthoritarian humanist, for the creation of modern rhetoric and the principles of textual criticism. But even more important was the rebirth of an enthusiasm for the philosophy of Plato in Medicean Florence and at the cultivated court of Urbino, a dukedom east of Florence. Precisely to service this enthusiasm, Marsilio Ficino, head of the Platonic Academy, had translated the entire Platonic corpus into Latin by the end of the century.

Except for Pico and Giordano Bruno, a late 16th-century Italian philosopher, the direct influence of Platonism upon Renaissance metaphysics is difficult to trace. The Platonic account of the moral virtues, however, was admirably adapted to the requirements of Renaissance education and gave new support to the Renaissance ideal of the courtier and the gentleman. But Plato also represented the philosophical importance of mathematics and the Pythagorean attempt to discover the secrets of the heavens, the earth, and the world of nature in terms of number and exact calculation; and this aspect of Platonism spilled over from humanism into the domain of Renaissance science. The scientists Nicolaus Copernicus, Johannes Kepler, and Galileo owe more to the general climate of Pythagorean confidence in the explanatory power of number than does Renaissance metaphysics.

But Platonism also had the effect of influencing the literary form in which Renaissance philosophy was written. Although the very early medieval Platonists St. Augustine and John Scotus Erigena occasionally had used the dialogue form, later Scholasticism had abandoned it in favor of the formal treatise, of which the great “Summas” of Alexander of Hales and St. Thomas Aquinas are pristine examples. The Renaissance rediscovery of the Platonic dialogues suggested the literary charm of this conversational method to

humanists, scientists, and political theorists alike. The humanist philosopher Bruno put forth his central insights in a dialogue, *De la causa, principio e uno* (1584; *Concerning the Cause, Principle, and One*); Galileo presented his novel mechanics in his *Dialogo sopra i due massimi sistemi del mondo, tolemaico e copernicano* (1632; *Dialogue Concerning the Two Chief World Systems – Ptolemaic and Copernican*); and even the politician Machiavelli wrote *Dell'arte della guerra* (1521; *The Art of War*) as a genteel conversation taking place in a quiet Florentine garden.

Renaissance humanism was primarily a moral and a literary, rather than a narrowly philosophical, movement. And it flowered in figures with broadly philosophical interests, such as Erasmus of Rotterdam, the erudite citizen of the world; Sir Thomas More, the learned but unfortunate chancellor of Henry VIII; and, in the next generation, in the great French essayist and mayor of Bordeaux, Michel de Montaigne. But the recovery of the Greek and Latin classics, which was the work of humanism, had profound effects upon the entire field of Renaissance philosophy and science through the ancient schools of philosophy to which it once more directed attention. In addition to Platonism, the most notable of these were Greek Atomistic Materialism, Greek Scepticism, and Roman Stoicism. The discovery of the manuscript of Lucretius (and the Atomistic doctrines of Democritus) finally came to influence Galileo, Bruno, and, later, Pierre Gassendi, a modern Epicurean, through the insights into nature reflected in this work. The recovery of the manuscript of Sextus Empiricus, with its carefully argued Scepticism presented in a printed text in 1562, produced “a sceptical crisis” in French philosophy, which dominated the period from Montaigne to René Descartes. And the Stoicism of Seneca and Epictetus became almost the official ethics of the Renaissance – to appear prominently in the *Essais* (1580-88) of

Montaigne, in the letters that Descartes wrote to the princess Elizabeth of Bohemia and to Queen Christina of Sweden, and in the later sections of the *Ethics* (first published 1675) of the Rationalist Benedict de Spinoza.

### Philosophy of Nature

Philosophy in the modern world is a self-conscious discipline. It has managed to define itself narrowly, so as to differentiate itself on the one hand from religion and on the other from exact science. But this narrowing of focus came about very late in its history – certainly not before the 18th century. The earliest philosophers of Greece were theorists of the physical world; Pythagoras and Plato were at once philosophers and mathematicians; and in Aristotle no clear distinction between philosophy and natural science can be maintained. The Renaissance continued this breadth of conception characteristic of the Greeks. Galileo and Descartes were mathematicians, physicists, and philosophers at once; and physics retained the name of “natural philosophy” at least until the death of Sir Isaac Newton in 1727.

Had the Renaissance been painstakingly self-aware in the matter of definition (which it was not), it might have defined philosophy, on the basis of its actual practice, as “the rational, methodical, and systematic consideration of man, civil society, and the natural world.” The areas of its interests would in no case have been in doubt. But exactly what constitutes “rational, methodical, and systematic consideration” would have been extremely controversial. For knowledge advances through the discovery and advocacy of new philosophical methods; and, because the diverse methods advocated depend for their validity upon the acceptance of different philosophical



criteria of truth, meaning, and importance, the crucial philosophical quarrels of the 16th and 17th centuries were at bottom quarrels in the advocacy of methods. It is this issue rather than any disagreement over subject matter or areas of attention that separated the greatest Renaissance philosophers – such as Francis Bacon, René Descartes, and Thomas Hobbes.

The great new fact that confronted the Renaissance was the immediacy, the immensity, and the uniformity of the natural world. But what was of primary importance was the new perspective in which this fact was interpreted. To the Middle Ages the universe was hierarchical, organic, and God-ordained. To the Renaissance it was pluralistic, machinelike, and mathematically ordered. In the Middle Ages scholars thought in terms of purposes, of ends, of divine intentions; in the Renaissance they thought in terms of forces, mechanical agencies, and physical causes. All of this had become clear by the end of the 15th century. Within the early pages of the Notebooks of Leonardo da Vinci, the great Florentine artist, scientist, humanist, and mechanical genius, occurs the following three propositions:

1. Since experience has been the mistress of whoever has written well, I take her as my mistress, and to her on all points make my appeal.
2. Instrumental or mechanical science is the noblest and above all others the most useful, seeing that by means of it all animated bodies which have movement perform all their actions.

3. There is no certainty where one can neither apply any of the mathematical sciences, nor any of those which are based upon the mathematical sciences.

Here are enunciated respectively: (1) the principle of Empiricism, (2) the advocacy of mechanistic science, and (3) the faith in mathematical explanation; and it is upon these three formulations, as upon a rock, that the science and philosophy of the Renaissance built their foundations. From each of Leonardo's theses descended one of the great streams of Renaissance philosophy: from the empirical principle the work of Francis Bacon; from mechanism the work of Thomas Hobbes; and from mathematical explanation that of René Descartes.

Any adequate philosophical treatment of scientific method surely contains both an empirical principle and a faith in mathematical explanation; and, in Leonardo's thinking, as in scientific procedure generally, there need be no conflict between them. Yet they do represent two poles of emphasis, each capable of excluding the other. Moreover, the peculiar accidents of Renaissance scientific achievement did present some evidence for their mistaken separation: for the revival of medical studies on the one hand and the novel blooming of mathematical physics on the other emphasized opposite virtues in scientific methodology. This polarity was represented by the opposing figures of Vesalius and Galileo.

In the mid-16th century Andreas Vesalius, a Belgian physician, was astounding all of Europe with the unbelievable precision of his anatomical dissections and drawings. Having invented new tools for this precise purpose, he successively laid bare the vascular, the neural, and the musculature systems of the human body; and this procedure seemed to demonstrate the virtues of

empirical method, of physiological experiment, and of the precision and disciplined skill in sensory observation that made his demonstrations classics of inductive procedure.

Only slightly later the Italian physicist Galileo, following in the tradition already established by Copernicus and Kepler, founders of modern astronomy (but without their more mystical and metaphysical eccentricities), attempted to do for terrestrial and sidereal movements what Vesalius had managed for the structure of the human body – creating his experiential dynamics, however, with the help of hypotheses supplied by the quantitative calculations of mathematics. In Galileo’s work all of the most original scientific directions of the Renaissance came to a head: the revival of Alexandrian mathematics, the experimental use of new instruments, like the lens and the telescope, the search for certainty in physics based upon the undoubted applicability of mathematical theory, and the underlying faith that the search for absolute certainty in science was reasonable because matter in motion accorded with a model of mathematical simplicity. Galileo’s work also deals with some of the recurrent themes of 16th- and 17th-century philosophy: an atomism that relates changes in the relations of physical bodies to the corpuscular motion of their parts, the reduction of all qualitative differences to quantitative reasons, and the resultant important distinction between “primary” and “secondary” qualities. The former – including shape, extension, and specific gravity – were considered to be in fact a constituent part of nature and therefore “real.” The latter – such as color, odour, taste, and relative position – were taken to be simply the effect of bodily movements upon perceiving minds and therefore ephemeral, “subjective,” and essentially irrelevant to the nature of physical reality.

## Rise of Empiricism and Rationalism

The scientific contrast between Vesalius' rigorous observational techniques and Galileo's reliance upon mathematical theory received further expression in the contrast between the respective philosophies of Francis Bacon and René Descartes. And, indeed, in its more abstract formulation as the contrast between Rationalism and Empiricism, it was to dominate the philosophical controversies of the 17th and 18th centuries and to present a dilemma hardly to be resolved before the advent of Immanuel Kant.

## The Empiricism of Francis Bacon

Flourishing about the turn of the 17th century, Sir Francis Bacon (1561-1626) was the outstanding apostle of Renaissance Empiricism. Less an original metaphysician or cosmologist than the advocate of a vast new program for the advancement of learning and the reformation of scientific method, Bacon conceived of philosophy as a new technique of reasoning that should reestablish natural science upon a firm foundation. In the *Advancement of Learning* (1605) he charted the map of knowledge: history, which depends upon the human faculty of memory; poetry, upon that of imagination; and philosophy, upon man's reason. To reason, however, Bacon assigned a completely experiential function. Fifteen years later, in his *Novum Organum*, he made this clear: because, he said, "we have as yet no natural philosophy which is pure,... the true business of philosophy must be... to apply the understanding... to a fresh examination of particulars." A technique for "the fresh examination of particulars" thus constituted his chief claim to philosophical distinction.

Bacon's hope for a new birth of science hinged not only upon vastly more numerous and varied experiments but chiefly upon "an entirely different method, order, and process for advancing experience." This method consisted in the construction of what he called "tables of discovery." He distinguished three kinds: tables of presence, of absence, and of degree (i.e., in the case of any two properties, such as heat and friction, instances in which they appeared together, instances in which one appeared without the other, and instances in which their amounts varied proportionately); and the ultimate purpose of these tables was to order facts in such a way that the true causes of phenomena (the subject of physics) and the true "forms" of things (the subject of metaphysics – the study of the nature of Being) could be inductively established.

Bacon's was no raw Empiricism; his profound sense of fact and his belief in the primacy of observation led him to elicit laws and generalizations. Also, his conception of forms was quite un-Platonic: a form for him was not an essence but a permanent geometric or mechanical structure. His enduring place in the history of philosophy lies, however, in his single-minded advocacy of experience as the only source of valid knowledge and in his profound enthusiasm for the perfection of natural science. It is in this sense that "the Baconian spirit" continued as a source of inspiration: his elaborate classification of the sciences inspiring the French Encyclopaedists of the 18th century and his Empiricism inspiring the English philosophers of science of the 19th century.

The Materialism of Thomas Hobbes

The English political philosopher Thomas Hobbes (1588-1679) was acquainted with both Bacon and Galileo. With the first he shared a strong concern for philosophical method, with the second an overwhelming interest in matter in motion. His philosophical efforts, however, were more inclusive and more complete than those of either of these contemporaries. He was a comprehensive thinker within the scope of an exceedingly narrow set of presuppositions, and he produced one of the most systematic philosophies of the early modern period – an almost completely consistent description of nature, man, and civil society according to the tenets of mechanistic Materialism.

Hobbes's account of what philosophy is and ought to be clearly distinguished between content and method. As method, philosophy is simply reasoning or calculating by the use of words as to the causes of phenomena. When a man reasons forward from causes to effects, he reasons synthetically, and, when he reasons from effects backward to causes, he does so analytically. (His strong deductive and geometric bias favored the former.) Hobbes's dogmatic metaphysical presupposition was that the basic reality is matter in motion. The real world is a corporeal universe in constant movement, and the phenomena, the causes and effects of which it is the business of philosophy to lay bare, are either the mutual action of bodies or the quaint effects of bodies upon minds. From this assumption follows Hobbes's classification of the fields that form the content of philosophy: (1) physics, (2) moral philosophy, and (3) civil philosophy. Physics is the science of the motions and actions of natural bodies conceived in terms of cause and effect. Moral philosophy (or, more accurately, psychology) is the detailed study of "the passions and perturbations of the mind" – that is, how minds are "moved" by desire, aversion, appetite, fear, anger, and envy. And civil

philosophy concerns the concerted actions of men in a commonwealth – how in detail the wayward wills of men are constrained by power (force) in the prevention of civil disorder and the maintenance of peace.

Hobbes's philosophy was a bold Renaissance restatement of Greek Atomistic Materialism with applications to the realities of Renaissance politics that would have seemed strange to its ancient originators. But there are also elements in it that make it characteristically English. For Hobbes's conventionalist account of language led him to a nominalistic position – that is, to a position denying the reality of universals (general or common concepts) – in much the same fashion as did Bacon's exaggerated emphasis on particulars. Moreover, Bacon's general emphasis upon experience also had its analogue in Hobbes's sensationalist theory of knowledge: the notion that all knowledge has its origin in sense impressions and that all sensations are caused by the action of external bodies upon the organs of sense. Empiricism has been a basic and recurrent expression of British mentality, and its nominalistic and sensationalist roots were already clearly evident in both Bacon and Hobbes.

#### Rationalism of Descartes

But it was not their philosophy that was to dominate the last half of the 17th century but rather that of René Descartes (1596-1650), a French gentleman who signed himself “Lord of Perron” and who lived the 20 most productive years of his life in the tolerant and hospitable Dutch republic. Descartes, a crucial figure in the history of philosophy, combined (however unconsciously or even unwillingly) the influences of the past into a synthesis

that was striking in its originality and yet congenial to the scientific temper of the age. In the minds of all later historians he counts as the progenitor of the modern spirit in philosophy.

From the past there seeped into the Cartesian synthesis doctrines about God from Anselm and Aquinas, a theory of the will from Augustine, a deep sympathy with the Stoicism of the Romans, and a sceptical method taken indirectly from the ancient Sceptics Pyrrho and Sextus Empiricus. But Descartes was also a great mathematician, who invented analytic geometry, who made many physical and anatomical experiments, who knew and profoundly respected the work of Galileo, and who withdrew from publication his own cosmological treatise *Le Monde* (“*The World*”) after Galileo’s condemnation by the Inquisition in 1633.

Each of the maxims of Leonardo, which constitute the Renaissance worldview, found its place in Descartes: the Empiricism of his physiological researches described in his *Discours de la méthode* (1637; *Discourse on Method*), the mechanistic interpretations of the physical world and human action detailed in the *Principia Philosophiae* (1644; *Principles of Philosophy*) and *Les Passions de l’âme* (1649; *The Passions of the Soul*), and the mathematical bias that dominates his theory of method in the *Regulae ad Directionem Ingenii* (published 1701; *Rules for the Direction of the Mind*) and his metaphysics in the *Meditationes de Prima Philosophia* (2nd ed. 1642; *Meditations on the First Philosophy*). But of these three, it is the mathematical strain that clearly predominates.

Bacon and Descartes, the founders of modern Empiricism and Rationalism, respectively, shared two pervasive Renaissance tenets: an enormous enthusiasm for physical science; and the belief that knowledge



means power – that the ultimate purpose of theoretical science is to serve the practical needs of men.

In his *Principia* Descartes defined philosophy as “the study of wisdom” or “the perfect knowledge of all one can know.” Its chief utility is “for the conduct of life” (morals), “the conservation of health” (medicine), and “the invention of all the arts” (mechanics). He expressed the relation of philosophy as theoretical inquiry to practical consequences in the famous metaphor of the tree of philosophy whose root is metaphysics, whose trunk is physics, and whose branches are, respectively, morals, medicine, and mechanics. The metaphor is revealing for it indicates that, for Descartes (as for Bacon and Galileo), the major concern was for the trunk (physics) and that he busied himself with the roots only in order to provide a firm foundation for the trunk. Thus the *Discours de la méthode*, which provides a synoptic view of the Cartesian philosophy, shows it to be not (as with Aristotle or Whitehead) a metaphysics founded upon physics but rather – that more characteristic product of the 17th century – a physics founded upon metaphysics.

Descartes’s mathematical bias was expressed in his determination to ground natural science not in sensation and probability (as did Bacon) but in a principle of absolute certainty. Thus his metaphysics in essence consisted of three principles:

1. To employ the procedure of complete and systematic doubt to eliminate every belief that does not pass the test of indubitability (scepticism);
2. To accept no idea as certain that is not clear, distinct, and free of contradiction (mathematicism);

3. To found all knowledge upon the bedrock certainty of self-consciousness, so that “I think, therefore I am” becomes the only innate idea unshakable by doubt (subjectivism).

From the indubitability of the self, Descartes deduced the existence of a perfect God; and, from the fact that a perfect being is incapable of falsification or deception, he made the inference that those ideas about the corporeal world that he has implanted within man must be true. The achievement of certainty about the natural world was thus guaranteed by the perfection of God and by the clear and distinct ideas that are his gift.

The Cartesian metaphysics is the fountainhead of Rationalism in modern philosophy, for it suggests that the mathematical criteria of clarity, distinctness, and absence of contradiction among ideas are the ultimate test of meaningfulness and truth. This stance is profoundly antiempirical. Bacon, who had said that “reasoners resemble spiders who make cobwebs out of their own substance,” might well have said so of Descartes, for the Cartesian self is just such a substance from which the idea of God originates and with which all deductive reasoning begins. Yet for Descartes the understanding is vastly superior to the senses, and, in the question of what constitutes truth in science, only man’s reason can ultimately decide.

Cartesianism was to dominate the intellectual life of the Continent until the end of the 17th century. It was a fashionable philosophy, appealing alike to learned gentlemen and highborn ladies; and it was one of the few philosophical alternatives to the decadent Scholasticism still being taught in the universities. Precisely for this reason it constituted a serious threat to

established religious authority. In 1663 the Roman Catholic Church placed Descartes's works on the Index of Forbidden Books, and the University of Oxford forbade the teaching of his doctrines. Only in the liberal Dutch universities, such as Groningen and Utrecht, did Cartesianism make serious headway.

Certain features of the Cartesian philosophy made it an important starting point for subsequent philosophical speculation. Being the meeting ground of the medieval and the modern worldviews, it accepted the doctrines of Renaissance science while attempting to ground them metaphysically in the medieval notions of God and the human mind. Thus a certain dualism between God the Creator and the mechanistic world of his creation and between mind as a spiritual principle and matter as mere spatial extension was inherent in the Cartesian position; and a whole generation of French Cartesians (among them Arnold Geulincx, Nicolas Malebranche, and Pierre Bayle) wrestled with the resulting problems of the interaction and reconciliation between the counterposed entities.

#### Rationalism of Spinoza and Leibniz

Two philosophers of genius carried on the tradition of continental Rationalism: the Dutch Jew Benedict de Spinoza (1632-77) and his younger contemporary Gottfried Wilhelm Leibniz (1646-1716), a Leipzig scholar and polymath. Bacon's philosophy had been a search for method in science, and Descartes's basic aim had been the achievement of scientific certainty; but Hobbes and Spinoza provided the most comprehensively worked out speculative systems of the early modern period. In certain respects they had

much in common: a mechanistic picture of the world, with its events guided by a strict determinism, and even a political philosophy in each case looking for political stability based upon centralized power. Yet Spinoza introduced a conception of philosophizing that was new to the Renaissance: Philosophy became a personal and moral quest for the wisdom of life and for the achievement of human perfection.

In conducting this search, Spinoza borrowed much of the basic apparatus of Descartes: the aim at a rational understanding of principles, the terminology of “substance” and of “clear and distinct ideas,” and a mathematical method that seeks to convert philosophical knowledge into a complete deductive system using the geometric model of Euclid’s *Elements*. Spinoza viewed the universe pantheistically as a single infinite substance, which he called “God,” with the dual attributes (or aspects) of thought and extension, and which he differentiated into plural “modes” (or particular things); and he attributed to this world as a whole the properties of a timeless logical system – of a complex of completely determined causes and effects. In so doing Spinoza was simply seeking for man the series of “adequate” ideas that furnish the intellect and constitute human freedom. For ultimately, for Spinoza, the wisdom that philosophy seeks is achieved when one perceives the universe in its wholeness, through the “intellectual love of God,” which merges the finite individual with the eternal unity and provides the mind with the pure joy that is the final achievement of its search.

Whereas the basic elements of the Spinozistic worldview are given in his one great work, the *Ethics*, Leibniz’ philosophy has to be pieced together from numerous brief expositions or fragments, which seem to be mere intermissions, or philosophical interludes, in an otherwise busy life. But the philosophical form is deceptive. Leibniz was a mathematician and jurist

(inventor of the infinitesimal calculus and codifier of the laws of Mainz), diplomat, historian to royalty, and court librarian in a princely house; yet he was also one of the most original philosophers of the early modern period. His chief contributions were in the fields of logic, in which he was a truly brilliant innovator, and metaphysics, in which he provided a third alternative to the Rationalist constructions of Spinoza and Descartes. Leibniz saw logic as a mathematical calculus. He was the first to distinguish “truths of reason” from “truths of fact” and to contrast the “necessary” propositions of logic and mathematics (which express identities), which hold for all possible worlds, with the “contingent” (or empirical) propositions of science, which hold only for certain existential conditions; and he saw clearly that, as “the principle of contradiction” controls the first, so “the principle of sufficient reason” governs the second.

In metaphysics Leibniz espoused pluralism (as opposed to the dualism of Descartes’s thought and extension and the monism of Spinoza’s single substance, which is God). There were for him an infinite number of spiritual substances (which he called “monads”), each different, each a percipient of the universe around it, and each mirroring that universe from its own point of view. The chief significance of Leibniz, however, lies not in his differences from Descartes and Spinoza but in the extreme Rationalism that all three shared. In the *Principes de la nature et de la grâce fondés en raison* (1714; “Principles of Nature and of Grace Founded in Reason”), he stated the maxim that can stand for the entire school:

True reasoning depends upon necessary or eternal truths, such as those of logic, numbers, geometry, which establish an indubitable connection of ideas and unfailing consequences.

## Literary Forms and Sociological Conditions

The literary forms in which philosophical exposition was couched in the early modern period ranged from the scientific aphorisms of Bacon and the autobiographical meditations of Descartes to the systematic prose of Hobbes and the episodic propositional format of Leibniz. Two basic tendencies, however, can be discerned:

1. The early Renaissance commitment to the dialogue form (already noted), inspired by the rediscovery of the Platonic dialogues;
2. The later prevalence of the systematically ordered treatise, undoubtedly influenced by the enormous prestige of deductive mathematics.

The concept of serial order stressed by geometry, in which the reasoner passes from more universal axioms to more specific derivative propositions, influenced in turn the style of Hobbes, Descartes, and Spinoza. The order of presentation in Hobbes's *Leviathan* and in Descartes's *Principia Philosophiae* reflects this serial concern, while Spinoza's *Ethics* utilizes the Euclidean method so formalistically as almost to constitute an impenetrable barrier to the basic lucidity of his thought.

Medieval philosophy with its texts, readings, learned authorities, Disputed Questions, Quodlibetal Questions (brief academic discussions), and its *Summas* was characteristically associated with the medieval university. It is a singular fact, therefore, that from the birth of Bacon in 1561 to the death of Hume in 1776 – i.e., for 200 years – not one first-rate philosophical mind in Europe was permanently associated with a university.

The fact is that, as the age of the saint passed into that of the gentleman, philosophers too reflected this profound change in their titles, their social status, and their economic situation. Sir Francis Bacon was a lawyer, judge, and attendant upon the royal court. Thomas Hobbes was the tutor and companion of young noblemen. René Descartes, son of a noble family, traveled and studied at leisure, retiring to Holland to live out his life on inherited income. Gottfried Wilhelm Leibniz, courtier, diplomat, and scholar, became a privy councillor and baron of the Holy Roman Empire. Thus philosophers often belonged to the lesser nobility or were closely associated with the nobility, to whom – like poets – they dedicated their works; and they lived not by philosophy but for it – either independently, by pensions, gifts, inherited income, or in the households of the nobility.

Thus, philosophy in the 16th and 17th centuries was clearly the preoccupation of a widely scattered elite; and this meant that, despite the printed essay, much philosophical communication took place within a small but at the same time loose and informal circle. Treatises were circulated in manuscript; comments and objections were solicited; and a vast polemical correspondence was built up. Prior to its publication, Descartes prudently sent his *Meditationes* to the theologians of the Sorbonne for comment; and, after its publication, his friend Mersenne sent it to Hobbes, Antoine Arnauld, and Pierre Gassendi, among others, who returned formal “objections,” to which Descartes in turn replied. In addition, the 17th century possessed a rich repository of philosophical correspondence, such as the letters that passed between Descartes and the scientist Christiaan Huygens, between Spinoza and Henry Oldenburg (one of the first secretaries of the Royal Society), and between Leibniz and Arnauld. But philosophers were also familiar with the great monarchs and administrators of the age: Descartes gave philosophical

instruction to Queen Christina of Sweden, Leibniz was an intimate of Queen Sophia Charlotte of Prussia, and Spinoza enjoyed the personal friendship of the Dutch politician Johan de Witt.

The chief fact, however, remains the sharp separation of creative philosophers from the formal centres of learning: Hobbes expressed extreme contempt for the decadent Aristotelianism of Oxford; Descartes, despite his prudence, scorned the medievalists of the Sorbonne; and Spinoza refused the offer of a professorship of philosophy at Heidelberg with polite aversion. It was to be another 100 years before philosophy returned to the universities.

### The Enlightenment

Although they both lived and worked in the late 17th century, Sir Isaac Newton and John Locke were the true fathers of the Enlightenment. Newton was the last of the scientific geniuses of the age, and his great *Philosophiae Naturalis Principia Mathematica* (1687; *Mathematical Principles of Natural Philosophy*) was the culmination of the entire movement that had begun with Copernicus and Galileo – the first great physical synthesis based upon the application of mathematics to nature in every detail. The basic idea of the authority and autonomy of reason, which dominated all philosophizing in the 18th century, was, at bottom, the consequence of Newton's work.

Copernicus, Kepler, Bacon, Galileo, and Descartes – scientists and methodologists of science – performed like men urgently attempting to persuade nature to reveal her secrets. Newton's comprehensive mechanistic system made it seem as if at last she had done so. It is impossible to exaggerate the enormous enthusiasm that this assumption kindled in all of the



major thinkers of the 18th century from Locke to Kant. The new enthusiasm for reason that they all instinctively shared was based not upon the mere advocacy of propagandists like Descartes and Leibniz but upon the conviction that for the intellectual conquest of the natural world reason had really worked.

### Classical British Empiricism and Its Basic Tasks

Two major philosophical problems remained: to account for the genetic origins of the reason that had proved so successful and to shift its application from external nature to man. John Locke's *Essay Concerning Human Understanding* (1690) was devoted to the first; and David Hume's *Treatise of Human Nature* (1739-40), "being an attempt to apply the method of experimental reasoning to moral subjects," was devoted to the second.

These two basic tasks reflect a shift away from the direction in which philosophizing had moved in the late Renaissance. The Renaissance preoccupation with the natural world had represented a certain "realistic" bias. Hobbes and Spinoza had each produced a metaphysics. They had been interested in the real constitution of the physical world. Moreover, the Renaissance bias in favor of mathematics had generated the profound interest in rational principles, necessary propositions, and innate ideas that was so prevalent in the philosophies of Leibniz and Descartes. On the other hand, the Enlightenment, in turning from the realities of nature to account for the structure of the mind that knows it so successfully and in attempting an experiential account of the furnishings of that mind, settled on the sensory components of knowledge rather than on the merely mathematical. Thus the

school of so-called British Empiricism (John Locke, George Berkeley, and David Hume) dominated the perspective of Enlightenment philosophy until the time of Kant. And this school philosophized in terms of ideas rather than things and of experience rather than innate necessary principles. Whereas the philosophy of the late Renaissance had been metaphysical and Rationalistic, that of the Enlightenment was epistemological and Empiricist.

#### Origin and Nature of Reason in Locke and Berkeley

Locke's *Essay Concerning Human Understanding* thus marked a decisively new direction for modern philosophizing because it proposed what amounts to a new criterion of truth. The design of his essay was "to inquire into the origin, certainty, and extent of human knowledge," which involved three tasks:

To discover the origin of men's ideas;

To exhibit their certainty and evidential value;

To examine the claims of all knowledge that is less than certain.

What was crucial for Locke, however, was that the second task is dependent upon the first. Following the general Renaissance custom, Locke defined an "idea" as a mental content, as "whatever is the object of the understanding when a man thinks"; but, whereas for Descartes and the entire Rationalistic school the certainty of ideas had been a function of their self-evidence – i.e., of their clarity and distinctness – for Locke their validity

hinged expressly upon the mode and manner of their origin. A genetic criterion of truth and validity replaced an intrinsic one.

Locke's exhaustive survey of mental contents is useful, if elaborate. Though he distinguished between ideas of sensation and ideas of reflection, the whole thrust of his efforts and those of his Empiricist followers was to reduce the latter to the former, to minimize the originative power of the mind in favor of its passive receptivity to the sensory impressions received from without. Locke's classification of ideas into simple and complex was an attempt to distinguish mental contents such as blueness or solidity, which come from a single sense like sight or touch, and those such as figure, space, extension, rest, and motion, which are the product of several senses combined, on the one hand, from those complicated and compounded (complex) ideas of universals such as triangle or gratitude, of substances, and of relations such as identity, diversity, and cause and effect, on the other.

Locke's Essay was a dogged attempt to produce the total world of man's conceptual experience out of a set of elementary sensory building blocks, moving always from sensation toward thought and from the simple to the complex. The basic outcome of his epistemology was therefore:

That the ultimate source of men's ideas is sensation;

That all mental operations are a combining and compounding of simple sensory materials into complex conceptual tools.

It was a theory of knowledge based upon a kind of sensory atomism, which sees the mind as an agency of discovery rather than of creation and views its ideas as "like" the objects that are the sources of the sensations it

receives. But it sees also that an important distinction must still be made between those “primary qualities” such as solidity, figure, extension, motion, and rest, which are the actual characteristics of objects themselves, and those “secondary qualities” such as color, taste, and smell, which are simply the internal consequences of how the mind is affected by them. This important Lockean distinction (already found in Galileo) was only a mirroring in the theory of knowledge of the physics of Sir Isaac Newton, which was its contemporary.

It was precisely this dualism presupposed by the science of the time between primary qualities, which belong to matter, and secondary qualities, which belong to mind, that Locke’s successor George Berkeley (1685-1753) sought to overcome. Though Berkeley was a bishop in the Anglican Church who wanted to combat “atheistic Materialism” and to sustain the power of God and spirituality, his importance for the theory of knowledge lies rather in the way in which he demonstrated that, in the end, primary qualities are reducible to secondary qualities. His Empiricism led to a denial of abstract ideas because he believed that general notions are simply fictions of the mind and vehemently denied that one may validly distinguish between objects and the sensory impressions that repose in the mind. Science, he argued, can easily dispense with the concept of matter: nature is simply that which men perceive by their senses, and this means that sense data can be considered as “objects for the mind” rather than as “qualities adhering in a substance.” A thing is simply a recurrent group of sense qualities. With this important reduction of substance to quality, Berkeley thus became the true father of the epistemological position known as phenomenalism, which has remained an important influence in British philosophizing to the present day.

### Basic Science of Man in Hume

The third, and in many ways the most famous, of the British Empiricists was the sceptic David Hume (1711-76). Hume's philosophical intention was to reap, humanistically, the harvest sowed by Newtonian physics, to apply the method of natural science to human nature, and to create a basic science of man. The paradoxical result of this admirable purpose, however, was to create a sceptical crisis more devastating than that of the early French Renaissance and to reduce human certainty once more to the state that it was in before Descartes had reached the dogmatic halting point in his procedure of methodical doubt.

Hume followed Locke and Berkeley in approaching the problem of knowledge from a psychological perspective. He too found the origin of knowledge in sense impressions. But whereas Locke had found a certain trustworthy order in the compounding power of the mind, and Berkeley had found mentality itself expressive of a certain spiritual power, Hume's relentless analysis discovered as much contingency in mind as in the external world. All uniformity in perceptual experience, he held, comes from "an associating quality of the mind." The "association of ideas" is a fact, but the relations of resemblance, contiguity, and cause and effect that it produces have no intrinsic validity because they are the product of an inexplicable "mental habit." Thus the causal principle upon which all knowledge rests indicates no necessary connections between things but is simply the accident of their constant conjunction in men's minds. Moreover, the mind itself, far from being an independent power, is simply "a bundle of perceptions" without unity or cohesive quality. Hume's denial of a necessary order of nature on the one hand and of a substantial or unified self on the other precipitated a

philosophical crisis from which Enlightenment philosophy was not to be definitely rescued until the work of Kant.

### Nonepistemological Movements in the Enlightenment

Though the school of British Empiricism represented the mainstream of Enlightenment philosophy until the time of Kant, it was by no means the only type of philosophy that the 18th century produced. The Enlightenment, which was based upon a few great fundamental ideas – such as the dedication to reason, the belief in intellectual progress, the confidence in nature as a source of inspiration and value, and the search for tolerance and freedom in political and social institutions – produced many cross-currents of intellectual and philosophical expression.

### Materialism and Scientific Discovery

The profound influence of Locke spread to France, where it not only produced the sceptical Empiricism of Voltaire but also united with the mechanistic side of the teachings of Descartes to create an entire school devoted to a sensationalistic Materialism. Julien de La Mettrie in *L'Homme-machine* (1747; *Man a Machine*), Étienne de Condillac in his *Traité des sensations* (1754; *Treatise on the Sensations*), and Paul, baron d' Holbach, in his *Système de la nature* (1770; *The System of Nature*) represented a limited worldview in which matter in motion is the only reality, determining the functioning of the human brain and its sensations according to ironclad and necessary laws. This position even found its way into many of the articles of

the great French encyclopedia edited by Denis Diderot and Jean d' Alembert, which was almost a complete compendium of the scientific and humanistic accomplishments of 18th-century intellectual life.

Though the Middle Ages and the Renaissance had not referred to themselves by these names, the 18th century called itself “the Enlightenment” with self-conscious enthusiasm and pride. It was an age of optimism with a sense of new beginnings. Great strides were made in chemistry and biological science. Jean-Baptiste, chevalier de Lamarck, Georges Cuvier, and Georges-Louis Leclerc, Comte de Buffon, were perfecting a system of animal classification. And, in the eight years between 1766 and 1774, Henry Cavendish discovered hydrogen; Daniel Rutherford, nitrogen; and Joseph Priestley, oxygen. It was the period when foundations were being laid in psychology and the social sciences and in ethics and aesthetics. Anne-Robert-Jacques Turgot, the marquis de Condorcet, and Montesquieu in France, Giambattista Vico in Italy, and Adam Smith in England marked the beginning of history, economics, sociology, and jurisprudence as sciences. Hume, Jeremy Bentham, and the British moral sense philosophers were turning ethics into a specialized field of philosophical inquiry; and Anthony Ashley, 3rd earl of Shaftesbury, Edmund Burke, Johann Gottsched, and Alexander Baumgarten were laying the foundations for a systematic aesthetics.

### Social and Political Philosophy

But, outside of the theory of knowledge, the most significant contribution of the Enlightenment came in the field of social and political philosophy, as Locke's *Two Treatises of Civil Government* (1690) and Jean-

Jacques Rousseau's *Du contrat social* (1762; *The Social Contract*) proposed a justification of political association grounded in the newer political requirements of the age. The Renaissance political philosophies of Machiavelli, Bodin, and Hobbes had centred on the absolute power of kings and rulers. But the Enlightenment theories of Locke and Rousseau turned instead to the freedom and equality of citizens. It was a natural historical transformation. The 16th and 17th centuries had constituted the age of absolutism; the political problem had been largely that of internal order, and political theory had been presented in the language of national sovereignty. But the 18th century was the age of the democratic revolutions (including the French Revolution); the political problem was that of freedom and the revolt against injustice, and political theory was expressed in the idiom of natural and inalienable rights.

Locke's political theory was an express denial of the divine right of kings and the absolute power of the sovereign as contained in the doctrines of Hobbes. Instead, he insisted that all men have a natural right to freedom and equality. The state of nature in which men originally live is not, as in Hobbes, intolerable, but it has certain inconveniences. Therefore men band together to form society, as Aristotle had taught, "not simply to live, but to live well." Political power can never be exercised apart from its ultimate purpose, which is the common good; for men enter the political contract in order to preserve life, liberty, and property.

Locke thus stated one of the fundamental principles of the liberal tradition: that there can be no subjection to power without consent, although once political society has been founded, there is an obligation to submit to the decisions of the majority. It is the legislature that makes these decisions, although the ultimate power of choosing the legislature rests with the people;



and even the powers of the legislature are not absolute, because the laws of nature remain as a permanent standard and as principles of protection against any arbitrary authority.

Rousseau's more radical political doctrines were built upon Lockean foundations. For him, too, the convention of the social contract formed the basis of all legitimate authority among men, although his conception of citizenship was much more organic and much less individualistic than Locke's. The surrender of natural liberty for civil liberty means that all individual rights (among them property rights) become subordinate to the general will. For Rousseau the state is a moral person whose life is the union of its members, whose laws are acts of the general will, and whose end is the liberty and equality of the citizens. It follows that, when any government usurps the power of the people, the social compact is broken; and not only are the citizens no longer compelled to obey but they also have an obligation to rebel. Rousseau's defiant collectivism was clearly a revolt against Locke's systematic individualism; for him the fundamental category is not "natural person" but "citizen." Nevertheless, however much they differed, in these two social theorists of the Enlightenment is to be found the germ of all modern liberalism: its faith in representative democracy, in civil liberties, and in the basic dignity of man.

### Professionalization of Philosophy

In his *Éléments de philosophie* (1759; "*Elements of Philosophy*"), Jean d'Alembert, an 18th-century French mathematician and Encyclopaedist, wrote:

Our century is the century of philosophy par excellence. If one considers without bias the present state of our knowledge, one cannot deny that philosophy among us has shown progress.

D'Alembert was calling attention to that reflective self-examination for which the 18th century is famous, and he was undoubtedly referring to the activities of mathematicians like himself, jurists, economists, and amateur moralists rather than to narrow philosophical specialists. But the 18th century was clearly the “century of philosophy par excellence” in a more technical sense also. For it was the period in which philosophizing first began to pass from the hands of gentlemen and amateurs into those of true professionals. The chief sign of this shift was the return of reputable philosophy to the universities.

This transformation first occurred in Germany and is chiefly associated with the University of Halle (founded 1694). In the time of the generation that lies between Leibniz (died 1716) and Kant (born 1724), the philosophical climate changed profoundly. The chief representative of this change was Christian Wolff, who taught philosophy at Halle and was the intermediary between the ideas of Leibniz and those of Kant and the profoundly different conceptions of philosophizing for which they stood.

Kant later called Wolff “the real originator of the spirit of thoroughness in Germany”; and Wolff was indeed a pioneer in those techniques that transform philosophy into a professional discipline – the self-conscious adoption of a systematic approach and the creation of a specialized philosophical vocabulary. Wolff carefully distinguished the various fields of

philosophy; wrote textbooks in each of them, which were used in the German universities for many years; and created many of the specialized philosophical terms that have survived to the present day.

The German Enlightenment was the first modern period to produce “specialists in philosophy.” In England philosophizing in the universities did not become serious until well after the time of Hume, but already philosophical fields had been sufficiently distinguished to be represented by distinct professorships. The titles professor of mental, moral, or metaphysical philosophy, as they arose at Oxford and Cambridge, were the product of the late 18th and early 19th centuries.

Two additional factors of the German Enlightenment are relevant: (1) the founding of the first professional journals and (2) the rising concern of philosophy with its own history. The learned journal, like the scientific society, was an innovation of the 17th century. But what had begun as a general intellectual endeavor became in 18th-century Germany a specifically philosophical enterprise. Journals were published in great numbers; e.g., *Acta Philosophorum* (Halle, 1715-26), *Der Philosophische Büchersaal* (Leipzig, 1741-44; “*The Philosophical Book Room*”), and the short-lived *Neues philosophisches Magazin* (Leipzig, 1789-91), devoted exclusively to the philosophy of Kant.

More interesting still is the flowering of voluminous German histories of philosophy after 1740. By the 18th century there was already a vast accumulation of historical materials, and the self-conscious feeling that philosophy constitutes a specific field the past of which is worth examination and careful ordering combined with the German spirit of thoroughness to produce a series of massive histories such as Johann Brucker’s *Historia*

*Critica Philosophiae*, 6 vol. (1742-44; *The History of Philosophy*); Johann Buhle's *Lehrbuch der Geschichte der Philosophie*, 8 vol. (1796-1804; "Textbook on the History of Philosophy"); Dietrich Tiedemann's *Geist der spekulativen Philosophie von Thales bis Berkeley*, 6 vol. (1791-97; "The Spirit of Speculative Philosophy from Thales to Berkeley"); and Gottlieb Tennemann's *Geschichte der Philosophie*, 11 vol. (1789-1819; excerpted in *A Manual of the History of Philosophy*).

### Critical Examination of Reason in Kant

All of these developments led directly to Immanuel Kant (1724-1804), professor at Königsberg, the greatest philosopher of the modern period, whose works mark the true culmination of the philosophy of the Enlightenment. Historically speaking, Kant's great substantive contribution was to relate both the sensory and the a priori elements in knowledge and thus to mend the breach between the extreme Rationalism of Leibniz and the extreme Empiricism of Hume. But in addition to the brilliant content of his philosophical doctrines, Kant was responsible for three crucial philosophical innovations: (1) a new definition of philosophy, (2) a new conception of philosophical method, and (3) a new structural model for the writing of philosophy.

Kant's definition of philosophy culminated the Enlightenment, for it took reason to be the very heart of the philosophical enterprise. Philosophy's sole task, in his view, is to determine what reason can and cannot do. Philosophy, he said, "is the science of the relation of all knowledge to the essential ends of human reason"; and its true aim is both constructive ("to

outline the system of all knowledge arising from pure reason”) and critical (“to expose the illusions of a reason that forgets its limits”). Philosophy is thus a calling of great dignity, for its aim is wisdom, and its practitioners are themselves “lawgivers of reason.” But in order for philosophy to be “the science of the highest maxims of reason,” the philosopher must be able to determine the source, the extent, and the validity of human knowledge and the ultimate limits of reason. And these tasks require a special philosophical method.

Sometimes Kant called this the “transcendental method,” but more often the “critical method”; for his purpose was to reject the dogmatic assumptions of the Rationalist school, and his wish was to return to the semisceptical position with which Descartes had begun before his dogmatic pretensions to certainty took hold. Kant’s method was to conduct a critical examination of the powers of an a priori judging reason and to inquire what reason can achieve when all experience is removed. The method was based upon a doctrine that he himself called “a Copernican revolution” in philosophy (by analogy with the change from geocentric to heliocentric cosmology): the assumption not that man’s knowledge must conform to objects but that objects must conform to man’s apparatus of knowing. The question then became: What is the exact nature of that knowing apparatus?

Unlike Descartes, Kant could not question that knowledge exists. Mathematics and Newtonian physics were too real for any Enlightenment mentality to entertain this doubt. Kant’s methodological question was rather: How is mathematical and physical knowledge possible? What must be the structure of man’s knowing process to have made these sciences secure? The attempt to answer these questions was the task of Kant’s great *Kritik der reinen Vernunft* (1781; *Critique of Pure Reason*).

But Kant's great aim was to examine reason not merely in one of its domains but in each of its employments, according to the threefold structure of the human mind that he had taken over from Wolff. Thus the critical examination of reason in thinking (science) is undertaken in the *Kritik der reinen Vernunft*, that of reason in willing (ethics) in the *Kritik der praktischen Vernunft* (1788; *Critique of Practical Reason*), and that of reason in feeling (aesthetics) in *Kritik der Urteilskraft* (1790; *Critique of Judgment*).

### Literary Forms

The literary format of Enlightenment philosophizing was essentially simple and straightforward. Except for an occasional reversion to the dialogue form, as in Berkeley's *Three Dialogues Between Hylas and Philonous* (1713) and in Hume's *Dialogues Concerning Natural Religion* (1779), it consisted of inquiries, discourses, treatises, dissertations, and essays, generally well written in clear, relatively nontechnical prose. But Kant not only introduced a formidable technical philosophical terminology into his works but was, in fact, the originator of a new philosophical form – the “critique” or “critical examination” – which had its own special architectonics. Each of Kant's three critiques consists of the same division into three parts: (1) an “Analytic,” or analysis of reason's right functioning; (2) a “Dialectic,” or logic of error, showing the pitfalls into which a careless reason falls; and (3) a “Methodology,” which is an arrangement of rules for practice. It is a form that was unique to Kant, but it raised certain problems of “oppositional” thinking, to which 19th-century philosophers such as Hegel, Schopenhauer, and Kierkegaard were subsequently to turn.

## The 19th Century

Kant's death in 1804 formally marked the end of the Enlightenment. The 19th century ushered in new philosophical problems and new conceptions of what philosophy ought to do. It was a century of great philosophical diversity. In the Renaissance the chief intellectual fact had been the rise of mathematics and natural science, and the tasks that this fact imposed upon philosophy determined its direction for two centuries. In the Enlightenment attention had turned to the character of the mind that had so successfully mastered the natural world, and Rationalists and Empiricists had contended for mastery until the Kantian synthesis. As for the 19th century, however, if one single feature of its thought could be singled out for emphasis, it might be called the discovery of the irrational. But many philosophical schools were present, and they contended, one with another, in a series of distinct and powerful oppositions: Pragmatism against Idealism; Positivism against irrationalism; Marxism against liberalism.

Politically the 19th century began with the consulate of Napoleon and ended with the Golden Jubilee of Queen Victoria; but it is the intellectual and social changes that fell in between that have philosophical consequences. These changes were chiefly the Romantic movement of the early 19th century, which was a poetic revolt against reason in favor of feeling; the maturation of the Industrial Revolution, which caused untold misery within society and called forth a multitude of philosophies of social reform; the Revolution of 1848 in Paris, Germany, and Vienna, which symbolized class divisions and first implanted in the European consciousness the concepts of "the bourgeoisie" and "the proletariat"; and, finally, the great surge in biological science with Darwin and the publicizing of the idea of biological evolution. Romanticism influenced both German Idealism and philosophers of

irrationalism. Experiences of economic discord and social unrest produced the ameliorative social philosophy of English Utilitarianism and the revolutionary doctrines of Karl Marx. And the developmental ideas of Darwin provided the prerequisites for American Pragmatism.

A synoptic view of philosophy in the 19th century reveals an interesting chronology. The early century was dominated by the German school of absolute Idealism (Johann Fichte, Friedrich Schelling, and G.W.F. Hegel). The midcentury was marked by a rebirth of interest in science and its methods (Auguste Comte in France and John Stuart Mill in England) and by liberal (Mill) and radical (Marx) social theory. The late century saw a second flowering of Idealism, this time in England (T.H. Green, F.H. Bradley, and Bernard Bosanquet) and, with Charles Sanders Peirce and William James, the rise of American Pragmatism. The new philosophies of the irrational in the highly individual thinkers Søren Kierkegaard, Arthur Schopenhauer, and Friedrich Nietzsche ran through the century in its entirety.

#### German Idealism of Fichte, Schelling, and Hegel

The Enlightenment, inspired by the example of natural science, had accepted certain bounds to the possibility of knowledge; that is, it had recognized certain limits to reason's ability to penetrate ultimate reality because that would require methods that surpass the boundaries of scientific method. In this particular modesty, the philosophies of Hume and Kant were much alike. But the early 19th century marked a resurgence of the metaphysical spirit at its most ambitious and extravagant extreme. German Idealism reinstated the speculative pretensions of Leibniz and Spinoza at their



height. This turn was partly a consequence of the Romantic influence but, more importantly, of a new alliance of philosophy not with science but with religion. It was not accidental that all of the great German Idealists were university professors whose fathers were Protestant pastors or who had themselves studied theology: Fichte at Jena and Leipzig (1780-84); Schelling and Hegel at the Tübingen seminary (1788-95). And it is probably this circumstance that gave to German Idealism its intensely serious, its quasi-religious, and its dedicated character.

The consequence of this religious alignment was that philosophical interest shifted from Kant's *Critique of Pure Reason* (in which he had attempted to account for natural science and denied the possibility of certainty in metaphysics) to his *Critique of Practical Reason* (in which he had explored the nature of the moral self) and his *Critique of Judgment* (in which he had treated of the purposiveness of the universe as a whole). For absolute Idealism was based upon three premises:

1. That the chief datum of philosophy is the human self and its self-consciousness;
2. That the world as a whole is spiritual through and through, that it is, in fact, something like a cosmic Self;
3. That, in both the self and the world, it is not primarily the intellectual element that counts but, rather, the volitional and the moral.

Thus, to understand the self, self-consciousness, and the spiritual universe became for Idealistic metaphysics the task of philosophy.

From the point of view of doctrine, Fichte, Schelling, and Hegel had much in common. Fichte (1762-1814), professor of philosophy at the newly founded University of Berlin (1809-14) and a great symbol of German patriotism through the Napoleonic Wars, combined in a workable unity the subjectivism of Descartes, the cosmic monism of Spinoza, and the moral intensity of Kant. He saw human self-consciousness as the primary metaphysical fact through the analysis of which the philosopher finds his way to the cosmic totality that is “the Absolute.” And, just as the moral will is the chief characteristic of the self, so also is it the activating principle of the world. Thus Fichte provided a new definition of philosophizing that made it central in dignity in the intellectual world. The sole task of philosophy is “the clarification of consciousness.” And the highest degree of self-consciousness is achieved by the philosopher because he alone recognizes “Mind,” or “Spirit,” as the central principle of reality.

This line of thought was carried further by Georg Wilhelm Friedrich Hegel (1770-1831), Fichte’s successor at Berlin and perhaps the single most comprehensive and influential thinker of the 19th century. Kant’s problem had been the critical examination of reason’s role in human experience. For Hegel, too, the function of philosophy is to discover the place of reason in nature, in experience, and in reality; to understand the laws according to which reason operates in the world. But whereas Kant had found reason to be the form that mind imposes upon the world, Hegel found it to be constitutive of the world itself – not something that mind imposes but that it discovers. As Fichte had projected consciousness from mind into reality, so Hegel projected reason; and the resultant Hegelian dictates – that “the rational is the real” and that “the truth is the whole” – although they express an organic and a totalitarian theory of truth and reality, tend to blur the usual distinctions that previous

philosophers had made between logic and metaphysics, between subject and object, and between thought and existence. For the basic tenet of Idealism, that reality is spiritual, generates just such a vague inclusiveness.

To the Fichtean foundations, however, Hegel added one crucial corollary: that the Absolute, or Whole, which is a concrete universal entity, is not static but undergoes a crucial development in time. Hegel called this evolution “the dialectical process.” By stressing it, Hegel accomplished two things: (1) he indicated that reason itself is not eternal but “historical” and (2) he thereby gave new meaning and relevance to the changing conditions of human society in history – which added to the philosophical task a cultural dimension that it had not possessed before.

The philosopher’s vocation, in Hegel’s view, was to approach the Absolute through consciousness, to recognize it as Spirit expressing and developing itself (“realizing itself” was his own phrase) in all of the manifold facets of human life. For struggle is the essence of spiritual existence, and self-enlargement is its goal. For these reasons the various branches of intellect and culture become stages in the unfolding of the World-Spirit:

1. The psychological characteristics of man (habit, appetite, judgment) representing “Subjective Spirit”;
2. His laws, social arrangements, and political institutions (the family, civil society, the state) expressing “Objective Spirit”;
3. His art, religion, and philosophy embodying “Absolute Spirit.”

What began, therefore, in Hegel as a metaphysics of the Absolute ended by becoming a total philosophy of human culture.

### Positivism and Social Theory in Comte, Mill, and Marx

The absolute Idealists wrote as if the Renaissance methodologists of the sciences had never existed. But if in Germany the Empirical and scientific tradition in philosophy lay dormant, in France and in England in the middle of the 19th century it was very much alive. In France, Auguste Comte (1798-1857) wrote his great philosophical history of science, *Cours de philosophie positive* (1830-42; *The Positive Philosophy of Auguste Comte* [abridged]) in six volumes. Influenced by Bacon and the entire school of British Empiricism, by the doctrine of progress put forward by Turgot and Condorcet during the 18th century, and by the very original social reformer Henri de Saint-Simon, Comte called his philosophy “Positivism,” by which he meant a philosophy of science so narrow that it denied any validity whatsoever to “knowledge” not derived through the accepted methods of science. But the *Cours de philosophie positive* made its point not by dialectic but by an appeal to the history of thought, and here Comte presented his two basic ideas:

1. The notion that the sciences have emerged as sciences in strict order, beginning with mathematics and astronomy, followed by physics, chemistry, and biology in that order, and culminating in the new science of sociology, to which Comte was the first to ascribe the name;

2. The so-called “law of the three stages,” which views thought in every field as passing progressively from superstition to science by first being (a) religious, then (b) abstract, or metaphysical, and finally (c) positive, or scientific. Comte’s permanent contribution was to initiate an antireligious and an antimetaphysical bias in the philosophy of science that has passed into the 20th century.

In mid-19th-century England the chief representative of the Empirical tradition from Bacon to Hume was John Stuart Mill (1806-73). Mill’s theory of knowledge, best presented in his *Examination of Sir William Hamilton’s Philosophy* (1865), was not particularly original but rather a judicious combination of the doctrines of Berkeley and Hume; but it symbolized his mistrust of vague metaphysics, his denial of the a priori element in knowledge, and his determined opposition to any form of intuitionism. It is in his enormously influential *System of Logic* (1843), however, that Mill’s chief theoretical ideas are to be found.

This work, as part of its subtitle, *the Principles of Evidence and the Methods of Scientific Investigation*, shows, was concerned less with formal logic than with scientific methodology. Mill made here the fundamental distinction between deduction and induction, defined induction as the process by which men discover and prove general propositions, and presented his “four methods of experimental inquiry” as the heart of the inductive method. These methods were, in fact, only an enlarged and refined version of Francis Bacon’s “tables of discovery.” But the most significant section of *A System of Logic* was its conclusion: book 6, “On the Logic of the Moral Sciences.”

Mill had taken men’s experience of the uniformity of nature as the warrant of induction. Here he reaffirmed the belief of Hume that it is possible

to apply the principle of causation and the methods of physical science to moral and social phenomena. These may be so complex as to yield only “conditional predictions,” but in this sense there are “social laws.” Thus Comte and Mill agreed upon the possibility of a true social science.

Mill’s *Logic* was extremely influential, and it continued to be taught at Oxford and Cambridge well into the 20th century; but in the end his importance lay less in logic and theory of knowledge than in ethics and political theory. For Mill was the great apostle of political liberalism in the 19th century, a true follower of John Locke. And, just as Locke and Rousseau had represented the liberal and the radical wings of social theory in the early modern period, so Mill and Karl Marx represented the liberal and the radical approaches to social reform 100 years later.

Raised by social reformers (his father, James Mill, and Jeremy Bentham) to be a social reformer himself, Mill’s social theory was an attempt, by gradual means arrived at democratically, to combat the evils of the Industrial Revolution. His ethics, expressed in his *Utilitarianism* (1861), followed the formulations of Bentham in finding the end of society to consist in the production of the greatest quantity of happiness for its members, but he gave to Bentham’s cruder (but more consistent) doctrines a humanistic and individualistic slant. Thus, the moral self-development of the individual becomes the ultimate value in Mill’s ethics.

This trend was also expressed in his essay *On Liberty* (1859) and *Considerations on Representative Government* (1861). In the former he stated the case for the freedom of the individual against “the tyranny of the majority,” presented strong arguments in favor of complete freedom of thought and discussion, and argued that no state or society has the right to

prevent the free development of human individuality. In the latter he provided a classic defense for the principle of representative democracy, asked for the adequate representation of minorities, urged renewed public participation in political action for necessary social reforms, and pointed up the dangers of class-oriented or special-interest legislation.

A radical counterbalance to Mill's liberal ideas was provided by Karl Marx (1818-83), a German philosopher, social revolutionary and political economist. Taking over from Hegel the idea of estrangement (which Hegel had used in a metaphysical sense), Marx used this notion prior to 1848 to indicate the alienation of the worker from the enjoyment of the products of his work, the crass treatment of human labour as a mere commodity (and man as a thing), and, in fact, the general dehumanization of man in a selfish, profit-seeking capitalist society.

In the famous *Communist Manifesto* (1848), Marx, yielding to the revolutionary temper of the times, called (as Rousseau had done before the French Revolution) for the violent overthrow of the established order. All of history, Marx said, is the struggle between exploiting minorities and the underlying population, that is, between bourgeois and proletarians; and he advocated the formation of a Communist Party to stimulate proletarian class consciousness toward the seizure of power and the institution of a just and democratically managed Socialist society.

Marx's revolutionary fervor may have tended to dampen his philosophical reputation in the West, and his philosophical achievement remains a controversial point; but certain of his ideas (some Hegelian in inspiration, some original) have endured. Among these are the ideas:

1. That society is a moving balance (dialectic) of antithetical forces that produce social change;
2. That there is no conflict between a rigid economic determinism and a program of revolutionary action;
3. That ideas (including philosophical theories) are not purely rational and thus independent of external circumstance but depend upon the nature of the social order in which they arise.

### Independent and Irrationalist Movements

The end of the 19th century saw a flowering of many independent philosophical movements. After Hegel was almost forgotten in Germany, his influence migrated to England, where T.H. Green, F.H. Bradley, and Bernard Bosanquet initiated a new Hegelian renaissance. Bradley's *Appearance and Reality* (1893) constituted the high-water mark of the rediscovery of Hegel's dialectical method. In America a strong reaction against Idealism led to the beginnings of the Pragmatic movement initiated by Charles Sanders Peirce and William James. Peirce was an exact logician who recognized that the function of all inquiry is to eradicate doubt and that the meaning of a concept consists in the practical consequences that the concept might be said to have. James transformed Peirce's pragmatic theory of meaning into a pragmatic theory of truth and, in his *Will to Believe* (1897), asserted that men have a right to believe even in the face of inconclusive evidence and that, because knowledge is an instrument for the sake of life, the true test of a belief is the practical consequences that it entails. Meanwhile, in Austria, Franz Brentano, who taught at Vienna from 1874 to 1895, and Alexius Meinong, who taught at Graz, were developing an empirical psychology and a theory of objects, which



were to have considerable influence upon the new philosophy of Phenomenology.

It was not, however, any of these late 19th-century developments but, rather, the emphasis upon the irrational, which started almost at the century's beginning, that gave the philosophy of the period its peculiar flavor. Hegel, despite his commitment to systematic metaphysics, had, nonetheless, carried on the Enlightenment tradition of faith in human rationality. But soon his influence was challenged from two different directions. The Danish Christian thinker Søren Kierkegaard (1813-55) challenged the logical pretensions of the Hegelian system; and one of his contemporaries, Arthur Schopenhauer (1788-1860), himself a German Idealist and constructor of a bold and imaginative system, contradicted Hegel by asserting that the irrational is the truly real.

Kierkegaard's criticism of Hegel was an appeal to the concrete as against the abstract. He satirized Hegelian Rationalism as a perfect example of "the academic in philosophy" – of detached, objective, abstract theorizing and system building, blind to the realities of human existence, to its subjective, living, emotional character. What a man requires in life, said Kierkegaard, is not infinite inquiry but the boldness of resolute decision and commitment. Man's essence is not contained in thinking but in the existential conditions of his emotional life, in his anxiety and despair. The titles of three of Kierkegaard's books – *Frygt og baeven* (1843; *Fear and Trembling*), *Begrebet angst* (1844; *The Concept of Dread*), *Sygdommen til døden* (1849; *The Sickness unto Death*) – indicate his preoccupation with states of consciousness quite unlike the usual philosophical concentration on cognition and the validity of knowledge.

Schopenhauer, even though, for a short time, he competed unsuccessfully with Hegel at the University of Berlin, soon withdrew and thereafter waged a lifelong battle against academic philosophy. His own system, though orderly and carefully worked out, was written in a vivid and engaging style. Schopenhauer agreed with Kant that the world of appearances, of phenomena, is governed by the conditions of space, time, and causality. But he held that science, which investigates this world, cannot itself penetrate the real world behind appearances, which is dominated by a strong, blind, striving, universal cosmic Will that expresses itself in the vagaries of human instinct, in sexual striving, and in the wild uncertainties of all animal behavior. Everywhere in nature one sees strife, conflict, and inarticulate impulse; and these, rather than rational processes or intellectual clarity, are man's true contacts with ultimate reality.

Schopenhauer's great work *Die Welt als Wille und Vorstellung* (*The World As Will and Idea*) was published in 1819, and Kierkegaard's uneven masterpieces appeared between 1843 and 1849. But Friedrich Nietzsche (1844-1900), the third of the irrationalist triumvirate, wrote between 1872 and 1889. A prolific but unsystematic writer, presenting his patchwork of ideas in swift atoms of thought, Nietzsche saw the task of the philosopher as that of a man who destroys old values, creates new ideals, and through them a new civilization. He agreed with Schopenhauer that mind is an instrument of instinct to be used in the service of life and power, and he held that illusion is as necessary to man as truth. Nietzsche spent much time in the analysis of such states as resentment, guilt, bad conscience, and self-contempt.

Kierkegaard, Schopenhauer, and Nietzsche provided for the 19th century a new, nonrational conception of human nature, and they viewed the mind not with the rational clarity of Locke and Hume but as something dark, obscure,

hidden, deep. But, above all, they initiated a new style of philosophizing. Schopenhauer wrote like an 18th-century essayist; Kierkegaard was a master of the methods of irony and paradox; and Nietzsche used aphorism and epigram with conscious literary intention. For these three, the philosopher should be less a crabbed academician than a man of letters.

### The 20th Century

Despite the tradition of philosophical “professionalism” established during the Enlightenment by Wolff and Kant, philosophy in the 19th century was still largely created by men outside of the universities. Comte, Mill, Marx, Kierkegaard, and Schopenhauer were not professors. Only the German Idealist School was rooted in academic life. Today, however, most well-known philosophers are associated with universities. (George Santayana after his early years and Jean-Paul Sartre are the notable exceptions.) The agencies of professionalism – the philosophical congress, the national philosophical societies, the narrowly specialized journals – have become increasingly important. Philosophers more and more employ a technical vocabulary and deal with specialized problems, and they write not for a broad intellectual public but for one another.

Professionalism also has sharpened the divisions between philosophical schools and made the definition of what philosophy is and ought to be a matter of the sharpest controversy. Philosophy has become extremely self-conscious about its own method and nature.

Intellectual competitiveness, moreover, has been further sharpened by geographic and political considerations. The tradition of clear analysis,

inaugurated by Locke and Hume, still dominates the Anglo-Saxon world; the Hegelian tradition of speculative metaphysics and the Nietzschean tradition of bold psychological generalization still dominate the Continent. And the special framework of thinking established by Karl Marx dominated philosophy in the Socialist world.

#### Individual Philosophies of Bergson, Dewey, and Whitehead

Except, then, for philosophical Marxism and a few individual philosophers such as Henri Bergson, John Dewey, and A.N. Whitehead, who evade easy classification, the main currents of contemporary philosophy are (1) Analytic philosophy with its two chief branches, (a) Logical Positivism and (b) Linguistic Analysis; and (2) Continental philosophy with its two branches, (a) Existentialism and (b) Phenomenology.

Henri Bergson (1859-1941), John Dewey (1859-1952), and Alfred North Whitehead (1861-1947) have been called the three most important speculative philosophers of the first half of the 20th century. The French Bergson and the American Dewey shared an instrumental theory of mind; that is, influenced by Darwinism, they both held that mind has emerged in the course of biological evolution as an instrument of man's adaptation to his environment and, therefore, that man's mental functions are chiefly utilitarian agencies of action. Bergson and the English Whitehead were both adherents of a process philosophy; that is, each held that actuality is, like a river, fluent, that ultimate reality is mobile and dynamic. Yet, in fact, each of the three defined philosophy differently and saw it as performing a uniquely different task.

Bergson's vision of philosophy was intuitional, Whitehead's was speculative, and Dewey's was pragmatic.

Bergson, in the *Introduction à la métaphysique* (1903; *An Introduction to Metaphysics*) and in his masterpiece, *L'Évolution créatrice* (1907; *Creative Evolution*), distinguished between two profoundly different ways of knowing: the method of analysis, which is that of science; and the method of intuition, which is just that intellectual sympathy by which men enter into objects and persons and identify with them. All basic metaphysical truths, Bergson held, are grasped by philosophical intuition. This is how men know their deepest selves, the duration, which is the essence of all living things, and the vital spirit, which is the mysterious creative agency in the world.

For Whitehead, philosophy was primarily metaphysics (or “speculative philosophy”), the effort “to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience can be interpreted.” Whitehead's philosophy was, thus, an attempt to survey the world with a large generality of understanding, an end toward which his great trilogy, *Science and the Modern World* (1925), *Process and Reality* (1929), and *Adventures of Ideas* (1933), was directed.

While Bergson and Whitehead were principally metaphysicians and philosophers of culture, Dewey was an all-around philosopher who dominated the fields of ethics, metaphysics, and methodology in the United States for many years and who stressed the unity, interrelationship, and organicity of all forms of philosophical knowledge. He is chiefly notable, however, because his notion of philosophy stressed so powerfully the conceptions of practicality and moral purpose. One of the guiding aims of Dewey's philosophizing was the effort to find the same warranted assertibility for ethical and political as

for scientific judgments. Philosophy, he said, should be oriented not to professional pride but to human need.

The social thought of Mill and Marx presented opposed solutions to the social problems of the 19th century; that of Dewey and Lenin presented opposed solutions to the problems of the 20th century. Not revolution but the continuous application of intelligence to social affairs was Dewey's answer. He believed in social planning, in conscious intelligent intervention to produce desirable social change; and he proposed a new "experimentalism" in social affairs as the guide to enlightened public action to promote the aims of a democratic community. His pragmatic social theory is the major social philosophy that liberal democracy has produced in the modern world.

### Marxist Thought

The framework of 19th-century Marxist thought, augmented by the philosophical suggestions of Vladimir Ilich Lenin, served as the starting point of all philosophizing in the Socialist countries of eastern Europe. To Marx's conception of the dialectic (that the social world progresses through the rise and fall of oppositions), Lenin added a strong tinge of metaphysical Materialism (material things and their systems of relations exist independently of mind, and the laws of nature are objective) and a naively Realist theory of knowledge (ideas and sensations are true copies of independently existing things). But much of Lenin's thinking was also devoted to rather practical issues, like the tactics of violence and the role of the Communist Party in bringing about and consolidating the proletarian revolution.

Later Marxism continued this concern with practical issues, because it represented the basic Marxist conception of what philosophy is and ought to be. For Marxism (like Pragmatism) tried to assimilate theoretical issues to practical needs. It asserted the basic unity of theory and practice by finding that the function of the former was to serve the latter. Marx and Lenin both held that theory was always in fact expressive of class interests; consequently, they wished philosophy to be transformed into a tool for furthering the class struggle: not abstractly to discover the truth but concretely to forge the intellectual weapons of the proletariat was philosophy's dominant task. Thus philosophy became inseparable from ideology.

Since the discovery and publication in 1927 and 1932 of some of Marx's early writings, many have sensed a breath of fresh air in Marxist philosophizing outside Russia. The concern of the young Marx with alienation, with a theory of the nature of man, and with moral values has given Marxism a new humanistic dimension and has inspired some notable revisionist thinking in Poland, Hungary, and the Balkan region.

### Analytic Philosophy

#### Logical Positivism

Logical Positivism, or Logical Empiricism, the earliest branch of modern Analytic philosophy, was jointly inspired by Hume and by the new logic of Russell and Whitehead, authors of the *Principia Mathematica* (3 vol., 1910-13). The school, formally instituted at the University of Vienna in a seminar of Moritz Schlick in 1923, continued there as the Vienna Circle until 1938. Its great period began in 1926 when Rudolf Carnap, who became a

leading semanticist and philosopher of science, arrived at the University. Its manifesto of 1929, *Wissenschaftliche Weltauffassung: Der Wiener Kreis* (“Scientific Conception of the World: The Vienna Circle”), and its journal *Erkenntnis* (“Knowledge”), founded a year later, marked its self-consciousness as a philosophical movement.

Logical Positivism’s basic contribution has been a profound alteration in the conception of the role that philosophy itself must play. Philosophy, it claimed, must henceforth be scientific. It should seek less a content than a function: it should produce not complicated pictures of the world but clear thinking. This was best stated by Ludwig Wittgenstein in his *Tractatus Logico-Philosophicus* (1922), first published as *Logische-philosophische Abhandlung* (1921):

The object of philosophy is the logical clarification of thoughts. Philosophy is not a theory but an activity. A philosophical work consists essentially of elucidations. The result of philosophy is not a number of “philosophical propositions,” but to make propositions clear.

Despite this emphasis upon philosophy as a pure activity, Logical Positivism did propound, at the same time, a series of revolutionary theses:



1. All meaningful discourse consists either of (a) the formal sentences of logic and mathematics or (b) the factual propositions of the special sciences;
2. Any assertion that claims to be factual has meaning only if it is possible to say how it might be verified;
3. Metaphysical assertions, coming under neither of the two classes of (1), are meaningless;
4. All statements about moral, aesthetic, or religious values are scientifically unverifiable and meaningless.

Logical Positivism's radical denial of the meaningfulness of metaphysics and of assertions of value at first produced something of a philosophical scandal. But meanwhile Bertrand Russell and his student Wittgenstein (who had emigrated from Austria) were propounding similar doctrines in England; and, after the Nazis overran Austria and Carnap, Hans Reichenbach (a Berlin Positivist), and many others from the Vienna Circle moved to America, this philosophy proved remarkably influential in the Anglo-American world. The Logical Positivists were mainly interested in three basic themes: logic, language, and perception. Whereas Russell began with logic, turned to problems of perception, and ended with semantics, Carnap, having begun with perception in *Der logische Aufbau der Welt* (1928; *The Logical Structure of the World*), turned to problems of semantics in *Logische Syntax der Sprache* (1934; *The Logical Syntax of Language*) and ended with logic in *Meaning and Necessity* (1947). But of these three themes it was that of language that proved most enduring. This emphasis Logical Positivism shared with its successor, Linguistic Analysis.

## Linguistic Analysis

Sometimes called “ordinary language” Analysis or even “Oxford philosophy” from its later stronghold, this movement was, in fact, largely the product of two philosophers of the first half of the 20th century who were associated with the University of Cambridge, G.E. Moore (1873-1958) and Ludwig Wittgenstein (1889-1951). Moore made the examination of the assertions of other men philosophically popular – i.e., the practice of directing the philosopher’s critical energies to the mistakes of his contemporaries. The major subjects of his interest were ethics and the theory of knowledge; his thought was always Realistic and commonsensical, and he introduced into philosophy an unbelievably precise and closely applied analytical method. It was Moore’s passion for clarity and his infinite pains “to get everything *exactly* right” that served as moral inspiration to a succeeding generation of younger men who had attended his Cambridge lectures over a span of 30 years.

Wittgenstein had begun as a kind of adjunct to the Vienna Circle. There was a time when his philosophical position was much like that of Russell and Carnap; but as he later became more sceptical of the foundations of mathematics and logic, his interest turned from logic and artificial language systems toward a critical examination of ordinary natural language. This change was principally registered in his *Philosophical Investigations*, posthumously published in 1953, which has become the true bible of Linguistic Analysis. For it is here that Wittgenstein showed how a man’s entire world is constituted by his linguistic experience and suggested that “all philosophy is critique of language.” Wittgenstein thought that to ask “Why do we use this particular word or expression?” was the crucial philosophical question since a focusing of philosophy not upon the world but upon the

mechanisms of linguistic use would solve most of the perplexities that have plagued philosophizing. Thus Linguistic philosophy was to perform a therapeutic function.

Wittgenstein's example found many followers in the United States and, particularly, in England. There philosophers Gilbert Ryle, J.L. Austin, and P.F. Strawson have examined "category mistakes," "systematically misleading expressions," "mental-conduct concepts" (such as "other minds"), and all of the major "perception words" such as "looking," "seeing," "sensing," "feeling," and the like. The effect of this concentration not upon things or ideas but upon words has, for members of this school, turned the customary works on ethics, aesthetics, or the philosophy of religion into treatises entitled "The Language of Ethics" or "The Language of Aesthetics" or "The Language of Religion." And these efforts are all, in Wittgenstein's terms, "a battle against the bewitchment of our intelligence by means of language."

### Continental Philosophy

The Analytic philosophy that by the mid-1970s had come to dominate Anglo-American philosophical thinking for almost half a century has had comparatively little influence on the continent of Europe. There the metaphysical and speculative traditions have remained strong; and in the 1950s and 1960s the interest in both, but particularly in Phenomenology, posed an increasing threat to philosophical Analysis in Britain and the United States. Continental philosophy may be divided into Phenomenology and Existentialism, but the division is not sharp. Thinkers such as Martin Heidegger, Jean-Paul Sartre, and Maurice Merleau-Ponty combine the two

strands. And the phenomenological method has been one of the formative forces in Existentialism.

### Phenomenology of Husserl and Others

Edmund Husserl (1859-1939), a German mathematician turned philosopher, was the true father of Phenomenology. He was an extremely complicated and technical thinker whose views changed considerably over the years. His chief contributions were the phenomenological method, developed early, and the concept of the life-world, appearing only in his later writings. Husserl proposed the phenomenological method as a technique for conducting phenomenological analyses – that is, for making possible “a descriptive account of the essential structures of the directly given.” The emphasis here is upon the immediacy of experience, the attempt to isolate it and set it off from all assumptions of existence or causal influence and to lay bare its actual intrinsic structure; for it is this structure that constitutes its essence. Phenomenology restricts the philosopher’s attention to the pure data of consciousness uncontaminated by metaphysical theories or scientific assumptions. Husserl’s concept of the life-world expressed this same idea of immediacy. It is the individual’s personal world as directly experienced, with the ego at the center and with all of its vital and emotional colorings.

With the appearance of the *Jahrbuch für Philosophie und Phänomenologische Forschung* (1913-30; “Annual for Philosophical and Phenomenological Research”), under Husserl’s chief editorship, his personal philosophizing flowered into an international movement. Its two most notable adherents were Max Scheler, a scholar of life-philosophy, whose *Formalismus*

*in der Ethik und die materiale Wertethik* (“Formalism in Ethics and the Material Value-Ethics”) was published in the *Jahrbuch* (1913-16), and the ontological Existentialist Martin Heidegger (1889-1976), whose famous *Sein und Zeit* (*Being and Time*) appeared in the *Jahrbuch* in 1927. Despite the differences in their individual philosophies their work showed clearly the influence of the phenomenological method: in Scheler’s careful explorations of the role that emotion plays in men’s moral values and in his descriptive analyses of the human attitudes of resentment, sympathy, and love; and in Heidegger’s startlingly original investigations of human existence with its unique dimensions of being-in-the-world, dread, care, and being toward death. In all of these painstaking and enormously detailed inquiries, however, both Scheler and Heidegger held to the phenomenological principle that philosophy is not empirical but is the strictly self-evident insight into the structure of experience. Later, Maurice Merleau-Ponty, a French student of philosophical psychology, in his *Phénoménologie de la perception* (1945; *The Phenomenology of Perception*), took over Husserl’s conception of the life-world and used the notions of the lived body and its facticity to build up a hierarchical order of man’s lived experience.

#### Existentialism of Jaspers and Sartre

Continental Existentialism, true to its roots in Kierkegaard and Nietzsche, is oriented toward two major themes: (1) the analysis of human Being and (2) the centrality of human choice. Thus its chief theoretical energies are devoted to ontology and decision. Existentialism as a philosophy of human existence found its best spokesman in the German Karl Jaspers, who came to philosophy from medicine and psychology. As a philosophy of

human decision, its spokesman was the French philosopher and playwright Jean-Paul Sartre. These two preoccupations of Existentialism lead to two different conceptions of philosophy's function.

For Jaspers (1883-1969), as for Dewey, the aim of philosophy is practical; for Dewey, however, it guides human doing, whereas for Jaspers its purpose is the achievement of human Being. Philosophizing is an inner activity by which the individual finds and becomes himself: it is a revelation of Being. It is an attempt to answer the question of what man is and what he can become; and this activity, wholly unlike that of science, is one of mere thought, through the "inwardness" of which a man becomes aware of the deepest levels of Being.

But if, for Jaspers, philosophy is devoted to "the illumination of existence," that illumination is achieved when a person recognizes that human existence is revealed most profoundly in his experience of those "extreme" situations that define the human condition – conflict, guilt, suffering, and death. It is in man's confrontation with these extremes that he achieves his existential humanity.

Sartre (1905-80), too, has some concern for man's Being and his dread before the threat of Nothingness. But Sartre finds the essence of this Being in man's liberty – in his duty of self-determination and his freedom of choice – and therefore spends much time in describing the human tendency toward "bad faith" – reflected in man's perverse attempts to deny his own responsibility and to flee from the truth of his inescapable freedom. Sartre, like Schopenhauer and Nietzsche, considered himself less an academic philosopher than a man of letters and also wrote novels and plays that assert the Existential dogma of human freedom and explore the inexhaustible

mechanisms of bad faith. It is not that Sartre overlooks the legitimate series of obstacles to freedom a human being has to face in the givens of place, past, environment, fellowmen, and death; but his Existentialist bias demands that man surmount these limitations by acts of conscious decision. For only in acts of freedom does human existence achieve authenticity.

### Conclusion

It seems clear that, in the 50 years around the mid-20th century, philosophizing has become uncommonly concerned with problems of language, symbolism, and communication. Renaissance philosophy was primarily preoccupied with nature, with an external physical world and the objects contained within it. The Enlightenment turned to the mind that knows the world; its philosophy spoke of the genesis of ideas, the relation of concepts, the quality of appearances. But 20th-century philosophizing largely states its problems in terms of symbolic manipulation and the characteristics of words.

Nor is this merely the preoccupation of Analytical philosophy: Dewey was interested in social communication; Whitehead wrote a little volume on *Symbolism: Its Meaning and Effect* (1927); Heidegger turned to poetry and the etymology of words for the revelation of Being; Ernst Cassirer, a German Neo-Kantian, produced a “philosophy of symbolic forms”; and Jaspers tried to decipher the meanings reflected in human speech and gesture.

Apart from this underlying tendency there seems little prospect for philosophical unification. The scientific and the metaphysical tempers still pursue their opposite courses, and the subjectivity of Existentialism and the

objectivity of Logical Positivism still express their opposition in mutual contempt. Thus, in the contemporary philosophical universe, multiplicity and division still reign.



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## Part II

# Western Philosophical Schools

## Western Philosophical Schools and Doctrines

### Introduction

It is the purpose of this part to examine in detail major schools of Western philosophy, ancient, medieval, and modern. Several of the ancient schools presented here developed around the philosophical systems of eponymous “founders.” In the cases of Platonism and Aristotelianism, the treatments herein exclude the doctrines of Plato and Aristotle themselves, focussing rather on the survival and metamorphosis of these doctrines in subsequent thought; the original Platonic and Aristotelian systems are treated in full, along with the lives of the respective philosophers, PLATONISM and ARISTOTELIANISM. While the philosophy of Thomas Aquinas is treated briefly below in the context of medieval Scholasticism, full treatment appears with the biography of Aquinas in the chapter Thomism. The central systems of the major modern philosophers are likewise treated in conjunction with the discussion of their philosophies is, therefore, excluded from the present section on modern schools of thought.

It should be noted that several of the schools and doctrines here classified as ancient underwent revivals or reformulations in later periods (e.g., Platonism, Scepticism); further, it could be argued that no philosophical school regarded as modern is without its precedent in the ancient tradition. The present material, therefore, is drawn together to facilitate comparing and contrasting what might be called the careers of these ideas.



## Ancient and Medieval Schools

### Aristotelianism

Aristotle's work, constituting the ancient world's greatest encyclopaedia, has exerted an immense influence over the succeeding centuries. It is proposed in the context of the present section to trace the course of the several streams of thought which had their source in Aristotle.

### The Hellenistic Age and Neoplatonism

The school founded by Aristotle in the Lyceum in Athens in 335 BCE long survived his death. Its members became known as the Peripatetics. Aristotle's immediate disciples, Theophrastus of Eresus and Eudemus of Rhodes, devoted themselves to maintaining and to developing his teaching without altering either its content or its spirit; but after them the school fell rapidly into a decline as far as philosophy was concerned, and thenceforward until the middle or later decades of the 1st century BCE no one taught as Aristotle had done. Then at last Andronicus of Rhodes made it his business to bring to light the long-sequestered treatises of Aristotle, to classify them according to their subject matter, and to publish them. His edition started a revival of interest in Aristotelian philosophy, and numerous commentaries on these texts were produced in the last centuries of the Hellenistic Age.

Andronicus himself interpreted a series of Aristotle's treatises, especially those of the *Organon*, and his example was followed. One of the most important commentators was Alexander of Aphrodisias, who taught in Athens from CE 198 to CE 211 and was known as the Second Aristotle

because of the clarity of his exposition. Commentaries by him on part of the *Organon*, on *Metaphysics* I-IV, on the *Meteorologica*, and on the treatise *On Sensation and the Sensible* are extant; and in an original work of his, *On the Soul*, he gives a materialist interpretation of Aristotle's psychology of man, at the same time identifying the "active intellect" with God.

After Alexander, the Peripatetic school was absorbed by Neoplatonism, under which Platonic doctrines were resuscitated amid strong currents of Aristotelian influence. The last Greeks of the ancient world to write commentaries on Aristotle were all Neoplatonists, as follows:

Porphiry (234-c. 305), a pupil of Plotinus, wrote a very important *Isagoge*, or introduction, to the *Categories*, as well as a commentary on that treatise.

Themistius (c. 320-390), who taught in Constantinople, left commentaries on several works of Aristotle's, notably on the treatise *On the Soul*.

Ammonius Hermiae, who after studying under Proclus in Athens was head of the school of Alexandria toward the end of the 5th century, lectured on several of Aristotle's treatises: transcripts are extant of notes taken down at his lectures on the *Categories*, on the treatise *On Interpretation*, on the *Prior Analytics*, and also on Porphyry's *Isagoge*.

Simplicius, who was a pupil of Ammonius in Alexandria, wrote ample commentaries on the *Categories*, on the *Physics*, and on the treatise *On the Heavens*.

Finally John Philoponus, another pupil of Ammonius but a member of the Christian community in Alexandria, wrote against certain doctrinal errors that he detected in Aristotle: fragments of his treatise *Against Aristotle* are extant; so is most of his book *De aeternitate mundi*, which attacks the thesis of the eternity of the world as elaborated by the pagan Neoplatonist Proclus; and a series of Aristotelian commentaries is ascribed to him, some of which consist, however, of notes taken down at Ammonius' lectures and simply filled out by John Philoponus.

To sum up, Aristotle's philosophy can hardly be said to have been maintained in its entirety among the Greeks of the ancient world after the first generation of his disciples. Andronicus launched a revival in the 1st century BCE, but from the 4th century CE onward Aristotelianism was submerged in Neoplatonism, which accommodated to its own peculiar view of the universe whatever Aristotelian doctrine it cared to take up.

#### Aristotelianism in Arabic Philosophy

Aristotelianism was to have a highly distinguished history in the world of Islam; but the Arabic philosophers, who owed their first acquaintance with it to the Neoplatonists' commentaries, never presented it in its purity or disengaged it from the Neoplatonic context in which it had been transmitted to them. This is readily understandable: whereas Aristotle's own metaphysics was too imperfect to satisfy Islamic monotheism, the Neoplatonist metaphysics of Plotinus supplied an invaluable complement, to which Muslim thinkers always, to a greater or lesser extent, had recourse. The tendency to combine Aristotelianism proper with Neoplatonism was moreover strengthened by the

diffusion of a work known as the *Theology of Aristotle*: this, originally compiled in Syriac by a Christian monk availing himself of extracts from the *Enneads* of Plotinus, was translated into Arabic c. 840 and was commonly ascribed to Aristotle himself, with the result that the latter came to be credited with metaphysical doctrines characteristic of Plotinus. Much later, probably in the 12th century, another pseudo-Aristotelian work – of Arabic origin this time – was circulated in Spain, namely the work well known from its prompt translation into Latin as the *Liber de causis* (“On Causes”): a commentary on propositions selected from Proclus’ *Elements of Theology*, it was monotheistic in inspiration and served further to confirm the habit of attributing to Aristotle creationist doctrines wholly foreign to him.

The combination of Aristotelianism with Neoplatonism is already realized in the writings of the first Arabic philosopher, al-Kindi, who flourished in 9th-century Baghdad. A century later, al-Farabi (died c. 950), who likewise taught mainly in Baghdad, similarly linked Aristotle’s doctrines with the metaphysic of the last Alexandrian Neoplatonists, stressing however the independence of philosophy from religion.

The first major thinker of Islām was the Iranian philosopher and physician Avicenna (properly Ibn Sina, 980-1037). Besides his personal writings, many of which are lost, he produced a great encyclopaedia of philosophy, *Kitab ash-shifa`* (“Book of Healing”), which consists largely of a paraphrase of Aristotelian writings but is capped with an emanationist metaphysic derived from the so-called *Theology of Aristotle* and from other Neoplatonic sources.

Aristotle’s influence in the Arabic world reached its zenith with the work of Averroës (properly Ibn Rushd, 1126-98), of Córdoba in Andalusia,

who professed a boundless admiration for the Greek master and regarded him as sent by God to teach men true philosophy. Often in reaction against Avicenna, Averroës meant to restore Aristotelianism in its integrity and composed three series of commentaries on Aristotle's treatises: (1) the "little commentaries," short compendiums or epitomes providing a brief analysis of the treatises; (2) the "middle commentaries," explaining the texts literally; and (3) the "great commentaries," a more advanced and more profound literal exegesis. While he is faithful, on the whole, to Aristotle's thought, Averroës nonetheless, perhaps unwittingly, gives it an undue extension by endowing the Aristotelian "prime mover" with the characteristics of the Plotinian and Islamic transcendent God, the universal First Cause. Furthermore, he often enough supplements Aristotle by advancing his own interpretation of obscure passages or by developing doctrines that Aristotle scarcely considered at all. The typical instance is where he propounds his own "monopsychism": forcing Aristotle to follow his metaphysical principles to their logical conclusion, Averroës maintains that the two human intellects, namely the passive or receptive intellect and the active intellect, being immaterial, cannot be multiplied in individuals; that consequently both are single substances, entering by their own operation into relation with human individuals, as the passive intellect thinks by means of the ideas that the active intellect abstracts from images in the human brain; and that the human individual is only a superior kind of animal, altogether mortal. If Averroës won few followers among the Arabs, his interpretation of Aristotle and, particularly, his monopsychism were taken up with great interest by Jewish and even more so by Christian thinkers.

### Aristotelianism in Jewish Philosophy

Jewish speculative thought in the Muslim world was long dominated by Neoplatonism, but all Jewish philosophers from the time of Isaac Israeli (9th-10th Century) to the end of the Middle Ages were subject, more or less, to the Aristotelian influence. A firmer orientation toward Aristotelianism is discernible in the famous *Guide of the Perplexed* of Moses Maimonides (1135-1204), a contemporary of Averroës and, like him, a native of Córdoba. But here again there is no occasion to speak of pure Aristotelianism: Maimonides adopts a large measure of Neoplatonic theology (emanation and the *via negativa* or “negative way” to knowledge of God), adopts also much of the Plotinian system of ethics, and furthermore differs from Aristotle on the question of the eternity of the world. Jewish philosophy in Spain, in France, and in Italy was influenced by Maimonides throughout the remainder of the Middle Ages and even longer.

A Jewish opposition to Aristotelianism had already manifested itself most distinctly in the first decades of the 12th century, when Judah ha-Levi denounced the current philosophy. After Maimonides this anti-Aristotelian reaction persisted, notably among the Kabbalists.

### The Christian East

During the patristic period, some Aristotelian doctrines infiltrated Eastern Christianity through Neoplatonic channels: they can be shown to have affected St. Gregory of Nyssa and Nemesius of Emesa in the 4th century; Pseudo-Dionysius the Areopagite and John Philoponus (whose work as a commentator has already been mentioned) in the 6th; and St. John of

Damascus in the 8th. In the 9th century the Byzantine patriarch Photius and his disciple Arethas took an interest in Aristotelian logic, and from the 11th century onward there was a major revival of Aristotelian studies in Constantinople, exemplified particularly by Michael of Ephesus (late 11th century) and by Eustratius of Nicaea (c. 1050-1120), who both wrote commentaries on parts of the *Organon* and on the *Nicomachean Ethics*. Further commentaries appeared in the 13th and 14th centuries. In the 15th century Cardinal Bessarion argued for the ultimate concordance of Aristotelianism with Platonism.

#### The Christian West

Aristotle's influence during the patristic period was even more restricted in Western Christianity than in Eastern: St. Augustine of Hippo, for instance, was acquainted with nothing Aristotelian except the *Categories*.

The fountainhead of Aristotelianism in the Christian West was the Roman philosopher Boethius (c. 480-524). With the intention of demonstrating the profound harmony between Plato and Aristotle, he set himself to translate the works of those two great masters into Latin. He is known to have succeeded at least in translating all the treatises of the *Organon* except the *Analytica posteriora*, together with Prophyry's *Isagoge*; and he also produced commentaries on the *Categories*, on the treatise *On Interpretation*, and on the *Isagoge*. Though his achievement fell short of his project, his work was of capital importance for the transmission of Greek philosophical thought and of Aristotelian logic to Latin Christendom: the *Categories*, the treatise *On Interpretation*, and the *Isagoge* constituted the

principal textbooks of logic for the early Middle Ages and so came, later, to be known as the *Ars vetus* or *Logica vetus* (“old technique” or “old logic”) when the other parts of the *Organon*, known as the *Ars nova* or *Logica nova*, had been rediscovered and published in Latin versions. Boethius therefore well deserves to be remembered as “the Teacher of the West,” particularly because of the essential role played by Aristotelian logic in the intellectual formation of the new peoples who arrived in Western Europe as barbarian invaders and remained there to develop a civilization replacing that of the Roman Empire. With his works on logic Boethius paved the way for the elaboration of the scholastic method, and in his commentary on Porphyry’s *Isagoge* he posed the problem of universals, which was to figure so prominently in the controversies of a later age.

Charlemagne’s educational policy confirmed the status of Aristotelian logic in the scholastic curriculum during the literary and scientific revival of the Carolingian Renaissance: “dialectic,” or logic, was in fact the only philosophic discipline to be admitted among the seven “liberal arts” that represented secular, or “profane,” learning in the program of teaching authorized by Charlemagne’s capitulary of the year 778. Subsequently, between the 9th and the 12th centuries, more and more work on logic was undertaken; Aristotle’s influence grew continuously as the nature of knowledge was discussed; and with Peter Abelard (1079-1142) the moderate realism of the Aristotelians was vindicated against the extreme realism of the Platonists. With Abelard likewise, and especially in his book *Sic et non*, the scholastic method was perfected. The scholastic method, a product of Aristotelian logic, contributed much not only to the development of speculative theology but also to the progress of the deductive sciences and to the grammatical organization of the European languages.



The triumph of Aristotelianism in the epistemology and in the logic of the 12th-century scholastics prepared the ground for the Aristotelian domination of the universities in the 13th century. The middle of the 12th century had seen the start of a massive penetration of Aristotle's works into Western Europe, in Latin translations first from Arabic versions, then from Greek texts. Most of Aristotle's treatises were known by the beginning of the 13th century, but it was only gradually, in the course of the next 100 years, that the consequences of this flood of pagan philosophy became clear (Aristotle's works were accompanied by those of other pre-Christian Greeks, as well as by the commentaries of the Muslims). In the universities the "faculties" of arts (successors of the earlier schools of the liberal arts) enlarged their curricula from the start of the 13th century, and Aristotelianism became more and more firmly implanted, both at Paris and at Oxford, despite opposition from some of the ecclesiastical authorities. The Paris faculty of arts decided on March 19, 1255, that its students should attend lectures on every known treatise of Aristotle's, and indeed by that time every faculty of arts was turning into a faculty of philosophy teaching Aristotelianism. Already, moreover, in the 1220s, Aristotelianism had broken into the faculties of theology; and thenceforward until the end of the Middle Ages (or even later in some establishments) it was to remain fundamental to the structure of scholasticism, both philosophically and theologically. Of all the Aristotelian revivals, the most dynamic was that which the 13th century witnessed in the Christian West.

The revived Aristotelianism of the Christian Middle Ages was no purer, however, than that of the Arabs or that of the Jews had been: various complementary or corrective elements were always present, whether religious

or philosophical. Philosophically the main influence was derived, once again, from Neoplatonism.

Up to 1250, Latin Aristotelianism remained very eclectic and, for the most part, Avicennian, so that Aristotle's doctrine, albeit preponderant, was compounded with secondary importations. Avicenna's paraphrases were found useful for the interpretation of difficult texts; the Jewish Neoplatonist Ibn Gabirol (Avicbron) was highly esteemed; Proclus was also available; and in the 1230s the work of Averroës became known to Christian Europe. For theology, Aristotelianism was combined with traditional doctrines (derived mainly from St. Augustine and from the Pseudo-Dionysius) or with the teaching of the 12th-century masters.

After 1250, the Aristotelian influence becomes perceptibly stronger, though at the same time it branches out in various directions. The several schools of thought can be distinguished from one another by the differences in their attitude toward Aristotle, but all remain basically Aristotelian (the Augustinian school in the strict sense of the name did not come into existence until c. 1270, as a reaction against heterodox Aristotelianism and Thomism). Thus the Aristotelianism of St. Bonaventura is of an Augustinian tendency; that of St. Albertus Magnus is more Neoplatonic, being strongly affected by Proclus, by the Pseudo-Dionysius, and by Avicenna; that of St. Thomas Aquinas is so profoundly recogitated as to be converted into a distinct system, Thomism; and that of Siger of Brabant is heterodox, as it accepts doctrines incompatible with Christianity.

The great doctrinal controversies of the 13th century were largely disputes between champions of the various sorts of Aristotelianism. Thus, when St. Thomas Aquinas held his ground against the majority of the Paris

theologians (c. 1270), the conflict was not so much between Aristotelianism and Augustinianism as between the eclectic Aristotelianism for which Alexander of Hales and William of Auvergne had stood and the more consistent and vigorous Aristotelianism which Thomas was maintaining. Similarly the conflict between Thomas and Siger can be regarded as one between the Christian and the heterodox or pagan varieties of Aristotelianism.

From the end of the 13th century Aristotelianism in philosophy was upheld chiefly by the logicians, metaphysicians, psychologists, and ethical theorists teaching in the faculties of arts and was usually “moderate”; i.e., orthodox with respect to Christian doctrines. Thomism became the established system of the Dominicans and even won adherents outside their order. The Neo-Augustinianism that had come into being in the reaction against the nascent Thomism found its definitive expression in Scotism, which in fact was marked by a reversion to Aristotelianism in certain fields and remained in many respects dependent on Aristotle. Finally an Averroist Aristotelianism was launched in Paris by John of Jandun in the first quarter of the 14th century and was taken up in Italy by Taddeo da Parma and by Angelo d’Arezzo. This Latin Averroism was still flourishing in Italy in the 16th century, though it was opposed alike by the Platonism of the humanist Renaissance and by the rival Aristotelianism of the Alexandrists, who revived the doctrines of Alexander of Aphrodisias to interpret Aristotle’s psychology.

The 14th century, however, saw also new currents of thought running counter to the influence of Aristotelianism. On the one hand, the Aristotelian system of physics was challenged both at Paris and at Oxford; on the other hand, moderate realism was battered successively by Nominalism, by phenomenalism, by Scepticism, and by agnosticism, which, to a greater or lesser degree, questioned the validity of knowledge and, in particular, the

possibility of metaphysics. Failing to disengage itself soon enough from the obsolete physics, Scholasticism was brought farther and farther into disrepute by the successes of the new. One of the reproaches that the men of the humanist Renaissance cast most frequently at the Scholastics was that of being excessively obsequious to Aristotle. Nevertheless, Aristotelianism was still the standard doctrine of some universities down to the end of the 18th century and even longer. In the 19th and 20th centuries there was a great revival of Aristotelian studies, most notably in England (Oxford), in Germany, in France, and in Belgium (Louvain). For some scholars, the interest was chiefly historical: they saw Aristotle as one of the most brilliant products of Greek culture and, indeed, of human culture in general. For the promoters of the Thomist revival, on the other hand, the interest in Aristotelianism was essentially doctrinal, St. Thomas Aquinas having taken him as the main source of his philosophy.

## Conclusion

Very different judgments have been passed on Aristotelianism in the course of history, and its value as a philosophy or as an instrument of theological speculation is still debated. Defenders of religion, whether Jewish, Muslim, or Christian, have often denounced Aristotelianism as tending toward empiricism, as defective in its metaphysic, and as limited to earthly life in its ethic, and they have accused its followers of being naturalists or rationalists. Platonists and idealists also object to Aristotelianism on the grounds that it is empiricist, that it gives a central place to natural philosophy in its scheme of things, and that it makes excessive use of discursive reason and of abstract concepts. Finally, many modern thinkers regard the majority of Aristotle's

philosophical categories as out of date. On the contrary side, Thomists maintain that many of the notions advanced by Aristotle, not only in metaphysics but also in physics, in psychology, and in ethics, are still really valuable, quite independently of the evident fact that his “science” is now altogether obsolete.

### Atomism

In the broadest sense the term Atomism refers to any doctrine that explains complex phenomena in terms of aggregates of fixed particles or units. This philosophy has found its most successful application in natural science: according to the atomistic view, the material universe is composed of minute particles, which are considered to be relatively simple and immutable and too small to be visible. The multiplicity of visible forms in nature, then, is based upon differences in these particles and in their configurations; hence any observable changes must be reduced to changes in these configurations.

### The Basic Nature of Atomism

Atomism is in essence an analytical doctrine. It regards observable forms in nature not as intrinsic wholes but as aggregates. In contrast to holistic theories, which explain the parts in terms of qualities displayed by the whole, Atomism explains the observable properties of the whole by those of its components and of their configurations.

In order to understand the historical development of Atomism and, especially, its relation to modern atomic theory, it is necessary to distinguish

between Atomism in the strict sense and other forms of Atomism. Atomism in the strict sense is characterized by three points: the atoms are absolutely indivisible, qualitatively identical (i.e., distinct only in shape, size, and motion), and combinable with each other only by juxtaposition. Other forms of Atomism are less strict on these points.

Atomism is usually associated with a “realistic” and mechanistic view of the world. It is realistic in that atoms are not considered as subjective constructs of the mind employed for the sake of getting a better grip upon the phenomena to be explained; instead, atoms exist in actual reality. By the same token, the mechanistic view of things, which holds that all observable changes can be reduced to changes of configuration, is not merely a matter of employing a useful explanatory model; the mechanistic thesis holds, instead, that all observable changes are caused by motions of the atoms. Finally, as an analytic doctrine Atomism is opposed to organismic doctrines, which teach that the nature of a whole cannot be discovered by dividing it into its component parts and studying each part by itself.

#### Various Senses of Atomism

The term Atomism is derived from the Greek word *atoma* – “things that cannot be cut or divided.”

#### Two Basic Types of Atomism

The history of Atomism can be divided into two more or less distinct periods, one philosophical, and the other scientific, with a transition period

between them (from the 17th to the 19th century). This historical fact justifies the distinction between philosophical and scientific Atomism.

### Philosophical Atomism

In philosophical Atomism, which is as old as Greek philosophy, attention was focused not on the detailed explanation of all kinds of concrete phenomena but on some basic general aspects of these phenomena and on the general lines according to which a rational explanation of these aspects was possible. These basic aspects were the existence in nature of a manifold of different forms and of continuous change. In what way could these features be explained? Philosophical Atomism offered a general answer to that question. It did not, however, strictly confine itself to the general problem of explaining the possibility of change and multiplicity – not even in ancient Greek Atomism, for in Greek thought philosophy and science still formed a unity. Consequently, Atomists also tried to give more detailed explanations of concrete phenomena, such as evaporation, though these explanations were meant more to endorse the general doctrine of Atomism than to establish a physical theory in the modern sense of the word. Such a theory was not yet possible, because a physical theory must be based upon indirect or direct information about the concrete properties of the atoms involved, and such information was not then available.

### Modern Atomic Theory

With the development of a scientific atomic theory, the general philosophical problems gradually disappear into the background. All attention is focused on the explanation of concrete phenomena. The properties of the atoms are determined in direct relationship with the phenomena to be explained. For this reason the chemical atomic theory of the 19th century supposes that each identified chemical element has its own specific atoms and that each chemical compound has its own molecules (fixed combinations of atoms). What particles act as unchanged and undivided units depends upon what kind of process is involved. Some phenomena, such as evaporation, are explained by a process in which the molecules remain unchanged and identical. In chemical reactions, however, the molecules lose their identity. Their structures are broken up, and the composing atoms, while retaining their own identity, are rearranged into new molecules. With nuclear reactions a new level is reached, on which the atoms themselves are no longer considered as indivisible: more elementary particles than the atoms appear in the explanations of nuclear reactions.

### Extensions to Other Fields

Whereas classical Atomism spoke mainly of material atoms (i.e., of particles of matter), the success of the atomic doctrine encouraged the extension of the general principles of Atomism to other phenomena, more or less removed from the original field of application. Rather plausible, for example, was the extension of Atomism to the phenomena of electricity. There were reasons to suppose the existence of an elementary charge of



electricity associated with an elementary material particle, the electron (19th century). A second fruitful extension concerned energetic processes (20th century). Some experimental data suggested the hypothesis that energy can exist only in amounts that are whole multiples of an elementary quantity of energy. Extensions of the idea of an atomic structure to amounts of gravitation and even to time have been attempted but have not been sufficiently confirmed.

More removed from the original field of application of Atomism is a theory known as Logical Atomism (developed by the eminent philosopher and logician Bertrand Russell and by the philosopher of language Ludwig Wittgenstein), which supposes that a perfect isomorphism exists between an “atom” of language (i.e., an atomic proposition) and an atomic fact; i.e., that for each atomic fact there is a corresponding atomic proposition. An atomic proposition is one that asserts that a certain thing has a certain quality; e.g., “this is red.” An atomic fact is the simplest kind of fact and consists in the possession of a quality by some individual thing.

Another application of Atomism (albeit in a moot sense) lies in the monadology of the philosopher-scientist G.W. Leibniz. According to Leibniz the atoms of Democritus, who provides the paradigm case of ancient Greek Atomism, were not true unities; possessing size and shape, they still were divisible in principle. The ultimate constituents of things must, therefore, be points, said Leibniz – not mathematical but metaphysical points; i.e., points of real existence. They are indeed a kind of soul, which he came to call “monads.”

In psychology, Atomism is a doctrine about perception. It holds that what man perceives is a mosaic of atomic sensations, each independent and

unconnected with any other sensation. According to the early modern Empiricist David Hume and the pre-World War I father of experimental psychology Wilhelm Wundt, the fact that man nevertheless experiences an ordered whole formed from the unordered “atoms” of perception is caused by the mind’s capacity to combine them by “association.”

## Diverse Philosophical Characterizations of Atomism

### The Intrinsic Nature of the Atoms

In 1927 the Belgian astronomer Georges Lemaître formulated the hypothesis that the present high degree of differentiation of matter in space and the complexity of forms displayed by the various astronomical objects must have resulted from a violent explosion and subsequent dispersal of an originally highly compressed homogeneous material, a kind of “primitive atom,” containing all of the matter that exists. From the philosophical viewpoint this hypothesis is interesting. By its attempt to reduce the manifold to unity it recalls the beginning of Greek philosophy, which was also inspired by a thesis of the unity of being, propounded by the Eleatic Parmenides. Even apart from their respective contexts, there is, of course, a great difference between Lemaître’s and Parmenides’ conceptions of the unity of being, for the latter combined the thesis of the unity of being with that of the immutability of being.

Although it would be wrong to classify Parmenides among the Atomists, it is nonetheless appropriate that in an introduction to the diverse forms of Atomism, his conception of reality as just one being should be mentioned. Parmenides’ thesis is not only historically but also logically the cornerstone of

atomistic thought. Any atomic theory can be interpreted as an attempt to reconcile the thesis of the unity and immutability of being with the fact that the senses observe multiplicity and change. The different ways in which the unity and immutability are understood characterize the different forms of Atomism.

### Atoms as Lumpish Corpuscles

As corpuscles (minute particles), atoms can either be endowed with intrinsic qualities or be inherently qualityless.

The most striking basic differences in the material world, which lead to a first classification of substances in nature, are those between solids, liquids, gases, and fire. These differences are an observed datum that must be accounted for by every scientific theory of nature. It is, therefore, only natural that one of the first attempts to explain the phenomena of nature was based upon these differences and proclaimed that there are four qualitatively different primitive constituents of everything, namely, the four elements: earth, water, air, and fire (Empedocles, 5th century BCE) – a theory that dominated physics and chemistry until the 17th century.

Although the theory of the four elements is not necessarily an atomistic theory, it obviously lends itself to interpretation in atomistic terms, namely, when the elements are conceived as smallest parts that are immutable. In this case, all observable changes are reduced to the separation and commingling of the primitive elementary substances. Thus Parmenides' thesis that being is immutable is maintained, whereas the absolute unity of being is abandoned. Yet, the fact that the infinite variety of forms and changes in nature is reduced

to just one type of process between only four elementary kinds of atoms shows its affinity with the thesis of the unity of all being.

Notwithstanding the great disparity between the theory of the four elements and modern chemistry, it is clear that modern chemistry with its approximately 100 qualitatively different atoms falls into the same class of atomic theories as that of Empedocles. There are differences, of course, but these will be deferred for later discussion.

More removed from the original thesis of Parmenides was the theory of his contemporary Anaxagoras of Clazomenae, which assumed as many qualitatively different “atoms” as there are different qualified substances in nature. Inasmuch as these atoms, which Anaxagoras called “seeds,” were eternal and incorruptible, this theory still contains an idea borrowed from Parmenides. A special feature of Anaxagoras’ theory was that every substance contains all possible kinds of seeds and is named after the kind of seed that predominates in it. Since the substance contains also other kinds of seed, it can change into something else by the separation of its seeds.

Another interesting form of Atomism with inherently qualified atoms, also based on the doctrine of the four elements, was proposed by Plato. On mathematical grounds he determined the exact forms that the smallest parts of the elements must have. Fire has the form of a tetrahedron, air of an octahedron, water of an icosahedron, and earth of a cube. Inasmuch as he characterized the atoms of the four elements by different mathematical forms, Plato’s conception can be considered as a transition between the qualitative and quantitative types of Atomism.

The most significant system of Atomism in ancient philosophy was that of Democritus (5th century BCE). Democritus agreed with Parmenides on the impossibility of qualitative change but did not agree with him on that of quantitative change. This type of change, he maintained, is subject to mathematical reasoning and therefore possible. By the same token, Democritus also denied the qualitative multiplicity of visible forms but accepted a multiplicity based on purely quantitative differences. In order to reduce the observable qualitative differences to quantitative differences, Democritus postulated the existence of invisible atoms, characterized only by quantitative properties: size, shape, and motion. Observed qualitative changes are based upon changes in the combination of the atoms, which themselves remain intrinsically unchanged. Thus Democritus arrived at a position that was defined above as Atomism in the strict sense. In order to make the motion of atoms possible, this Atomism had to accept the existence of the void (empty space) as a real entity in which the atoms could move and rearrange themselves. By accepting the void and by admitting a plurality of beings, even an infinite number of them, Democritus seemed to abandon – even more than Empedocles did – the unity of being. Nevertheless, there are sound reasons to maintain that, in spite of this doctrine of the void, Democritus’ theory remained close to Parmenides’ thesis of the unity of being. For Democritus’ atoms were conceived in such a way that almost no differences can be assigned to them. First of all, there are no qualitative differences; the atoms differ only in shape and size. Secondly, the latter difference is characterized by *continuity*; there are no privileged shapes and no privileged sizes. All shapes and sizes exist, but they could be placed in a row in such a manner that there would be no observable difference between successive shapes and sizes. Thus not even the differences in shape and size seem to offer any ground explaining why atoms should be different. By accepting an infinite number of

atoms, Democritus retained as much as possible the principle that being is *one*. With respect to the acceptance of the void, it must be stressed that the void in the eyes of Democritus is more nonbeing than being. Thus even this acceptance does not seriously contradict the unity of being.

#### Atoms as Sheer Extension

Democritus had declared quantitative differences to be intelligible, because they were subject to mathematical reasoning. Precisely this relationship between quantitative differences and mathematics made it impossible for Descartes (17th century) to think along the atomistic lines of Democritus. If the only thing that is clearly understandable in matter is mathematical proportions, then matter and spatial extension are the same – a conclusion that Descartes did not hesitate to draw. Consequently, he rejected not only the idea of indivisible atoms but also that of the void. In his eyes the concept “void” is a contradiction in terms. Where there is space, there is by definition extension and, therefore, matter.

Yet, however strange it may seem in view of his identification of matter with extension, Descartes offered nonetheless a fully developed theory of smallest particles. To the questions that arise immediately as to how these particles are separated and distinct from each other, Descartes answered that a body or a piece of matter is all of that which moves together. In the beginning of the world all matter was divided into particles of equal size. These particles were in constant motion and filled all of space. As, however, there was no empty space for moving particles to move into, they could only move by taking the places vacated by other particles that, however, were themselves in

motion. Thus the motion of a single particle involved the motion of an entire closed chain of particles, called a vortex. As a result of the original motion, some particles were gradually ground into a spherical form, and the resulting intermediary space became filled with the surplus splinters or “grindings.” Ultimately, three main types of particles were formed: (1) the splinter materials, which form the finest matter and possess the greatest velocity; (2) the spherical particles, which are less fine and have a smaller velocity; and (3) the biggest particles, which originated from those original particles that were not subject to grinding and became united into larger parts.

Thus Descartes could construct an atomic theory without atoms in the classical sense. Although this theory as such has not been of great value for the scientific atomic theory of modern times, its general tendency was not without importance. However arbitrarily and speculatively Descartes may have proceeded in the derivation of the different kind of corpuscles, he finally arrived at corpuscles characterized by differences in mass, velocity, amount of motion, etc. – properties that could be treated mathematically.

#### Atoms as Centres of Force: Dynamic Particles

Most systems of Atomism depict the action between atoms in terms of collision – i.e., as actual contact. In Newton’s theory of gravitation, however, action between bodies is supposed to be action at a distance – which means that the body in question acts everywhere in space. As its action is the expression of its existence, it is difficult to confine its existence to the limited space that it is supposed to occupy according to its precise shape and size. There is, therefore, no reason for a sharp distinction between occupied and

empty space. Consequently, the mind finds it natural to consider the atoms not as extended particles but as point-centres of force. This conception was worked out by the Dalmatian scientist R.G. Boscovich (1711-87), who attempted to account for all known physical effects in terms of action at a distance between point-particles, dynamic centres of force.

### Atoms as Psychophysical Monads

The idea of applying the atomistic conceptions not only to material but also to psychical phenomena is as old as Atomism itself. Democritus had spoken of the atoms of the soul. According to the principles of his doctrine these atoms could differ only quantitatively from those of the body: they were smoother, rounder, and finer. This made it easy for them to move into all parts of the body. Basically, however, the atoms of the soul were no less material than other atoms.

In Leibniz's monadology the situation was quite different. Leibniz did not first conceive of material atoms and then only later interpret the soul in terms of these atoms; from the beginning he conceived his "atoms," the monads, in terms of an analogy with the soul. A monad is much more a spiritual than a material substance. Monads have no extension; they are centres of action but not, first of all, in the physical sense. Each of the monads is gifted with some degree of perception; each mirrors the universe in its own way. Monads differ from each other, however, in the degree of perception of which they are capable.



### The Immutability of Atoms

By their nature all atomic theories accept a certain degree of immutability of the atoms. For without any fixed units no rational analysis of complex phenomena is possible. At least with respect to the stable factors in the analysis involved, the atoms have to be considered as immutable. According to Atomism in the strict sense, this immutability had to be interpreted in an absolute way.

The same absolute interpretation appeared in classical chemistry, although its atomic theory deviated from Atomism in the strict sense by assuming qualitatively different atoms and by assuming molecules (rather stable aggregates of atoms). The decisive point, however, is that molecules were formed by mere juxtaposition of atoms without any intrinsic change of the qualities of the atoms. Modern atomic theory, in contrast, gives a less rigid interpretation of the immutability of elementary particles: the particles that build up an atom do not retain their identity in an absolute way.

In some philosophical atomistic theories, the immutability of the atoms has been understood in a highly relative sense. This interpretation arose mainly in the circles of those Aristotelian philosophers who tried to combine atomistic principles with the principle of Aristotle that elements changed their nature when entering a chemical compound. The combination of both principles led to the doctrine known as the *minima naturalia* theory, which holds that each kind of substance has its specific *minima naturalia*, or smallest entities in nature. *Minima naturalia* are not absolutely indivisible: they can be divided but then become *minima naturalia* of another substance; they change their nature. In a chemical reaction the *minima* of the reagents change into the *minima* of the substances that result from the reaction.

## Other Differences

Atomisms also differ regarding the number of atoms, whether they occupy a void, and how they relate to one another.

## Number of Atoms

As has already been mentioned, Democritus introduced the hypothesis that the atoms are infinite in number. Although one may question whether the term infinite has to be taken in its strict sense, there is no doubt that by using this term Democritus wanted not merely to express the triviality that, on account of their smallness, there had to be an enormous quantity of atoms. Democritus also had a strong rational argument for postulating a strictly infinite quantity of atoms: only thus could he exclude the existence of atoms that specifically differed from each other.

When in modern science the problem of the number of atoms arises, the situation is quite different from that of the Greek Atomists. There is now much more detailed information about the properties of the atoms and of the elementary particles, and there is also in astrophysical cosmology some information about the universe as a whole. Consequently, the attempt to calculate the total number of atoms that exist is not entirely impossible, although it remains a highly speculative matter. In a time (around 1930) when all chemical atoms were supposed to be composed of electrons and protons, the pioneering joint-relativity-quantum astrophysicist A.S. Eddington calculated the number of these elementary particles to be  $2 \cdot 136 \cdot 2^{256}$ , or approximately  $10^{79}$ , arguing that, since matter curves space, this is just the

number of particles required barely to close the universe up into a hypersphere and to fill up all possible existence states.

### The Existence of the Void

To Democritus the existence of the void was a necessary element in atomistic theory. Without the void the atoms could not be separated from each other and they could not move. In the 17th century Descartes rejected the existence of the void, whereas Newton's conception of action at a distance was in perfect harmony with the acceptance of the void and the drawing of a sharp distinction between occupied and nonoccupied space.

The success of the Newtonian law of gravitation was one of the reasons that atomic theories came to prevail in the 18th century. Even with respect to the phenomena of light, the corpuscular and hence atomic theory of Newton, which held that light is made of tiny particles, was adopted almost universally, in spite of Huygens' brilliant development of the wave hypothesis.

When in the beginning of the 19th century the corpuscular theory of light in its turn was abandoned in favor of the wave theory, the case for the existence of the void had to be reopened, for the proponents of the wave theory did not think in terms of action at a distance; the propagation of waves seemed to presuppose, instead, a medium with not only geometrical properties but with physical ones as well. At first the physical properties of the medium, the ether, were described in the language of mechanics; later they were described in that of the electromagnetic field theory of J.C. Maxwell. Yet, to a certain extent the old dichotomy between occupied and nonoccupied space continued to exist. For, according to the ether theory, the atoms moved without difficulty in the ether, whereas the ether pervaded all physical bodies.

In contemporary science this dichotomy has lost its sharpness, owing to the fact that the distinction between material phenomena, which were supposed to be discontinuous, and the phenomena of light, which were supposed to be continuous, appears to be only a relative one. In conclusion it can be claimed that although modern theories still speak of space and even of “empty” space, this “emptiness” is not absolute: space has come to be regarded as the seat of the electromagnetic field, and it certainly is not the void in the sense in which the term was used by Democritus.

#### Atoms in External Aggregation versus in Internal Relationship

In most forms of Atomism it is a matter of principle that any combination of atoms into a greater unity can only be an aggregate of these atoms. The atoms remain intrinsically unchanged and retain their identity. The classical atomic theory of chemistry was based upon the same principle: the union of the atoms into the molecules of a compound was conceived as a simple juxtaposition. Each chemical formula (e.g.,  $\text{H}_2\text{O}$ ,  $\text{H}_2\text{SO}_4$ ,  $\text{NaCl}$ , etc.) reflects this principle through the tacit implication that each atom is still an H, O, or S, etc., even when in combination to form a molecule.

Chemistry had a twofold reason for adopting this principle. One reason was an observational, the other a philosophical one. The fact that some of the properties of a chemical compound could, by simple juxtaposition, be derived from those of the elements (the molecular weight, for example, equals the simple sum of the respective atomic weights) was a strong factual argument in favor of the principle. Many properties of the components, however, could not be determined in this way. In fact, most chemical properties of compounds

differed considerably from those of the composing elements. Consequently, the principle of juxtaposition could not be based on factual data alone. It was in need of a more general support. This support was offered by the philosophical idea that inspired all Atomism, viz., that if complex phenomena cannot be explained in terms of aggregates of more elementary factors, they cannot be explained at all.

For the evaluation of this idea, the development of the scientific atomic theory is highly interesting, especially with respect to the interpretation of the concept of an aggregate. Is the only interpretation of this concept that of an assemblage in which the components preserve their individuality – like, for instance, a heap of stones?

Modern atomic theory offers an answer to this question. This theory still adheres to the basic principle that a complex structure has to be explained in terms of aggregates of more elementary factors, but it interprets the term “aggregate” in such a way that it is not limited to a mere juxtaposition of the components. In modern theories atomic and molecular structures are characterized as associations of many interacting entities that *lose* their own identity. The resulting aggregate originates from the converging contributions of all of its components. Yet, it forms a new entity, which in its turn controls the behavior of its components. Instead of mere juxtaposition of components, there is an internal relationship between them. Or, expressed in another way: in order to know the properties of the components, one has to study not only the isolated components but also the structures into which they enter. To a certain extent modern atomic theory has bridged the gap between atomistic and holistic thought.

## History and Major Representatives of the Various Atomisms

### Philosophical Atomism

From the ancient Greeks through the 16th century, Atomism remained mainly philosophical.

### Ancient Greek Atomism

It is characteristic of the importance of Greek philosophy that, already in the foregoing exposition of the different aspects of Atomism, several Greek philosophers had to be introduced. Not only the general idea of Atomism but also the whole spectrum of its different forms originated in ancient Greece. As early as the 5th century BCE Atomism in the strict sense (Leucippus and Democritus) is found, along with various qualitative forms of Atomism: that of Empedocles, based on the doctrine of the four elements, and that of Anaxagoras, with as many qualitatively different atoms as there are different substances.

Yet, in spite of its successful start, Atomism did not gain preeminence in Greek thought. This is mainly because Plato and Aristotle were not satisfied with the atomistic solution of the problems of change as a *general* solution. They refused to reduce the whole of reality, including man, to a system that knew nothing but moving atoms. Even with respect to the problems of the material world, Atomism seemed to offer no sufficient explanation. It did not explain the observable fact that, notwithstanding continual changes, a total order of specific forms continued to exist. For this reason Aristotle, with Plato, was more interested in the principle of order than in that of the material elements. In his own analysis of change, which resulted in the matter-form

doctrine, Aristotle explicitly rejected the thesis of Democritus that in a chemical reaction the component parts retain their identity. According to Aristotle, the elements that entered into a composite with each other did not remain what they were but became a compound. Although there is some indication that in Aristotle's chemical theory smallest particles played a role, it was certainly not a very important one.

Meanwhile, atomistic ideas remained known in Greek thought. Their opponents paid much attention to them, and there were also a few adherents of Democritean Atomism in later times, such as the Greek hedonist Epicurus (c. 341-279 BCE) and the Roman poet Lucretius Carus (c. 95-55 BCE) who, through his famous didactic poem *De rerum natura* ("On the Nature of Things"), introduced Atomism into the Latin world.

#### The Elachista of the Early Aristotelian Commentators

Empedocles had suggested an Atomism with qualitatively different atoms, based upon the doctrine of the four elements. Aristotle adopted the latter doctrine but without its atomistic suggestion. Certain Greek commentators on the works of Aristotle, however, viz., Alexander of Aphrodisias (2nd century CE), Themistius (4th century CE), and Philoponus (6th century CE), combined the Aristotelian theory of chemical reactions with atomistic conceptions. In their systems the atoms were called *elachista* ("very small" or "smallest"). The choice of this term is connected with the Aristotelian rejection of the infinite divisibility of matter. Each substance had its own minimum of magnitude below which it could not exist. If such a

minimum particle were to be divided, then it would become a minimum of another substance.

#### The Minima Naturalia of the Averroists

The Latin commentators on Aristotle translated the term *elachista* into its Latin equivalent *minima* or also into *minima naturalia*; i.e., *minima* determined by the nature of each substance. In fact, for most medieval Aristotelians the *minima* acquired little more reality than the theoretical limit of divisibility of a substance; and in their descriptions of physical and chemical processes, they paid no attention to the *minima*. With the Averroists – followers of the Arab Aristotelian Averroës (1126-98) – an interesting development occurred. Agostino Nifo (1473-1538), for example, explicitly stated that in a substance the *minima naturalia* are present as *parts*; they are physical entities that actually play a role in certain physical and chemical processes. Because the *minima* had acquired more physical reality, it then became necessary to know how the properties of the *minima* could be connected with the sensible properties of a substance. Speculations in this direction were developed by the Italian physician, philosopher, and litterateur Julius Caesar Scaliger (1484-1558).

#### Modern Scientific Atomism: Early Pioneering Work

Modern Atomism arose with the flowering of science in the present sense of the word.



## The 17th century

In the history of Atomism the 17th century occupies a special place for two reasons: it saw the revival of Democritean Atomism, and it saw the beginning of a *scientific* atomic theory.

The revival of Democritean Atomism was the work of the ambiguous Epicureo-Christian thinker Pierre Gassendi (1592-1655), who made his contemporaries not only better acquainted with Atomism but also succeeded in divesting it of the materialistic interpretation with which it was hereditarily infected. This reintroduction of Democritus was well timed. Because of its quantitative character Democritus' Atomism invited for its elucidation the application of mathematics and mechanics, which in the 17th century were sufficiently developed to answer this invitation. In point of fact, the 17th century was more interested in the possibilities that Atomism offered for a physical theory than it was in the philosophical differences between the different atomistic systems. For this reason it saw, for example, hardly any difference between the systems of Gassendi and Descartes, although the latter explicitly rejected some of the fundamentals of Democritus, such as the existence of the void and the indivisibility of the atoms, as noted above

In the case of scientists mainly interested in the chemical aspects, the same shift of emphasis from philosophical to scientific considerations can be discerned. According to the physician and philosopher of nature Daniel Sennert (1572-1637), Democritus' Atomism and the *minima* theory really amounted to the same thing. As far as philosophy was concerned, Sennert was only interested in the general idea of Atomism; the precise content of an atomic doctrine in his view ought to be a matter of chemical experimentation. His own experience as a chemist taught him the specific differences existing

between the atoms. In this respect Sennert continued the *minima* tradition. His own contribution to the chemical atomic theory lay in the clear distinction that he made between elementary atoms and the *prima mista*, or atoms of chemical compounds.

The early modern experimentalist Robert Boyle (1627-91) followed the same line of thought as Sennert, but he was much more aware of the discrepancy between Democritus' Atomism and an atomic theory suitable for chemical purposes. Boyle's solution to this problem was the thesis that the atoms of Democritus were normally associated into primary concretions, which did not easily dissociate and which acted as elementary atoms in the chemical sense. These primary concretions can combine to form compounds of a higher order, which may be compared to Sennert's *prima mista* and to the molecules of modern chemistry.

#### Founding of Modern Atomism

The 17th century had laid the theoretical foundations for a scientific atomic theory. For its further development it was in need of better chemical insights, especially concerning the problem of what substances should be considered as chemical elements. Boyle had shown conclusively that the traditional four "elements" were certainly not elementary substances, but at the same time he confessed that he did not yet see any satisfactory method to determine which substances were true elements. This method was provided by another of the principal founders of modern chemistry A.-L. Lavoisier (1743-94): a chemical element is a substance that cannot be further analyzed by known chemical methods.

John Dalton (1766-1844), usually regarded as the father of modern atomic theory, applied the results of Lavoisier's chemical work to atomistic conceptions. When Dalton spoke of elementary atoms, he did not have a merely theoretical idea in mind but the chemical elements as determined by Lavoisier. Dalton held that there are as many different kinds of elementary atoms as there are chemical elements. The atoms of a certain element are perfectly alike in weight, figure, etc.; and the same point applies to the atoms of a certain compound. As weight was the decisive characteristic in Lavoisier's theory, Dalton stressed the importance of ascertaining the relative weights of atoms and the number of elementary atoms that constituted one compound "atom." As to the question of the way in which the atoms are combined in a compound, Dalton conceived this combination as a simple juxtaposition with each atom under the influence of Newtonian forces of attraction. The atoms retain their identity through a chemical reaction. In this one point the founder of the chemical atomic theory did not differ from Democritus.

#### Recent and Contemporary Scientific Atomism

Until its development in the third decade of the 20th century, the scientific atomic theory did not differ philosophically very much from that of Dalton, although at first sight the difference may appear large. Dalton's atoms were no longer considered to be immutable and indivisible; new elementary particles sometimes appeared on the scene; and molecules were no longer seen as a mere juxtaposition of atoms – when entering into a compound atoms became ions. Yet, these differences were only accidental; the atoms revealed themselves as composed of more elementary particles – protons, neutrons, and

electrons – but these particles themselves were considered then as immutable. Thus the general picture remained the same. The material world was still thought to be composed of smallest particles, which differed in nature and which in certain definite ways could form relatively stable structures (atoms). These structures were able to form new combinations (molecules) by exchanging certain component parts (electrons). The whole process was ruled by well-known mechanical and electrodynamic laws.

In contemporary atomic theory the differences from Dalton are much more fundamental. The hypothesis of the existence of immutable elementary particles has been abandoned: elementary particles can be transformed into radiation and vice versa. And when they combine into greater units, the particles do not necessarily preserve their identity; they can be absorbed into a greater whole.

#### Atomism in the Thought of India

It is interesting to note that atomistic conceptions are not restricted to Western philosophy and science. Examples of qualitative Atomism, based upon the doctrine of the four elements, are also found in Indian philosophy. In some Indian systems the atoms are not absolutely indivisible but only relatively so. In certain aspects Indian Atomism is, therefore, more related to the *minima* doctrine than to the Atomism of Democritus. Indian Atomism has, however, not developed into a scientific theory.

## Foundational Issues Posed By Atomism

### Atomism as a Metaphysical System

In discussing Atomism, one particular system, that of Democritus, has been here distinguished as Atomism in the strict sense because of the fact that in no other system have the foundational issues of Atomism been so clearly expressed. Atomism in the strict sense is not merely one of the historical forms of Atomism, one of the many possible scientific attempts at explaining certain physical phenomena; it is, first of all, a metaphysical system: it has been presented as the only possible explanation of change and multiplicity. And as a metaphysic it is rationalistic, mechanistic, and realistic.

It is *rationalistic* because it has so much confidence in reason that, in order to explain observed phenomena, it does not hesitate to postulate the existence of unobservable atoms: i.e., of things that are in principle unobservable by the human senses and can be known only by a process of reasoning. Atomists go even further, for they not only are convinced of the existence of atoms but they also think it possible to deduce in a rational way their fundamental properties. Moreover, the description of these properties in *mechanistic* terms is not just a matter of convenience; it is supposed to be the adequate expression of *reality*.

This rationalistic and mechanistic metaphysics is not only characteristic of Democritus' Atomism but also of the early forms of scientific Atomism. The clearest expression of this metaphysics is found in Descartes. For Democritus mechanistic concepts are clear and distinct ideas, so that any further experimental investigation is superfluous. It should be stressed that the atomistic assumption that the human mind, by mere reasoning, can know the

properties of the atoms is a necessary consequence of the idea that atoms are not subject to internal change; for the changeless can never be a subject of experimentation. The great weakness of the mechanistic concept of immutable atoms was that it forced the analyzing experiments to stop at the atoms; but this weakness could reveal itself only after, in the course of the further development of science, the fundamentally experimental character of human knowledge had become evident.

This weakness, in fact, was precisely one of the reasons why Aristotle rejected the Atomism of Democritus, viz., that the latter had postulated atoms that were not subject to change. For Aristotle the very essence of matter was its being subject to change; hence to him the concept of immutable atoms was a contradiction in terms.

Aristotle's criticism of Atomism was clearly directed against its mechanistic metaphysics, not against its realism. This latter characteristic was the target, however, of an attack launched by the incomparable 18th-century epistemologist Immanuel Kant. In a famous argument, known as the antinomy of the continuum, Kant tried to prove that the acceptance of the reality of spatial extension, the cornerstone of Atomism, led to contradictions. His argument can be summarized as follows: It is possible to prove that any compound must be composed of simple things (for if not, there would be nothing but composition). On the other hand, it also is possible to prove that no material thing can be simple, for the very reason that a part of an extended being is always extended and is thus open to division. Hence, every allegedly simple part is at once simple and nonsimple. Consequently, spatial extension cannot be real. Extension is therefore not a property of the material world itself; it is a form imposed upon reality by man's perception.

By his argument Kant did not intend to reject atomic theories as such; he rejected only their realistic pretensions. Kant was deeply convinced that man had to *think* of nature by way of analogy with a mechanism, but he denied that knowledge construed in such a fashion could reach reality itself.

In the 19th century, scientists were, as a rule, hardly impressed by Kant's attack on the realistic pretensions of human knowledge. Scientists had already learned to go their own way and no longer worried about philosophical considerations. Only when an internal crisis in science itself arose were they prepared to reflect upon their presuppositions. Such a crisis occurred in the 20th century when science was forced to accept the relativity of both classical models: the wave and the particle models.

To a certain extent, the problem of whether a scientific model is nothing but a subjective construct in which the scientist unites his experience is the same as the problem that Kant had in mind. One of the differences, however, is that in Kant's time science was still rather exclusively *theory*. Its close connection with praxis (practice, doing) had not yet been discovered. For this reason the Kantian epistemological (or human knowledge) problem could center on such a question as: what guarantee does the *knowing* subject have that his "models" of reality reflect reality itself? Inasmuch as, in an exclusively theoretical science, the only contact that one has with reality is afforded by means of one's knowledge, the problem seems to be insoluble.

The development of science from a theoretical to an experimental discipline forces philosophy to view the epistemological problem in a new way. For in an experimental science man is in a twofold contact with reality, viz., by his knowledge and by his experimental praxis. Modern atomic theory is one of the best examples to illustrate this point. It was this theory that was

most directly confronted with the problem of the realistic value of its models. It could take up this challenge because of the theory's effectiveness for experimental praxis, which is the final judge of the realistic value of the theoretical models. It has confirmed the audacious rational speculations of ancient Atomism; but at the same time it has revealed that, in order to be really effective, reason is in need of experimental assistance.

#### Ancient Greek Atomism versus Contemporary Scientific Atomism

In comparing Greek Atomism and modern atomic theories, it should be recalled that in Greek thought philosophy and science still formed a unity. Greek Atomism was inspired as much by the desire to find a solution for the problems of mutability and plurality in nature as by the desire to provide scientific explanations for specific phenomena. While it is true that some of the Greek Atomists' ideas can rightly be considered as precursors of later physics, the main importance of the old atomistic doctrines for modern science does not lie in these primitive anticipations. Much more important is the attempt to take seriously the variety and mutability discerned by sense experience and yet to reconcile it with the thesis of Parmenides about the unity and the immutability of matter. In its search for universal and unchangeable laws, modern science is to a great extent inspired by the same idea as Parmenides, since universal laws presuppose a certain unity in the material world and unchangeable laws cannot be established without the presupposition that something unchangeable must be hidden behind all changes. By the same token, without this latter presupposition experiments would not make any sense at all. For if the diversity of reactions occurring under different conditions is to reveal anything, these reactions must be the



expression of an immutable nature. The differences have to indicate something about that which remains the same. The great achievement of the Greek philosophers was, therefore, that they took a general view of nature as a whole that made a scientific attitude possible. To this, both the quantitative and the qualitative forms of Atomism contributed, the former drawing attention to the mathematical aspects of the problem, the latter to the observational.

A comparison of ancient Greek Atomism with scientific Atomism merely on the basis of their respective scientific contents would therefore do a great injustice to Greek Atomism; it would in fact misjudge its main value. Such a comparison would, however, also take too narrow a view of modern scientific Atomism. It would imply the philosophical irrelevance of the latter. It has here been shown, however, that the later development of the scientific atomic theory has clarified many philosophical problems that, as basic issues, divided Atomism in the strict sense from other forms of Atomism. To mention only a few examples: the development of the scientific atomic theory has deepened man's insights into the relationship between a whole and its components, into the relative character of ultimate particles, and into certain fundamental epistemological problems.

#### Evaluation of Atomism

The success of the atomic theory shows the value of the idea of Atomism: the explanation of the complex in terms of aggregates of fixed particles or units. Its history also shows, however, the inherent danger of this idea, namely, that of absolutism. History has corrected this absolutism: the

unitary factors have to be conceived as ultimate only with respect to the complex under consideration, and their union into aggregates need not occur only by way of juxtaposition.

### Eleaticism

One of the principal schools of ancient Pre-Socratic philosophy was Eleaticism, so called from its seat in the Greek colony of Elea (or Velia) in southern Italy. This school, which flourished in the 5th century BCE, was distinguished by its radical monism; i.e., its doctrine of the One, according to which all that exists (or is really true) is a static plenum of Being as such, and nothing exists that stands either in contrast or in contradiction to Being. Thus, all differentiation, motion, and change must be illusory. This monism is also reflected in its view that existence, thought, and expression coalesce into one.

The sources for the study of Eleaticism are both archaeological and literary. Archaeologists have ascertained that, at the time of Parmenides, the Rationalist who founded the school, Elea was a large town with many temples, a harbour, and a girdle of walls several miles long. They have also unearthed a site presumed to be that of the medical school that Parmenides founded and an inscription bearing Parmenides' name.

The literary sources consist of fragments preserved by later classical authors – 19 from Parmenides, four from his pupil Zeno, renowned for his paradoxes of motion, and 10 from another pupil, Melissus, an admiral of Samos – of which all but three from Parmenides and two from Melissus are 10 lines or less in length. The interpretation is also affected by the weight of scholarly opinion that now holds (as against Karl Reinhardt, an early 20th-

century philologist and historian of philosophy) that Parmenides reacted to Heracleitus and not vice versa. Moreover, the biases of the citing authors must be weighed. Heracleitans and Parmenideans of the second generation, for example, saw their masters, simplistically, only as the prophets of movement and immobility; and the ancient sceptic Sextus Empiricus distorted Parmenides' thinking into problems of epistemology (theory of knowledge), because this is what his sceptical eye saw in his writings.

#### The Eleatic School Vis-À-Vis Rival Movements

Each member of the Eleatic school espoused a distinctive variety of Eleaticism: Parmenides pursued a direct and logical course of thought and viewed Being as finite and timeless; Zeno concurred in Parmenides' doctrines but employed the indirect methods of *reductio ad absurdum* and infinite regress (see below *The paradoxes of Zeno*); and Melissus modified the doctrines, viewing Being as infinitely extensive and eternally temporal. A fourth thinker, the Sicilian Sophist Gorgias of Leontini, though not an adherent to Eleaticism, employed the methods of the Eleatic Zeno to defend its opposite – a nihilism that affirmed Non-Being instead of Being.

Eleaticism represents a reaction against several tendencies of thought. Methodologically, it spurned the empirical (observational) approach taken by earlier cosmologists, such as the 6th-century Milesians Thales and Anaximenes, who discerned ultimate reality in water and in air (or breath), respectively, for these substances are materializations of Being – analogous to the materialization that occurs in Pythagoreanism in passing from an abstract line or plane or three-dimensional form to a solid perceptible body – rather

than Being itself; or, at best (as some scholars hold), the substances are mythological representations of Being. The Eleatics, on the contrary, ignoring perceptual appearances, pursued a rationalistic – i.e., a strictly abstract and logical – approach and thus found reality in the all-encompassing, static unity and fullness of Being and in this alone. Thus Parmenides was the father of pure ontology.

Ontologically – in its view of the nature of Being – the Eleatic school, holding to what Parmenides called the “way of truth” (“what is”), stood opposed to two other “ways of research” that were then current: first, to the “way of opinion” (or seeming; later developed at length by Plato in the *Sophist*), which held that a being comprises or is defined not only by what it is but also by what it is not – i.e., by its contrast with other things; and, second, to a way recognizable as that of Heraclitus, a caustic and often cryptic philosopher then living in Ephesus, who maintained – still more radically – that the essence of a being lies in part in its involvement in, or even its identity with, its opposite. Finally, as an aspect of Parmenides’ opposition to the way of opinion, he was in reaction also against Anaximander, another Milesian scientist and philosopher. Though Anaximander’s basic principle, the *apeiron* (“boundless”), was duly abstract and not a part of the world itself (as were water and air), his philosophy depended, nonetheless, upon the world’s contrast with the infinite *apeiron*, from which all things come and to which they return “in accordance with the ordinance of Time.” This contrast – which, in a Pythagorean version, envisioned the world as breathing in voidness from the infinite outer breath in order to keep things apart or discrete – thus spawned a “many” that contradicts the Eleatic One.

## The Rigorous Ontologism of Parmenides and Melissus

For a long time Xenophanes of Colophon, a religious thinker and rhapsode of the 6th-5th century BCE, was considered the founder of the Eleatic school and Parmenides' mentor. This ancient claim, however, has been successfully criticized by Reinhardt. It is even possible that, on the contrary, Xenophanes was an older pupil of Parmenides. In any case, his monistic view of a cosmic God, whom he may have equated pantheistically with Being itself, was Eleatic in its contention that God is one and ungenerated, that his seeing, thinking, and hearing are equally all-pervading (i.e., he is not a composite), and that he "always remains in the same place, not moving at all."

Parmenides' poem *Peri physeos* ("On Nature") is divided into three parts: (1) a proem (preface), in which his chariot ride through the heavens to the very seat of the goddess Aletheia (Truth) is described and their initial conversation is related, in which she announces that he is "to learn all things, both the unshaken heart of well-rounded truth and also what seems to mortals, in which is no true conviction"; (2) the "Way of Truth," the main part, in which the real and unique Being is depicted; and (3) the "Way of Opinion" (or Seeming), in which the empirical world – i.e., the single things as they appear every day to every man – is presented.

## Logical and Linguistic Approach

Thus, at the very heart of Parmenides' philosophy lies the distinction made by the goddess (in Fragment 2) between the two "ways of research." As noted earlier, the first is the antinomy (or paradox) of those who think and say that everything is Being and who shun all assertions of Non-Being; and the

second is that of those who think and say that something is in a way and is not in another way – that a book is a book, for example, and not a table. There is, however, also a third way that is far more erroneous and fallacious than the second: that of Heraclitus, who acknowledged, just as Parmenides did, the ontological antinomy of is and is not but reversed it, holding that the real way of understanding things is to grasp their essential contradiction, their intrinsic opposition to everything else. In this view, one must say that to be a table is also not to be just a table and that to be a chair is not to be just a chair but to be also a table, because not only opposite things but also things that are merely different are bound to each other. Thus, life is death to Heraclitus, death is life, and justice would be meaningless if it had no injustice to defeat.

In essence, then, the possible ways are three: (1) that of renouncing all contradictions whatsoever (truth); (2) that of contradicting oneself relatively (seeming); and (3) that of contradicting oneself completely and absolutely (Heraclitus). And Eleaticism chose the first, the absolutely noncontradictory way that says that only what is, Being, is really true.

Not-Being, in fact, can neither be recognized nor expressed, for, as Parmenides then added, “for the same thing can be thought and can exist.” And – if one may guess at the words (now lost) that probably followed – what-is-not you can neither know nor say; thus, to think is indeed the same as to say that what you think is. To this coalescence of existing reality and the intellectual grasping of it, Parmenides also added the linguistic communication of such knowledge. Each way of research, in fact, is at the same time a way of speculation and a way of diction; i.e., both a way of searching for truth with one’s mental eyes and of expressing it in words. The primal source of the Eleatic philosophy thus lies in the archaic sense of language, according to which one cannot pronounce “yes” and “no” without

deciding about the reality or unreality of the objects of the statements. Thus, “yes,” or “is,” becomes the name of the truth; and “no,” or “it is not,” becomes that of its opposite.

This Eleatic principle may be illustrated by a passage from Aeschylus, a leading Greek dramatist, who, in his *Hepta epi Thebais* (Eng. trans., *Seven Against Thebes*), judged it very appropriate that Helen would have destroyed Troy, because her name – naïvely derived from *helein* (“destroy”) and *naus* (“ship”) – marked her as a destroyer of ships. Here *nomen est omen*: the language is not merely a symbol; it corresponds to reality in its very structure. Thus, the Eleatic could not imagine a truth that is only expressible but not thinkable nor one that is only thinkable but not expressible.

### Monistic Theory of Being

From the premise of the essential coalescence of language and reality follows Parmenides’ theory of Being, which comprises the heart of his philosophy. The only true reality is Eon – pure, eternal, immutable, and indestructible Being, without any other qualification. Its characterizations can be only negative, expressions of exclusions, with no pretense of attributing some special quality to the reality of which one speaks.

In Fragment 8, verse 5, Parmenides said that the absolute Being “neither was nor will be, because it is in its wholeness now, and only now.” Thus, its presence lasts untouched by any variation in time; for no one can find a genesis for it, either from another being (for it is itself already the totality of Being) or from a Not-Being (for this does not exist at all).

Obviously, this Parmenidean conception of the eternal presence of the Being conflicts with Melissus' idea of the perpetual continuation of the Being in the past, in the present, and in the future. Thus, if Eleaticism had been founded by Melissus, no one could have really understood its actual doctrine. One could suspect in it only an aspiration to have things capable of being really enduring. But even then the theory would hardly be understandable, because what one wants is not stable things in general; one wants good things to be firm and stable and bad things to be ephemeral. The perpetual continuity of existence as espoused by Melissus was despised by Parmenides just because "will be" and "has been" are not the same as "is." Only "is" is the word of the reality – just because it is the right name for the right thinking of the right Being.

Among the consequences of this Eleatic conception is the rejection of every change (birth, movement, growth, death) as pertaining only to the second-rate reality, which is known and expressed through the second "way of research." Thus, the true and noncontradictory reality is extraneous to all of those happenings, great or small, that make the constant stuff of all history.

Secondly, the real Being has no difference, no lack, no variety whatsoever in itself. Melissus is here the true pupil of Parmenides, who said that the Εἶναι is so closely connected in itself that "all Being is neighbour of all Being": for Melissus developed this theory by the negation of every form of κενόν ("void"): the Being is an absolute plenum just because every lack in its plentifulness would amount to a presence of some Not-Being.



### The Paradoxes of Zeno

The position of the other great pupil of Parmenides, Zeno of Elea, was clearly stated in the first part of Plato's dialogue *Parmenides*. There Zeno himself accepted the definition of Socrates, according to which he did not really propose a philosophy different from that of Parmenides but only tried to support it by the demonstration that the difficulties resulting from the pluralistic presupposition of the *polla* (the multiple beings of man's daily experience) were far more severe than those that seemed to be produced by the Parmenidean reduction of all reality to the single and universal Being.

The arguments by which Zeno upheld his master's theory of the unique real Being were aimed at discrediting the opposite beliefs in plurality and motion. There are several arguments against plurality. First, if things are really many, everything must be infinitely small and infinitely great – infinitely small because its least parts must be indivisible and therefore without extension and infinitely great because any part having extension, in order to be separated from any other part, needs the intervention of a third part; but this happens to such a third part, too, and so on ad infinitum.

Very similar is the second argument against plurality: if things are more than one, they must be numerically both finite and infinite – numerically finite because they are as many things as they are, neither more nor less, and numerically infinite because, for any two things to be separate, the intervention of a third thing is necessary, ad infinitum. In other words, in order to be two, things must be three, and, in order to be three, they must be five, and so on. The third argument says: if all-that-is is in space, then space itself must be in space, and so on ad infinitum. And the fourth argument says: if a

bushel of corn emptied upon the floor makes a noise, each grain must likewise make a noise, but in fact this does not happen.

Zeno also developed four arguments against the reality of motion. These arguments may also be understood (probably more correctly) as proofs *per absurdum* of the inconsistency of any presupposed multiplicity of things, insofar as these things may be proved to be both in motion and not in motion. The first argument states that a body in motion can reach a given point only after having traversed half of the distance. But, before traversing half, it must traverse half of this half, and so on ad infinitum. Consequently, the goal can never be reached.

The second argument is that of “Achilles and the tortoise.” If in a race the tortoise has a start on Achilles, Achilles can never reach the tortoise; for, while Achilles traverses the distance from his starting point to that of the tortoise, the tortoise will have gone a certain distance, and, while Achilles traverses this distance, the tortoise goes still further, ad infinitum. Consequently, Achilles may run indefinitely without overtaking the tortoise. This argument is fundamentally identical to the previous one, with the only difference being that here two bodies instead of one are moving.

The third argument is the strongest of them all. It says the following: So long as anything is in a space equal to itself, it is at rest. Now, an arrow is in a space equal to itself at every moment of its flight; therefore, even the flying arrow is at rest all of the time. And the final argument says: Two bodies moving at equal speed traverse equal spaces in an equal time. But, when two bodies move at equal speed in opposite directions, one passes the other in half of the time that a moving body needs to pass a body that is at rest.

The difficulty with all these arguments is that of really understanding them in their historical frame, which neither Aristotle – who was mainly concerned to confute Zeno – nor many modern scholars – who are concerned with developing new theories for the calculation of infinitesimal quantities – really tried to do. Moreover, the role of the author of the paradoxes in the history of Greek philosophy is itself paradoxical, for many of the same arguments by which Zeno proved the self-contradictory nature of the unity considered as the smallest element of a pluralistic reality (the Many) were later similarly used by Gorgias and Plato to demolish the Parmenidean One-Totality itself.

#### The Decline of Eleaticism

This problem is also connected with that of the correct interpretation of the second part of Plato's *Parmenides*. Here the discussion to which Zeno submits the young Socrates is meant as a serious exemplification of the logical training that Socrates still needs if he wants to make progress in philosophy. But the result is simply comic – a “fatiguing joke,” according to Plato's *Parmenides* – because Zeno always starts from the mere principles of the pure Being or the One and arrives at absurd conclusions: everything is shown to be true as well as false and deducible and not deducible from everything else.

Such dialectical futility had been anticipated by the nihilism of Gorgias, presented in a work ironically entitled *Peri tou me ontos e peri physeos* (“On That Which Is Not, or On Nature”), in which he said (1) that nothing exists; (2) that if anything exists, it is incomprehensible; and (3) that if it is comprehensible, it is incommunicable – and in so doing he applied

Parmenides' coalescence of Being and thought and expression to Non-Being instead of to Being and thus signalled the decline of Eleaticism.

The serious discussion and criticism of the Eleatic philosophy, however, and the positive interpretation of every Non-Being as a *heteron* (i.e., as a being characterized only by its difference from "another" being) is neither in Gorgias nor in the *Parmenides* but in the *Sophist* of Plato. There Plato argued that the antinomy between *On* and *Me-On* (Being and Non-Being) does not really exist, the only real antinomy being that of *Tauton* and *Heteron*; i.e., only that of a single object of consciousness in its present determination and all other things from which it is distinguished.

The real story of ancient Eleaticism thus ends with Plato and with Democritus, who said that Being exists no more than Non-Being, the thing no more than the no-thing. But many thinkers, and great thinkers at that – from Aristotle to Kant and from Hegel to Marx – have continued to work or to fight with the antinomy of Being and Non-Being.

### Epicureanism

In a strict sense, Epicureanism is the philosophy taught by Epicurus (341-270 BCE); in a broad sense, it is a system of ethics embracing every conception or form of life that can be traced to the principles of his philosophy. In ancient polemics, as often since, the term was employed with an even more generic (and clearly erroneous) meaning as the equivalent of hedonism, the doctrine that pleasure or happiness is the chief good. In popular parlance, Epicureanism thus means devotion to pleasure, comfort, and high living, with a certain nicety of style.

## The Nature of Epicureanism

Several fundamental concepts characterize the philosophy of Epicurus. In physics, these are Atomism, a mechanical conception of causality, limited, however, by the idea of a spontaneous motion, or “swerve,” of the atoms, which interrupts the necessary effect of a cause; the infinity of the universe and the equilibrium of all forces that circularly enclose its phenomena; the existence of gods conceived as beatified and immortal natures completely extraneous to happenings in the world. In ethics, the basic concepts are the identification of good with pleasure and of the supreme good and ultimate end with the absence of pain from the body and the soul – a limit beyond which pleasure does not grow but changes; the reduction of every human relation to the principle of utility, which finds its highest expression in friendship, in which it is at the same time surmounted; and, in accordance with this end, the limitation of all desire and the practice of the virtues, from which pleasure is inseparable, and a withdrawn and quiet life.

In principle, Epicurus’ ethic of pleasure is the exact opposite of the Stoic’s ethic of duty. The consequences, however, are the same: in the end, the Epicurean is forced to live with the same temperance and justice as the Stoic. Of utmost importance, however, is one point of divergence: the walls of the Stoic’s city are those of the world, and its law is that of reason; the limits of the Epicurean’s city are those of a garden, and the law is that of friendship. Though this garden can also reach the boundaries of earth, its center is always a man.

## History of Epicureanism

Epicurus' predecessors were in physics Leucippus and Democritus and in ethics Antiphon Sophista, Aristippus of Cyrene, and Eudoxus of Cnidus, a geometer and astronomer. Epicurus differed from all of these in his systematic spirit and in the unity that he tried to give to every part of philosophy. In this respect, he was greatly influenced by the philosophy and teachings of Aristotle – taking over the essentials of his doctrines and pursuing the problems that he posed.

## Epicurus' Own Life and Teachings

In 306 BCE, Epicurus established his school at Athens in his garden, from which it came to be known as The Garden.

In accordance with the goal that he assigned to philosophy, Epicurus' teaching had a dogmatic character, in substance if not in form. He called his treatises *dialogismoi*, or “conversations.” Since the utility of the doctrines lay in their application, he summarized them in *stoicheia*, or “elementary propositions,” to be memorized. In this respect, Epicurus was the inventor of the catechetical method. The number of works produced by Epicurus and his disciples reveals an impressive theoretical activity. But no less important was the practical action in living by the virtues taught by him and in honouring the obligations of reciprocal help in the name of friendship. In these endeavors, continuous assistance was rendered by Epicurus himself, who, even when old and ill, was occupied in writing letters of admonishment, guidance, and comfort – everywhere announcing his gospel of peace and, under the name of pleasure, inviting to love.

## Doctrine of Epicurus

Philosophy was, for Epicurus, the art of living, and it aimed at the same time both to assure happiness and to supply means to achieve it. As for science, Epicurus was concerned only with the practical end in view. If possible, he would have done without it. "If we were not troubled by our suspicions of the phenomena of the sky and about death," he wrote, "and also by our failure to grasp the limits of pain and desires, we should have no need of natural science." But this science requires a principle that guarantees its possibilities and its certainty and a method of constructing it. This principle and this method are the object of the "Canon," which Epicurus substituted for Logic. Since he made the "Canon" an integral introduction to the "Physics," however, his philosophy falls into two parts, the "Physics" and the "Ethics."

The name canon, which means "rule," is derived from a special work entitled "On the Criterion, or Canon." It held that all sensations and representations are true and serve as criteria. The same holds for pleasure and pain, the basic feelings to which all others can be traced. Also true, and included among the criteria, are what may be called concepts (*prolepsis*), which consist of "a recollection of what has often been presented from without..." Man, therefore, must always cling to that "which was originally thought" in relation to every single "term" and which constitutes its background. Since the truth attested by each of the criteria is reflected in the *phainomena*, man must cling to these, employing them as "signs," and must "conjecture" whatever "does not appear." With the use of signs and conjecture, however, the level of judgment is reached, and thought is well advanced into that sphere in which error is possible, a state that begins as soon as single terms are tied into a proposition. Error, which consists of what "our judgment adds" to the evidence, can be of two types, one relative to what is

not an object of experience, the other relative to what is such an object but for which the evidence is dubious. Each type has its own method of proof. Following the principles and methods of the “Canon,” Epicurus arrived at an Atomism that, like that of the ancient naturalist Democritus, taught that the atoms, the void space in which they move, and the worlds are all infinite. But in contrast to Democritus, who had followed the deductive route of the intellect, considering the knowledge of the senses to be spurious, Epicurus, following an inductive route, assigned truth to sensation and reduced the intellect to it. On the basis of the totality of problems as Aristotle posed them in his “Physics,” Epicurus modified entirely the mechanical theory of causes and of motion found in Democritus and added the concept of a natural necessity, which he called nature, and that of free causality, which alone could explain the freedom of motion of man and animals. For this purpose he distinguished three forms of motion in the atoms: a natural one of falling in a straight line, owing to their weight; a forced one due to impacts; and a free motion of declination, or swerving from a straight line. Secondly, he made finite the number of forms of the atoms in order to limit the number of sensible qualities, since each form begets a distinctive quality, and he taught a mathematical as well as a physical Atomism. Lest an infinity of sensible qualities be generated, however, by an infinity of aggregations (if not of atomic kinds), Epicurus developed, from just this concept of infinity, the law of universal equilibrium of all the forces, or “isonomy.” Upon it, enclosing the events in a circle, he founded a theory of cyclic returns.

As part of his “Physics,” Epicurus’ psychology held that the soul must be a body. It is made of very thin atoms of four different species – motile, quiescent, igneous, and ethereal – the last, thinnest and the most mobile of all, serving to explain sensitivity and thought. Thus constituted, the soul is, from



another perspective, bipartite: in part distributed throughout the entire body and in part collected in the chest. The first part is the locus of sensations and of the physical affects of pain and pleasure; the second (entirely dissociated from the first) is the *psyche* par excellence – the seat of thought, emotions, and will. Thought is due not to the transmission of sense motion but to the perception of images constituted by films that continuously issue from all bodies and, retaining their form, arrive at the *psyche* through the pores. The full autonomy and freedom of the *psyche* is assured, as, with an act of apprehension, it seizes at every moment the images it needs, meanwhile remaining master of its own feelings.

The object of ethics is to determine the end and the means necessary to reach it. Taking his cue from experience, Epicurus looked to the animal kingdom for his answer. He concluded from this cue that the chief end is pleasure. He distinguished two kinds – a “kinetic” pleasure of sense and a “static” pleasure, consisting in the absence of pain – and taught that the pleasure of sense is good, though it is not good merely as motion but rather as a motion favorable to the nature of the receiving sense organ. In essence, pleasure is the equilibrium of the being with itself, existing wherever there is no pain.

Epicurus concluded that “freedom from pain in the body and from trouble in the mind” is the ultimate aim of a happy life. The damages and the advantages following the realization of any desire must be measured in a calculus in which even pain must be faced with courage if the consequent pleasure will be of longer duration.

Having thus given order to his life, however, the wise man must also provide himself with security. This he achieves in two ways – by reducing his

needs to a minimum and withdrawing, far from human competition and from the noise of the world, to “live hidden”; and by adding the private compact of friendship to the public compact from which laws arise. To be sure, friendship stems from utility; but, once born, it is desirable in itself. Epicurus then added that “for love of friendship one has even to put in jeopardy love itself”; for every existence, being alone, needs the other. “To eat and drink without a friend,” he wrote, “is to devour like the lion and the wolf.” Thus, the utility sublimates itself and changes into love. But as every love is intrepid, the wise man, “if his friend is put to torture, suffers as if he himself were there” and, if necessary, “will die for his friend.” Thus, into the bloody world of his time, Epicurus could launch the cry: “Friendship runs dancing through the world bringing to us all the summons to wake and sing its praises.”

If man’s unhappiness stemmed only from his own vain desires and from worldly dangers, this wisdom, founded upon prudence alone, would suffice. But besides these sources of unhappiness there are two great fears, fear of death and fear of the gods. If science, however, is effective in revealing the bounds of desire and (as already seen) in quelling the fear of the gods, it can also allay the fear of death. Regarding the soul as a body within another body, science envisions it as dissolving when the body dissolves. Death, then, “is nothing to us, so long as we exist, death is not with us; but when death comes, then we do not exist.” But death is feared not only for what may be awaiting man in the beyond but also for itself. “I am not afraid of being dead,” said the comic Epicharmus of Cos: “I just do not want to die.” The very idea of not existing instills a fear that Epicurus considered to be the cause of all the passions that pain the soul and disorder men’s lives. Against it Epicurus argued that if pleasure is perfect within each instant and “infinite time contains no greater pleasure than limited time, if one measures by reason the

limits of pleasure,” then all desire of immortality is vain. Thus, Epicurus’ most distinguished pupil, Metrodorus of Lampsacus, could exclaim, “*bebiotai*” (“I have lived”), and this would be quite enough. He who has conquered the fear of death can also despise pain, which “if it is long lasting is light, and if it is intense is short” and brings death nearer. The wise man has only to replace the image of pain present in the flesh with that of blessings enjoyed, and he can be happy even “inside the bull of Phalaris.” The most beautiful example was set by Epicurus at the moment of his death:

A happy day is this on which I write to you.... The pains which I feel... could not be greater. But all of this is opposed by the happiness which the soul experiences, remembering our conversations of a bygone time.

The ultimate concentration of all his wisdom is the *Tetrapharmacon*, preserved by Philodemus: “The gods are not to be feared. Death is not a thing that one must fear. Good is easy to obtain. Evil is easy to tolerate.”

### The Epicurean School

Epicurus’ successor in the direction of the Garden was Hermarchus of Mitylene, and he was succeeded in turn by Polystratus, who was the last survivor to have heard Epicurus. Superior to both, however, were Metrodorus and Colotes, against whom a small work by Plutarch was directed. Among the Epicureans of the 2nd century BCE, mention must be made of Demetrius of Lacon, of whose works some fragments remain, and Apollodorus, who wrote more than 400 books. Much was also written by his disciple Zeno of Sidon, who was heard by Cicero in 79 BCE in Athens. After Zeno, there were

Phaedrus, also a teacher of Cicero, who was in Rome in 90 BCE, and Patro, the head of the school until 51 BCE. Already famous as an epigram writer was Philodemus of Gadara (born 110 BCE). In the papyri of Herculaneum, comprising the effects of Philodemus' library, there are sizable remains of almost all of his numerous works. Epicureanism had already been introduced in Rome, in the 2nd century BCE. The first person to spread its doctrines in Latin prose was a certain Amafinius. At the time of Cicero, Epicureanism was in fact the philosophy in vogue; and the number of Romans subscribing to it was, according to Cicero, very large. Among the greatest was Titus Lucretius Carus (c. 95-55 BCE), who, in the poem *De rerum natura* ("On the Nature of Things"), left an almost complete and amazingly precise exposition of Epicurus' "Physics." The extent to which Epicurus was still popular in the 1st century after Christ is demonstrated by Seneca, who cited and defended him. To the 2nd century CE belongs Diogenes of Oenoanda, who carved Epicurus' works on a portico wall. In the same century should perhaps be mentioned Diogenianus, fragments of whose polemic against the Stoic Chrysippus are found in the church historian Eusebius. Also Epicurean, between the 4th and 5th centuries, was the epigrammatist Palladas.

On account of its dogmatic character and its practical end, the philosophy of Epicurus was not subject to development, except in the polemic and in its application to themes that Epicurus either had treated briefly or had never dealt with at all. To be aware of this, it is sufficient to run through what remains of the representatives of his school and particularly of the works of Philodemus of Gadara. Epicurus' philosophy remained essentially unchanged. Once truth has been found, it requires no more discussion, particularly when it completely satisfies the end toward which man's nature tends. The main thing is to see this end; all of the rest comes by itself, and there is no longer

anything to do but follow Epicurus, “liberator” and “saviour,” and to memorize his “oracular words.”

### Epicureanism and Egoism in Modern Philosophy

In the Middle Ages Epicurus was known through Cicero and the polemics of the fathers. To be an Epicurean at the time of Dante meant to be one who denied Providence and the immortality of the soul. In the 15th century, the notable humanist Lorenzo Valla – following brief hints by Petrarch – wrote, in the dialogue *De voluptate* (1431; “On Pleasure”), the first modern defense of the ethics of Epicurus, maintaining that the true good is pleasure and not virtue but concluding that the supreme pleasure is that which awaits man in heaven, which even the Bible calls *paradisum voluptatis*. In the 16th century, in terms of attitude and direction of thought, the first two great Epicureans were Michel de Montaigne in France and Francesco Guicciardini in Italy. Epicurean in everything, as man and as poet, was the early 16th-century classicist Ludovico Ariosto. But not until the 17th-century Provençal abbot Pierre Gassendi was the system of Epicurus to rise again in its entirety – this time, however, by approaching truth through faith. Gassendi in 1649 wrote a commentary on a book by the 3rd-century (CE) biographer Diogenes Laërtius. This comment, called the *Syntagma philosophiae Epicuri* (“Treatise on Epicurean Philosophy”), was issued posthumously at The Hague 10 years later. At the same time, in England, Thomas Hobbes, a friend of Gassendi, took up again the theory of pleasure and interpreted it in a dynamic sense, which was therefore closer to the doctrine of the ancient Cyrenaics. Starting from the premise that, in the natural state, “man is a wolf to man,” he concluded that peace, without which there is no happiness, cannot be

guaranteed by anything but force, and that this force must be relinquished, by common agreement, to the power of only one.

During the 17th and 18th centuries, the European nation in which Epicureanism was most active was France, where its representatives were called libertines, among them moralists such as François, duc de La Rochefoucauld, and Charles de Saint-Évremonde; scientists such as Julien de La Mettrie, who believed that man could be explained as a machine, Claude-Adrien Helvetius, who reduced the ethic of the useful to a form of experimental science but who put public above private well-being, and Paul Henri Dietrich, baron d'Holbach, who gave particular importance to the physics of the atoms. The purely sensistic conception of knowledge had its most thoroughgoing theoretician in Étienne de Condillac. In England, Adam Smith, developing the ethical concepts of Hume (founded on sympathy), surmounted the egoism that is the basis of every act by using the principle of the impartial observer invoked to sympathize with one or another of the antagonists. After him, the jurist Jeremy Bentham, eliminating sympathy, reduced ethics to the pure calculus of the useful, which – in an entirely Epicurean formula – he defined as a “moral arithmetic.” In the Epicurean stream lay also the Utilitarianism of the 19th century, of which the greatest representative was John Stuart Mill.

### Epicureanism in Contemporary Philosophy

In contemporary times, the interpretation of pleasure as a psychic principle of action was initiated by Gustav Fechner, the founder of

psychophysics, and developed toward the end of the century by Freud on the psychoanalytic level of the unconscious.

Epicureanism and egocentric hedonism have few faithful representatives among 20th-century philosophers, though the viewpoint remains as a residue in some strains of popular thinking.

### Criticism and Evaluation

In the first half of the 17th century, at a time when Pierre Gassendi was reviving atomistic Epicureanism, René Descartes, often called the founder of modern philosophy, offered arguments that tended to undercut Atomism. Reality is a plenum, he held, a complete fullness; there can be no such thing as a vacuous region, or the void of Atomism. Since matter is nothing but spatial extension, its only true properties are geometrical and dynamic. Because extension is everywhere, motion occurs not as a passage through emptiness, as Epicurus supposed, but as vortices, or “whirlpools,” in which every motion sets up a broad area of movement extending indefinitely around itself – a view that has tended to be confirmed in contemporary gravitational and field theory.

Close to the heart of Epicureanism is the principle, which occurred also in Democritus, that denies that something can come from or be rooted in nothing. In a poem composed by an ancient monist, Parmenides of Elea (born c. 515 BCE), this principle had been expressed in the two formulas: “Being cannot be Non-Being,” and “Non-Being must be Non-Being.” Though Epicurus had faithfully adhered to this principle almost throughout his system, he has been criticized for abandoning it at one point – in the swerves that he

attributed to occasional atoms that take them aside from their normal paths. Epicurus abandoned the principle at this point in order to avoid espousing a physics that was inconsistent with the autonomy that he observed in the physical behavior of men and animals. But to his Stoic critics, the swerves of the atoms were a scandal, since they implied that an event can occur without a cause. It has seldom been noted, however, that the swerve is merely a special case – a transposition into atomistic terms – of Aristotle’s theory of accidents (i.e., of properties that are not essential to the substances in which they occur), inasmuch as an accident, too, as Aristotle himself had stated (*Met.* I 3), is without a cause. Moreover, a similar view has been seriously advanced in modern times under the name of tychism by Charles Sanders Peirce, a philosopher of science.

To the Stoic charge that Epicurus lacked a doctrine of Providence (since he viewed the gods as being lazy), Epicurus answered that “mythical gods are preferable to the fate” posited by the Stoics. It has been suggested that he might equally well have added that the “immobile Prime Mover” of Aristotle’s theology was hardly less lazy than Epicurus’ gods. Epicurus’ way of phrasing this issue, however, must not obscure the fact that the problem of Providence and its secularization has been a crucial one in the philosophy of history ever since ancient times.

The effort of Epicurus to reduce the good to pleasure reflects the only criterion to which he would entrust himself, the “evidence of those passions immediately present,” which gives man the word of Nature. In the argument of psychological hedonism, here implied, the Epicurean holds that men as a matter of fact do take satisfaction in pleasure and decry pain, and he argues then to an egoistic ethical hedonism that identifies the (objective) good with pleasure. Most moralists, however, have felt that a thoroughgoing



psychological hedonism cannot be defended; that desire is often, as a matter of fact, directed toward an object with no thought at all about the pleasure that it will bring; that a mother's impulse to save her young from danger is more fundamental than any pleasure involved (which usually comes only afterward); that the tendency of a child to imitate his parents can be, in fact, quite painful; and that, as a 19th-century Utilitarian, Henry Sidgwick, has argued, in what he called the "hedonistic paradox," one of the most ineffective ways to achieve pleasure is to deliberately seek it out.

Some scholars have even argued that an Epicurean egoistic hedonism, however foresighted it may be, must logically be self-defeating. If the view is universalized, the egoist must advocate the maximization of his enemy's pleasure as well as of his own, which can lead to actions painful to himself. In consequence, the entire branch of ethics that covers the advising or judging of other agents is banned from consideration, and it may be questioned whether such a view can comprise an ethic at all.

On the other hand, it has been argued that man is subject to antinomies, or contradictions, that no system can escape; there are dimensions in his nature that transcend the rational level. Thus, whatever its rational credentials may be, Epicureanism, as an attitude toward life that was theorized in its purest form by Epicurus, nonetheless remains one of the important forms that human behavior has often assumed; and, at its best, it has achieved a type of asceticism that, even in retirement and solitude, does not negate company but welcomes it, finding the purest joys of life in the unique richness of human encounters.

## Platonism

Since Plato refused to write any formal exposition of his own metaphysic, our knowledge of its final shape has to be derived from the statements of Aristotle, which are confirmed by scanty remains of the earliest Platonists preserved in the Neoplatonist commentaries on Aristotle. These statements can, unfortunately, only be interpreted conjecturally.

## Aristotle's Account of Platonism

According to Aristotle (*Metaphysics* i, 987 b 18-25) Plato's doctrine of forms was, in its general character, not different from Pythagoreanism, the forms being actually called numbers. The two points on which Aristotle regards Plato as disagreeing with the Pythagoreans are (1) that, whereas the Pythagoreans said that numbers have as their constituents the unlimited and the limit, Plato taught that the forms have as constituents the one and the great and small; and (2) that, whereas the Pythagoreans had said that things are numbers, Plato intercalated between his forms (or numbers) and sensible things an intermediate class of mathematical. It is curious that in connection with the former difference Aristotle dwells mainly on the substitution of the "duality of the great and small" for the "unlimited," not on the much more significant point that the one, which the Pythagoreans regarded as the simplest complex of unlimited and limit, is treated by Plato as itself the element of limit. He further adds that the "great and small" is, in his own technical terminology, the matter, the one, the formal constituent, in a number.

If we could be sure how much of the polemic against number-forms in *Metaphysics* xiii-xiv is aimed directly at Plato, we might add considerably to

this bald statement of his doctrine, but unluckily it is certain that much of the polemic is concerned with the teaching of Speusippus and Xenocrates. It is not safe, therefore, to ascribe to Plato statements other than those with which Aristotle explicitly credits him. We have then to interpret, if we can, two main statements: (1) the statement that the forms are numbers; and (2) the statement that the constituents of a number are the great and small and the one.

Light is thrown on the first statement if we recall the corpuscular physics of the *Timaeus* and the mixture of the *Philebus*. In the *Timaeus*, in particular, the behavior of bodies is explained by the geometrical structure of their corpuscles, and the corpuscles themselves are analyzed into complexes built up out of two types of elementary triangle, which are the simplest elements of the narrative of *Timaeus*. Now a triangle, being determined in everything but absolute magnitude by the numbers that express the ratio of its sides, may be regarded as a triplet of numbers. If we remember then, that the triangles determine the character of bodies and are themselves determined by numbers, we may see why the ultimate forms on which the character of nature depends should be said to be numbers and also what is meant by the mathematical intermediate between the forms and sensible things. According to Aristotle, these mathematical differ from forms because they are many, whereas the form is one, from sensible things in being unchanging. This is exactly how the geometer's figure differs at once from the type it embodies and from a visible thing. There is, for example, only one type of triangle whose sides have the ratios 3:4:5, but there may be as many pure instances of the type as there are triplets of numbers exhibiting these ratios; and again, the geometrical triangles that are such pure instances of the type, unlike sensible three-sided figures, embody the type exactly and unchangingly. A mathematical physicist may thus readily be led to what seems to be Plato's view that the relations of

numbers are the key to the whole mystery of nature, as is actually said in the *Epinomis* (990 e).

We can now, perhaps, see the motive for the further departure from Pythagoreanism. It is clear that the Pythagorean parallelism between geometry and arithmetic rested upon the thought that the point is to spatial magnitude what the number 1 is to number. Numbers were thought of as collections of units, and volumes, in like fashion, as collections of points; that is, the point was conceived as a minimum volume. As the criticisms of Zeno showed, this conception was fatal to the specially Pythagorean science of geometry itself, since it makes it impossible to assert the continuity of spatial magnitude. (This, no doubt, is why Plato, as Aristotle tells us, rejected the notion of a point as a fiction.)

There is also a difficulty about the notion of a number as a collection of units, which must have been forced on Plato's attention by the interest in irrationals that is shown by repeated allusions in the dialogues, as well as by the later anecdotes that represent him as busied with the problem of doubling the cube or finding two mean proportionals. Irrational square and cube roots cannot possibly be reached by any process of forming collections of units, and yet it is a problem in mathematics to determine them, and their determination is required for physics (*Epinomis* 990 c-991 b).

This is sufficient to explain why it is necessary to regard the numbers that are the physicist's determinants as themselves determinations of a continuum (a great and small) by a limit and why at the same time the one can no longer be regarded as a blend of unlimited and limit but must be itself the factor of limit. (If it were the first result of the blending, it would reappear in all the further blends; all numbers would be collections of one and there

would be no place for the irrationals.) There is no doubt that Plato's thought proceeded on these general lines. Aristotle tells us that he said that numbers are not really addable (*Metaphysics* xiii, 1083 a 34), that is, that the integer series is not really made by successive additions of 1; and the *Epinomis* is emphatic on the point that, contrary to the accepted opinion, surds are just as much numbers as integers. The underlying thought is that numbers are to be thought of as generated in a way that will permit the inclusion of rationals and irrationals in the same series. In point of fact there are logical difficulties that make it impossible to solve the problem precisely on these lines. It is true that mathematics requires a sound logical theory of irrational numbers and, again, that an integer is not a collection of units; it is not true that rational integers and real numbers form a single series.

The Platonic number theory was inspired by thoughts that have since borne fruit abundantly but was itself premature. We learn partly from Aristotle, partly from notices preserved by his commentators, that, in the derivation of the integer series, the even numbers were supposed to be generated by the dyad that doubles whatever it lays hold of, the odd numbers in some way by the one that limits or equalizes, but the interpretation of these statements is, at best, conjectural. In the statement about the dyad there seems to be some confusion between the number 2 and the indeterminate dyad, another name for the continuum also called the great and small, and it is not clear whether this confusion was inherent in the theory itself or has been caused by Aristotle's misapprehension.

Nor, again, is it at all certain exactly what is meant by the operation of equalizing ascribed to the one. It would be improper here to propound conjectures that our space will not allow us to discuss. A collection and examination of the available evidence is given by L. Robin in his *Théorie*

*platonicienne des idées et des nombres d'après Aristote* (1908), and an admirable exposition of the significance of the problem of the irrational for Plato's philosophy by G. Milhaud in *Les Philosophes-géomètres de la Grèce, Platon et ses prédécesseurs*, new ed. (1934). For a conjectural interpretation see A.E. Taylor, "Forms and Numbers," in *Mind*, new series, vol. 35 and 36 (1926, 1927).

### The Academy After Plato: The Rise of Neoplatonism

Plato's Academy continued to exist as a corporate body down to CE 529, when the emperor Justinian, in his zeal for Christian orthodoxy, closed the schools of Athens and appropriated their emoluments. Plato's greatest scholar, Aristotle, had finally gone his own way and organized a school of his own in the Lyceum, claiming that he was preserving the essential spirit of Platonism while rejecting the difficult doctrine of the forms. The place of official head of the Academy was filled first by Speusippus, Plato's nephew (c. 347-339 BCE), then by Xenocrates (c. 339-314 BCE). Under Arcesilaus (c. 276-241 BCE) the Academy began its long-continued polemic against the sensationalist dogmatism of the Stoics, which accounts both for the tradition of later antiquity that dates the rise of a New (some said Middle) and purely sceptical Academy from Arcesilaus and for the 18th-century associations of the phrase "academic philosophy."

In the 1st century BCE the most interesting episode in the history of the school is the quarrel between its president, Philo of Larissa, and his scholar Antiochus of Ascalon, of which Cicero's *Academica* is the literary record. Antiochus, who had embraced Stoic tenets, alleged that Plato had really held

views indistinguishable from those of Zeno of Citium and that Arcesilaus had corrupted the doctrine of the Academy in a sceptical sense. Philo denied this. The gradual rapprochement between Stoicism and the Academy is illustrated from the other side by the work of Stoic scholars such as Panaetius of Rhodes and Poseidonius of Apamea, who commented on Platonic dialogues and modified the doctrines of their school in a Platonic sense.

The history of the Academy after Philo is obscure, but since the late 1st century CE we meet with a popular literary Platonism of which the writings of Plutarch are the best example. This popular Platonism insists on the value of religion, in opposition to Epicureanism, and on the freedom of the will and the reality of human initiative, in opposition to the Stoic determinism; a further characteristic feature, wholly incompatible with the genuine doctrine of Plato, is the notion that matter is inherently evil and the source of moral evil.

Genuine Platonism was revived in the 3rd century CE, in Rome, and independently of the Academy, by Plotinus. His Neoplatonism represents a real effort to do justice to the whole thought of Plato. Two aspects of Plato's thought, however, in the changed conditions inevitably fell into the background: the mathematical physics, and the politics. The 3rd century CE had no understanding for the former, and the Roman Empire under a succession of military chiefs no place for the latter. The doctrine of Plotinus is Platonism seen through the personal temperament of a saintly mystic and with the *Symposium* and the teaching of the *Republic* about the form of good always in the foreground. Plotinus lived in an atmosphere too pure for sectarian polemic, but in the hands of his successors Neoplatonism was developed in conscious opposition to Christianity. Porphyry, his disciple and biographer, was the most formidable of the anti-Christian controversialists; in

the next century, “Platonists” were among the allies and counsellors of the emperor Julian in his attempts to invent a Hellenic counterpart to Christianity.

Early in the 5th century, Neoplatonism flourished for a short time in Alexandria (which disgraced itself by the murder of Hypatia in 415) and captured the Athenian Academy itself, where its last great representative was the acute Proclus (CE 410-485). The latest members of the Academy, under Justinian, occupied themselves chiefly with learned commentaries on Aristotle, of which those of Simplicius are the most valuable. The doctrine of the school itself ends with Damascius in mystical agnosticism.

#### Influence of Platonism on Christian Thought

Traces of Plato are probably to be detected in the Alexandrian *Wisdom of Solomon*; the thought of the Alexandrian Jewish philosopher and theologian Philo, in the 1st century CE, is at least as much Platonic as Stoic. There are, perhaps, no certain marks of Platonic influence in the New Testament, but the earliest apologists (Justin, Athenagoras) appealed to the witness of Plato against the puerilities and indecencies of mythology. In the 3rd century Clement of Alexandria and after him Origen made Platonism the metaphysical foundation of what was intended to be a definitely Christian philosophy. The church could not, in the end, conciliate Platonist eschatology with the dogmas of the resurrection of the flesh and the Last Judgment, but in a less extreme form the platonizing tendency was continued in the next century by the Cappadocians, notably St. Gregory of Nyssa, and passed from them to St. Ambrose of Milan. The main sources of the Platonism that dominated the philosophy of Western Christian theologians through the earlier Middle Ages,



were, however, Augustine, the greatest thinker among the Western Fathers, who had been profoundly influenced by Plotinus read in a Latin version before his conversion to Christianity; and Boethius, whose wholly Platonist vindication of the ways of Providence in his *De Consolatione Philosophiae* was the favorite serious book of the Middle Ages.

A further powerful influence was exerted by the writings of the Pseudo-Dionysius the Areopagite. These works are, in fact, an imperfectly Christianized version of the speculations of Proclus and cannot date before the end of the 5th century CE at the earliest, but they enjoyed an immense authority based on their attribution to an immediate convert of St. Paul. After their translation into Latin in the 9th century by John Scotus Erigena, they became popular in the West.

Apart from this theological influence, Plato dominated the thought of the earlier Renaissance that dates from the time of Charlemagne in another way. Since the West possessed the philosophical writings of Cicero, with the Neoplatonic comment of Macrobius on the *Somnium Scipionis*, as well as the Latin translation of the first two-thirds of the *Timaeus* by Chalcidius, with his commentary on the text, and versions, also, at least of the *Phaedo* and of the *Meno*, whereas nothing was known of the works of Aristotle except Latin versions of some of the logical treatises, the Middle Ages, between Charlemagne and the beginning of the 13th century, when the recovery of Aristotle's physics and metaphysics from Moors, Persians, and Jews began, was much better informed about Plato than about Aristotle; in particular, in the various encyclopaedias of this period, it is the *Timaeus* that forms the regular background.

The 13th century saw a change. Aristotle came to displace Plato as the philosopher, partly in consequence of the immediately perceived value of his strictly scientific works as a storehouse of well-digested natural facts, partly from the brilliant success of the enterprise carried through by St. Thomas Aquinas, the reconstruction of philosophical theology on an Aristotelian basis. Plato is, however, by no means supplanted in the Thomist system; the impress of Augustine on Western thought has been far too deep for that. Augustine's "exemplarism," that is, the doctrine of forms in the version, ultimately derived from Philo of Alexandria, which makes the forms creative thoughts of God, is an integral part of the Thomist metaphysics, though it is now denied that the exemplars are themselves cognizable by the human intellect, which has to collect its forms, as best it can, from the data of sense.

Directly or through Augustine, the influence of Plato, not only on strictly philosophic thought but also on popular ethics and religion, has repeatedly come to the front in ages of general spiritual requickening and shows no signs of being on the wane.

Two revivals in particular are famous. The first is that of the 16th century, marked by the Latin translation of Marsilio Ficino and the foundation of Lorenzo de' Medici's fantastic Florentine Academy. What was revived then was not so much the spirit of Plato as that of the least sober of the Neoplatonists; the influence of the revival was felt more in literature than in philosophy or morals, but in literature its importance may be measured by the mere mention of such names as Michelangelo, Sir Philip Sidney, and Edmund Spenser.

In the 17th century, Plato, seen chiefly through the medium of Plotinus, supplied the inspiration of a group of noble thinkers who were vindicating a

more inward morality and religion against the unspiritual secularism and Erastianism of Hobbes: namely the so-called Cambridge Platonists, Benjamin Whichcote, Henry More, Ralph Cudworth, and John Smith. In the 20th century, on the one hand A.N. Whitehead tried to work out a philosophy of the sciences that confessedly connected itself with the ideas of the *Timaeus*; and on the other the rise of totalitarian governments produced a number of publications confronting Plato with the theories (Communist, Fascist, etc.) inherent in their policies. Neo-Kantianism, Existentialism, and analytical philosophy produced their own interpretations of Plato.

### Pythagoreanism

The philosophical school and religious brotherhood known as Pythagoreanism is believed to have been founded by Pythagoras of Samos, who settled in Croton in southern Italy about 525 BCE.

### General Features of Pythagoreanism

The character of the original Pythagoreanism is controversial, and the conglomeration of disparate features that it displayed is intrinsically confusing. Its fame rests, however, on some very influential ideas, not always correctly understood, that have been ascribed to it since antiquity. These ideas include those of (1) the metaphysics of number and the conception that reality, including music and astronomy, is, at its deepest level, mathematical in nature; (2) the use of philosophy as a means of spiritual purification; (3) the heavenly destiny of the soul and the possibility of its rising to union with the

divine; (4) the appeal to certain symbols, sometimes mystical, such as the *tetraktys*, the golden section, and the harmony of the spheres (to be discussed below); (5) the Pythagorean theorem; and (6) the demand that members of the order shall observe a strict loyalty and secrecy.

By laying stress on certain inner experiences and intuitive truths revealed only to the initiated, Pythagoreanism seems to have represented a soul-directed subjectivism alien to the mainstream of Pre-Socratic Greek thought centring on the Ionian coast of Asia Minor (Thales, Anaximander, Anaxagoras, and others), which was preoccupied with determining what the basic cosmic substance is.

In contrast with such Ionian naturalism, Pythagoreanism was akin to trends seen in mystery religions and emotional movements, such as Orphism, which often claimed to achieve through intoxication a spiritual insight into the divine origin and nature of the soul. Yet there are also aspects of it that appear to have owed much to the more sober, “Homeric” philosophy of the Ionians. The Pythagoreans, for example, displayed an interest in metaphysics (the nature of Being), as did their naturalistic predecessors, though they claimed to find its key in mathematical form rather than in any substance. They accepted the essentially Ionian doctrines that the world is composed of opposites (wet-dry, hot-cold, etc.) and generated from something unlimited; but they added the idea of the imposition of limit upon the unlimited and the sense of a musical harmony in the universe. Again, like the Ionians, they devoted themselves to astronomical and geometrical speculation. Combining, as it does, a rationalistic theory of number with a mystic numerology and a speculative cosmology with a theory of the deeper, more enigmatic reaches of the soul, Pythagoreanism interweaves Rationalism and irrationalism more inseparably than does any other movement in ancient Greek thought.

## Major Concerns and Teachings

The problem of describing Pythagoreanism is complicated by the fact that the surviving picture is far from complete, being based chiefly on a small number of fragments from the time before Plato and on various discussions in authors who wrote much later – most of whom were either Aristotelians or Neoplatonists. In spite of the historical uncertainties, however, that have plagued searching scholars, the contribution of Pythagoreanism to Western culture has been significant and therefore justifies the effort, however inadequate, to depict what its teachings may have been. Moreover, the heterogeneousness of Pythagorean doctrines has been well documented ever since Heraclitus, a classic early 5th-century Greek philosopher who, scoffing at Pythagoras' wide-ranging knowledge, said that it “does not teach one to have intelligence.” There probably never existed a strictly uniform system of Pythagorean philosophy and religious beliefs, even if the school did have a certain internal organization. Pythagoras appears to have taught by pregnant, cryptic *akousmata* (“something heard”) or *symbola*. His pupils handed these on, formed them partly into *Hieroi Logoi* (“Sacred Discourses”), of which different versions were current from the 4th century on, and interpreted them according to their convictions.

## Religion and Ethics

The belief in the transmigration of souls provided a basis for the Pythagorean way of life. Some Pythagoreans deduced from this belief the principle of “the kinship of all beings,” the ethical implications of which were later stressed in 4th-century speculation. Pythagoras himself seems to have

claimed a semidivine status in close association with the superior god Apollo; he believed that he was able to remember his earlier incarnations and, hence, to know more than others knew. Recent research has emphasized shamanistic traits deriving from the ecstatic cult practices of Thracian medicine men in the early Pythagorean outlook. The rules for the religious life that Pythagoras taught were largely ritualistic: refrain from speaking about the holy, wear white clothes, observe sexual purity, do not touch beans, and so forth. He seems also to have taught purification of the soul by means of music and mental activity (later called philosophy) in order to reach higher incarnations. “To be like your Master” and so “to come nearer to the gods” was the challenge that he imposed on his pupils. Salvation, and perhaps ultimate union with the divine cosmos through the study of the cosmic order, became one of the leading ideas in his school.

The advanced ethics and political theories sometimes ascribed to Pythagoreanism may to some extent reflect ideas later developed in the circle of Archytas, the leading 4th-century Pythagorean. But a picture current among the Peripatetics (the school founded by Aristotle) of Pythagoras as the educator of the Greeks, who publicly preached a gospel of humanity, is clearly anachronistic. Several of the Peripatetic writers, Aristoxenus, Dicaearchus, and Timaeus, seem to have interpreted some principles – properly laid down only for esoteric use in the brotherhood – as though these applied to all mankind: the internal loyalty, modesty, self-discipline, piety, and abstinence required by the secret doctrinal system; the higher view of womanhood reflected in the admission of women to the school; a certain community of property; and perhaps the drawing of a parallelism between the macrocosm (the universe) and the microcosm (man), in which (for instance) the Pythagorean idea that the cosmos is an organism was applied to the state,

which should thus mix monarchy, oligarchy, and democracy into a harmonic whole – these were all universalized.

### Metaphysics and Number Theory

According to Aristotle, number speculation is the most characteristic feature of Pythagoreanism. Things “are” number, or “resemble” number. To many Pythagoreans this concept meant that things are measurable and commensurable or proportional in terms of number – an idea of considerable significance for Western civilization. But there were also attempts to arrange a certain minimum number of pebbles so as to represent the shape of a thing – as, for instance, stars in a constellation that seem to represent an animal. For the Pythagoreans even abstracted things “have” their number: “justice” is associated with the number four and with a square, “marriage” with the number five, and so on. The psychological associations at work here have not been clarified.

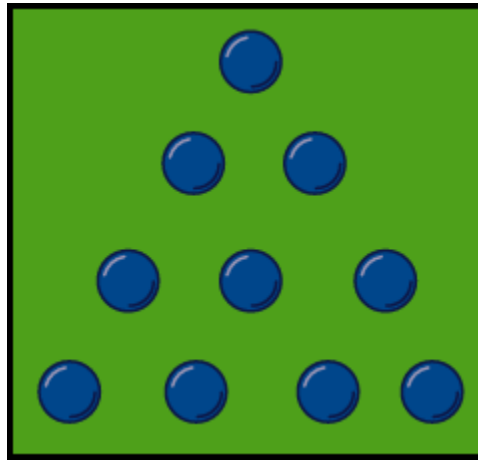


Figure 1: The Tetraktys

### The Harmony of the Cosmos

The sacred decad in particular has a cosmic significance in Pythagoreanism: its mystical name, *tetraktys* (meaning approximately “fourness”), implies  $1 + 2 + 3 + 4 = 10$ ; but it can also be thought of as a “perfect triangle,” as in Figure 1.

Speculation on number and proportion led to an intuitive feeling of the *harmonia* (“fitting together”) of the *kosmos* (“the beautiful order of things”); and the application of the *tetraktys* to the theory of music revealed a hidden order in the range of sound. Pythagoras may have referred, vaguely, to the “music of the heavens,” which he alone seemed able to hear; and later Pythagoreans seem to have assumed that the distances of the heavenly bodies from the Earth somehow correspond to musical intervals – a theory that, under the influence of Platonic conceptions, resulted in the famous idea of the “harmony of the spheres.” Though number to the early Pythagoreans was still a kind of cosmic matter, like the water or air proposed by the Ionians, their



stress upon numerical proportions, harmony, and order comprised a decisive step toward a metaphysic in which form is the basic reality.

### The Doctrine of Opposites

From the Ionians, the Pythagoreans adopted the idea of cosmic opposites, which they – perhaps secondarily – applied to their number speculation. The principal pair of opposites is the limit and the unlimited; the limit (or limiting), represented by the odd (3,5,7,...), is an active force effecting order, harmony, “cosmos,” in the unlimited, represented by the even. All kinds of opposites somehow “fit together” within the cosmos, as they do, microcosmically, in an individual man and in the Pythagorean society. There was also a Pythagorean “table of ten opposites,” to which Aristotle has referred – limit-unlimited, odd-even, one-many, right-left, male-female, rest-motion, straight-curved, light-darkness, good-evil, and square-oblong. The arrangement of this table reflects a dualistic conception, which was apparently not original with the school, however, or accepted by all of its members.

The Pythagorean number metaphysic was also reflected in its cosmology. The unit (1), being the starting point of the number series and its principle of construction, is not itself strictly a number; for, to be a number is to be even or odd, whereas, in the Pythagorean view, “one” is seen as *both* even and odd. This ambivalence applies, similarly, to the total universe, conceived as the One. There was also a cosmogonical theory (of cosmic origins) that explained the generation of numbers and number-things from the limiting-odd and the unlimited-even – a theory that, by stages unknown to

scholars, was ultimately incorporated into Plato's philosophy in his doctrine of the derivation of sensed realities from mathematical principles.

## Mathematics and Science

Pythagorean thought was scientific as well as metaphysical and included specific developments in arithmetic and geometry, in the science of musical tones and harmonies, and in astronomy.

### Arithmetic

Early Pythagorean achievements in mathematics are unclear and largely disputable, and the following is, therefore, a compromise between the widely divergent views of modern scholars.

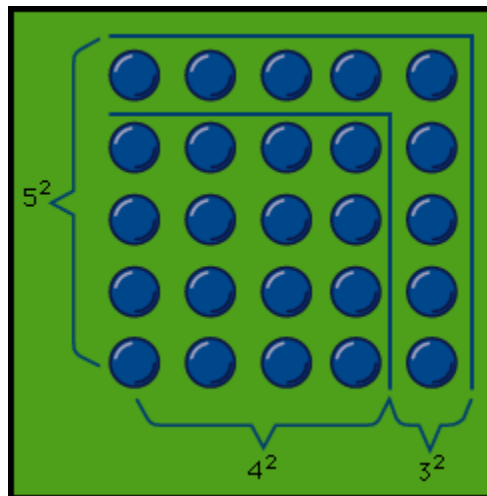


Figure 2: Gnomons of Pythagorean number theory

In the speculation on odd and even numbers, the early Pythagoreans used so-called gnomones (Greek: “carpenter’s squares”). Judging from Aristotle’s account, gnomon numbers, represented by dots or pebbles, were arranged in the manner shown in Figure 2. If a series of odd numbers is put around the unit as gnomons, they always produce squares; thus, the members of the series 4, 9, 16, 25,... are “square” numbers. If even numbers are depicted in a similar way, the resulting figures (which offer infinite variations) represent “oblong” numbers, such as those of the series 2, 6, 12, 20... On the other hand, a triangle represented by three dots (as in the upper part of the *tetraktys*) can be extended by a series of natural numbers to form the “triangular” numbers 6, 10 (the *tetraktys*), 15, 21.... This procedure, which was, so far, Pythagorean, led later, perhaps in the Platonic Academy, to a speculation on “polygonal” numbers.

Probably the square numbers of the gnomons were early associated with the Pythagorean theorem (likely to have been used in practice in Greece, however, before Pythagoras), which holds that for a right triangle a square drawn on the hypotenuse is equal in area to the sum of the squares drawn on its sides; in the gnomons it can easily be seen, in the case of a 3,4,5-triangle for example (see Figure 3), that the addition of a square gnomon number to a square makes a new square:  $3^2 + 4^2 = 5^2$ , and this gives a method for finding two square numbers the sum of which is also a square.

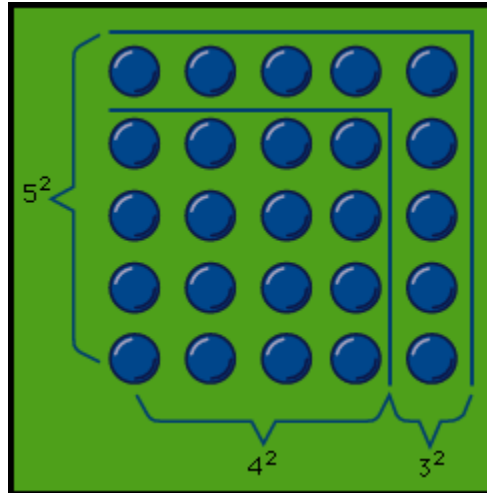


Figure 3: Square numbers of the Gnomons of Pythagorean number theory

Some 5th-century Pythagoreans seem to have been puzzled by apparent arithmetical anomalies: the mutual relationships of triangular and square numbers; the anomalous properties of the regular pentagon; the fact that the length of the diagonal of a square is incommensurable with its sides – i.e., that no fraction composed of integers can express this ratio exactly (the resulting decimal is thus defined as irrational); and the irrationality of the mathematical proportions in musical scales. The discovery of such irrationality was disquieting because it had fatal consequences for the naive view that the universe is expressible in whole numbers; the Pythagorean Hippasus is said to have been expelled from the brotherhood, according to some sources even drowned, because he made a point of the irrationality.

In the 4th century, Pythagorizing mathematicians made a significant advance in the theory of irrational numbers, such as the-square-root-of- $n$  ( $\sqrt{n}$ ),  $n$  being any rational number, when they developed a method for finding progressive approximations to  $\sqrt{2}$  by forming sets of so-called diagonal numbers.

### Geometry

In geometry, the Pythagoreans cannot be credited with any proofs in the Euclidean sense. They were evidently concerned, however, with some speculation on geometrical figures, as in the case of the Pythagorean theorem, and the concept that the point, line, triangle, and tetrahedron correspond to the elements of the *tetraktys*, since they are determined by one, two, three, and four points, respectively. They possibly knew practical methods of constructing the five regular solids, but the theoretical basis for such constructions was given by non-Pythagoreans in the 4th century.

It is notable that the properties of the circle seem not to have interested the early Pythagoreans. But perhaps the tradition that Pythagoras himself discovered that the sum of the three angles of any triangle is equal to two right angles may be trusted. The idea of geometric proportions is probably Pythagorean in origin; but the so-called golden section – which divides a line at a point such that the smaller part is to the greater as the greater is to the whole – is hardly an early Pythagorean contribution. Some advance in geometry was made at a later date, by 4th-century Pythagoreans; e.g., Archytas offered an interesting solution to the problem of the duplication of the cube – in which a cube twice the volume of a given cube is constructed –

by an essentially geometrical construction in three dimensions; and the conception of geometry as a “flow” of points into lines, of lines into surfaces, and so on, may have been contributed by Archytas; but on the whole the numerous achievements of non-Pythagorean mathematicians were in fact more conspicuous than those of the Pythagoreans.

## Music

The achievements of the early Pythagoreans in musical theory are somewhat less controversial. The scientific approach to music, in which musical intervals are expressed as numerical proportions, originated with them, as did also the more specific idea of harmonic “means.” At an early date they discovered empirically that the basic intervals of Greek music include the elements of the tetraktys, since they have the proportions 1:2 (octave), 3:2 (fifth), and 4:3 (fourth). The discovery could have been made, for instance, in pipes or flutes or stringed instruments: the tone of a plucked string held at its middle is an octave higher than that of the whole string; the tone of a string held at the  $\frac{2}{3}$  point is a fifth higher; and that of one held at the  $\frac{3}{4}$  point is a fourth higher. Moreover, they noticed that the subtraction of intervals is accomplished by dividing these ratios by one another. In the course of the 5th century they calculated the intervals for the usual diatonic scale, the tone being represented by 9:8 (fifth minus fourth); i.e.,  $\frac{3}{2}$  {division}  $\frac{4}{3}$ , and the semitone by 256:243 (fourth minus two tones); i.e.,  $\frac{4}{3}$  {division}  $(\frac{9}{8} \frac{9}{8})$ . Archytas made some modification to this doctrine and also worked out the relationships of the notes in the chromatic (12-tone) scale and the enharmonic scale (involving such minute differences as that between A flat and G sharp, which on a piano are played by the same key).

## Astronomy

In their cosmological views the earliest Pythagoreans probably differed little from their Ionian predecessors. They made a point of studying the stellar heavens; but – with the possible exception of the theory of musical intervals in the cosmos – no new contributions to astronomy can be ascribed to them with any degree of probability. Late in the 5th century, or possibly in the 4th century, a Pythagorean boldly abandoned the geocentric view and posited a cosmological model in which the Earth, Sun, and stars circle about an (unseen) central fire – a view traditionally attributed to the 5th-century Pythagorean Philolaus of Croton.

## History of Pythagoreanism

The life of Pythagoras and the origins of Pythagoreanism appear only dimly through a thick veil of legend and semihistorical tradition. The literary sources for the teachings of the Pythagoreans present extremely complicated problems. Special difficulties arise from the oral and esoteric transmission of the early doctrines, the profuse accumulation of tendentious legends, and the considerable amount of confusion that was caused by the split in the school in the 5th century BCE. In the 4th century, Plato's inclination toward Pythagoreanism created a tendency – manifest already in the middle of the century in the works of his pupils – to interpret Platonic concepts as originally Pythagorean. But the radical scepticism as to the reliability of the sources shown by some modern scholars has on the whole been abandoned in recent research. It now seems possible to extract bits of reliable evidence from a wide range of ancient authors, such as Porphyry and Iamblichus.

Most of these literary sources hark back ultimately to the environment of Plato and Aristotle; and here the importance of one of Aristotle's students has become obvious, viz., the musicologist and philosopher Aristoxenus, who in spite of his bias possessed firsthand information independent of the point of view of Plato's Academy. The role played by Dicaearchus, another of Aristotle's pupils, and by the Sicilian historian Timaeus, of the early 3rd century BCE, is less clear. Recently, the reliability of Aristotle's account of Pythagoreanism has also been emphasized against the doubts that had been expressed by some modern scholars; but Aristotle's sources, in turn, hardly lead farther back than to the late 5th century (perhaps to Philolaus; see below Two Pythagorean sects). In addition, there are scattered hints in various early authors and in some not very substantial remains of 4th-century Pythagorean literature. The mosaic of reconstruction thus has to be to some extent subjective.

### Early Pythagoreanism

Within the ancient Pythagorean movement four chief periods can be distinguished: early Pythagoreanism, dating from the late 6th century BCE and extending to about 400 BCE; 4th-century Pythagoreanism; the Hellenistic trends; and Neo-Pythagoreanism, a revival that occurred in the mid-1st century CE and lasted for two and a half centuries.



## Background

The background of Pythagoreanism is complex, but two main groups of sources can be distinguished. The Ionian philosophers (Thales, Anaximander, Anaximenes, and others) provided Pythagoras with the problem of a single cosmic principle, the doctrine of opposites, and whatever reflections of Oriental mathematics there are in Pythagoreanism; and from the technicians of his birthplace, the Isle of Samos, he learned to understand the importance of number, measurements, and proportions. Popular cults and beliefs current in the 6th century and reflected in the tenets of Orphism introduced him to the notions of occultism and ritualism and to the doctrine of individual immortality. In view of the shamanistic traits of Pythagoreanism, reminiscent of Thracian cults, it is interesting to note that Pythagoras seems to have had a Thracian slave.

## Pythagorean Communities

The school apparently founded by Pythagoras at Croton in southern Italy seems to have been primarily a religious brotherhood centred around Pythagoras and the cults of Apollo and of the Muses, ancient patron goddesses of poetry and culture. It became perhaps successively institutionalized and received different classes of esoteric members and exoteric sympathizers. The rigorism of the ritual and ethical observances demanded of the members is unparalleled in early Greece; in addition to the rules of life mentioned above, it is fairly well attested that secrecy and a long silence during the novitiate were required. The exoteric associates, however, were politically active and established a Crotonian hegemony in southern Italy. About 500 BCE a coup

by a rival party caused Pythagoras to take refuge in Metapontum, where he died.

During the early 5th century, Pythagorean communities, inspired by the original school at Croton, existed in many southern Italian cities, a fact that led to some doctrinal differentiation and diffusion. In the course of time the politics of the Pythagorean parties became decidedly antidemocratic. About the middle of the century a violent democratic revolution swept over southern Italy; in its wake, many Pythagoreans were killed, and only a few escaped, among them Lysis of Tarentum and Philolaus of Croton, who went to Greece and formed small Pythagorean circles in Thebes and Phlius.

#### Two Pythagorean Sects

Little is known about Pythagorean activity during the latter part of the 5th century. The differentiation of the school into two main sects, later called *akousmatikoi* (Greek: *akousma*, “something heard,” viz., the esoteric teachings) and *mathematikoi* (Greek: *mathematikos*, “scientific”), may have occurred at that time. The acousmatics devoted themselves to the observance of rituals and rules and to the interpretation of the sayings of the master; the “mathematics” were concerned with the scientific aspects of Pythagoreanism. Philolaus, who was rather a mathematic, probably published a summary of Pythagorean philosophy and science in the late 5th century.

#### 4th-Century Pythagoreanism

In the first half of the 4th century, Tarentum, in southern Italy, rose into considerable significance. Under the political and spiritual leadership of the mathematic Archytas, a friend of Plato, Tarentum became a new center of Pythagoreanism, from which acousmatics – so-called Pythagorists who did not sympathize with Archytas – went out travelling as mendicant ascetics all around the Greek-speaking world. The acousmatics seem to have preserved some early Pythagorean *Hieroi Logoi* and ritual practices. Archytas himself, on the other hand, concentrated on scientific problems, and the organization of his Pythagorean brotherhood was evidently less rigorous than that of the early school. After the 380s there was a give-and-take between the school of Archytas and the Academy of Plato, a relationship that makes it almost impossible to disentangle the original achievements of Archytas from joint involvements.

#### The Hellenistic Age

Whereas the school of Archytas apparently sank into inactivity after the death of its founder (probably after 350 BCE), the Academics of the next generation continued “Pythagorizing” Platonic doctrines, such as that of the supreme One, the indefinite dyad (a metaphysical principle), and the tripartite soul. At the same time, various Peripatetics of the school of Aristotle, including Aristoxenus, collected Pythagorean legends and applied contemporary ethical notions to them. In the Hellenistic Age, the Academic and Peripatetic views gave rise to a rather fanciful antiquarian literature on Pythagoreanism. There also appeared a large and yet more heterogeneous

mass of apocryphal writings falsely attributed to different Pythagoreans, as if attempts were being made to revive the school. The texts fathered on Archytas display Academic and Peripatetic philosophies mixed with some notions that were originally Pythagorean. Other texts were fathered on Pythagoras himself or on his immediate pupils, imagined or real. Some show, for instance, that Pythagoreanism had become confused with Orphism; others suggest that Pythagoras was considered a magician and an astrologist; there are also indications of Pythagoras “the athlete” and “the Dorian nationalist.” But the anonymous authors of this pseudo-Pythagorean literature did not succeed in reestablishing the school, and the “Pythagorean” congregations formed in early imperial Rome seem to have had little in common with the original school of Pythagoreanism established in the late 6th century BCE; they were ritualistic sects that adopted, eclectically, various occult practices.

### Neo-Pythagoreanism

With the ascetic sage Apollonius of Tyana, about the middle of the 1st century CE, a distinct Neo-Pythagorean trend appeared. Apollonius studied the Pythagorean legends of the previous centuries, created and propagated the ideal of a Pythagorean life – of occult wisdom, purity, universal tolerance, and approximation to the divine – and felt himself to be a reincarnation of Pythagoras. Through the activities of Neo-Pythagorean Platonists, such as Moderatus of Gades, a pagan trinitarian, and the arithmetician Nicomachus of Gerasa, both of the 1st century CE, and, in the 2nd or 3rd century, Numenius of Apamea, forerunner of Plotinus (an epoch-making elaborator of Platonism), Neo-Pythagoreanism gradually became a part of the expression of Platonism known as Neoplatonism; and it did so without having achieved a scholastic

system of its own. The founder of a Syrian school of Neoplatonism, Iamblichus, a pupil of Porphyry (who in turn had been a pupil of Plotinus), thought of himself as a Pythagorean sage and about CE 300 wrote the last great synthesis of Pythagoreanism, in which most of the disparate post-classical traditions are reflected. It is characteristic of the Neo-Pythagoreans that they were chiefly interested in the Pythagorean way of life and in the pseudoscience of number mysticism. On a more popular level, Pythagoras and Archytas were remembered as magicians. Moreover, it has been suggested that Pythagorean legends were also influential in guiding the Christian monastic tradition.

#### Medieval and Modern Trends

In the Middle Ages the popular conception of Pythagoras the magician was combined with that of Pythagoras “the father of the quadrivium”; i.e., of the more specialized liberal arts of the curriculum. From the Italian Renaissance onward, some “Pythagorean” ideas, such as the tetrad, the golden section, and harmonic proportions, became applied to aesthetics. To many Humanists, moreover, Pythagoras was the father of the exact sciences. In the early 16th century, Nicolaus Copernicus, who developed the view that the Earth revolves around the Sun, considered his system to be essentially Pythagorean or “Philolaic,” and Galileo was called a Pythagorean. The 17th-century Rationalist G.W. Leibniz appears to have been the last great philosopher and scientist who felt himself to be in the Pythagorean tradition.

It is doubtful whether advanced modern philosophy has ever drawn from sources thought to be distinctly Pythagorean. Yet Platonic-Neoplatonic

notions, such as the mathematical conception of reality or the philosopher's union with the universe and various mystical beliefs are still likely to be stamped as Pythagorean in origin. Even today a relatively uncritical admiration of Pythagoreanism is common.

### Evaluation

The history of the projection of Pythagoreanism into subsequent thought indicates how fertile some of its core concepts were. Plato is here the great catalyst; but it is possible to perceive behind him, however dimly, a series of Pythagorean ideas of paramount potential significance: the combination of religious esoterism (or exclusivism) with the germs of a new philosophy of mind, present in the belief in the progress of the soul toward the actualization of its divine nature and toward knowledge; stress upon harmony and order, and upon limit as the good; the primacy of form, proportion, and numerical expression; and in ethics, and emphasis upon such virtues as friendship and modesty. The fact that Pythagoras, to later ages, also became alternatively conceived of as a Dorian nationalist, a sportsman, an educator of the people, or a great magician is a more curious consequence of the productivity of his teaching.

## Realism

Understood in its broadest philosophical sense, Realism connotes any viewpoint that accords to the objects of man's knowledge an existence that is independent of whether he is perceiving or thinking about them. Though it may seem strange to the unphilosophical layman that the independent existence of objects "out there" should be questioned, the philosopher, faced with the many profound challenges that Idealists have posed against the independence of objects, knows that the problem of the existence of objects – whether in thought or in concrete form – is far from trivial.

Clearly, Idealists have argued, musical tones such as middle C do not have existence as tones in the air; they appear, instead, to be qualities that the mind itself generates when the appropriate hair cells in the organ of Corti are stimulated. Nor does the color purple have existence as a quality in the world outside of the mind; there can be, in fact, no such thing as a beam of pure (monochromatic) purple light inasmuch as purple is a unique kind of color that is perceived when vibrations at the opposite extremes of the visual spectrum (red and violet) are mixed together in the same beam. At least in this one case, the color seems created by the mind. But if this is so of purple, the Idealists ask, is it not true, also, of all colors? Similarly, under certain circumstances heat is felt as cold and rotation as oscillation. It is not surprising, therefore, that philosophers have asked what, if any, residual properties an object might have in and of itself after due allowance has been made for those qualities that the mind and perspective of the observer have imposed upon it; nor is it surprising that they have asked what, if anything, it would mean to insist on the objective existence of an object of which all of the qualities were mental. Realists, on the other hand, have held that, in spite of

the foregoing considerations as proposed by the Idealists, there still remains a sense in which objects can have an existence that is independent of minds.

Realism exists, however, in several strikingly different versions: its objects may be, for example, either individual things (such as “the Moon”), or merely particular qualities of things (such as “roundness,” “yellowness”), or species and genera of things (such as “moons,” “planetary bodies”). In one way or another, however, whether it regards things from the viewpoint of the things themselves or from that of the human activities related to them, Realism tends to stress some definite function of the independent existence of objects.

#### Nature and Scope of Realism

#### Realism and the Problem of Knowledge

One of the major problems confronting Realism involves the distinction between private, public, and so-called ontological objects. A private object is a sheer datum (such as a perceived patch of yellow) taken purely as an uninterpreted item in the knower’s own inner experience; a public object is one that the mind has projected into an objective conceptual frame of space and time shared in common with other minds, an object that the mind has constituted as a percept (such as the perceived Moon) – though it is still acknowledged to be in part mental (e.g., its yellowness; or its visual size, which is larger when it is near the horizon); and an ontological object is the Kantian “thing-in-itself” (the Moon as it really is), which may as well consist of monads, of God’s thoughts, of will, or of action, as of force and matter. Though Realists and Idealists both acknowledge that the knower transcends



the private object, they make different assumptions about the relationship between the public and the ontological object: on the one hand, the Realist holds that the physical sphericity, yellowness, and hardness perceived (or perceivable) in the public object are in some degree actual properties of the ontological thing-in-itself; the Idealist, on the other hand, holds that the public object is merely a phenomenon, from which little can be inferred about the underlying *onta* (realities), least of all of their basic qualities, which are probably quite different from the roundness and hardness of the perceived object. The Idealist may, in fact, surmise that the nature of the *onta* is conveyed more faithfully in the fundamental mental tone of the public object – in the colors, feelings, and durations (which are of the nature of mind) – than in its specific material properties. (A third contender, that philosopher known as the metaphysical solipsist, would hold to the viewpoint that the ontological object does not exist at all.)

Similarly, if a particular thing regarded in its particularity (such as the Moon) is distinguished from a universal – i.e., an entity comprising the essence of the thing (moonness) – that which it shares with all the other things of the same species or genus (as with the moons of Jupiter) – then a form of Realism can be defined as asserting the independent reality of universals, which it may even exalt above that of particulars.

Accordingly, Realism may be variously opposed to the tenets of other philosophical positions. As opposed to Nominalism, which denies that essences (or the specific and generic natures of things) have any reality at all (except as names), and conceptualism, which grants such universals reality only as concepts within the mind, Realism allows to the specific or generic nature of the thing a distinct existence in reality outside the mind. Against Idealism (see below), it asserts that the existence of sense objects (such as the

perceived Moon) and that of their qualities is external to thought. In opposition to phenomenism and sensationalism, which regard objects as comprising nothing more than private volleys or families of disconnected sense fragments, Realism grounds objects in real unified and enduring substances. Unlike conventionalism, a philosophy of science that regards scientific laws and theories as freely chosen constructs that are simply devised by the scientist for the purpose of describing reality, Realism holds that laws and theories have determined and real counterparts in things.

The term Realism first appeared early in the 19th century, though the adjective Realist dates from the late 16th century. These terms have been applied, however – often retroactively – to various systems that have arisen throughout history.

In its broadest scope, the term Realism has application in a number of distinct areas. In literature, art, and aesthetics, in law, and in philosophy, it emphasizes real existence or relation to it. The present article is concerned solely with Realism in the philosophical area.

### Philosophical Senses of Realism

Even within philosophy Realism has a wide range of applications. Though a definitely modern term, Realism is freely used today for tenets of the Greek and medieval epochs, as well as for the modern period.

## Basic Kinds of Realism

Among philosophical Realisms, two fundamentally different kinds can be distinguished: the Realism of natures and the Realism of things. In the Realism of natures, that which is viewed as having an existence external to the mind is an entity that, in some sense, is set apart in the world of things – an entity that is variously understood as the Form or Idea in which a thing participates, such as “manness” or “bedness” (Platonic Realism), as the essence or *to ti en einai*, “the ‘what it is’ of a thing” (Aristotelian Realism), or as its nature, either absolute, specific, or generic (medieval Realism or the Realism of universals), or, finally, as laws or theoretical models abstracted from scientific observations. In the Realism of things, on the other hand, that which is viewed as having an existence external to the mind is the total, concrete, and individual object of experience, which the Realist regards as retaining its chief properties at all times, even when left unseen. This Realism, too, can be variously conceived: the externality of the world, for example, can be regarded as simply and obviously given (commonsense Realism); the object itself, though external, can be viewed as the sole entity standing before the mind and grasped by it (neo-Realism); or the object can be conceived as, in some sense, duplicated, so that the mind directly encounters only a counterpart of the external object and not the object itself (critical Realism), a counterpart which was sometimes regarded as a representation of it (representational Realism).

### Distinctions Among the Realisms

As previously noted, the term Realism has been applied retroactively to the transcendence of the Platonic Forms or Ideas, to the extent that for Plato the natures of things have, in the ideas of them, an existence more real than that of sensible, individual things. Yet, from its emphasis on ideal as opposed to concrete existence, this Platonic doctrine would be classed as an Idealism instead of a Realism. In the parallel issue in Aristotelianism, the stand that the universals, or specific and generic natures, exist only in the mind but are nonetheless grounded in the real forms of things has been called a moderate Realism. Aristotle himself, however, vigorously denied that the universals have any substantiality (*Metaphysics*, Z: 13-14; 1038<sup>b</sup>8-1039<sup>b</sup>19), which clearly suggests that, for him, the universals have no existence independently of cognition; this tends, in this first context, to invalidate the designation Realism for the Aristotelian doctrine.

Correspondingly, Realism is used to describe medieval views that allowed species and genera some kind of distinct existence outside of their conception by the mind. There it meant not only that individual men and individual animals and so on exist outside cognition but also that the specific nature of man and the generic nature of animal and the like have an existence of their own in the outside world. For Realism, objects “fall into” such categories as humanness, mountainness, and so on naturally. For its opponents, however, this is not always the case: thus, in terms of a modern illustration, graniteness – that which all the granite rocks share in common – does not exist except as an artificial category set up by the mind (conceptualism) because it merges by imperceptible gradations into diorite or felsite as its mineral composition and texture gradually change.

Yet in actual fact the various medieval doctrines do not fit neatly under these divisions. In the philosophies of several medieval Scholastics, for instance, both the particular thing and the universal are distinguished in one way or another from a third entity, the specific or generic nature taken absolutely in itself. This so-called absolute nature was given a “being of its own” by Avicenna, the early 11th-century Persian philosopher and physician, and – in the 13th century – by Henry of Ghent, an eclectic Christian Scholastic, and by the voluntarist John Duns Scotus, an important medieval Franciscan Scholastic, who gave the absolute nature a reality that was distinct in form from the individual thing, but unitively contained in it. Thomas Aquinas gave it no being at all. Though these views reflect radically different metaphysical settings, they all variously bar the natures from real existence when separated in any way from the individual.

In its conventional applications to Greek and medieval thought, accordingly, Realism turns out to be an elusive and even confusing notion. It seems to be an inept way of emphasizing difficulties that are significantly present in the philosophies of these epochs, which require understanding and solution. But the granting of extramental existence to the generic and specific natures has raised more difficulties than it has solved.

All of these ancient and medieval doctrines – whether Realistic, conceptualistic, or nominalistic – accept the external existence of individual sensible things. From this viewpoint, they would all be Realisms in the second main sense of the term, that of the Realism of ordinary things, which is the sense in which Realism is predominantly employed in the modern era. Here it means the epistemological (or theory-of-knowledge) view that things taken as individual wholes have an existence that is outside of human cognition.

## History of Western Realism

In these and other related ways, modern writers have seen the philosophic attitude called Realism continually surfacing in the stream of Western thought, suggesting that it is a perennial feature.

### Ancient Realism

In pre-Socratic thought, even in Parmenides (late 6th century), known for reducing reality to the One, the relevant reality of the objects of cognition was everywhere assumed. In Plato (5th and 4th centuries BCE), the separate and more excellent existence of the natures, or Forms, was strongly asserted at times, though quite often the immanence of the form in individuals was just as surely implied without any satisfactory reconciliation of the contradiction. With Philo of Alexandria, a Hellenistic Jewish philosopher in the 1st century CE, the existence of the Platonic Forms was located within the mind of God, a view also found in the early 5th century in Augustine of Hippo (*De diversis quaestionibus*, “On Diverse Questions”). In the medieval Augustinian tradition, for instance in the writings of Anselm of Canterbury, the influence of this interpretation persisted. In the early 6th century, on the other hand, Boethius, perhaps the intellectual founder of the Middle Ages, in transmitting Aristotelian logic to the West, presented the universal notions with a strong cast of Platonic Realism, while acknowledging that the Aristotelian view was different. Among medieval thinkers in the early 12th century, such as William of Champeaux, the Parisian logician and theologian, the Platonizing tradition of Boethius was dominant, though it was brought under fire by such men as Roscelin, founder of nominalism, who saw universals as mere words. With the

stormy controversialist Peter Abelard, who was the foremost dialectician of his time, the Boethian Realism was attacked. But according to Abelard, more than mere words were required to justify universality; in his view, universals were concepts signifying real things and had their ultimate basis in the divine ideas, as in the Augustinian tradition.

### Medieval Realism

The approach of the early medieval thinkers to the problem of universals was made from the side of logic. But it soon involved theological issues, which, when added to the much deeper study of its metaphysical backgrounds made by Boethius, led the scholars to place the relevant questions in a different setting. The natures or common essences of things came to be scrutinized from a threefold viewpoint: as existent in sensible things, as existent in the mind, and as absolutely existent in themselves. This subjected the problem to metaphysical investigation. In that setting, Aquinas allowed neither being nor unity to be attributed to the nature taken absolutely. Duns Scotus, however, accorded it a lesser unity than that of the individual and gave it a kind of being proportionate to this real specific unity, but which required unitive containment of the nature by the individual. In these different ways the nature, so taken, provided the ground for the universal that existed only in the mind. Views incorporating this feature have been called moderate Realisms, though the designation is open to the same objection as it is in its application to Aristotle (see above, Distinctions among the Realisms). In later Scholastic tradition the currents became badly confused, and unending controversy raged on the various kinds of universals and the respective status of each type.

## Modern Realism

In the familiar formula *cogito ergo sum* (“I think; therefore, I am”) proffered by the first notable modern philosopher, René Descartes, methodical thinking was rooted in thought itself, thus raising the problem of how any material world outside of thought could be reached philosophically. In Descartes and a half century later in the British Empiricist John Locke, an external origin for sensations was accepted, though without any thoroughly philosophical justification. Rather, the denial of an external world was regarded as too absurd to be countenanced. In this perspective Locke’s philosophy displayed a commonsense Realism. According to one of Locke’s contemporaries, the Cartesian Nicolas Malebranche (known for his claim that God’s will is the true cause of motion), religious faith guaranteed the external world. The Cambridge Platonists, a sober group of 17th-century moral and religious Rationalists, in a similar atmosphere of faith and with a Cartesian understanding of sensation, acquiesced in the external existence of sensible things while, against a Neoplatonic background, they accorded a respectively greater reality to the objects of intellectual cognition. For Berkeley, an early 18th-century Empiricist and Idealist, the scriptural guarantee was lacking because matter was nowhere mentioned in the revealed descriptions of the sensible universe; accordingly, in his view, no sensible world outside cognition was left. But in David Hume, whose teachings marked the climax of the Empiricist movement, even the cognitive subject, or soul, vanished.

Facing the impossibility of a genuine philosophical justification for arguing to an external world from the starting point of mind or idea, Claude Buffier, an early 18th-century French Jesuit, and, shortly later, the Scottish Realists leaned explicitly on common sense as the motive for accepting the world’s external existence. The most prominent exponent of this school was



Thomas Reid, an opponent of paradox and scepticism. And John Witherspoon, who was called from Scotland to the presidency of Princeton University, held that “the impression itself implies and supposes something external that communicates it, and cannot be separated from that supposition.” Consequently, the attempt of the viewpoint of Berkeleian immaterialism “to unsettle the principles of common sense by metaphysical reasoning” could, in his view, never produce conviction.

#### Major Issues and Evaluation of Realism

From the foregoing survey of the historical development of Realistic thought, the major issues upon which Realism focusses attention stand out clearly. For both speculative and practical reasons, men wish to distinguish sharply between what they call reality and what they recognize or suspect to be merely products of their own cognition. Accordingly, the ancient Platonic concentration on specific and generic natures and, in Aristotle, the essential role played by the universal in reasoning led to a close scrutiny of the way in which these natures exist. Undoubtedly, they exist in human thought. For the Realistically inclined thinker, however, their crucial role tends to demand counterparts if human thinking is to bear on what really exists. Still more drastic are the post-Cartesian philosophies in which the existence of external things themselves does not enter human cognition in direct confrontation. Finally, the mathematical and scientific constructs, which have been so fruitful in man’s struggle for mastery over nature, seem to require for the realistically minded thinker some counterpart in the things themselves in order to provide an adequate philosophical explanation of their success.

When the issues are faced in the foregoing manner, some lines of a procedure common to the various explicit Realisms emerge upon which it may be possible to base an evaluation. Universals, sensations and perceptions, scientific formulas and laws are all found to be existent in cognition. From that sure starting point, attempts are made to show that objects either corresponding to them or identical with them exist outside the mind. That pattern seems to be the general procedure followed in any way of thinking that has spontaneously given rise to the notion of an epistemological Realism and that can, with historical and philosophical significance, be labelled such. As is likewise apparent from the foregoing survey, this way of thinking follows a dubious procedure: Realism is not primarily a doctrine of the existence of things but rather a doctrine of cognition. In Realism, cognition is regarded as the object most present to itself; i.e., a man knows his own thought processes more intimately than anything else. But the genuine Realist seems unwittingly to take the material thing as his model in conceiving cognition. No external object can be more present to a material thing than that material thing itself. If cognition is conceived after this analogy, it will be what is most present to itself, and will have to be the starting point from which the Realist reasons. This starting point seems to offer no exit. The objects reached from it can be only internal products or occurrences in the mind, for it offers nothing more basic from which to reason than the cognition itself. Any philosophically genuine Realism seems, in consequence, prone to failure in its basic objective.

Accordingly, Realism, in the senses responsible for the epistemological use of the term, has long since ceased to inspire vigorous debate. In a Platonic tradition that continues in modern thought, however, Realism in respect to the natures of things is by no means dead. In regard to the Cartesian problem of the world's external existence, representative Realism seems to have shared

the fate of the sense-datum and to be quite inoperative outside of the wake of neurophysiological writings. But attempts at direct Realism are still made. In the scientific field the opposition to conventionalism and to retaining a merely instrumental status for laws or theories has remained a lively issue. Moreover, modern means, such as the electron microscope (which shows molecules in real existence) and the hope of being able to see atoms foretold a greater correspondence of scientific constructs with the structure of reality than had previously been demonstrated. But this verification process consists in a comparison of reality with thought rather than in any attempt to reach reality from cognition alone.

### Scholasticism

From the time of the Renaissance until at least the beginning of the 19th century, the term Scholasticism, not unlike the name Middle Ages, was used as an expression of blame and contempt. The medieval period was widely viewed as an insignificant intermezzo between Greco-Roman antiquity and modern times, and Scholasticism was normally taken to describe a philosophy busied with sterile subtleties, written in bad Latin, and above all subservient to the theology of popery. Even the German Idealist Hegel, in his *Vorlesungen über die Geschichte der Philosophie* (1833-36; *Lectures on the History of Philosophy*, 1892-96), declared that he would “put on seven-league boots” in order to skip over the thousand years between the 6th and 17th centuries and, having at last arrived at Descartes, said that now he could “cry land like the sailor.” In those same first decades of the 19th century, on the other hand, the Romantics swung the pendulum sharply to the opposite side, to an indiscriminate overestimation of everything medieval.

Today, scholars seem better able to confront the medieval epoch, as well as Scholasticism – i.e., its philosophy (and theology) – without prejudgments. One reason for this state of affairs is the voluminous research which has been devoted to this era and which has revealed its true nature, not only as a respectable continuation of the genuinely philosophical tradition but also as a period of exemplary personalities quite able to stand comparison with any of the great philosophers of antiquity or of modern times.

#### Nature and Significance

Scholasticism is so much a many-sided phenomenon that, in spite of intensive research, scholars still differ considerably in their definition of the term and in the emphases that they place on individual aspects of the phenomenon. Some historians, seeming almost to capitulate to the complexity of the subject, confine themselves to the general point that Scholasticism can only be defined denotatively as that kind of philosophy that during the European Middle Ages was taught in the Christian schools. The question of its connotation, however, remains, viz., What kind of philosophy was it?

The answer that Scholasticism was “school” philosophy and, in fact, “Christian” school philosophy can be understood only by examining the historical exigencies that created the need for schools. The search thus leads the inquirer back to the transition from antiquity to the Middle Ages – a point which, according to Hegel, was marked by the symbolic date CE 529, when a decree of the Christian emperor Justinian closed the Platonic Academy in Athens and sealed “the downfall of the physical establishments of pagan philosophy.” In that same year, however, still another event occurred, which

points much less to the past than to the coming age and, especially, to the rise of Scholasticism, viz., the foundation of Monte Cassino, the first Benedictine abbey, above one of the highways of the great folk migrations. This highly symbolic fact not only suggests the initial shift of the scene of the intellectual life from places like the Platonic Academy to the cloisters of Christian monasteries, but it marks even more a change in the *dramatis personae*. New nations were about to overrun the Roman Empire and its Hellenistic culture with long-range effects: when, centuries later, for example, one of the great Scholastics, Thomas Aquinas, was born, though he was rightly a southern Italian, his mother was of Norman stock, and his Sicilian birthplace was under central European (Hohenstaufen) control.

It was a decisive and astonishing fact that the so-called barbarian peoples who penetrated from the north into the ancient world often became Christians and set out to master the body of tradition that they found, including the rich harvest of patristic theology as well as the philosophical ideas of the Greeks and the political wisdom of the Romans. This learning could be accomplished only in the conquered empire's language (i.e., in Latin), which therefore had to be learned first. In fact, the incorporation of both a foreign vocabulary and a different mode of thinking and the assimilation of a tremendous amount of predeveloped thought was the chief problem that confronted medieval philosophy at its beginnings. And it is only in the light of this fact that one of the decisive traits of medieval Scholasticism becomes understandable: Scholasticism above all was an unprecedented process of learning, literally a vast "scholastic" enterprise that continued for several centuries. Since the existing material had to be ordered and made accessible to learning and teaching, the very prosaic labour and "schoolwork" of organizing, sorting, and classifying materials inevitably acquired an

unprecedented importance. Consequently, the writings of medieval Scholasticism quite naturally lack the magic of personal immediacy, for schoolbooks leave little room for originality. It is therefore misleading, though understandable, that certain polemicists have wrongly characterized Scholasticism as involving no more than the use of special didactic methods or a narrow adherence to traditional teachings.

First of all, if the major historical task of that epoch was really to learn, to acquire, and to preserve the riches of tradition, a certain degree of “scholasticity” was not only inevitable but essential. It is not at all certain that today’s historians would have direct intellectual access to Plato, Aristotle, and Augustine had the Scholastics not done their patient spadework. Besides, the progress from the stage of mere collection of given sentences and their interpretation (*expositio, catena, lectio*), to the systematic discussion of texts and problems (*quaestio, disputatio*), and finally to the grand attempts to give a comprehensive view of the whole of attainable truth (*Summa*) was necessarily at the same time a clear progression toward intellectual autonomy and independence, which in order to culminate, as it did in the 13th century, in the great works of Scholasticism’s Golden Age, required in addition the powers of genius, of men like Albertus Magnus and Thomas Aquinas.

On the other hand, the moment had to come when the prevalent preoccupation with existing knowledge would give way to new questions, which demanded consideration and answers that could emerge only from direct experience. By the later Middle Ages, procedures for exploiting and discussing antecedent stocks of insight had been largely institutionalized, and it was an obvious temptation to perpetuate the dominion of those procedures – which could lead only to total sterility. It is widely agreed that this is almost

exactly what did happen in the 14th century in what is called the “decline” and disintegration of Scholasticism.

## History and Issues

### Roots of Scholasticism

From the beginning of medieval Scholasticism the natural aim of all philosophical endeavor to achieve the “whole of attainable truth” was clearly meant to include also the teachings of Christian faith, an inclusion which, in the very concept of Scholasticism, was perhaps its most characteristic and distinguishing element. Although the idea of including faith was expressed already by Augustine and the early Church Fathers, the principle was explicitly formulated by the pivotal, early 6th-century scholar Boethius. Born in Rome and educated in Athens, Boethius was one of the great mediators and translators, living on the narrow no-man’s-land that divided the epochs. His famous book, *The Consolation of Philosophy*, was written while he, indicted for treachery and imprisoned by King Theodoric the Goth, awaited his own execution. It is true that the book is said to be, aside from the Bible, one of the most translated, most commented upon, and most printed books in world history; and that Boethius made (unfinished) plans to translate and to comment upon, as he said, “every book of Aristotle and all the dialogues of Plato.” But the epithet that he won as “one of the founders of Scholasticism” refers to quite another side of his work. Strictly speaking, it refers to the last sentence of a very short tractate on the Holy Trinity, which reads, “As far as you are able, join faith to reason” – an injunction which in fact was to become, for centuries, the formal foundation of Scholasticism. Instead of

“faith,” such concepts as revelation, authority, or tradition could be (and, indeed, have been) cited; and “reason,” though unambiguously meant to designate the natural powers of human cognition, could also be granted (and, in fact, has been granted) very different meanings. In any case, the connection between faith and reason postulated in this principle was from the beginning and by its very nature a highly explosive compound.

Boethius himself already carried out his program in a rather extraordinary way: though his *Opuscula sacra* (“Sacred Works”) dealt almost exclusively with theological subjects, there was not a single Bible quotation in them: logic and analysis was all.

Though called the “first Scholastic,” Boethius was at the same time destined to be for almost a millennium the last layman in the field of European philosophy. His friend Cassiodorus, author of the *Institutiones*, an unoriginal catalog of definitions and subdivisions, which (in spite of their dryness) became a source book and mine of information for the following centuries, who, like Boethius, occupied a position of high influence at the court of Theodoric and was also deeply concerned with the preservation of the intellectual heritage, decided in his later years to quit his political career and to live with his enormous library in a monastery. This fact again is highly characteristic of the development of medieval Scholasticism: intellectual life needs not only teachers and students and not only a stock of knowledge to be handed down; there is needed a certain guaranteed free area within human society as well, a kind of sheltered enclosure, within which the concern for “nothing but truth” can exist and unfold. The Platonic Academy, as well as (for a limited time) the court of Theodoric, had been enclosures of this kind; but in the politically unsettled epoch to come “no plant would thrive except one that germinated and grew in the cloister.”



The principle of the conjunction of faith and reason, which Boethius had proclaimed, and the way in which he himself carried it out were both based on a profound and explicit confidence in man's natural intellectual capacity – a confidence that could possibly lead one day to the rationalistic conviction that there cannot be anything that exceeds the power of human reason to comprehend, not even the mysteries of divine revelation. To be sure, the great thinkers of Scholasticism, in spite of their emphatic affirmation of faith and reason, consistently rejected any such rationalistic claim. But it must nonetheless be admitted that Scholasticism on the whole, and by virtue of its basic approach, contained within itself the danger of an overestimation of rationality, which recurrently emerged throughout its history.

On the other hand, there had been built in, from the beginning, a corrective and warning, which in fact kept the internal peril of Rationalism within bounds, viz., the corrective exercised by the “negative theology” of the so-called Pseudo-Dionysius, around whose writings revolved some of the strangest events in the history of Western culture. The true name of this protagonist is, in spite of intensive research, unknown. Probably it will remain forever an enigma why the author of several Greek writings (among them *On the Divine Names*, “On the Celestial Hierarchy,” and *The Mystical Theology*) called himself “Dionysius the Presbyter” and, to say the least, suggested that he was actually Denis the Areopagite, a disciple of Paul the Apostle (Acts). In reality, almost all historians agree that Pseudo-Dionysius, as he came to be called, was probably a Syrian Neoplatonist, a contemporary of Boethius. Whatever the truth of the matter may be, his writings exerted an inestimable influence for more than 1,000 years by virtue of the some-what surreptitious quasi-canonical authority of their author, whose books were venerated, as has been said, “almost like the Bible itself.” A 7th-century Greek theologian,

Maximus the Confessor, wrote the first commentaries on these writings, which were followed over the centuries by a long succession of commentators, among them Albertus Magnus and Thomas Aquinas. The main fact is that the unparalleled influence of the Areopagite writings preserved in the Latin West an idea, which otherwise could have been repressed and lost (since it cannot easily be coordinated with rationality) – that of a negative theology or philosophy that could act as a counter-poise against Rationalism. It could be called an Eastern idea present and effective in the Occident. But after the Great Schism, which erected a wall between East and West that lasted for centuries, Denis the Areopagite, having become himself (through translations and commentaries) a Westerner “by adoption,” was the only one among all of the important Greco-Byzantine thinkers who penetrated into the schools of Western Christendom. Thus negative theology was brought to medieval Scholasticism, as it were, through the back door.

The most important book of Denis, which dealt with the names that can be applied to God, exemplified his negative theology. It maintained first of all the decidedly biblical thesis that no appropriate name can be given to God at all unless he himself reveals it. But then Denis showed that even the revealed names, since they must be comprehensible to man’s finite understanding, cannot possibly reach or express the nature of God; and that in consequence, every affirmative statement about God requires at once the corrective of the coordinate negation. The theologian cannot even call God “real” or “being,” because he derives these concepts from the things to which God has given reality; and the Creator cannot possibly be of the same nature as that which he has created. Thus, *The Mystical Theology* concluded by finally relativizing also the negations, because God surpasses anything that man may possibly say of him, whether it be affirmative or negative.

Scholasticism certainly could have learned all of this also from Augustine, who repeatedly warned that “Whatever you understand cannot be God.” But probably an authority of even greater weight than Augustine was needed to counteract a reason that was tending to overrate its own powers; and this authority was attributed, although falsely, to the works of Denis the Areopagite. This impact could, of course, not be restricted to the idea of God; it necessarily concerned and changed man’s whole conception of the world and of existence. The influence of Denis is reflected in the noteworthy fact that Thomas Aquinas, for instance, not only employed more than 1,700 quotations from Denis the Areopagite but also appealed almost regularly to his work whenever he spoke, as he often did (and in astonishingly strong terms), of the inexhaustible mystery of being. Thomas Aquinas, however, who also wrote a remarkable commentary on Denis’ book *On the Divine Names*, is mentioned here only as an example, albeit a most telling example.

At the very end of the medieval era of Scholasticism, the Areopagite emerged once more in the work of a 15th-century cardinal, Nicholas of Cusa, also known as a mathematician and advocate of experimental knowledge, in whose library there are preserved several translations of the Areopagite writings – replete, moreover, with marginal notes in the Cardinal’s handwriting. But even without this concrete evidence, it would be quite plain that Cusanus’ doctrine of “knowing nonknowing” is closely linked to the Areopagite’s conviction that all of reality is unfathomable.

The translation into Latin of the *Corpus Areopagiticum*, which was made in the 9th century – i.e., some 400 years after the death of its author – by John Scotus Erigena, is itself worthy of mention, especially because the translator was one of the most remarkable figures of early medieval philosophy. After generations of brave and efficient collectors, organizers, and

schoolmasters had come and gone, Erigena, in his *De divisione natura* (“On the Division of Nature”), developed the Dionysian Neoplatonism on his own and tried to construct a systematic conception of the universe, a more or less pantheistic world view, which (as Gilson says) for a moment offered the Latin West the opportunity – or the temptation – to choose the way of the East once and for all. The church, though not until centuries later, condemned the book, apparently convinced that any counterpoise to its own position can become dangerous in itself.

#### Early Scholastic Period

If there was any philosophical-theological thinker of importance during the Middle Ages who remained untouched by the spirit of the Areopagite, it was the 11th-century Benedictine Anselm of Canterbury, a highly cultivated Franco-Italian theologian who for years was prior and abbot of the abbey Le Bec in Normandy and then became, somewhat violently, the archbishop of Canterbury. In Anselm’s entire work there is not a single quotation from Denis; not even the name is mentioned. Consequently, Anselm’s thinking, thus freed from the corrective embodied in the Areopagite’s negative theology, displayed a practically unlimited confidence in the power of human reason to illuminate even the mysteries of Christian faith; he thus frequently approached a kind of Rationalism, which did not shrink from the attempt to demonstrate, on compelling rational grounds, that salvation (for example) through God incarnate was philosophically necessary. To be sure, a theologian such as Anselm certainly would never have subscribed to the extreme thesis that nothing exists that is beyond the power of human reason to comprehend: the two famous phrases, coined by him and expressing again, in a grandiose

formulation, the principle of Boethius, “faith seeking to be understood” and “I believe in order to understand,” clearly proclaim his faith in the mysteries of revelation as comprising the very basis of all reasoning. Nevertheless, in the case of Anselm, the very peculiar conjunction of faith and reason was accomplished not so much through any clear intellectual coordination as through the religious energy and saintliness of an unusual personality. It was accomplished, so to speak, rather as an act of violence, which could not possibly last. The conjunction was bound to break up, with the emphasis falling either on some kind of Rationalism or on a hazardous irrationalization of faith.

That this split did actually happen can be read to some extent in the fate of the “Anselmic argument,” which Kant, 700 years later, was to reject as the “ontological proof of God” – connecting it, however, not with the name of Anselm but with that of Descartes, the earliest modern philosopher. It is, in fact, significant that Descartes, in his proof of the existence of God, imagined that he was saying the same thing as Anselm, and that, on the other hand, Anselm would scarcely have recognized his own argument had he encountered it in the context of Descartes’s *Discours de la méthode* (1637; *Discourse on Method*, 1950), which claims to be “pure” philosophy based upon an explicit severance from the concept of God held by faith. But given Anselm’s merely theoretical starting point, that severance was not only to be expected; it was almost inevitable.

But, also within the framework of medieval Scholasticism, a dispute was always brewing between the dialecticians, who emphasized or overemphasized reason, and those who stressed the suprarational purity of faith. Berengar of Tours, an 11th-century logician, metaphysician, and theologian, who was fond of surprising formulations, maintained the

preeminence of thinking over any authority holding, in particular, that the real Presence of Christ in the Eucharist was logically impossible. His contemporary the Italian hermit-monk and cardinal Peter Damian, however – who was apparently the first to use the ill-famed characterization of philosophy as the “handmaid of theology” – replied that, if God’s omnipotence acts against the principle of contradiction, then so much the worse for the science of logic. Quite analogous to the foregoing controversy, though pitched on a much higher intellectual level, was the bitter fight that broke out almost one century later between a Cistercian reformer, Bernard of Clairvaux, and a logician and theologian, Peter Abelard. Bernard, a vigorous and ambivalent personality, was in the first place a man of religious practice and mystical contemplation, who, at the end of his dramatic life, characterized his odyssey as that of *anima quaerens Verbum*, “a soul in search of the Word.” Although he by no means rejected philosophy on principle, he looked with deep suspicion upon the primarily logical approach to theology espoused by Abelard. “This man,” said Bernard, “presumes to be able to comprehend by human reason the entirety of God.”

Logic was at that time, as a matter of fact, the main battleground of all Scholastic disputations. “Of all philosophy, logic most appealed to me,” said Abelard, who by “logic” understood primarily a discipline not unlike certain present-day approaches, the “critical analysis of thought on the basis of linguistic expression.” From this viewpoint (of linguistic logic), Abelard also discussed with penetrating sharpness the so-called “problem of universals,” which asks, Is there an “outside” and objective reality standing, for example, not only for the name “Socrates” but also for such common names as “man,” “canineness,” and the like? Or do common concepts (“universals”) possess only the reality of subjective thought or perhaps merely that of the sound of

the word? As is well known, it has been asserted that this was the principal, or even the only, subject of concern in medieval Scholasticism – a charge that is misleading, although the problem did greatly occupy philosophers from the time of Boethius. Their main concern from the beginning was the whole of reality and existence.

The advance of medieval thought to a highly creative level was foreshadowed, in those very same years before Peter Abelard died, by Hugh of Saint-Victor (an Augustinian monk of German descent), when he wrote *De sacramentis Christianae fidei* (“On the Sacraments of the Christian Faith”), the first book in the Middle Ages that could rightly be called a *summa*; in its introduction, in fact, the term itself is used as meaning a comprehensive view of all that exists (*brevis quaedam summa omnium*). To be sure, its author stands wholly in the tradition of Augustine and the Areopagite; yet he is also the first medieval theologian who proclaims an explicit openness toward the natural world. Knowledge of reality is, in his understanding, the prerequisite for contemplation; each of the seven liberal arts aims “to restore God’s image in us.” “Learn everything,” he urged; “later you will see that nothing is superfluous.”

It was on this basic that the university – which was not the least of the achievements of medieval Scholasticism – was to take shape. And it was the University of Paris, in particular, that for some centuries was to be the most representative university of the West. Though there are usually a variety of reasons and causes for such a development, in this case the importance of the university – unlike that of Bologna and also of Oxford – lay mainly in the fact that it was founded in the most radical way upon those branches of knowledge that are “universal” by their very nature: upon theology and philosophy. It is, thus, remarkable, though not altogether surprising, that there seems to have

existed not a single *summa* of the Middle Ages that did not, in some way or other, derive from the University of Paris.

Strangely enough, the classical theological-philosophical textbook used in the following centuries at the universities of the West was not the first *summa*, composed by Hugh of Saint-Victor, but was instead a work by Peter Lombard, a theologian who probably attended Abelard's lectures and who became *magister* at the cathedral school of Notre-Dame and, two decades later, bishop of Paris. Lombard's famous *Four Books of Sentences*, which, though written one or two decades later than Hugh's *summa*, belonged to an earlier historical species, contained about 1,000 texts from the works of Augustine, which comprise nearly four-fifths of the whole. Much more important than the book itself, however, were the nearly 250 commentaries on it, by which – into the 16th century – every master of theology had to begin his career as a teacher. In view of this wide usage, it is not astonishing that Lombard's book underwent some transformations, at the hands, for instance, of its most ingenious commentator, Thomas Aquinas, but also (and even more so) at the hands of Duns Scotus in his *Opus Oxoniense*, which, in spite of being a work of extremely personal cast, was outwardly framed as a commentary on the "Master of Sentences."



### Maturity of Scholasticism

Clearly, the world view of Western Christendom, on the whole Augustinian and Platonic in inspiration and founded upon Lombard's "Augustine breviary," was beginning to be rounded out into a system and to be institutionalized in the universities. At the very moment of its consolidation, however, an upheaval was brewing that would shake this novel conception to its foundations: the main works of Aristotle, hitherto unknown in the West, were being translated into Latin – among them his *Metaphysics*, the *Physics*, the *Nicomachean Ethics*, and the books *On the Soul*. These writings were not merely an addition of something new to the existing stock; they involved an enormous challenge. Suddenly, a new, rounded, coherent view of the world was pitted against another more-or-less coherent traditional view; and because this challenge bore the name of Aristotle, it could not possibly be ignored, for Aristotle's books on logic, translated and equipped with commentaries by Boethius, had for centuries been accepted as one of the foundations of all culture. During the lifetime of Abelard the full challenge of the Aristotelian work had not yet been presented, though it had been developing quietly along several paths, some of which were indeed rather fantastic. For instance, most of the Medieval Latin translations of Aristotle stem not from the original Greek but from earlier Arabic translations.

Within the Western Christendom of the second millennium, a wholly new readiness to open the mind to the concrete reality of the world had arisen, a view of the universe and life that resembled the Aristotelian viewpoint. The tremendous eagerness with which this new philosophy was embraced was balanced, however, by a deep concern lest the continuity of tradition and the totality of truth be shattered by the violence of its assimilation. And this danger was enhanced by the fact that Aristotle's works did not come alone;

they came, in fact, accompanied by the work of Arabic commentators and their heterodox interpretations.

The most influential Arabic commentators were an 11th-century polymath, Avicenna, a Persian by birth, and a 12th-century philosopher, Averroës, born in Spain. Avicenna, personal physician to sovereigns, but also a philosopher and theologian, read – according to his own account – Aristotle’s *Metaphysics* 40 times without understanding it, until he learned the text by heart. F.C. Copleston has called him “the real creator of a Scholastic system in the Islamic world.” In the view of Averroës, who was not only a philosopher but also a jurist and a doctor, Aristotle’s philosophy represented simply the perfection of human knowledge; and to the West, he himself was to become *the* commentator. A third great commentator was a 12th-century orthodox Jewish philosopher, Moses Maimonides, also born in Spain, who wrote his main works in Arabic. Maimonides was at the same time a vigorous adherent of the Aristotelian world view and was, thus, confronted by the same unending task that preoccupied the great teachers of medieval Christendom. At first sight it appears strange that none of these three thinkers had any appreciable influence within his own world (neither Islam nor Judaism knew of any such thing as a “discovery” of Aristotle), whereas on almost every page of the 13th-century Christian *summae* the names of Avicenna, Averroës, and Maimonides are found.

The first theologian of the Middle Ages who boldly accepted the challenge of the new Aristotelianism was a 13th-century Dominican, Albertus Magnus, an encyclopedic scholar. Although he knew no Greek, he conceived a plan of making accessible to the Latin West the complete works of Aristotle, by way of commentaries and paraphrases; and, unlike Boethius, he did carry out this resolve. He also penetrated and commented upon the works of the

Areopagite; he was likewise acquainted with those of the Arabs, especially Avicenna; and he knew Augustine. Nevertheless, he was in no wise primarily a man of bookish scholarship; his strongest point, in fact, was the direct observation of nature and experimentation. After having taught for some years at the University of Paris, he travelled, as a Dominican superior, through almost all of Europe. Not only was he continually asking questions of fishermen, hunters, beekeepers, and birdcatchers but he himself also bent his sight to the things of the visible world. But amidst the most palpable descriptions of bees, spiders, and apples, recorded in two voluminous books on plants and animals, Albertus formulated completely new, and even revolutionary, methodological principles: for instance, “There can be no philosophy about concrete things,” or, “in such matters only experience can provide certainty.”

With Albertus, the problem of the conjunction of faith and reason had suddenly become much more difficult, because reason itself had acquired a somewhat new meaning. “Reason” implied, in his view, not only the capacity for formally correct thinking, for finding adequate creatural analogies to the truths of revelation, but it implied, above all, the capacity to grasp the reality that man encounters. Henceforth, the Boethian principle of “joining faith with reason” would entail the never-ending task of bringing belief into a meaningful coordination with the incessantly multiplying stock of natural knowledge of man and the universe. Since Albertus’ nature, however, was given more to conquest than to the establishment of order, the business of integrating all of these new and naturally divergent elements into a somewhat consistent intellectual structure waited for another man, for his pupil Thomas Aquinas.

To epitomize the intellectual task that Aquinas set for himself, the image of Odysseus' bow, which was so difficult to bend that an almost superhuman strength was needed, is fitting. As a young student at the University of Naples, he had met in the purest possible form both extremes, which, though they seemed inevitably to be pulling away from one another, it was nevertheless his life's task to join: one of these extremes was the dynamic, voluntary poverty movement whose key word was "the Bible"; and the second phenomenon was the Aristotelian writings and outlook, which at that time could have been encountered nowhere else in so intensive a form. And "Aristotle" meant to Thomas not so much an individual author as a specific world view, viz., the affirmation of natural reality as a whole, including man's body and his natural cognitive powers. To be sure, the resulting *Summa theologiae* (which Thomas himself chose to leave incomplete) was a magnificent intellectual structure; but it was never intended to be a closed system of definitive knowledge. Thomas could no longer possess the magnificent naiveté of Boethius, who had considered it possible to discuss the Trinitarian God without resorting to the Bible, nor could he share Anselm's conviction that Christian faith so completely concurred with natural reason that it could be proved on compelling rational grounds.

In the meanwhile, the poles of the controversy – the biblical impulses, on the one hand, and the philosophical and secular ones, on the other – had begun to move vigorously apart, and partisans moving in both directions found some encouragement in Thomas himself. But in his later years he realized that the essential compatibility as well as the relative autonomy of these polar positions and the necessity for their conjunction had to be clarified anew by going back to a deeper root of both; that is, to a more consistent understanding of the concepts of creation and createdness. At Paris, he had to

defend his own idea of “a theologically based worldliness and a theology open to the world” not only against the secularistic “philosophism” of Siger of Brabant, a stormy member of the faculty of arts, and against an aggressive group of heterodox Aristotelians around him, but also (and even more) against the traditional (Augustinian) objection that by advocating the rights of all natural things Thomas would encroach upon the rights of God, and that, besides, the theologian needs to know only that part of creation that is pertinent to his theological subject. The latter idea was supported also by the Italian mystical theologian Bonaventura, who, in his earlier days as a colleague of Thomas at the university, had likewise been enamoured of Aristotle, but later, alarmed by the secularism that was growing in the midst of Christendom, became more mistrustful of the capacities of natural reason. Thomas answered this objection in somewhat the following way: The benefit that the theologian may derive from an investigation of natural reality cannot be determined in advance, but, in general, faith presupposes and therefore needs natural knowledge of the world; at times, an error concerning the creation leads men astray also from the truth of faith. This may sound like an optimistic Rationalism; but the corrective of negative theology and philosophy was always present in the mind of Thomas, as well. Not only, as he argued in his treatise on God, does man not know what God is, but he does not know the essences of things either.

### Late Scholastic Period

Thomas did not succeed in bridging the faith-reason gulf. When he left Paris (1272) and after his death (1274), the gulf became much more radical; and on March 7, 1277, the Archbishop of Paris, in fact, formally condemned a list of sentences, some of them close to what Thomas himself had allegedly or really taught. This ecclesiastical act, questionable though it may have been in its methods and personal motivations, was not only understandable; it was unavoidable, since it was directed against what, after all, amounted in principle to an antitheological, rationalistic secularism. Quite another matter, however, were the factual effects of the edict, which were rather disastrous. Above all, two of the effects were pernicious: instead of free disputes among individuals, organized blocks (or “schools”) now began to form; and the cooperative dialogue between theology and philosophy turned into mutual indifference or distrust. Nonetheless, the basic principle itself (“join faith with reason”) had not yet been explicitly repudiated. This was to happen in the next generation.

The negative element, as formulated in the theology of the Areopagite, proved to be insufficient as a corrective to counter the overemphasis of reason, for reason seemed to imply the idea of necessity; Anselm’s asserted “compelling grounds” for revealed truths, for example, were akin to such a necessitarianism. A second corrective was therefore demanded and this took the name of “freedom” – which indeed was the battle cry of an important Franciscan, Duns Scotus, known as the “subtle doctor,” who lived at the turn of the 14th century. Scotus used “freedom” primarily with reference to God; consequently, since redemption, grace, and salvation as well as all of creation were the work of God’s groundless, absolute freedom, there could be no “necessary reasons,” if indeed any reasons at all, for anything. It was therefore

futile to attempt to coordinate faith with speculative reason. Clearly, Scotus' theological starting point made the conjunction of what man believes with what he knows every bit as difficult as it had been in Siger of Brabant's secularistic "philosophism." From both positions there was only one step to the doctrine of a "double truth" – a step that in fact was taken in the 14th century by the Nominalist William of Ockham, also a Franciscan, to whom singular facts alone are "real," and their coherence is not; this mere factuality, he held, can neither be calculated nor deduced, but only experienced; reason therefore means nothing but the power to encounter concrete reality. And upon such soil only a consistently "positive" theology could thrive. Any collaboration with speculative reason must be rejected as untheological. Faith is one thing and knowledge an altogether different matter; and a conjunction of the two is neither meaningfully possible nor even desirable. Inexorably, and justified by reasons on both sides, a divorce was taking place between faith and reason – to the connection of which the energies of almost a thousand years had been devoted. What was occurring was the demise of medieval Scholasticism.

### Enduring Features

But not all of Scholasticism is specifically medieval and therefore definitively belonging to the dead past; there are perennial elements that are meant for every age, the present one included, three of which may be here distinguished. First, not only has Scholasticism held true to the normal historical rule that ideas, once thought and expressed, remain present and significant in the following time; but the medieval intellectual accomplishments have surpassed the rule and exerted, though more or less

anonymously, a quite exceptional influence even on philosophers who consciously revolted against Scholasticism. New historical investigations clearly show that the classical modern philosophers Descartes, Locke, Spinoza, and Leibniz owe much to medieval ideas. Of Descartes, for instance, it has been said, contrary to the usual view, that he could quite well have been “included with the later Scholastics”; and even Charles Sanders Peirce, the originator of 20th-century American Pragmatism, refers not too rarely to Scholastic maxims. Secondly, there have been explicit attempts to go back to Scholastic thinkers and inspire a renaissance of their basic ideas. Two chief movements of this kind were the Scholasticism of the Renaissance (called *Barockscholastik*) and the Neoscholasticism of the 19th and 20th centuries, both of which were primarily interested in the work of Thomas Aquinas.

Renaissance Scholasticism received its first impulses from the Reformation. One of its leading figures, a Dominican, Cardinal Thomas de Vio (16th century), commonly known as Cajetan, had some famous disputations with Martin Luther. Cajetan’s great commentary on Thomas Aquinas, published again in a late edition of the *Summa theologiae* (1888-1906), exerted for at least three centuries an enormous influence on the formation of Catholic theology. He was much more than a commentator, however; his original treatise on the “Analogy of names,” for example, can even pass as a prelude to modern linguistic philosophy. The so-called Silver Age of Scholastic thought, which occurred in the 16th century, is represented by two Spaniards: Francisco de Vitoria of the first half and Francisco Suárez of the last half of the century were both deeply engaged in what has been called the “Counter-Reformation.” Though likewise commentators on the works of Thomas Aquinas, the Renaissance Scholastics were much less concerned with looking back to the past than with the problems of their own



epoch, such as those of international law, colonialism, resistance to an unjust government, and world community. Though Suárez was for more than a hundred years among the most esteemed authors, even in Protestant universities, Renaissance Scholasticism was eradicated by Enlightenment philosophy and German Idealism. This, in turn, gave rise in due time to the Neoscholasticism of the 19th century, one of the most effective promoters of which was a German Jesuit, Joseph Kleutgen, who published a voluminous scholarly apology of patristic and Scholastic theology and philosophy and was also responsible for the outline of the papal encyclical *Aeterni Patris* of Leo XIII (1879), which explicitly proclaimed the “instauration of Christian philosophy according to St. Thomas.” The result, fed of course from many different sources, was that all over the world new centres of Scholastic research and higher learning (universities) arose – some more traditionalistic, some from the start engaged in the dialogue with modern philosophy and science, and some primarily devoted to historical studies and the preparation of critical editions of the great medieval Scholastics – and that a multitude of periodicals and systematic textbooks were produced. It is too early for a competent judgment on this enterprise to be made. Its immeasurable educational benefit for several generations of students, however, is as undeniable as the unique contributions of some Neoscholastic thinkers to current intellectual life. A weak point, on the other hand, seems to be a somewhat “unhistorical” approach to reality and existence. In any case, it is scarcely a matter of mere chance that, after World War II, the impact of Existentialism and Marxism caused a noticeable decline in Neoscholasticism and that the positions of “Scholastic” authors active in the 1970s were already beyond Neoscholasticism.

The third and most important aspect of the enduring significance of the Scholastic movement implies the acceptance of the following fundamental tenets: that there exist truths that man knows, and also revealed truths of faith; that these two kinds of truth are not simply reducible to one another; that faith and theology do not, by means of symbols and sensuous images, merely say the same as what reason and science say more clearly by conceptual argumentation (Averroës, Hegel); that, on the other hand, reason is not a “prostitute” (Luther), but is man’s natural capacity to grasp the real world; that since reality and truth, though essentially inexhaustible, are basically one, faith and reason cannot ultimately contradict one another. Those who hold these convictions appear quite unable to refrain from trying to coordinate what they know with what they believe. Any epoch that addresses itself to this interminable task can ill afford to ignore the demanding and multiform paradigm of Scholasticism; but to the problems posed it will have to find its own answer.

### Thomism

The advent of Christianity had important effects in philosophy as in other aspects of human life. Initially Christians were opposed to philosophical claims of any kind; they saw philosophy as an essentially pagan phenomenon and refused to allow the propriety of subjecting Christian dogma to philosophical scrutiny. Christian truth rested on revelation and did not need any certificate of authenticity from mere reason. Later, however, attempts were made to produce a specifically Christian metaphysics, to think out a view of the universe and of man’s place in it that did justice to the Christian revelation and nevertheless rested on arguments that might be expected to

convince Christians and non-Christians alike. St. Thomas Aquinas was only one of a number of important thinkers in medieval times who produced Christian philosophies; others – such as the philosophers John Duns Scotus in the late 13th century and William of Ockham in the first half of the 14th century – took significantly different views. In selecting the system of Aquinas for summary here, the factor that has weighed most has been its persistent influence, particularly in postmedieval times. Aquinas was not the only medieval philosopher of distinction, but Thomism is alive as other medieval systems are not.

The central claim of Thomism is that reflection on everyday things and the everyday world reveals it as pointing beyond itself to God as its sustaining cause. Ordinary existents, such as human beings, are in process of constant change. The change, however, is not normally the result of their own efforts, and even when it is, it does not depend on them exclusively. No object in the familiar world can fully account for its own *esse* (i.e., its own act of existing), nor is it wholly self-sufficient; all are affected from without, or at least operate in an environment that is not of their own making. To say this is to say that they are one and all finite. Although finite things can be, and commonly are, stimulated to activity or kept in activity by other finite things, it does not follow that there might be finite things and nothing else. On the contrary, the finite necessarily points beyond itself to the infinite; the system of limited beings, each dependent for its activity on something else of the same kind, demands for its completion the existence of an unlimited being, one that is the source of change in other things but is not subject to change itself. Such a being would be not a cause like any other but a first or ultimate cause; it would be the unconditioned condition of the existence of all other things. Aquinas believed that human reason can produce definitive proofs of the

existence of an infinite or perfect being, and he had no hesitation in identifying that being with the Christian God. Because, however, the movement of his thought was from finite to infinite, he claimed to possess only so much philosophical knowledge of the Creator as could be arrived at from study of his creation. Positive knowledge of the divine nature was not available; apart from revelation, man could only say what God is not, or conceive of his attributes by the imperfect method of analogy.

Aquinas worked out his ideas at a time when the philosophy of Aristotle was again becoming familiar in Western Europe after a period of being largely forgotten, and many of his detailed theories show Aristotelian influence. He assumed the general truth of the Aristotelian picture of the natural world and the general correctness of Aristotle's way of interpreting natural phenomena. He also took over many of Aristotle's ideas in the fields of ethics and politics. He gave the latter, however, a distinctively different twist by making the final end of man not philosophical contemplation but the attainment of the beatific vision of God; it was Christian rather than Greek ideas that finally shaped his view of the *summum bonum* ("greatest good"). Similarly, his celebrated proofs of God's existence proceeded against a background that is obviously Aristotelian but that need not be presupposed for their central thought to have validity. Thomism can certainly be seen, and historically must be seen, as the system of Aristotle adapted to Christian purposes. It is important, however, to stress that the adaptation resulted in something new, a distinctive way of looking at the world that still has its adherents and still commands the respect of philosophers.

## William of Ockham

In the late 14th century, Thomism and Scotism were called the “old way” (*via antiqua*) of philosophizing in contrast to the “modern way” (*via moderna*) begun by such men as William of Ockham (c. 1285-1347). Ockham, no less than Duns Scotus, wanted to defend the Christian doctrine of the freedom and omnipotence of God and the contingency of creatures against the necessitarianism of Greco-Arabic philosophy. But for him the freedom of God is incompatible with the existence of divine ideas as positive models of creation. God does not use preconceived ideas when he creates, as Duns Scotus maintained, but he fashions the universe as he wishes. As a result, creatures have no natures or essences in common. There are no realities but individual things, and these have nothing in common. They are more or less like each other, however, and on this basis men can form universal concepts of them and talk about them in general terms.

The absolute freedom of God was often used by Ockham as a principle of philosophical and theological explanation. Because the order of nature has been freely created by God, it could have been different: fire, for example, could cool, as it now heats. If he wishes, he can give us the sight, or “intuitive knowledge,” of a star without the reality of the star. The moral order could also have been different. God could have made hating him meritorious instead of loving him. It was typical of Ockham not to put too much trust in the power of human reason to reach the truth. For him, philosophy must often be content with probable arguments, for example, in establishing the existence of the Christian God. Faith alone gives certitude in this and in other vital matters. Another principle invoked by Ockham is that a plurality is not to be posited without necessity. This principle of the economy of thought, later stated as beings are not to be multiplied without necessity, is called “Ockham’s razor.”

Ockhamism was censured by a papal commission at Avignon, Fr., in 1326, and in 1474 it was forbidden to be taught at Paris: it spread widely in the late Middle Ages, nevertheless, and rivaled Thomism and Scotism in popularity. Other Scholastics in the 14th century shared Ockham's basic principles and contributed with him to scepticism and probabilism in philosophy. John of Mirecourt (c. 1345) stressed the absolute power of God and the divine will to the point of making him the cause of man's sin. Nicholas of Autrecourt (c. 1347) adopted a sceptical attitude regarding such matters as man's ability to prove the existence of God and the reality of substance and causality. Rejecting Aristotelianism as inimical to the Christian faith, he advocated a return to the Atomism of the ancient Greeks as a more adequate explanation of the universe.

### Scepticism

As a philosophical attitude, scepticism is the doubting of knowledge claims set forth in various areas. Sceptics have challenged the adequacy or reliability of these claims by asking what they are based upon or what they actually establish. They have raised the question whether such claims about the world are either indubitable or necessarily true, and they have challenged the alleged grounds of accepted assumptions. Practically everyone is sceptical about some knowledge claims; but the Sceptics have raised doubts about any knowledge beyond the contents of directly felt experience. The original Greek meaning of *skeptikos* was "an inquirer," someone who was unsatisfied and still looking for truth.

From ancient times onward Sceptics have developed arguments to undermine the contentions of dogmatic philosophers, scientists, and theologians. The sceptical arguments and their employment against various forms of dogmatism have played an important role in shaping both the problems and the solutions offered in the course of Western philosophy. As ancient philosophy and science developed, doubts arose about basic accepted views of the world. In ancient times Sceptics challenged the claims of Platonism, Aristotelianism, and Stoicism, and in the Renaissance those of Scholasticism and Calvinism. After Descartes, Sceptics attacked Cartesianism and other theories justifying the “new science.” Later, a sceptical offensive was levelled against Kantianism and then against Hegelianism. Each sceptical challenge led to new attempts to resolve the difficulties. Scepticism, especially since the Enlightenment, has come to mean disbelief – primarily religious disbelief – and the sceptic has often been likened to the village atheist.

#### Various Senses and Applications

Scepticism developed with regard to various disciplines in which men claimed to have knowledge. It was questioned, for example, whether one could gain any certain knowledge in metaphysics (the study of the nature and significance of being as such) or in the sciences. In ancient times a chief form was medical Scepticism, which questioned whether one could know with certainty either the causes or cures of diseases. In the area of ethics doubts were raised about accepting various mores and customs and about claiming any objective basis for making value distinctions. Scepticisms about religion have questioned the doctrines of different traditions. Certain philosophies, like those of Hume and Kant, have seemed to show that no knowledge can be

gained beyond the world of experience and that one cannot discover the causes of phenomena. Any attempt to do so, as Kant argued, leads to antinomies, contradictory knowledge claims. A dominant form of Scepticism, the subject of this article, concerns knowledge in general, questioning whether anything actually can be known with complete or adequate certainty. This type is called epistemological Scepticism.

Kinds of epistemological Scepticism can be distinguished in terms of the areas in which doubts are raised; that is, whether they be directed toward reason, toward the senses, or toward knowledge of things-in-themselves. They can also be distinguished in terms of the motivation of the sceptic – whether he is challenging views for ideological reasons or for pragmatic or practical ones to attain certain psychological goals. Among the chief ideological motives have been religious or antireligious concerns. Some sceptics have challenged knowledge claims so that religious ones could be substituted – on faith. Others have challenged religious knowledge claims in order to overthrow some orthodoxy. Kinds of scepticism also can be distinguished in terms of how restricted or how thoroughgoing they are – whether they apply only to certain areas and to certain kinds of knowledge claims or whether they are more general and universal.

### Ancient Scepticism

Historically, sceptical philosophical attitudes began to appear in pre-Socratic thought. In the 5th century BCE, the Eleatic philosophers, known for reducing reality to a static One, questioned the reality of the sensory world, of change and plurality, and denied that reality could be described in the



categories of ordinary experience. On the other hand, the Ephesian philosopher of change Heraclitus and his pupil Cratylus thought that the world was in such a state of flux that no permanent, unchangeable truth about it could be found; and Xenophanes, a wandering poet and philosopher, doubted whether man could distinguish true from false knowledge.

A more developed scepticism appeared in some of Socrates' views and in a couple of the Sophists. Socrates, in the early Platonic dialogues, was always questioning the knowledge claims of others; and in the *Apology*, he said that all that he really knew was that he knew nothing. Socrates' enemy, the Sophist Protagoras, contended that man is the measure of all things. This thesis was taken as a kind of sceptical relativism: no views are ultimately true, but each is merely one man's opinion. Another Sophist, Gorgias, advanced the sceptical-nihilist thesis that nothing exists; and if something did exist, it could not be known; and if it could be known, it could not be communicated.

The putative father of Greek scepticism is Pyrrhon of Elis (c. 360-c. 272 BCE), who tried to be a living sceptic. He avoided committing himself to any views about what was actually going on and acted only according to appearances. In this way he sought happiness or at least mental peace.

The first school of sceptical philosophy developed in Plato's Academy in the 3rd century BCE and was thus called "Academic" Scepticism. Starting from the sceptical side of Socrates, its leaders, Arcesilaus (316/315-c. 241 BCE) and Carneades (214/213-129/128 BCE), set forth a series of epistemological arguments to show that nothing could be known, challenging primarily the two foremost schools, those of the Stoics and Epicureans. They denied that any criteria could be found for distinguishing the true from the false; instead, only reasonable or probable standards could be established for

knowledge. This limited or probabilistic Scepticism was the view of the Academy until the 1st century BCE, when Cicero was a student there. His *Academica* and *De natura deorum* are the main sources for knowledge of this movement. (St. Augustine's *Contra academicos* is an answer to Cicero's views.)

The other major form of ancient Scepticism was Pyrrhonism, apparently developed by medical sceptics in Alexandria. Beginning with Aenesidemus (1st century BCE), this movement, named after Pyrrhon, criticized the Academic sceptics because they claimed to know too much, namely, that nothing could be known and that some things are more probable than others. The Pyrrhonians advanced a series of tropes, or ways of opposing various kinds of knowledge claims, in order to bring about *epoche* (suspense of judgment). The Pyrrhonian attitude is preserved in the writings of one of its last leaders, Sextus Empiricus (2nd or 3rd century CE). In his *Outlines of Pyrrhonism* and *Adversus mathematicos*, Sextus presented the tropes developed by previous Pyrrhonists. The 10 tropes attributed to Aenesidemus showed the difficulties to be encountered in ascertaining the truth or reliability of judgments based on sense information, owing to the variability and differences of human and animal perceptions. Other arguments raised difficulties in determining whether there are any reliable criteria or standards – logical, rational, or otherwise – for judging whether anything is true or false. To settle any disagreement, a criterion seems to be required. Any purported criterion, however, would appear to be based on another criterion, thus requiring an infinite regress of criteria, or else it would be based upon itself, which would be circular. Sextus offered arguments to challenge any claims of dogmatic philosophers to know more than what is evident; and in so doing he

presented in one form or another practically all of the sceptical arguments that have ever appeared in subsequent philosophy.

Sextus said that his arguments were aimed at leading people to a state of *ataraxia* (unperturbability). People who thought that they could know reality were constantly disturbed and frustrated. If they could be led to suspend judgment, however, they would find peace of mind. In this state of suspension they would neither affirm nor deny the possibility of knowledge but would remain peaceful, still waiting to see what might develop. The Pyrrhonist did not become inactive in this state of suspense but lived undogmatically according to appearances, customs, and natural inclinations.

### Medieval Scepticism

Pyrrhonism ended as a philosophical movement in the late Roman Empire, as religious concerns became paramount. In the Christian Middle Ages the main surviving form of Scepticism was the Academic, described in St. Augustine's *Contra academicos*. Augustine, before his conversion, had found Cicero's views attractive and had overcome them only through revelation. With faith, he could seek understanding. Augustine's account of Scepticism and his answer to it provided the basis for medieval discussions.

In Islamic Spain, where there was more contact with ancient learning, a form of antirational Scepticism developed among Muslim and Jewish theologians. Al-Ghazali, an Arab theologian of the 11th and early 12th centuries, and his Jewish contemporary Judah ha-Levi (c. 1075/c. 1085-c. 1141), who was a poet and physician as well as a philosopher, offered sceptical challenges (much like those later employed by the occasionalist

Nicolas Malebranche and by David Hume) against the contemporary Aristotelians in order to lead people to accept religious truths in mystical faith. This kind of fideism also appears in the late Middle Ages in the German cardinal and philosopher Nicolaus of Cusa's advocacy of learned ignorance as the way to religious knowledge.

### Modern Scepticism

Modern Scepticism emerged in the 16th century, not from medieval views but from the intellectual crises of the Renaissance and Reformation and from the rediscovery of the sceptical classics. The voyages of exploration; the humanistic rediscovery of the learning of ancient Greece, Rome, and Palestine; and the new science – all combined to undermine confidence in man's accepted picture of the world. The religious controversy between the Protestants and Catholics raised fundamental epistemological issues about the bases and criteria of religious knowledge. At the same time the texts of Cicero and Sextus became available again. (Sextus' *Outlines of Pyrrhonism* [*Hypotyposesis*] was published in Latin in 1562, his *Adversus mathematicos* in 1569, and the Greek texts of both in 1621.)

### In the Reformation

The fundamental sceptical issues raised by the Reformation appeared in the debate between the outstanding humanist scholar Erasmus and Luther. Erasmus, using Academic sceptical materials, insisted that the issues in dispute could not be resolved, that one should therefore suspend judgment and

remain with the church. Luther insisted, on the other hand, that true and certain religious knowledge could and must be gained through conscience. Erasmus' view developed into a Christian Scepticism, accepting traditional Christianity on faith after seeing that no adequate evidence existed. Luther's view, and later that of Calvin, proposed a new criterion – that of inner experience – while the Catholics of the Counter-Reformation employed Pyrrhonian and Academic arguments to undermine the criterion.

Following after Erasmus, another humanist, Giovanni Pico della Mirandola II (nephew of the famous count of the same name) and H.C. Agrippa von Nettesheim, a stormy occult philosopher and physician, employed the sceptical arguments against Scholasticism, Renaissance Naturalism, and many other views to win people to the “true religion.” The Catholic scholar Gentian Hervet, in the preface to his 1569 edition of Sextus, saw the sceptical arguments as the definitive answer to Calvinism and the way to true Christianity.

#### In the 17th Century

The new concern with Scepticism was given a general philosophical formulation by Michel de Montaigne and his cousin Francisco Sanches. Montaigne in *Apology for Raimond Sebond* and Sanches in *Quod nihil scitur*, both written in 1576, explored the human epistemological situation and showed that man's knowledge claims in all areas were extremely dubious. Montaigne recommended living according to nature and custom and accepting whatever God reveals, and Sanches advocated recognizing that nothing can be

known and then trying to gain what limited information one can through empirical scientific means.

Montaigne's Scepticism was extremely influential in the early 17th century. His followers, Pierre Charron, J.-P. Camus, La Mothe Le Vayer, and others, further popularized his views. Various French Counter-Reformers used the arguments of Montaigne and Sextus to undermine Calvinism. Montaigne's Scepticism opposed all sorts of disciplines, including the new science, and was coupled with a fideism that many suspected to be insincere.

In the 1620s efforts to refute or mitigate this new Scepticism appeared. A Christian Epicurean, Pierre Gassendi, himself originally a sceptic, and Marin Mersenne, one of the most influential figures in the intellectual revolution of the times, while retaining epistemological doubts about knowledge of reality yet recognized that science provided useful and important information about the world. The constructive Scepticisms of Gassendi and Mersenne, and later of members of the Royal Society of England like Bishop John Wilkins and Joseph Glanvill, developed the attitude of Sanches into a hypothetical, empirical interpretation of the new science.

René Descartes offered a fundamental refutation of the new Scepticism, contending that, by applying the sceptical method of doubting all beliefs that could possibly be false (due to suffering illusions or being misled by some power), one would discover a truth that is genuinely indubitable, viz., "I think, therefore I am" (*cogito ergo sum*), and that from this truth one could discover the criterion of true knowledge, viz., that whatever is clearly and distinctly conceived is true. Using this criterion, one could then establish: God's existence, that he is not a deceiver, that he guarantees our clear and distinct ideas, and that an external world exists that can be known through

mathematical physics. Descartes, starting from Scepticism, claimed to have found a new basis for certitude and for knowledge of reality. Throughout the 17th century sceptical critics – Mersenne, Gassendi, the reviver of Academic philosophy Simon Foucher, and Pierre-Daniel Huet, one of the most learned men of the age – sought to show that Descartes had not succeeded, and that, if he sincerely followed his sceptical method, his new system could only lead to complete Scepticism. They challenged whether the *cogito* proved anything, or whether it was indubitable; whether Descartes’ method could be successfully applied, or whether it was certain; and whether any of the knowledge claims of Cartesianism were *really* true. Nicolas Malebranche, the developer of occasionalism, revised the Cartesian system to meet the sceptical attacks only to find his efforts challenged by the new sceptical criticisms of Foucher and by the contention of the Jansenist philosopher Antoine Arnauld that Malebranchism led to a most dangerous Pyrrhonism.

Various English philosophers culminating in Locke tried to blunt the force of Scepticism by appealing to common sense and to the “reasonable” man’s inability to doubt everything. They admitted that there might not be sufficient evidence to support the knowledge claims extending beyond immediate experience. But this did not actually require that everything be doubted; by using standards of common sense, an adequate basis for many beliefs could be found. Blaise Pascal, who presented the case for Scepticism most forcefully in his *Pensées*, still denied that there can be a complete Scepticism; for nature prevents it. Lacking rational answers to complete Scepticism, man’s only recourse lies in turning to God for help in overcoming doubts.

The culmination of 17th-century Scepticism appears in the writings of Pierre Bayle, especially in his monumental *Dictionnaire historique et critique*

(1697-1702). Bayle, a superb dialectician, challenged philosophical, scientific, and theological theories, both ancient and modern, showing that they all led to perplexities, paradoxes, and contradictions. He argued that the theories of Descartes, Spinoza, Leibniz, and Malebranche, when sceptically analyzed, cast in doubt all information about the world, even whether a world exists. Bayle skillfully employed sceptical arguments about such things as sense information, human judgments, logical explanations, and the criteria of knowledge in order to undermine confidence in human intellectual activity in all areas. Bayle suggested that man should abandon rational activity and turn blindly to faith and revelation; he can therefore only follow his conscience without any criterion for determining true faith. Bayle showed that the interpretations of religious knowledge were so implausible that even the most heretical views, like Manichaeism, known for its cosmic dualism of good and evil, and Atheism, made more sense. As a result Bayle's work became "the arsenal of the Enlightenment," and he was regarded as a major enemy of religion.

#### In the 18th Century

Most 18th-century thinkers gave up the quest for metaphysical knowledge after imbibing Bayle's arguments. George Berkeley, an Empiricist and Idealist, fought sceptical doubts by identifying appearance and reality and offering a spiritualistic metaphysics. He was immediately seen as just another sceptic since he was denying the world beyond experience.

Bayle's chief 18th-century successor was David Hume. Combining empirical and sceptical arguments, Hume charged that neither inductive nor



deductive evidence could establish the truth of any matter of fact. Knowledge could only consist of intuitively obvious matters or demonstrable relations of ideas but not of anything beyond experience; the mind can discover no necessary connections within experience nor any root causes of experience. Beliefs about the world are based not upon reason or evidence or even upon appeal to the uniformity of nature but only on habit and custom. Beliefs cannot be justified. Belief that there is an external world, a self, a God is common; but there is no adequate evidence for it. Although it is natural to hold these convictions, they are inconsistent and epistemologically dubious. "Philosophy would render us entirely Pyrrhonian, were not Nature too strong for it." The beliefs that a man is forced to hold enable him to describe the world scientifically, but when he tries to justify them he is led to complete Scepticism. Before he goes mad with doubts, however, Nature brings him back to common sense, to unjustifiable beliefs. Hume's fideism was a natural rather than a religious one; it is only animal faith that provides relief from complete doubt. The religious context of Scepticism from Montaigne to Bayle had been removed, and man was left with only his natural beliefs, which might be meaningless or valueless.

The central themes in Hume's sceptical analysis – the basis of induction and causality, knowledge of the external world and the self, proofs of the existence of God – became the key issues of later philosophy. Hume's contemporary Thomas Reid hoped to rebut Hume's Scepticism by exposing it as the logical conclusion of the basic assumptions of modern philosophy from Descartes onward. Such disastrous assumptions should be abandoned for commonsensical principles that have to be believed. As Hume and Kant saw, Reid had not answered Hume's Scepticism but had only sidestepped the issue by appealing to commonsensical living. This provided, however, neither a

theoretical basis for beliefs nor a refutation of the arguments that questioned them.

Kant saw that Hume had posed a most fundamental challenge to all human knowledge claims. To answer him, it had to be shown not that knowledge is possible but *how* it is possible. Kant combined a Scepticism toward metaphysical knowledge with the contention that certain universal and necessary conditions are involved in having experience and describing it. In terms of these it is possible to have genuine knowledge about the forms of all possible experience, space and time, and about the categories in which all experience is described. Any effort to apply this beyond all possible experience, however, leads into contradictions and Scepticism. It is not possible to know about things-in-themselves or about the causes of experience.

Though Kant thought that he had resolved the sceptical problems, some of his contemporaries saw his philosophy as commencing a new sceptical era. G.E. Schulze (or Schulze-Aenesidemus) a notable critic of Kantianism, insisted that, on Kant's theory, no one could know any objective truths about anything; he could only know the subjective necessity of his views. The Jewish critic Salomon Maimon contended that, though there are such things as a priori concepts, their application to experience is always problematical, and whether they apply can only be found through experience. Hence, the possibility of knowledge can never be established with certainty. Assured truth on the basis of concepts is possible only of human creations, like mathematical ideas, and it is questionable whether these have any objective truth. The thesis that human creativity is the basis of truth, however, was soon to be developed by Johann G. Fichte, a leading German Idealist, as a new way of transcending Scepticism.

Another sceptical critic of Kant, J.G. Hamann, saw in Hume's and Kant's work a new basis for fideism. If knowledge of reality cannot be gained by rational means, then one must turn to faith. Based on Hume's efforts, Hamann advanced an antirational Scepticism in an effort to convince Kant to become a fideistic Christian. Hamann's kind of fideism was also developed in France by Catholic opponents of the French Revolution and liberalism – like Joseph de Maistre and H.-F.-R. de Lamennais.

#### In Recent and Contemporary Philosophy

Irrational Scepticism was developed into Existentialism by Søren Kierkegaard in the 19th century. Using traditional sceptical themes to attack Hegelianism and liberal Christianity, Kierkegaard stressed the need for faith. Only by an unjustified and unjustifiable “leap into faith” could certainty be found – which would then be entirely subjective rather than objective. Modern neo-orthodox and Existentialist theologians have argued that Scepticism highlights man's inability to find any ultimate truth except through faith and commitment. Nonreligious forms of this view have been developed by Existentialist writers like Albert Camus, combining the epistemological Scepticism of Kierkegaard with the religious and value Scepticism of Nietzsche. The rational and scientific examination of the world shows it to be unintelligible and absurd; and if God is dead, as Nietzsche proclaimed, then the world is ultimately meaningless. But it is necessary to struggle with it. It is thus through action and commitment that one finds whatever personal meaning one can, though it has no objective significance.

Other kinds of Scepticism appear in various forms of recent and contemporary philosophy. The English Idealist F.H. Bradley used classical sceptical arguments in his *Appearance and Reality: A Metaphysical Essay* to contend that the world could not be understood empirically or materialistically; true knowledge could be reached only by transcending the world of appearance.

George Santayana, an American critical Realist, in *Scepticism and Animal Faith*, presented a naturalistic Scepticism. Any interpretation of immediate or intuited experience is open to question. To make life meaningful, however, men make interpretations by “animal faith,” according to biological and social factors. The resulting beliefs, though unjustified and perhaps illusory, enable them to persevere and find the richness of life.

Types of Scepticism also appear in Logical Positivism and various forms of linguistic philosophy. The attack on speculative metaphysics developed by the physicist and early Positivist Ernst Mach, by Bertrand Russell, and by Rudolf Carnap, a leader in the Vienna Circle, where Logical Positivism was nourished, incorporated a Scepticism about the possibility of gaining knowledge beyond experience or logical tautologies. Russell and the important philosopher of science Karl Popper have further stressed the unjustifiability of the principle of induction, and Popper has criticized theories of knowledge based upon empirical verification. A founder of linguistic analysis, Fritz Mauthner, has set forth a Scepticism in which any language is merely relative to its users and thus subjective. Every attempt to tell what is true just leads one back to linguistic formulations, not to objective states of affairs. The result is a complete Scepticism about reality – a reality that cannot even be expressed except in terms of what he called godless mystical

contemplation. Mauthner's linguistic Scepticism bears some affinities to the views expressed in Ludwig Wittgenstein's *Tractatus Logico-Philosophicus*.

### Criticism and Evaluation

In Western thought Scepticism has raised basic epistemological issues. In view of the varieties of human experience, it has questioned whether it is possible to tell which are veridical. The variations that occur in different perceptions of what is presumed to be one object raise the question of which is the correct view. The occurrence of illusory experiences raises the question of whether it is really possible to distinguish illusions and dreams from reality. The criteria employed can be questioned and require justification. On what basis does one tell whether one has the right criteria? By other criteria? Then, are these correct? On what standards? The attempt to justify criteria seems either to lead to an infinite regress or to just stop arbitrarily. If an attempt is made to justify knowledge claims by starting with first principles, what are these based upon? Can it be established that these principles cannot possibly be false? If so, is the proof itself such that it cannot be questioned? If it is claimed that the principles are self-evident, can one be sure of this, sure that one is not deceived? And can one be sure that one can recognize and apply the principles correctly? Through such questioning, sceptics have indicated the basic problems that an investigator would have to resolve before he could be certain of possessing knowledge; i.e., information that could not possibly be false.

Critics have contended that Scepticism is both a logically and a humanly untenable view. Any attempt to formulate the position will be self-refuting

since it will assert at least some knowledge claims about what is supposed to be dubious. Montaigne suggested that the Sceptics needed a nonassertive language, reflecting the claim of Sextus that the sceptic does not make assertions but only chronicles his feelings. The strength of Scepticism lies not in whether it can be stated consistently but upon the effects of its arguments on dogmatic philosophers. As Hume said, Scepticism may be self-refuting, but in the process of refuting itself it undermines dogmatism. Scepticism, Sextus said, is like a purge that eliminates itself as well as everything else.

Critics have claimed that anyone who tried to be a complete sceptic, denying or suspending all judgments about ordinary beliefs, would soon be driven insane. Even Hume thought that the complete sceptic would have to starve to death and would walk into walls or out of windows. Hume, therefore, separated the doubting activity from natural practical activities in the world. sceptical philosophizing went on in theory, while believing occurred in practice. Sextus and the contemporary Norwegian sceptic Arne Naess have said, on the other hand, that Scepticism is a form of mental health. Instead of going mad, the sceptic – without commitment to fixed positions – can function better than the dogmatist.

Some recent thinkers like A.J. Ayer and John Austin have contended that Scepticism is unnecessary. If knowledge is defined in terms of satisfying meaningful criteria, then knowledge is open to all. The sceptics have raised false problems, because it is, as a matter of fact, possible to tell that some experiences are illusory since we have criteria for distinguishing them from actual events. We do resolve doubts and reach a state of knowledge through various verification procedures, after which doubt is meaningless. Naess, in his book *Scepticism*, has sought to show, however, that, on the standards

offered by Ayer and Austin, one can still ask if knowledge claims may not turn out to be false and hence that Scepticism has still to be overcome.

Scepticism throughout history has played a dynamic role in forcing dogmatic philosophers to find better or stronger bases for their views and to find answers to the sceptical attacks. It has forced a continued reexamination of previous knowledge claims and has stimulated creative thinkers to work out new theories to meet the sceptical problems. The history of philosophy can be seen, in part, as a struggle with Scepticism. The attacks of the sceptics also have served as a check on rash speculation; the various forms of modern Scepticism have gradually eroded the metaphysical and theological bases of European thought. Most contemporary thinkers have been sufficiently affected by Scepticism to abandon the search for certain and indubitable foundations of human knowledge. Instead, they have sought ways of living with the unresolved sceptical problems through various forms of naturalistic, scientific, or religious faiths.

## Sophists

The Sophists were certain Greek lecturers, writers, and teachers in the 5th and 4th centuries BCE, most of whom travelled about the Greek-speaking world giving instruction in a wide range of subjects in return for fees.

## History of the Name

The term sophist (Greek *sophistes*) had earlier applications. It is sometimes said to have meant originally simply “clever” or “skilled man,” but

the list of those to whom Greek authors applied the term in its earlier sense makes it probable that it was rather more restricted in meaning. Seers, diviners, and poets predominate, and the earliest Sophists probably were the “sages” in early Greek societies. This would explain the subsequent application of the term to the Seven Wise Men (7th-6th century BCE), who typified the highest early practical wisdom, and to Pre-Socratic philosophers generally. When Protagoras, in one of Plato’s dialogues (*Protagoras*, 317 a-b) is made to say that, unlike others, he is willing to call himself a Sophist, he is using the term in its new sense of “professional teacher,” but he wishes also to claim continuity with earlier sages as a teacher of wisdom. Plato and Aristotle altered the meaning again, however, when they claimed that professional teachers such as Protagoras were not seeking the truth but only victory in debate and were prepared to use dishonest means to achieve it. This produced the sense “captious or fallacious reasoner or quibbler,” which has remained dominant to the present day. Finally, under the Roman Empire the term was applied to professors of rhetoric, to orators, and to prose writers generally, all of whom are sometimes regarded as constituting what is now called the Second Sophistic movement.

### The 5th-Century Sophists

The names survive of nearly 30 Sophists properly so called, of whom the most important were Protagoras, Gorgias, Antiphon, Prodicus, and Thrasymachus. Plato protested strongly that Socrates was in no sense a Sophist – he took no fees, and his devotion to the truth was beyond question. But from many points of view he is rightly regarded as a rather special member of the movement. The actual number of Sophists was clearly much



larger than 30, and for about 70 years, until c. 380 BCE, they were the sole source of higher education in the more advanced Greek cities. Thereafter, at least at Athens, they were largely replaced by the new philosophic schools, such as those of Plato and Isocrates. Plato's dialogue *Protagoras* describes something like a conference of Sophists at the house of Callias in Athens just before the Peloponnesian War. Antimoerus of Mende, described as one of the most distinguished of Protagoras' pupils, is there receiving professional instruction in order to become a Sophist (*Protagoras*, 315 a), and it is clear that this was already a normal way of entering the profession.

Most of the major Sophists were not Athenians, but they made Athens the center for their activities, although travelling continuously. The importance of Athens was doubtless due in part to the greater freedom of speech prevailing there, in part to the patronage of wealthy men like Callias, and even to the positive encouragement of Pericles, who was said to have held long discussions with Sophists in his house. But primarily the Sophists congregated at Athens because they found there the greatest demand for what they had to offer, namely, instruction to young men, and the extent of this demand followed from the nature of the city's political life. Athens was a democracy, and although its limits were such that Thucydides could say it was governed by one man, Pericles, it nonetheless gave opportunities for a successful political career to citizens of the most diverse backgrounds, provided they could impress their audiences sufficiently in the council and the assembly. After Pericles' death this avenue became the highroad to political success.

The Sophists taught men how to speak and what arguments to use in public debate. A Sophistic education was increasingly sought after both by members of the oldest families and by aspiring newcomers without family

backing. The changing pattern of Athenian society made merely traditional attitudes in many cases no longer adequate. Criticizing such attitudes and replacing them by rational arguments held special attraction for the young, and it explains the violent distaste which they aroused in traditionalists. Plato thought that much of the Sophistic attack upon traditional values was unfair and unjustified. But even he learned at least one thing from the Sophists – if the older values were to be defended, it must be by reasoned argument, not by appeals to tradition and unreflecting faith.

Seen from this point of view, the Sophistic movement was a valuable function of Athenian democracy in the 5th century BCE. It offered an education designed to facilitate and promote success in public life. All of the Sophists appear to have provided a training in rhetoric and in the art of speaking, and the Sophistic movement, responsible for large advances in rhetorical theory, contributed greatly to the development of style in oratory. In modern times the view occasionally has been advanced that this was the Sophists' only concern. But the range of topics dealt with by the major Sophists makes this unlikely, and even if success in this direction was their ultimate aim, the means they used were surely as much indirect as direct, for the pupils were instructed not merely in the art of speaking, but in grammar; in the nature of virtue (*arete*) and the bases of morality; in the history of society and the arts; in poetry, music, and mathematics; and also in astronomy and the physical sciences. Naturally the balance and emphasis differed from Sophist to Sophist, and some offered wider curricula than others. But this was an individual matter, and attempts by earlier historians of philosophy to divide the Sophistic movement into periods in which the nature of the instruction was altered are now seen to fail for lack of evidence. The 5th-century Sophists inaugurated a method of higher education that in range and method

anticipated the modern humanistic approach inaugurated or revived during the Renaissance.

### Nature of Sophistic Thought

A question still discussed is whether the Sophists in general had any real regard for truth or whether they taught their pupils that truth was unimportant compared with success in argument. Plato's hostile judgment on both counts is still frequently repeated without question. The Platonic writings make frequent reference to what Plato calls "eristic" (Greek *eristikos*, "fond of wrangling") and "antilogic"; the two often have been incorrectly treated as identical. Eristic, for Plato, consists in arguments aimed at victory rather than at truth. Antilogic involves the assignment to any argument of a counterargument that negates it, with the implication that both argument and counterargument are equally true. Antilogic in this sense was especially associated with Protagoras; but Plato, no doubt correctly, attributes its use to other Sophists as well. He regards the use of antilogic as essentially eristic, whether it be used to silence an opponent by making his position seem self-contradictory, or whether it be used mechanically to negate any proposition put forward in debate. He concludes that the widespread use of antilogic is evidence that Sophists had no real regard for the truth, which must itself be free from antilogic.

But Plato himself believed, for much or possibly all of his life, that the phenomenal world was essentially antilogical inasmuch as no statement about it could be made possessing a greater degree of truth than the contradictory of that statement. For example, if a man is tall in relation to one object, he will

be short in relation to another object. In so characterizing the phenomenal world, Plato certainly did not wish to be called eristic – he regarded the application of antilogic to the description of the phenomenal world as an essential preliminary to the search for the truth residing in the Platonic Forms, which are themselves free from antilogic.

Seen in this perspective, the Sophistic use of antilogic must be judged less harshly. To the extent that it was used irresponsibly to secure success in debate it was eristic, and the temptation so to use it must often have arisen. But where it was invoked in the sincere belief that antilogic elements were indeed involved, or where it was used for analyzing a complex situation in order to reveal its complexity, then antilogic was in no way inconsistent with devotion to truth. This raises the question to what extent the Sophists possessed any general view of the world or gave expression to any genuine philosophical views, whether original or derived. Ancient writers, influenced by Plato and Aristotle, seem to have excluded the Sophists, apart from Protagoras, for their schematized accounts of early Greek thinkers. Modern writers have frequently maintained that, whatever else they were, the Sophists were in no sense philosophers. Even those who acknowledge the philosophical interest of certain particular doctrines attributed to individual Sophists often tend to regard these as exceptions and claim that, inasmuch as the Sophists were not a school but only independent teachers and writers, as a class they were not philosophers. Two questions are involved: whether the Sophists held common intellectual doctrines and whether some or all of these could actually be termed philosophical.

Among moderns, Hegel was one of the first to reinsert the Sophists into the history of Greek philosophy. He did so within the framework of his own dialectic, in which every thesis invokes its own opposite, or antithesis; thus he

treated the Sophists as representing the antithesis to the thesis of the group of philosophers known collectively as the Pre-Socratics. Pre-Socratics such as Thales, Heracleitus, and Parmenides sought the truth about the external world with a bold enthusiasm that produced a series of explanations, each claiming to be correct. None of these explanations of the physical world paid attention to the observer and each was driven to reject more and more of the phenomenal world itself as unreal. Finally, with the Eleatics, a 5th-century school at Elea in Italy that held that reality is a static one, of which Parmenides and Zeno are representatives, little or nothing of the phenomenal world was left as real. This trend in turn produced a growing distrust of the power of human beings to attain knowledge of the ultimate basis of natural phenomena. Philosophy had reached an impasse, and there was a danger of complete scepticism. Such an extreme position, according to Hegel's view, provoked the "antithesis" of the Sophistic movement, which rejected the "thesis" of the objectivists and concentrated attention upon man rather than upon nature. To Hegel, the Sophists were subjective Idealists, holding that reality is only minds and their contents, and so philosophy could move forward by turning its attention to the subjective element in knowing. Reflection upon the contrast between the thought of the Sophists and that of their predecessors produced the "syntheses" of Plato and Aristotle.

Whether any of the Sophists actually were subjective Idealists may be doubted. The conclusion depends in part on whether Protagoras held that phenomena had subjective existence only, or whether he thought that all things perceived had objective existence but were perceived differently according to the nature of the percipient and their relation to him – i.e., whether he interpreted phenomena subjectively or relativistically. It is fairly clear, however, that the Sophists did concentrate very largely upon man and

human society, upon questions of words in their relations to things, upon issues in the theory of knowledge, and upon the importance of the observer and the subjective element in reality and in the correct understanding of reality.

This emphasis helps to explain the philosophical hostility of Plato and Aristotle. Particularly in the eyes of Plato, anyone who looks for the truth in phenomena alone, whether he interprets it subjectively or relativistically, cannot hope to find it there; and his persistence in turning away from the right direction virtually amounts to a rejection of philosophy and of the search for truth. Many a subsequent thinker for whom metaphysics, or the investigation of the deepest nature of reality, was the crowning achievement of philosophy has felt with Plato that the Sophists were so antimetaphysical that they have no claim to rank as philosophers. But in a period when, for many philosophers, metaphysics is no longer the most important part of philosophy and is even for some no part at all, there is growing appreciation of a number of problems and doctrines recurring in the discussions of the Sophists in the 5th and 4th centuries BCE. In the 18th and early 19th centuries the Sophists were considered charlatans. Their intellectual honesty was impugned, and their doctrines were blamed for weakening the moral fibre of Greece. The charge was based on two contentions, both correct: first, that many of the Sophists attacked the traditionally accepted moral code; and second, that they explored and even commended alternative approaches to morality that would condone or allow behavior of a kind inadmissible under the stricter traditional code.

Much less weight has been attached to these charges since about the mid-19th century. First, many of the attacks on the traditional morality were in the name of a new morality that claimed to be of greater validity. Attacks

upon particular doctrines often claimed that accepted views should be abandoned as morally defective. Furthermore, even when socially disfavored action seemed to be commended, this was frequently done to introduce a principle necessary in any satisfactory moral theory. Thus when Thrasymachus in the first book of Plato's *Republic* argues that justice is unwarranted when it merely contributes to another's good and not to the good of the doer, Plato agrees. Finally, there is no evidence that any of the Sophists were personally immoral or that any of their pupils were induced to immoral actions by Sophistic teaching. The serious discussion of moral problems and the theory of morality tends to improve behavior, not to corrupt it.

## Writings

In addition to their teaching, the Sophists wrote many books, the titles of which are preserved by writers such as Diogenes Laërtius, who probably derived them from library catalogues. It has usually been supposed that the writings themselves hardly survived beyond the period of Plato and Aristotle, but this view requires modification in the light of papyrus finds, admittedly few, that were copied from Sophistic writings in the Christian Era. It also has been possible to identify in the works of later writers certain imitations or summaries of 5th-century Sophistic writers, whose names are unknown. The most important of these are the discussion of law in the *Protrepticus*, or "Exhortation to Philosophy," by the 3rd-century-CE Syrian Neoplatonist Iamblichus, and the so-called *Dissoi logoi* found in the manuscripts of Sextus Empiricus (3rd century CE). This evidence suggests that while most later writers took their accounts of the Sophists from earlier writers, especially

from Plato, the original writings did in many cases survive and were consulted.

### Particular Doctrines

As part of his defense of the Sophists against the charge of immoral teachings, the English historian George Grote (1794-1871) maintained that they had nothing in common with each other except their profession, as paid teachers qualifying young men to think, speak, and act with credit to themselves as citizens. This denial of common doctrines cannot be sustained – the evidence is against it. While the Sophists were not a sect, with a set of obligatory beliefs or doctrines, they had a common interest in a whole series of questions to which they sought to apply solutions along certain clearly defined lines.

There are great difficulties, however, in the precise reconstruction of individual Sophistic doctrines. No complete writings survive from any of the Sophists to check the accounts found in Plato, and later writers were often, but not always, dependent upon what they found in Plato. Plato doubtless knew well the doctrines of individual Sophists; but he was writing for those to whom these doctrines were already well known, and he was always more interested in following the argument where it led than in providing precise statements of other people's views for the sake of posterity. Consequently, almost everything that is said about particular Sophistic doctrines is subject to controversy.



## Theoretical Issues

Relativism and scepticism have often been regarded as common features of the Sophistic movement as a whole. But it was early pointed out that only in Protagoras and Gorgias is there any suggestion of a radical scepticism about the possibility of knowledge; and even in their case Sextus Empiricus, in his discussion of scepticism, is probably right when he declares that neither was really a skeptic. Protagoras does seem to have restricted knowledge to sense experience, but he believed emphatically that whatever was perceived by the senses was certainly true. This led him to assert that the tangent does not touch the circle at a point only, but along a definite length of the circumference; clearly he was referring to human perception of drawn tangents and circles. Gorgias, who claimed that nothing exists, or if it does exist it cannot be known, or if it exists and is knowable it cannot be communicated to another, has often been accused of denying all reality and all knowledge. Yet he also seems to have appealed in his very discussion of these themes to the certainty of perceived facts about the physical world; e.g., that chariots do not race across the sea. Others dismiss his whole thesis as a satire or joke against philosophers.

Probably neither view is correct. What Gorgias seems to have been attacking was not perceived reality nor one's power to perceive it but the attempt to assign existence or nonexistence (with the metaphysical implications of such an operation) to what we perceive around us. There is evidence that other Sophists (e.g., Hippias) were interested in questions of this kind, and it is likely that they were all concerned to some degree with rejecting claims of any nonsensible existence, such as those of the Eleatics. The Sophists, in fact, were attempting to explain the phenomenal world without appealing to any principles outside of phenomena. They believed that

this could be done by including the observer within the phenomenal world. Their refusal to go beyond phenomena was, for Plato, the great weakness in their thinking.

A second common generalization about the Sophists has been that they represent a revolt against science and the study of the physical world. The evidence is against this, inasmuch as for Hippias, Prodicus, Gorgias, and Protagoras there are records of a definite interest in questions of this kind. The truth is rather that they were in revolt against attempts to explain the physical world by appeals to principles that could not be perceived by the senses; and instead of framing new “objective” explanations, they attempted to explain things, where explanation was required, by introducing the perceiver as one element in the perceptual situation.

One of the most famous doctrines associated with the Sophistic movement was the opposition between nature and custom or convention in morals. It is probable that the antithesis did not originate in Sophistic circles but was rather earlier; but it was clearly very popular and figured largely in Sophistic discussions. The commonest form of the doctrine involved an appeal from conventional laws to supposedly higher laws based on nature. Sometimes these higher laws were invoked to remedy defects in actual laws and to impose more stringent obligations; but usually it was in order to free men from restrictions unjustifiably imposed by human laws that the appeal to nature was made. In its extreme form the appeal involved the throwing off of all restraints upon self-interest and the desires of the individual (e.g., the doctrine of Callicles in Plato’s *Gorgias* that might, if one possesses it, is actually right), and it was this, more than anything else, that gave support to charges against the Sophists of immoral teaching. On other occasions the terms of the antithesis were reversed and human laws were explicitly

acclaimed as superior to the laws of nature and as representing progress achieved by human endeavor. In all cases the laws of nature were regarded not as generalized descriptions of what actually happens in the natural world (and so not like the laws of physics to which no exceptions are possible) but rather as norms that people ought to follow but are free to ignore. Thus the appeal to nature tended to mean an appeal to the nature of man treated as a source for norms of conduct.

To Greeks this appeal was not very novel. It represented a conscious probing and exploration into an area wherein, according to their whole tradition of thought, lay the true source for norms of conduct. If Callicles in Plato's *Gorgias* represents a position actually held by a living Sophist when he advocates free rein for the passions, then it was easy for Plato to argue in reply that the nature of man, if it is to be fulfilled, requires organization and restraint in the license given to the desires of particular aspects of it; otherwise the interests of the whole will be frustrated. Both Plato and Aristotle, in basing so much of their ethics on the nature of man, are only following up the approach begun by the Sophists.

#### Humanistic Issues

The Sophists have sometimes been characterized by their attacks on the traditional religious beliefs of the Greeks. It is true that more than one Sophist seems to have faced prosecution for impiety, as did Socrates also. Protagoras wrote "concerning the gods, I cannot know either that they exist or that they do not exist nor what they are like in form," and Prodicus offered a sociological account of the development of religion. Critias went further when

he supposed that the gods were deliberately invented to inspire fear in the evildoer. It is thus probably correct to say that the tendency of much Sophistic thought was to reject the traditional doctrines about the gods. Indeed this follows almost inevitably if the supposition is correct that all the Sophists were attempting to explain the phenomenal world from within itself, while excluding all principles or entities not discernible in phenomena. But in their agnostic attitudes toward the Olympian deities the Sophists were probably at one with most of the Pre-Socratic philosophers of the 6th and 5th centuries and also with most thinking people living toward the end of the 5th century. It is thus probably misleading to regard them as revolutionary in their religious beliefs.

The importance the Sophists attached to man meant that they were extremely interested in the history and organization of human societies. Here again most is known about Protagoras, and there is a danger of treating his particular doctrines as typical of the Sophistic movement as a whole. In the 5th century, human history was very commonly seen in terms of a decline from an earlier golden age. Another view supposed that there were recurring cycles in human affairs according to which a progression from good to bad would give way to one from bad to good. The typical Sophistic attitude toward society rejected both of these views in favor of one that saw human history in terms of progress from savagery to civilization. In a famous myth Protagoras explained how man achieved civilized society first with the aid of arts and crafts and then by gaining a sense of respect and justice in the ordering of his affairs. The general thinking of most of the Sophists seems to have been along similar lines.

One of the most distinctive Sophistic tenets was that virtue can be taught, a position springing naturally from the Sophists' professional claim to

be the teachers of young men. But the word virtue (*arete*) implied both success in living and the qualities necessary for achieving such success, and the claim that *arete* could be taught by the kind of teaching that the Sophists offered had far-ranging implications. It involved the rejection of the view that *arete* came only by birth – for example, by being born a member of a noble family – and it involved also the rejection of the doctrine that *arete* was a matter of the chance occurrence of specified qualities in particular individuals. *Arete*, in the Sophists' view, was the result of known and controllable procedures, a contention of profound importance for the organization of society. Moreover, what can be taught has some relation to what can be known and understood. The belief that teaching of a high intellectual calibre could produce success both for the individual and for governments has had a profound influence upon the subsequent history of education. Once again, it is through the acceptance of this doctrine by Plato and Aristotle that the Sophistic position came to be part of subsequent humanist tradition.

### The Second Sophistic Movement

It is a historical accident that the name “Sophist” came to be applied to the Second Sophistic movement. Greek literature underwent a period of eclipse during the 1st century BCE and under the early Roman Empire. But Roman dominance did not prevent a growing interest in sophistic oratory in the Greek-speaking world during the 1st century CE. This oratory aimed merely at instructing or interesting an audience and had of necessity no political function. But it was based on elaborate rules and required a thorough knowledge of the poets and prose writers of antiquity. Training was provided

by professional teachers of rhetoric who claimed the title of Sophists, just as the 5th-century Sophists had adopted a name already used by others.

The revival of the Greek spirit under Hadrian and other emperors in the 2nd century CE who were also admirers of Greek culture found expression in a fresh flowering of Greek prose following principles developed and applied by the professors of rhetoric in the 1st century CE. Hence a group of Greek prose writers in the 2nd Century CE was regarded as constituting the Second Sophistic movement. This was a backward-looking movement that took as its models Athenian writers of the 5th and 4th centuries BCE; hence the label “Atticists” (Greek *Attikos*, “Athenian”) applied to some of its leading members. The limits of the movement were never clear. It is usually taken to include Polemon of Athens, Herodes Atticus, Aelius Aristides, Maximus of Tyre, and the group of Philostrati. Dio Chrysostom of Prusa is often included, although others would regard him as preparing the way for the main period. Other writers, like Lucian, Aelian, and Alciphron, were influenced by the movement even if not properly members of it; and the writers of prose romances, such as Longus and Heliodorus, and the historians Dio Cassius and Herodian are also associated with the general trend. By the 3rd century CE, however, its impulse was weakening, and it was shortly no longer distinguishable within the general stream of Greek literature.

## Stoicism

Stoicism, a school of thought that flourished in Greek and Roman antiquity, was one of the loftiest and most sublime philosophies in the record of Western civilization. In urging participation in the affairs of man, Stoics

have always believed that the goal of all inquiry is to provide man with a mode of conduct characterized by tranquillity of mind and certainty of moral worth.

### Nature and Scope of Stoicism

For the early Stoic philosopher, as for all the post-Aristotelian schools, knowledge and its pursuit are no longer held to be ends in themselves. The Hellenistic Age was a time of transition, and the Stoic philosopher was perhaps its most influential spokesman. A new culture was in the making. The heritage of an earlier period, with Athens as its intellectual leader, was to continue, but to undergo many changes. If, as with Socrates, to know is to know oneself, rationality as the sole means by which something outside of the self might be achieved may be said to be the hallmark of Stoic belief. As a Hellenistic philosophy, Stoicism presented an *ars vitae*, a way of accommodation for people to whom the human condition no longer appeared as the mirror of a universal, calm, and ordered existence. Reason alone could reveal the constancy of cosmic order and the originative source of unyielding value; thus, reason became the true model for human existence. To the Stoic, virtue is an inherent feature of the world, no less inexorable in relation to man than are the laws of nature.

The Stoics believed that perception is the basis of true knowledge. In logic, their comprehensive presentation of the topic is derived from perception, yielding not only the judgment that knowledge is possible but also that *certain* knowledge is possible, on the analogy of the incorrigibility of perceptual experience. To them, the world is composed of material things,

with some few exceptions (e.g., meaning), and the irreducible element in all things is right reason, which pervades the world as divine fire. Things, such as material, or corporeal, bodies, are governed by this reason or fate, in which virtue is inherent. The world in its awesome entirety is so ruled as to exhibit grandeur of orderly arrangement that can only serve as a standard for mankind in the regulation and ordering of his life. Thus, the goal of man is to live according to nature, in agreement with the world design. Stoic moral theory is also based on the view that the world, as one great city, is a unity. Man, as a world citizen, has an obligation and loyalty to all things in that city. He must play an active role in world affairs, remembering that the world exemplifies virtue and right action. Thus, moral worth, duty, and justice are singularly Stoic emphases, together with a certain sternness of mind. For the moral man neither is merciful nor shows pity, because each suggests a deviation from duty and from the fated necessity that rules the world. Nonetheless – with its loftiness of spirit and its emphasis on man’s essential worth – the themes of universal brotherhood and the benevolence of divine nature make Stoicism one of the most appealing of philosophies.

Its chief competitors in antiquity were: (1) Epicureanism, with its doctrine of a life of withdrawal in contemplation and escape from worldly affairs and its belief that pleasure, as the absence of pain, is the goal of man; (2) Scepticism, which rejected certain knowledge in favor of local beliefs and customs, in the expectation that these guides would provide man with the quietude and serenity that the dogmatic philosopher (e.g., the Stoic) could not hope to achieve; and (3) Christianity, with its hope of personal salvation provided by an appeal to faith as an immanent aid to human understanding and by the beneficent intervention of a merciful God.



Along with its rivals, Stoicism enabled the individual to better order his own life and to avoid the excesses of human nature that promote disquietude and anxiety. It was easily the most influential of the schools from the time of its founding through the first two centuries CE, and it continued to have a marked effect on later thought. During the late Roman and medieval periods, elements of Stoic moral theory were known and used in the formulation of Christian, Jewish, and Muslim theories of man and nature, of the state and society, and of law and sanctions – e.g., in the works of Marcus Cicero, Roman statesman and orator; in Lactantius, often called the “Christian Cicero”; and in A.M.S. Boethius, a scholar transitional to the Middle Ages. In the Renaissance, Stoic political and moral theory became more popular to theorists of natural law and political authority and of educational reform – e.g., in Hugo Grotius, a Dutch jurist and statesman, and in Philipp Melanchthon, a major Reformation scholar. More recently, Stoicism has become popular again for its insistence on the value of the individual and the place of value in a world of strife and uncertainty – e.g., in Existentialism and in Neo-orthodox Protestant theology. Stoicism also plays an important role in reassessments of the history of logic – e.g., in Jan Łukasiewicz, a Polish logician, and in William and Martha Kneale, mid-20th-century British logicians.

#### Ancient Stoicism

#### Early Greek Stoicism

With the death of Aristotle (322 BCE) and that of Alexander the Great (323 BCE), the greatness of the life and thought of the Greek city-state (polis)

ended. With Athens no longer the center of worldly attraction, its claim to urbanity and cultural prominence passed on to other cities – to Rome, to Alexandria, and to Pergamum. The Greek polis gave way to larger political units; local rule was replaced by that of distant governors. The earlier distinction between Greek and barbarian was destroyed; provincial and tribal loyalties were broken apart, first by Alexander and then by Roman legions. The loss of freedom by subject peoples further encouraged a deterioration of the concept of the freeman and resulted in the rendering of obligation and service to a ruler whose moral force held little meaning. The earlier intimacy of order, cosmic and civic, was now replaced by social and political disorder; and traditional mores gave way to uncertain and transient values.

Stoicism had its beginnings in a changing world, in which earlier codes of conduct and ways of understanding proved no longer suitable. But it was also influenced by tenets of the older schools. The earliest Greek philosophers, the Milesians, had called attention to cosmic order and the beauty of nature. Later, the monist Parmenides of Elea stressed the power of reason and thought, whereas Heraclitus of Ephesus, precursor of the philosophy of becoming, had alluded to the constancy of change and the omnipresence of divine fire, which illumined all things. A deeper understanding of man himself came with Socrates, symbol of the philosophic man, who personified *sophia* and *sapientia* (Greek and Latin: “wisdom”). Of the several schools of philosophy stemming from Socrates, the Cynic and Megarian schools were influential in the early development of Stoic doctrine: the Cynics for their emphasis on the simple life, unadorned and free of emotional involvement; and the Megarians for their study of dialectic, logical form, and paradoxes.

Stoicism takes its name from the place where its founder, Zeno of Citium (Cyprus), customarily lectured – the Stoa Poikile (Painted Colonnade). Zeno, who flourished in the early 3rd century BCE, showed in his own doctrines the influence of earlier Greek attitudes, particularly those mentioned above. He was apparently well versed in Platonic thought, for he had studied at Plato's Academy both with Xenocrates of Chalcedon and with Polemon of Athens, successive heads of the Academy. Zeno was responsible for the division of philosophy into three parts: logic, physics, and ethics. He also established the central Stoic doctrines in each part, so that later Stoics were to expand rather than to change radically the views of the founder. With some exceptions (in the field of logic), Zeno thus provided the following themes as the essential framework of Stoic philosophy: logic as an instrument and not as an end in itself; human happiness as a product of life according to nature; physical theory as providing the means by which right actions are to be determined; perception as the basis of certain knowledge; the wise man as the model of human excellence; Platonic Ideas – or the abstract Forms that things of the same genus share – as being unreal; true knowledge as always accompanied by assent; the fundamental substance of all existing things as being a divine fire, the universal principles of which are (1) passive (matter) and (2) active (reason inherent in matter); belief in a world conflagration and renewal; belief in the corporeality of all things; belief in the fated causality that necessarily binds all things; cosmopolitanism, or cultural outlook transcending narrower loyalties; and man's obligation, or duty, to choose only those acts that are in accord with nature, all other acts being a matter of indifference.

Cleanthes of Assos, who succeeded Zeno as head of the school, is best known for his *Hymn to Zeus*, which movingly describes Stoic reverence for

the cosmic order and the power of universal reason and law. The third head of the school, Chrysippus of Soli, who lived to the end of the 3rd century, was perhaps the greatest and certainly the most productive of the early Stoics. He devoted his considerable energies to the almost complete development of the Zenonian themes in logic, physics, and ethics. In logic particularly, he defended against the Megarian logicians and the sceptics such concepts as certain knowledge, comprehensive presentation, proposition and argument, truth and its criterion, and assent. His work in propositional logic, in which unanalyzed propositions joined by connectives are studied, made important contributions to the history of ancient logic and is of particular relevance to more recent developments in logic.

In physics, Chrysippus was responsible for the attempt to show that fate and free will are not mutually exclusive conceptual features of Stoic doctrine. He further distinguished between “whole” and “all,” or “universe,” arguing that the whole is the world, while the all is the external void together with the world. Zeno’s view of the origin of man as providentially generated by “fiery reason” out of matter was expanded by Chrysippus to include the concept of self-preservation, which governs all living things. Another earlier view (Zeno’s), that of nature as a model for life, was amplified first by Cleanthes and then by Chrysippus. The Zenonian appeal to life “according to nature” had evidently been left vague, because to Cleanthes it seemed necessary to speak of life in accord with nature conceived as the world at large (the cosmos), whereas Chrysippus distinguished between world nature and human nature. Thus, to do good is to act in accord with both human and universal nature. Chrysippus also expanded the Stoic view that seminal reasons were the impetus for animate motion.

He established firmly that logic and (especially) physics are necessary and are means for the differentiation of goods and evils. Thus, a knowledge of physics (or theology) is required before an ethics can be formulated. Indeed, physics and logic find their value chiefly in this very purpose. Chrysippus covered almost every feature of Stoic doctrine and treated each so thoroughly that the essential features of the school were to change relatively little after his time.

#### Later Roman Stoicism

The Middle Stoa, which flourished in the 2nd and early 1st centuries BCE, was dominated chiefly by two men of Rhodes: Panaetius, its founder, and his disciple Poseidonius. Panaetius organized a Stoic school in Rome before returning to Athens, and Poseidonius was largely responsible for an emphasis on the religious features of the doctrine. Both were antagonistic to the ethical doctrines of Chrysippus, who, they believed, had strayed too far from the Platonic and Aristotelian roots of Stoicism. It may have been because of the considerable time that Panaetius and Poseidonius lived in Rome that the Stoa there turned so much of its emphasis to the moral and religious themes within the Stoic doctrine. Panaetius was highly regarded by Cicero, who used him as a model for his own work. Poseidonius, who had been a disciple of Panaetius in Athens, taught Cicero at his school at Rhodes and later went to Rome and remained there for a time with Cicero. If Poseidonius admired Plato and Aristotle, he was particularly interested – unlike most of his school – in the study of natural and providential phenomena. In presenting the Stoic system in the second book of *De natura deorum* (45 BCE), Cicero most probably followed Poseidonius. Because his master, Panaetius, was chiefly

concerned with concepts of duty and obligation, it was his studies that served as a model for the *De officiis* (44 BCE) of Cicero. Hecaton, another of Panaetius' students and an active Stoic philosopher, also stressed similar ethical themes.

If Chrysippus is to be commended for his diligence in defending Stoic logic and epistemology against the Scepticism of the New Academy (3rd-2nd century BCE), it was chiefly Panaetius and Poseidonius who were responsible for the widespread popularity of Stoicism in Rome. It was precisely their turning of doctrine to themes in moral philosophy and natural science that appealed to the intensely practical Romans. The times perhaps demanded such interests, and with them Stoicism was to become predominantly a philosophy for the individual, showing how – given the vicissitudes of life – one might be stoical. Law, world citizenship, nature, and the benevolent workings of Providence and the divine reason were the principal areas of interest of Stoicism at this time.

These tendencies toward practicality are also well illustrated in the later period of the school (in the first two centuries CE) in the writings of Lucius Seneca, a Roman statesman; of Epictetus, a slave freed by Nero; and of Marcus Aurelius, a Roman emperor. Both style and content in the *Libri morales* (Eng. trans., *Moral Essays*) and *Epistulae morales* (*Moral Letters*) of Seneca reinforce the new direction in Stoic thought. The *Encheiridion* (*Manual*) of Epictetus and the *Meditations* of Marcus Aurelius furthered the sublime and yet personal consolation of the Stoic message and increasingly showed the strength of its rivalry to the burgeoning power of the new Christianity. The mark of a guide, of the religious teacher, is preeminent in these writings. It is difficult to establish with any precision, however, the extent of Stoic influence by the time of the first half of the 2nd century CE. So

popular had these ideas become that many specifically Stoic terms (viz., right reason, comprehension, assent, indifference, *logos*, natural law, and the notion of the wise man) commonly were used in debate and intellectual disputes.

### Stoic Elements in Pauline and Patristic Thought

There is much disagreement as to the measure of Stoic influence on the writings of St. Paul, the Apostle of Christ. At Tarsus, Paul certainly had opportunities for hearing Stoic lectures on philosophy. And it may be that his discussion of nature and the teaching of it (I Cor. 11:14) is Stoic in origin, for it has a parallel in the *Manual* of Epictetus 1.16, 10. Although not a Stoic technical term, *syneidesis*, which Paul used as “conscience,” was generally employed by Stoic philosophers. In I Cor. 13 and in the report of Paul’s speech at Athens (Acts 17), there is much that is Hellenistic, more than a little tinged by Stoic elements – e.g., the arguments concerning man’s natural belief in God and the belief that man’s existence is in God.

The assimilation of Stoic elements by the Church Fathers was generally better understood by the 4th century. Stoic influence can be seen, for example, in the relation between reason and the passions in the works of St. Ambrose, one of the great scholars of the church, and of Marcus Minucius Felix, a Christian Apologist. Each took a wealth of ideas from Stoic morality as Cicero had interpreted it in *De officiis*. In general, whereas the emerging Christian morality affirmed its originality, it also assimilated much of the pagan literature, the more congenial elements of which were essentially Stoic.

Earlier, in the 3rd century, Quintus Tertullian, often called the father of Latin Christian literature, seems to have been versed in Stoic philosophy; e.g.,

in his theory of the agreement between the supernatural and the human soul, in his use of the Stoic tenet that from a truth there follow truths, and in his employment of the idea of universal consent. Even in his polemical writings, which reveal an unrelenting hostility to pagan philosophy, Tertullian showed a fundamental grasp and appreciation of such Stoic themes as the world *logos* and the relation of body to soul. This is well illustrated in his argument against the Stoics, particularly on their theme that God is a corporeal being and identified with reason as inherent in matter – also to be found in his polemics against Marcion, father of a heretical Christian sect, and against Hermogenes of Tarsus, author of an important digest of rhetoric. Yet in his doctrine of the Word, he appealed directly to Zeno and Cleanthes of the Early Stoa. Another important polemic against the Stoics is found in the treatise *Contra Celsum*, by Origen, the most influential Greek theologian of the 3rd century, in which he argued at some length against Stoic doctrines linking God to matter.

Also, St. Cyprian, bishop of Carthage in the 3rd century, revealed the currency of Stoic views; e.g., in his *Ad Demetrianum*, a denunciation of an enemy to Christianity, in which Cyprian castigates the ill treatment of slaves, who, no less than their masters, are formed of the same matter and endowed with the same soul and live according to the same law. The beliefs in the brotherhood of man and in the world as a great city, commonly found in early Christian literature, were current Stoic themes. The Christian attitude appears in what St. Paul said of Baptism: “You are all sons of God through Faith. For as many of you as were baptized into Christ have put on Christ” (Gal. 3:26-27).



## Stoicism in Medieval and Modern Philosophy

### Stoic Undercurrents in Medieval Thought

During the period when Christian institutions and doctrines were developing (CE 230-1450), Stoicism continued to play a popular role. The *De consolazione philosophiae* (524) of Boethius (died CE 524/525) was widely known and appreciated as a discourse on the mysterious questions of the nature of good and evil, of fortune, chance, or freedom, and of divine foreknowledge. If the plan of Boethius was to serve as an interpreter of Plato and Aristotle, he succeeded only in working through some logical theories of Aristotle, together with several commentaries on those theories. In the *Consolatione*, however, the themes are quite different; in the fifth book, for example, he attempted to resolve the apparent difficulty of reconciling human freedom with the divine foreknowledge, a problem that among Stoic thinkers – though by no means uniquely among them – had been in general currency for a long time. This work of emancipation from worldly travail through the glories of reason and philosophy, which included Stoic doctrines as found in the writings of Cicero and Seneca, was much more influential for later medieval thought than that of Lactantius, of the late 3rd to early 4th century, who was largely concerned with the writing of a history of religion – a summary statement of Christian doctrine and life from earliest times. Lactantius also wrote a not unimportant work, *De ira Dei* (313), on the possibility of anger in God. It poses a problem of how to deal with the essentially Greek, or philosophic, view that God cannot feel anger because he is not subject to passions and that *apatheia* (“apathy,” or “imperturbableness”) is not merely the mark of the wise man but is also a divine attribute. This view, which had been most thoroughly developed among Stoic thinkers and particularly by Epictetus, raised a peculiarly Christian problem, the concern of

the power of God to reward the righteous and punish the transgressor; thus, it challenged the very idea of Providence. Other manifestations of anthropathism, the attributing of human feelings to God, had also been charged against the early Christian religionists; and the writers of the time – Lactantius and Tertullian among them – took great pains to refute the largely Stoic formulations of these charges. Although the refutations took the form – in St. Augustine, for example – of denying that the wrath of God is a perturbation of the soul and of holding that it is rather a judgment, the concept of the divine essence excludes all passions. Within the monastic tradition, there remained more than a residue of concern over apathy as a divine attribute and as a model for the truly religious.

Other significant Stoic influences appeared in medieval discussions of the popular origin of political authority, *res publica* and *res populi*, and on the distinctions made in law between *jus naturale*, *jus gentium*, *jus civile* – doctrines of Stoic origin – found in 3rd-century Roman juridical texts gathered together by Isidore of Seville (died CE 636), a Spanish encyclopaedist and theologian. The Stoic belief – as against Aristotle – that men are by nature equal was an integral part of the knowledge that certain rules of law are universally recognized, laws that all people might naturally follow. In this way, the Romans – whose genius lay in organization and in law – fostered the conception of natural, or common, law, which reason was supposed to make evident to all men. Thus, in the second half of the 11th century, the Stoic texts of Cicero and Seneca became important doctrinal sources for the initial discussions of social and political philosophy. These early theories of law, of the natural equality of men, and of the rights of prince and populace were to become the basis for 13th-century systems of social and political privilege and obligation.

In the 12th century, John of Salisbury, an English critical scholar, produced, in his *Policraticus* (1159), the first complete attempt at a philosophy of the state since Classical times. Stoic doctrines of natural law, society, state, and Providence were important elements in his effort to construct a social philosophy on ethical and metaphysical principles. The impact of these doctrines and the lengthy history of their use in the earlier Middle Ages can also be found in the views of Thomas Aquinas on the philosophy of the state and of man.

#### Renascence of Stoicism in Modern Times

If the influence of Stoic doctrines during the Middle Ages was largely restricted to the resolution of problems of social and political significance, it remained for the Renaissance, in its passion for the rediscovery of Greek and Roman antiquity, to provide a basis for the rebirth of Stoic views in logic, epistemology, and metaphysics, as well as the documentation of the more familiar Stoic doctrines in ethics and politics. Late in the 16th century, Justus Lipsius, a Flemish scholar and Latin Humanist, was responsible for the first restatement of Stoicism as a defensible and thoroughgoing (Christian) philosophy of man. His treatises *De constantia* (1584) and *Politicorum sive civilis doctrinae libri V* (1589) were widely known in many editions and translations. His defense of Stoic doctrine in *Manuductio ad Stoicam Philosophiam* (1604) and *Physiologia Stoicorum* (1604) provided the basis for the considerable Stoic influence during the Renaissance. Around the turn of the 17th century, Guillaume du Vair, a French lawyer and Christian philosopher, made Stoic moral philosophy popular, while Pierre Charron, a French theologian and sceptic, utilized Stoic themes in *De la sagesse* (1601;

Eng. trans., *Of Wisdome*, 1608), as did the sceptic Michel de Montaigne in his *Essais* (1580; Eng. trans. 1603). Through the work of Lipsius, Stoic doctrines were to influence the thought of Francis Bacon, a precursor of modern philosophy of science, and, later, the *De l'esprit des lois* (1748; Eng. trans., *The Spirit of Laws*, 1750), by the political theorist Charles-Louis, baron de Montesquieu. In the continuing and relentless war against the Aristotelianism of the later Middle Ages, the doctrines of Stoicism influenced many prominent figures of the Renaissance and Reformation periods.

Pietro Pomponazzi, an Aristotelian of early 16th-century Italy, in defending an anti-Scholastic Aristotelianism against the Averroists, who viewed the world as a strictly necessitarian and fated order, adopted the Stoic view of Providence and human liberty. The 15th-century Humanist Leonardo Bruni absorbed Stoic views on reason, fate, and free will. Pantheism, the view that God and nature are unitary in the sense that God is an impersonal being, and naturalism, the view that nothing is supernatural, both of which identify God with the cosmos and ascribe to it a life process of which the world soul is the principle, were widely held Renaissance notions. Such a pantheistic naturalism was advocated – though from diverse standpoints – by Francesco Patrizi, a versatile Platonist, and by Giordano Bruno, defender of an infinite cosmos; and in both authors the inspiration and source were fundamentally Stoic. In the development of a philosophy of public law based upon a study of man, Stoic elements are found in the *Utopia* (1516; Eng. trans. 1551), by Thomas More, and the *De Jure Belli ac Pacis* (1625; Eng. trans. 1682), by Hugo Grotius. This latter work is one of the most famous Renaissance treatises on the theory of natural and social rights.

The foremost Swiss reformer of the early 16th century, Huldrych Zwingli, who regarded justification by subjective belief as the foundation of

the new Christianity, utilized Stoic views on the autonomy of the will, on the absolute predestination of the good and evil man, and on moral determinism.

Another Stoic influence of considerable importance in the tradition of Christian Humanism was the view that all religions have a common basis of truths concerning God – a universal Deism. Among those who favored such a view were Zwingli and Desiderius Erasmus, the great Renaissance Humanist and scholar. More and Grotius also laid special stress on this view, and its influence was felt in the moral, social, and even the artistic life of the 16th century. Later, Herbert of Cherbury, often called the father of Deism, further developed the idea of religious peace and the reduction of opposing religious views to common elements. This view became one of the most popular ideas of the 17th century.

Philipp Melanchthon also cultivated Humanism and the philosophy of antiquity as a basis for a reborn Christianity. Although Aristotle was his chief inspiration, Melanchthon made telling use of the Stoic theory of knowledge, with its notions of innate principles and the natural light of reason, which teach man the great truths of metaphysical and moral order. Stoicism thus became the basis for the natural-law theory, which holds that the state is of immediately divine origin and independent of the church – a Protestant view opposed by Catholic writers.

The Cartesian revolution in thought in the 17th century brought forward several Stoic notions: that morality consists of obedience to the law of reason, which God has deposited within man; that ethics presupposes a knowledge of nature, because man must learn to know his place in the world, for only then may he act rightly; that self-examination is the foundation of ethics; and that the innateness and commonality of truths bespeak the view that only thoughts

and the will belong properly to man, for the body is a part of the material world. Such views were particularly developed by René Descartes, often hailed as the father of modern philosophy, in his dualism of mind (or soul) and body.

Benedict de Spinoza, a freethinking Jewish Rationalist, made similar use of Stoic views on the nature of man and the world. That aspect of Spinoza's thought that is debatably labelled pantheist is essentially Stoic in character. Together with the Cartesians, Spinoza insisted upon the importance of internal and right reason as the sole means by which to attain to indubitable truths and to the possibility of human freedom.

Blaise Pascal, a French scientist and religious writer, also was sympathetic to Cartesian conceptions of man and nature. Though he turned his back on philosophy, his religious thought retained the Cartesian and Stoic insistence on the independence of human reason, holding that man is fundamentally a thinking being, innately capable of making right decisions. There is an important and crucial difference and conflict between Pascal's views and those of Spinoza and the Cartesians: for Pascal, though the use of (the Stoic) right reason might result in proofs and demonstrations that lead to the God of truth, it would never lead to the God of love, the one true God. Thus, the Stoic exaltation of reason to an entity in its own right – indeed, to a divine entity – as exemplified among the Cartesians and in the thought of Spinoza, was rejected by Pascal in the Jansenist Christianity that he finally adopted – a rejection that, because it also repudiated free will, distinguishes Pascal from those who held Stoic as well as alternative conceptions of human freedom and responsibility.

Christianity in general, in spite of striking contrasts with Stoicism, has found elements within it that parallel its own position. As the Stoic, for example, feels safe and protected in the rational care of some immanent Providence, so the Christian senses that a transcendent though incarnate and loving God is looking after him. And in general, Stoicism has played a great part throughout the ages in the theological formulation of Christian thought as well as in the actual realization of the Christian ideals.

Contemporary philosophy has borrowed from Stoicism, at least in part, its conviction that man must be conceived as being closely and essentially connected with the whole universe. And contemporary Humanism still contains some obviously Stoic elements, such as its belief in the solidarity of all peoples based upon their common nature, and in the primacy of reason. It is perhaps just because Stoicism has never become a full-fledged philosophic system that, many centuries after the dissolution of the Stoic school, fundamental themes of its philosophy have emerged again and again, and many have become incorporated into modern thinking.

## Modern Schools

### Analytic and Linguistic philosophy

The methods that have dominated British philosophy for most of the 20th century and American philosophy since somewhat more recently have been called Linguistic and Analytic because language and the analysis of the concepts expressed by language have been a central concern. Though Australia and the Scandinavian countries have also contributed to this movement, it has won a very limited following elsewhere. Although there is a

unity of outlook in the tradition, individual philosophers and movements within it have differed, often radically, about the goals and methodology of philosophy. A leading figure prior to the mid-20th century, Ludwig Wittgenstein, an Austrian-born Cambridge philosopher, for example, may have been unique in the history of philosophy in having engaged in two periods of profoundly influential philosophical productivity of which the later work was in large part a renunciation and a sustained argument against the earlier. Yet both the early Wittgenstein (represented by his *Tractatus Logico-Philosophicus*, 1922) and the later (represented by the *Philosophical Investigations*, 1953) are central examples of Analytic philosophy.

Moreover, the aims assigned to the philosophical study of language have often been different. Some philosophers, among them Bertrand Russell and the early Wittgenstein, have thought that the underlying structure of language mirrors that of the world – that from an analysis of language a philosopher can grasp important truths about reality. This so-called picture theory of language, though influential, is generally repudiated by current Analytic philosophers. Another important dispute concerns whether everyday language is defective, vague, misleading, and even, at times, contradictory. Some Analytic philosophers have thus proposed the construction of an “ideal” language: precise, free of ambiguity, and clear in structure. The general model for such a language has been symbolic logic, the growth of which in the 20th century has played a central role in Analytic philosophy. An ideal language, it was thought, would resolve many traditional philosophical disputes that have arisen from the misleading structure of natural languages. At the other pole, some philosophers have thought that many philosophic problems have come from paying too little attention to what men say in everyday language about various situations.



Despite such disagreements, Analytic philosophers have much in common. Most of them, for example, have concentrated on particular philosophical problems, such as that of induction, or have examined specific concepts, such as those of memory or of personal identity, without attempting to construct any grand metaphysical schemes – an attitude that has roots as ancient as those of the Socratic method exemplified in Plato’s dialogues. Almost invariably Plato began with specific questions such as “What is knowledge?” or “What is justice?” and pursued them in a way that can be viewed, without undue strain, as philosophical analysis in the modern sense.

Ideally, a philosophical analysis illuminates some important concept and helps to answer philosophical questions involving the concept. A famous example of such analysis is contained in Bertrand Russell’s theory of definite descriptions. In a simple subject-predicate statement such as “Socrates is wise,” he said, there seems to be something referred to (Socrates) and something said about it (that he is wise). If, instead of a proper name, however, a “definite description” is substituted, as in the statement “The president of the United States is wise,” there is apparently still something referred to and something said about it. But a problem arises when nothing fits the description, as in the statement “The present king of France is wise.” Though there is apparently nothing for the statement to be about, one nevertheless understands what it says. Consequently, a pre-World War I philosopher, Alexius Meinong, celebrated for his *Gegenstandstheorie* (“theory of objects”), felt forced by such examples to distinguish between things that have real existence and things that have some other sort of existence; for such statements could not be understood unless they were about something.

In Russell’s view, philosophers such as Meinong were misled by surface grammatical form into thinking that such statements are simple subject-

predicate statements. In reality they are complex; in fact, an analysis of the foregoing example shows that the definite description, “the present king of France,” is not an independent unit in the statement at all. Upon analysis, the statement is a complex conjunction of statements: (1) “There is a present king of France”; (2) “There is at most one present king of France”; and (3) “If anyone is a present king of France, he is wise.” But, more importantly, each of the three components is a general statement and is not about anything or anyone in particular. There is no phrase in the complete analysis equivalent to “the present king of France,” which shows that the phrase is not an expression, like a proper name, that refers to something as the thing that the whole statement talks about. There is no need, therefore, to make Meinong’s distinction between things that have real existence and things that have some other kind of existence.

## General Viewpoint of Analytic Philosophy

### Nature, Role, and Method of Analysis

Analytic philosophy is concerned with the close and careful examination of concepts.

### Status of Philosophy in the Empiricist Tradition

In spirit and style Analytic philosophy has strong ties with the Empiricist tradition, which stresses the data received through the senses and which, except for brief periods, has characterized British philosophy for some centuries, distinguishing it from the more Rationalistic trends of continental

European philosophy. It is not surprising, therefore, that Analytic philosophy should find its home mainly in the Anglo-Saxon countries. In fact, the beginning of modern Analytic philosophy is generally dated from the time when two of its major figures, Bertrand Russell and G.E. Moore, both Cambridge philosophers, rebelled against an anti-Empiricist Idealism that had temporarily captured the English philosophical scene. The most famous British Empiricists – John Locke, George Berkeley, David Hume, and John Stuart Mill – had many interests, doctrines, and methods in common with contemporary Analytic philosophers. Although many of their particular doctrines are favorite targets of attack by Analytic philosophers today, one feels that this is more the result of a common interest in certain problems than any difference in general philosophical outlook.

Most Empiricists, though admitting that the senses fail to yield the certainty requisite for knowledge, hold nonetheless that it is only through observation and experimentation that justified beliefs about the world can be gained; i.e., a priori reasoning from self-evident premises cannot reveal how the world is. This view has resulted in a sharp dichotomy among the sciences: between the physical sciences, which ultimately must verify their theories by observation, and the deductive or a priori sciences – e.g., mathematics and logic – the method of which is the deduction of theorems from given axioms. Thus, the deductive sciences cannot give justified beliefs, much less knowledge, of the world. This consequence was one of the cornerstones of two important movements within Analytic philosophy, logical atomism and Logical Positivism. In the Positivist's view, for example, the theorems of mathematics are merely the result of working out the consequences of the conventions that have been adopted for the use of its symbols.

The question then arises whether philosophy itself is to be assimilated to empirical or to a priori sciences. Early Empiricists assimilated philosophy to the Empirical sciences. They were less self-reflective about its methods than contemporary Analytic philosophers are. Being preoccupied with epistemology (theory of knowledge) and the philosophy of mind, and holding that fundamental facts can be learned about these subjects from individual introspection, they took their work to be a kind of introspective psychology. Analytic philosophers in the 20th century, on the other hand, have been less inclined to appeal ultimately to direct introspection. Moreover, the development of rigorous methods in formal logic seemed to promise help in solving philosophical problems – and logic is as a priori as a science can be. It seemed, then, that philosophy must be classed with mathematics and logic.

### Conceptual, Linguistic, and Scientific Analysis

The question remained, however, what philosophy's function and methodology are. For a great many Analytic philosophers who do philosophy in the minute and meticulous manner of G.E. Moore and, in particular, for those who have made Oxford the center of Analytic philosophy, its business is the analysis of concepts. For them, philosophy is an a priori discipline because the philosopher in some sense already possesses the concept in which he is interested and needs no observations in order to analyze it.

Philosophy can be seen either as conceptual or as linguistic analysis. In the analysis of the concept of seeing, for example, the philosopher is not expressing purely linguistic concerns – with, say, the English verb “to see” – though an investigation of what can be said using that verb may be relevant to

his conclusions. For a concept is independent of any particular languages; a concept is something that all languages, insofar as they are capable of expressing the concept, have in common. Thus, philosophers who stress that it is concepts that they analyze attempt to rebut the charge that their problems and solutions are merely verbal.

In contrast, other Analytic philosophers have been concerned with how expressions are used in a particular, nontechnical, everyday language. Thus, the term ordinary language philosophy has been applied by critics as a term of opprobrium to such philosophers. An influential study, *The Concept of Mind* (1949), by Gilbert Ryle, a prominent Oxford Analyst, is an example of a work that some critics took to depend in large part on a trivial appeal to how English speakers talk; but many of Ryle's arguments could equally well have been given by Analytic philosophers who would look upon the term ordinary language with horror.

The problem of perception illustrates how Analytic philosophers who do conceptual analysis think of the goal of philosophy as both different from and complementary to science. Physiologists, psychologists, and physicists – through experiments, observations, and testable theories – have also contributed to man's understanding of perception. There is in the sciences, however, a strong tendency to advance beyond earlier positions, which seems to be absent from philosophy. In philosophy, for example, the account of perception given by such 20th-century Analytic philosophers as G.E. Moore and the Positivist A.J. Ayer has a close connection with that of Locke in the 17th century.

The difference between philosophy and science is that, whereas the scientist investigates an actual occurrence, such as seeing, the philosopher

investigates a concept that he already possesses quite independently of what he might discover through the occurrence. Whereas the scientist begins by supposing that he can recognize examples of seeing and is already exercising the concept, the philosopher wants to know what is involved in seeing in the sense of what conditions one can use to classify cases as examples of seeing. He may want to know, for example, whether certain conditions are necessary or sufficient. In testing the philosophical theory that, for an observer to see an object, the object must cause a visual experience in him (the causal theory of perception), one does not set up a scientific experiment. It would be of no use to set up situations in which various physical objects are not causing any visual experiences in order to see whether they still can be seen. For if the theory is correct, no such experimental situation will be an instance of seeing; and if it is wrong, merely describing a hypothetical situation would suffice. The question is one about how situations are classified, and for that purpose hypothetical situations are as good as real ones.

#### Therapeutic Function of Analysis

For some philosophers in the Analytic tradition, especially those influenced by Wittgenstein, the analysis of concepts has therapeutic value beyond the intrinsic enjoyment of doing it. Even scientists and laymen in their philosophical moments generate problems by not understanding the proper analyses of the concepts that they employ. They are then tempted to formulate theories to explain these difficulties, when instead they should be sorting out the roles of the concepts, which would show them that there was no problem to begin with. Thus, the failure to see how psychological concepts – sensations, emotions, and desires – are employed has led philosophers to such

problems as how one can know what is going on in another's mind or how desires and emotions can produce physical changes in the body, and vice versa. Analysis of the concepts involved would, in this way of looking at philosophy, "dissolve" rather than solve the problems, for philosophers would come to see that their formulations of the problem rest on mistakes about the concepts involved.

This way of looking at philosophy has often been criticized as making it merely a clearing up of the confusions of other philosophers and therefore a sterile enterprise. The confusions, however, need not be only those of other philosophers. Scientists, for example, can also generate philosophical theories that affect how they design their experiments, which may, thus, be subjects for philosophical therapeutics. Behaviorism in psychology – which views emotions, desires, and attitudes as being dispositions to behave in certain ways – seems to be a philosophical theory and perhaps to be based on a confusion about the analysis of psychological concepts. Yet Behaviorism has influenced psychologists in their approach to the science. Thus, in this view, philosophy can have a therapeutic value beyond the sphere of philosophical games.

Philosophy, in spite of its abstractness, has traditionally been concerned with human needs, and the therapeutic model may even fulfill this ideal. Laymen, as well as philosophers, for example, are bothered by the thought that their actions are determined not by themselves but by prior conditions. This is a problem that, if the therapeutic view is correct, rests on the misunderstanding of such concepts as causation, responsibility, and action, which need clarification.

## Formal versus Ordinary Language

The role of language as a central concern of Analytic philosophers is the dimension most involved in disputes about the methodology employed. Philosophers outside the Analytic movement tend to think that its preoccupation with language is a departure from philosophy as classically conceived. Yet Plato and Aristotle, medieval philosophers, the Empiricists – and, in fact, most of the philosophers whose works have been considered important – have found it essential to talk about language. There are serious differences, however, about what role language should play. One such difference concerns the importance of formal languages (in the sense employed in symbolic logic) for philosophical problems.

## Development of Mathematical Logic

Since the time of Aristotle, logic has been allied to philosophy. Until the late 19th century, however, logic was largely confined to formulating elaborate rules for one fairly simple form of argument – the syllogism; and there was a lack of systematic development of the subject along lines that had been taken in mathematics since early times.

Almost from the beginning, mathematicians had rigorously exploited two important techniques: (1) the use of the axiomatic method (as in Euclid's geometry) in developing the subject; and (2) the use of schematic letters or variables for stating general truths in the subject (thus, one can write " $A + B = B + A$ ," in which any names or numbers whatsoever can be substituted for  $A$  and  $B$ , and the result will still be true).



It is surprising that logicians through the ages failed to grasp the power of the use of schematic letters. When they finally began to employ these and other mathematical techniques, they made great contributions to man's understanding of the subject.

Among the developments that occurred in the 19th century, primarily through the work of mathematicians, those of the Englishman George Boole, creator of Boolean algebra, and of Georg Cantor, the Russian-born creator of set theory, are especially important inasmuch as they gave promise of bringing logic and mathematics closer together. The one figure who was both a mathematician and a philosopher and so might be credited with the marriage of logic as a philosophical subject with the techniques of mathematics was Gottlob Frege (died 1925), of the University of Jena in Germany. Historically, Frege, whose works are now appreciated in their own right, was important principally for his influence on Bertrand Russell, whose monumental work, *Principia Mathematica* (1910-13), written in collaboration with Alfred North Whitehead, together with Russell's earlier *Principles of Mathematics* (1903), awakened philosophers to the fact that the use of mathematical techniques in logic might prove to be of great importance for philosophy. Its symbolism had the advantage of being closely connected with ordinary language, whereas its rules can be precisely formulated. Moreover, work in symbolic logic has produced many distinctions and techniques that can be applied to ordinary language.

## Divergence of Ordinary Language from Formal Logic

Ordinary language, however, seems to differ from the artificial language of symbolic logic in more respects than its lack of precisely stated rules. On the surface, it often appears to violate the rules of symbolic logic. In the English statement “If this is gold [symbolized by  $p$ ], then this will dissolve in aqua regia [symbolized by  $q$ ],” for example, which in symbolic logic is expressed in a form known as the material conditional,  $p \supset q$  (in which  $\supset$  means “If... then... “), one of the rules is that the statement is true whenever “This is gold” is false. In ordinary language, on the contrary, one would not count the statement as true merely on formal logical grounds but only if there were some real connection in the world of chemical reactions between being gold and dissolving in aqua regia – a connection that plays no role in symbolic logic.

Among Analytic philosophers the existence of many such apparent divergences between symbolic logic and ordinary language has generated attitudes ranging from complete mistrust of symbolic logic as relevant to nonartificial languages to the position that ordinary language is not a proper vehicle for the rigorous statement of scientific truths.

## Interpretations of the Relation of Logic to Language

Symbolic logic has been viewed by many Analytic philosophers as providing the framework for an ideal or perfect language. This statement can be taken in two ways:

1. Russell and the early Wittgenstein thought of logic as revealing, in a precise fashion, the real structure of any language. Any seeming departure from this structure in ordinary language must therefore be attributed to the fact that its surface grammar fails to reveal its real structure and is apt to be misleading. As a corollary, philosophers who have held this view have often explained philosophical problems as arising from being taken in by the surface features of the language. Because of the similarity of sentences such as “Tigers bite” and “Tigers exist,” for example, the verb “to exist” may seem to function, as other verbs do, to predicate something of the subject. It may seem, then, that existence is a property of tigers just as their biting is. In symbolic logic, however, the symbolic equivalent of the two sentences would be quite different; existence would not be represented by a symbol for a predicate but by what is called the existential quantifier,  $(\exists x)$ , which means “There exists at least one  $x$  such that....”

2. The other sense in which symbolic logic has been seen as the framework of an ideal language is exemplified in the work of Rudolf Carnap, a 20th-century semanticist, who was concerned with what the best language – especially the best for the purposes of science – is.

One distinctive feature of the formal language of *Principia Mathematica* is that it becomes, when interpreted, a language of true-or-false statements. In ordinary language, on the contrary, one is not restricted to statements of truths; in it one can also issue commands, ask questions, make promises, express beliefs, give permission, and assert necessities and possibilities. Consequently, many philosophers have developed nonstandard logics that incorporate the nonassertoric features of language. Thus, various systems of logic have been formulated and studied.

On the other side of the coin, many philosophers – most notably the later Wittgenstein and those influenced by him – have thought that attempting to put language into the straitjacket of a formal system is to falsify the way that language works. Language performs a multitude of tasks, and even among expressions that seem to be alike in the way they function – those sentences, for example, that one might think are used simply for expressing facts – examination of their actual use reveals many differences: differences, for instance, in what is counted as showing them to be true or false and in their relationships to other parts of language. Formal systems, according to this view, at best oversimplify and at worst can lead to philosophical problems generated by supposing that all language operates strictly according to a simple set of rules. Accordingly, far from settling philosophical disputes by getting underneath the misleading exterior of ordinary language, formal systems add their own share of confusion.

## Early History of Analytic Philosophy

### Reaction Against Idealism

During the last decades of the 19th century, English philosophy was dominated by an absolute Idealism that stemmed from the German philosopher G.W.F. Hegel. For English philosophy this represented a break in an almost solid tradition of Empiricism. The seeds of modern Analytic philosophy were sown when two of the most important figures in its history, Bertrand Russell and G.E. Moore, broke with Idealism at the turn of the 20th century.

Absolute Idealism was avowedly metaphysical in the sense that its adherents thought of themselves as describing, in a way not open to scientists, certain very fundamental truths about the world. Indeed, what pass for truths in the sciences, were, in their view, not really truths at all; for the scientist must, perforce, treat the world as composed of distinct objects and can only describe and state the relationships supposedly holding among them. But the Idealists held that to talk about reality as if it were a multiplicity of objects is to falsify it; in the end only the whole, the absolute, has reality.

In their conclusions and, most importantly, in their methodology, the Idealists were decidedly not on the side of commonsense intuition. Thus, a Cambridge philosopher, J.M.E. McTaggart, argued that the concept of time is inconsistent and cannot therefore be exemplified in reality. British Empiricism, on the other hand, had always thought of common sense as an ally and science as the model of the way in which to find out about the world. Even when their views might seem out of step with common sense, the Empiricists were generally concerned to reconcile the two.

One can hardly claim that Analytic philosophers have universally thought of themselves as on the side of common sense and much less that metaphysical conclusions (on the ultimate nature of reality) are absent from their writings. But there is in the history of the Analytic movement a strong antimetaphysical strain, and its exponents have generally assumed that the methods of science and of everyday life are the authentic ways of finding out the truth.

### Founding Fathers: Moore and Russell

The first break from the Idealist view that the physical world is really only a world of appearances occurred when Moore, in a paper, “The Nature of Judgment” (1899), argued for a theory of truth that implies that the physical world has the independent existence that, apart from philosophical theories, it is naively supposed to have. Though the theory was soon abandoned, it did represent a return to common sense.

The influences on Russell and Moore – and thus their methods of dealing with problems – soon diverged, and their different approaches became the roots of two broadly different methodologies in the Analytic tradition.

Russell was a major influence on those who approached philosophical problems armed with the technical equipment of formal logic, who saw the physical sciences as the only means of gaining knowledge of the world, and who regarded philosophy – if a science at all – as a deductive and a priori enterprise on a par with mathematics. Russell’s contributions to this side of the Analytic tradition have been important and, in great part, lasting.

Moore, on the other hand, never found much need to employ technical tools or to turn philosophy into a science. His dominant themes were (1) the defense of commonsensical views about the nature of the world against esoteric, sceptical, or grandly metaphysical views and (2) the conviction that the right way to approach philosophical puzzles is to ask exactly what the question is that generated the puzzle before trying to solve it. Philosophical problems, he thought, are often intractable because philosophers have not stopped to formulate precisely what is at issue.

## G.E. Moore

Because of these two themes, Moore enlisted much more sympathy among Analytic philosophers from the 1930s and onward who were followers of Wittgenstein's later writings, of Gilbert Ryle's postwar *The Concept of Mind*, and of John Austin's work. These philosophers, like Moore, saw little hope in advanced formal logic as a means of solving traditional philosophical problems and believed that philosophical scepticism about the existence of an independent external world or of other minds – or, in general, about what men label as common sense – must be wrong. The followers of Wittgenstein also shared with Moore the belief that it is often more important to look at the questions that philosophers pose than at their proposed answers. Thus, unlike Russell, who was important for his solutions in formal logic and ideal models of language, it was more the spirit of Moore's conception of philosophy than its lasting contributions that makes him a seminal influence.

The Idealists were given to arguing for what, in Moore's eyes, were outrageous positions. Thus, in his essay "A Defense of Common Sense" (1925), as in others, his defense was not only against such Idealist doctrines as the unreality of time but also against any of the forms of scepticism – about the existence of other minds or of a material world – that philosophers have espoused. The skeptic, he pointed out, usually has some argument for his conclusion. Instead of examining such arguments, however, Moore pitted against the skeptic's premises quite everyday beliefs, such as, for example, that he had breakfast that morning (thus time cannot be unreal) or that he does in fact have a pencil in his hand (thus there must be a material world). His challenge to the skeptic is to show that the premises of the skeptic's argument are more certain than the everyday beliefs that form Moore's premises.

Although some commentators have seen Moore as an early practitioner of the appeal to “ordinary language,” his appeal was really not to what it is proper to say but rather to the beliefs of common sense. His rejection of anything that offends against common sense, however, was influential not only in the release that it afforded from the metaphysical excesses of absolute Idealism but also in its impact on the continuing attitudes of most Analytic philosophers – even though they may have given it a linguistic turn.

Moore was also important for his vision of the proper business of philosophy – analysis. He was puzzled about what is the proper analysis of “*X* sees *Y*,” in which *Y* designates a physical object (e.g., a pencil). There must be a special sense of “see,” in which one does not see the pencil but only part of its surface. And finally – and most importantly – there is also a sense in which what is directly perceived is not even the surface of the pencil but, rather, what Moore called “sense data” and which earlier Empiricists had called “visual sensations” or “sense impressions.” Moore’s problem was to discern the relationships among these various elements in perception and, in particular, to discover how a person can be justified, as Moore fully believed he is, in his claims to see physical objects when what he immediately perceives are really sense data. The idea that sense impressions form the immediate objects of perception has played a large role in Analytic philosophy, showing once again its Empiricist roots. It later became an important source of division, however, among the Logical Positivists. Most post-World War II Oxford philosophers, however, together with those closely influenced by Wittgenstein’s later work, have found sense data to be as unpalatable and unwarranted as Moore had found McTaggart’s doctrine of the unreality of time to be.



## Bertrand Russell

One of the recurring themes in philosophy is the idea that the subject needs to be given a new methodology. Among Empiricists this has often meant making it more scientific. From an early date, Russell enunciated this viewpoint (which was not shared by Moore), finding in the techniques of symbolic logic a measure of reassurance that philosophy might be put on a new basis. Russell did not see the philosopher, however, as merely a logician. Symbolic logic might provide the framework for a perfect language, but the content of that language is something else. The job of the philosopher is – for Russell, as it was for Moore – analysis. But the purpose is somewhat different. In most of Russell’s work, analysis has the task of uncovering the necessary assumptions – especially about the kinds of things that exist – for a description of the world as it is. For the most part this description is the one that science gives and is therefore realistic. Thus, Russell’s use of analysis was openly metaphysical.

The question then arises of how philosophical analysis, which is concerned with how men talk about the world, can presume to give any answers about how the world is. The search for an answer begins with the above-mentioned theory of descriptions – a theory that seems to be closely tied to linguistic concerns. It will be recalled that Russell considered that such definite descriptions as “the author of ‘On Denoting’ “ are not really expressions used to refer to things in the world but that, instead, they make the statements in which they occur into quite general propositions about the world, to the effect that one and only one thing of a certain sort exists and that it has a certain property. Because there must be some way, however, of directly speaking of the things in the world, Russell turned his attention to proper names. The name Aristotle, for example, does not seem to carry any

descriptive content. But Russell argues, on the contrary, that ordinary names are really concealed definite descriptions (“Aristotle” may simply mean “The student of Plato who taught Alexander, wrote the *Metaphysics*, etc.”). If a name had no descriptive content, one could not sensibly ask about the existence of its bearer, for one could then not understand what is expressed by a statement involving it. If “Bosco” were a name in this sense (without any descriptive content), then merely to understand the statement that Bosco exists or the statement that Bosco does not exist presupposes that one already knows what the name Bosco refers to. But then there cannot be any genuine question about Bosco’s existence, for just to understand the question one must know the thing to which the name refers. Ordinary proper names, however – Russell, Homer, Aristotle, and Santa Claus – as Russell pointed out, are such that it makes sense to question the existence of their bearers. Thus, ordinary names must be concealed descriptions and cannot be the means of directly referring to the particular things in the world.

Names in the strict logical sense, then, are very rare; Russell, in fact, suggests that in English the only possible candidates are the demonstrative pronouns, this and that. Yet, if men are ever to talk about the actual things in the world directly, there must be the possibility of such demonstrative expressions underlying their language – in their private thoughts about the world if not in their public language.

To this point, Russell had concluded that things in the world can be talked about only through the medium of a special kind of name; in particular, one about which no question can arise whether it names something or not. At this point there was a transition from questions about the nature of language to results about the nature of the world. Russell asked what sort of thing it is that can be named in the strict logical sense, that can be known and talked about,

and that can tell a man something about the world. The important restriction is that no question can arise about whether it exists or not. Ordinary physical objects and other people seem not to fit this requirement.

In his search for something whose existence cannot be questioned, Russell hit upon present experience and, in particular, upon sense data: one can question whether he is really seeing some physical object – whether, for example, there is a desk before him – but a person cannot question that he has had visual impressions or sense data; thus, what a man can name in the strict logical sense and what things he can actually talk about turn out to be the elements of his present experience. Russell therefore made a distinction between what can be known by acquaintance and what can be known only by description; i.e., between those things the existence of which cannot be doubted and those about which, at least theoretically, doubt can be raised. What is novel about Russell's conclusion is that it was arrived at from a fairly technical analysis of language: to be directly acquainted with something is to be in a position to give it a name in the strict logical sense, and to know something only by description is to know only that something uniquely fits the description.

Russell was not constant in his view about physical objects. At one point he thought that the observer must infer their existence as the best hypothesis to explain his experience. Later he argued that they could be taken as logical constructions out of sense data.

### Logical Atomism: Russell and the Early Wittgenstein

The next important development in Analytic philosophy was initiated when Russell published a series of articles entitled “Philosophy of Logical Atomism” (1918-19), in which he acknowledged a debt to Wittgenstein, who had studied with Russell before the war. Wittgenstein’s own work, the *Tractatus Logico-Philosophicus* (1922), which can also justly be said to present a logical atomism, turned out to be not only tremendously influential on developments in Analytic philosophy but also such a deep and difficult text that it has generated a growing body of scholarly interpretation.

Russell’s choice of the words logical atomism to describe this viewpoint was, in fact, particularly apt. By using the word logical Russell meant to sustain the position, described earlier, that through analysis – particularly with the aid of the ideal structure provided by symbolic logic – the fundamental truths about how any language functions can be revealed and that this disclosure, in turn, would show the fundamental structure of that which the language is used to describe. And by using the word atomism Russell highlighted the particulate nature of the results that his analyses and those of Wittgenstein seemed to yield.

On the linguistic level, the atoms in question are atomic propositions, the simplest statements that it is possible to make about the world; and on the level of what language talks about, the atoms are the simplest atomic facts, those expressible by atomic propositions. More complex propositions, called molecular propositions, can then be built up out of atomic propositions via logical connectives – such as “either... or...,” “both... and...,” and “not...” – the truth-value of the molecular proposition being in each case a function of the truth values of its component atomic propositions.

Language, then, must break down, upon analysis, into ultimate elements that cannot be analyzed into any other component propositions; and, insofar as language mirrors reality, the world must then be composed of facts that are utterly simple. Atomic propositions are composed, however, of strings of names understood, as Russell had explained it, in the strict logical sense; and atomic facts are composed of simple objects, the things that could be thus named.

The details of the Russell-Wittgenstein view have fascinated philosophers by the way in which they not only formed a coherent view but also seemed to follow inexorably from the central assumptions. There are close connections between this period, which was perhaps the most metaphysical in contemporary Analytic philosophy, and traditional Empiricism. The breakdown of language and the world into atomic elements had been one of the prominent features in the classical Empiricists, John Locke, George Berkeley, and David Hume. There was also a view of the connection between language and the world – adumbrated in Russell but fully evident in the *Tractatus* – which has been important and influential, viz., the picture theory, which holds that the structure of language mirrors that of the world. Analysis is important because ordinary language does not show immediately, for example, that it is founded on the atomic-molecular proposition model. Another theme is that the deductive sciences – mathematics and logic – are based solely on the way that language operates and cannot reveal any truths about the world, not even about a world of entities called numbers. Finally, logical atomism, in Wittgenstein's thought as opposed to Russell's, was at one and the same time metaphysical – in the sense of conveying via pure reasoning something about how the world is – and antimetaphysical. Wittgenstein's *Tractatus* is unique in the history of

Empiricism in its acceptance of the fact that it is itself a metaphysic and that part of its metaphysics is that metaphysics is impossible: the *Tractatus* says of itself that what it says cannot be coherently said. Only empirical science can tell a man anything about the world as it is. Yet the *Tractatus* apparently tells him, for example, about the relationship between language and the facts of the world. For Wittgenstein, the solution of this seeming paradox lies in his distinction between what can be said and what can only be shown. There are certain things that can somehow be seen to be so – in particular, the ways in which language is connected with the world. The *Tractatus* could not straightforwardly tell its readers about these matters – metaphysics cannot be a body of facts expressible in any language – but the attempt to say these things, done in the right way, can show them what it cannot coherently express.

#### Logical Positivism: Carnap and Schlick

Wittgenstein's *Tractatus* was both a landmark in the history of contemporary Analytic philosophy and perhaps its most aberrant example. It not only contained the most highly sophisticated metaphysics but also was an important influence on the most antimetaphysical of the positions taken by Analytic philosophers, viz., that of Logical Positivism, which was mainly developed by a group of philosophers, scientists, and logicians who were centred in Vienna and came to be known as the Vienna Circle. Among these, Rudolf Carnap and Moritz Schlick have perhaps had the most influence on Anglo-American philosophy, although it was an English philosopher, A.J. Ayer – whose *Language, Truth and Logic* (1936) is still the most widely read work of the movement in America and England – who introduced the ideas of

Logical Positivism to English philosophy. Its main tenets have struck sympathetic chords in the Analytic philosophers and are still important today, even if in repudiation.

Above all else, Logical Positivism was antimetaphysical; nothing can be learned about the world, it held, except through the methods of the empirical sciences. The Positivists sought a method for showing both (1) when a theory that seemed to be about the world was really metaphysical and (2) that such a theory was, in fact, meaningless, and this they found in the principle of verification. In its positive form, the principle said that the meaning of any statement that is really about the world is given by the methods employed for verifying its truth or falsity – the only allowable methods being, ultimately, those of observation and experiment. In its negative form, the principle said that no statement could both be a statement about the world and have no method of verification attached to it. Its negative form was the weapon used against metaphysics and for the vindication of science as the only possible source of knowledge about the world. The principle would, thus, class as meaningless many philosophical and religious theories that purport to say something about the world but provide no way of testing the truth of the statements; for example, in religion it would render suspect the statement that God exists, which, being metaphysical, would be, strictly speaking, meaningless.

The principle of verification ran almost immediately into difficulties, most of which were first raised by the Positivists themselves. The attempt to work out these difficulties belongs to a more detailed study of the movement. It is sufficient to note here that these problems were sufficient to make most subsequent Analytic philosophers wary of appealing directly to the principle. It has, however, influenced philosophical work in more subtle ways.

With the principle of verification in hand, the Positivists thought that they could show a great many theories to be nonsense. There were several areas of discourse, however, which failed the test of the principle but which were simply impossible to rule out as concealed nonsense. Foremost among these disciplines were mathematics and ethics. Mathematics (and logic) could hardly be written off as nonsense. Yet their theorems are not verifiable by observation and experiment; they are known, in fact, by pure a priori reasoning alone. The answer seemed to be provided in Wittgenstein's *Tractatus*, which held that the propositions of mathematics and logic are, in Kantian terms, analytic; i.e., true – like the statement “All bachelors are unmarried” – in virtue of the conventions that lie behind the use of the symbols involved.

About ethics or, more precisely, about any statements involving value judgments, the Positivist view was different, yet still of lasting importance. In this view, value judgments are not, like mathematical truths, necessary adjuncts to science. But they cannot be put off as nonsense; nor, obviously, are they true by definition or linguistic convention. The usual view of the Positivists, called emotivism, is that what look like statements of fact (e.g., that one should not tell lies) are really expressions of one's feelings toward a certain action; thus, value judgments are not really true or false. The Positivist's position was that neither mathematical nor ethical statements could be dismissed, as were metaphysical propositions. Both had then to be exempted from the principle of verification; and this was done by arguing that their statements are not really about the world: mathematical truths are conventions, and ethical statements are merely expressions of feelings. The divorce of ethics from science, once again, reflects an old Empiricist theme, to



be seen, for example, in David Hume's dictum that from matters of fact one cannot derive a conclusion about what ought to be nor vice versa.

## Later History of the Movement

### *Philosophical Investigations*: the Later Wittgenstein

A crucial turn that initiated developments that were destined to have a lasting and profound effect on much of contemporary Analytic philosophy occurred in 1929, when Wittgenstein, after some years in Austria during which he was not philosophically very active, returned to England and established his residence at Cambridge. There, the direction of his thought soon shifted radically away from his *Tractatus*, and his views became in many ways diametrically opposed to those of logical atomism. Because he published none of the materials of this period, his influence on other English philosophers – and ultimately on those in all of the countries associated with Analytic philosophy – spread by way of his students and those who heard him in the small groups to whom he spoke at Cambridge. His style, too, changed from the semi-rigorous and formally organized propositions of the *Tractatus* to sets of loosely connected paragraphs and remarks in which the ideas are often conveyed more by suggestion and example than discursively. The result has been that one of the major splits within the ranks of Analytic philosophy is that between those who derive their methods from the later Wittgenstein and those who have followed the *Tractatus*.

Although Wittgenstein's thoughts ranged over almost the entire field of philosophy, from the philosophy of mathematics to ethics and aesthetics, their

impact has been felt most, perhaps, where it has concerned the nature of language and the relationship between the mental and the physical.

### Language and Following Rules

In logical atomism, as shown above, language was conceived as having a certain necessary and fairly simple underlying structure that it was the job of philosophy to expose. Wittgenstein began to tear away at this assumption. Language, he now thought, is like an instrument that can be used for an indefinite number of purposes. Hence, any effort to codify how it must operate by giving some small set of rules would be like supposing that there is some rigid necessity that a screwdriver (for instance) can be used only to drive screws and forgetting that screwdrivers are also, quite successfully, used to open jars and to jimmy windows. Language is a human institution that is not bound by an outside set of rules – only by what men consider to be correct and incorrect. And that, in turn, is not really a matter for a priori theories to consider.

The notion of a rule and what it means to follow a rule was especially prominent in his writings. Several concerns made this point of particular interest to Wittgenstein. In mathematics and logic, emphasis was being placed on the rules for manipulating the symbolism. As has been seen, symbolic logic has also been a model for the underlying structure of language. If this fact is coupled with the fact that Russell and the Wittgenstein of the *Tractatus* saw language as reflecting these rules and with the general Empiricist tradition that explains how language operates by each person following internal rules and standards for the use of his words, the picture of the system that Wittgenstein

thought mistaken then emerges, and it becomes clear why he placed the notion of a rule so centrally.

Natural languages, however, are significantly different in that one does not first learn the rules and then use the language; indeed, prior to learning the language, one would not know what to do with rules. Mathematics and logic are, in this sense, bad models for language because they aim at setting out before hand the rules and principles that are subsequently to be used. They encourage the belief that language must have a rigid structure and that, without rules, no language would be possible. The “rules” that one might plausibly discern in the language that one speaks are not, as rules, already there, in a ghostly way, guiding what one says; they are either generalizations from the finite data of what is counted as correct or incorrect, or they are rules that, as Wittgenstein metaphorically expressed it, one puts away in the archives – one adopts the rule but only after the fact.

Following a rule, however, was a concept that Wittgenstein saw as wrongly analyzed in many classical views about language. Thus, he cast irrevocable doubt on the prevalent theory – typified best, perhaps, in John Locke’s *Essay Concerning Human Understanding* (1690) – that to use an expression meaningfully is to have in one’s mind a standard or a rule for applying it correctly. Against this theme, Wittgenstein’s point was that a rule by itself is dead – it is like a ruler in the hands of someone who has never learned to use it, a mere stick of wood. Rules cannot compel nor even guide a person unless he knows how to use them; and the same is true about mental images, which have often been thought to provide the standard for using linguistic expressions. But if rules themselves do not give life to words but require a similar explanation for what gives them life, then there is a useless

regress and no (philosophical) explanatory value in the whole apparatus of internal rules and standards.

### Relation Between Mental and Physical Events

In some respects, Wittgenstein made some significant breaks with the Empiricist tradition – in his views about language and the explanation of the rigour of the deductive sciences. His treatment of the relationship between mental events and physical events also represents an important departure. Empiricists generally have started from the important assumption that what a person is immediately acquainted with is his own sensations, ideas, and volitions, and that these are mental and not physical; and, most importantly, that the things he knows immediately are essentially private and inaccessible to others. For both Moore and Russell there then arose the problem of how, in view of the privacy stressed by the sense-datum theory, the world of physical objects could be known. Wittgenstein's attack on this viewpoint, which has come to be known as "the private language" argument, has become well known, partly because it was in this area that Wittgenstein presented what could most easily be picked out as a more or less formal argument – one that could then be analyzed and criticized in an analytic manner. Even in this case, however, his style of writing was such that his precise formulation of the argument has become a main source of controversy. Wittgenstein argued that the notion of an utterly private experience would imply: (1) that what goes on in the mental life of a person could be talked about only in a language that that person alone whose mental life it was could understand; (2) that such a private language would be no language at all (this has been the main source of controversy); and (3) that the widely held doctrine that there are absolutely

private mental events cannot be intelligibly stated, because to do so would be to suppose that one can publically say something about what the doctrine itself says cannot be mentioned in a language accessible to more than one person.

The fact that Wittgenstein's argument against private language depends essentially on the question, "What is it to follow a rule?" illustrates a common characteristic of his writings, viz., that themes developed in one area of philosophy continually emerge in apparently quite divorced areas. His extraordinary ability to see a common source of difficulty in philosophical problems that seem to be unrelated helps to explain his style of writing, which seems at first sight to be a somewhat chaotic arrangement of ideas.

Analytic philosophy has also been attracted to a behavioristic view of mental phenomena that holds that such apparently private events as the feeling of fear are not only not really private but also that they can be identified with publicly observable patterns of behavior. The disposition toward empirical science, with observation as its foundation, united with the observation that the evidence men have of what goes on in the mental lives of other people must come from what they see of their behavior, has often warred against the other inclination of Empiricism to regard the starting point of all knowledge of the world, for each person, as being essentially private sense experience. Wittgenstein has had tremendous influence, however, in suggesting that these two extremes are not the only alternatives. Yet attempts to state how Wittgenstein could deny the privacy of experience without espousing some form of behaviorism have not been very successful. Sympathetic interpreters have taken up the notion of "criteria," used, but not developed in any detail, by Wittgenstein. For mental states such as fear, outward behavior (e.g., running away, blanching, or cringing) does not constitute what it is to be in that state, as behaviorism would have it, but neither is it merely evidence of

some completely private event. The problem has been to characterize the relation between behavior and mental states so that the two are neither identical nor evidence one for the other, while still acknowledging that a knowledge of the person's characteristic behavior is essential to understanding the notion of a certain mental state.

### Recent Trends in England

Those philosophers who might fairly be labelled "Wittgensteinians," who follow the methods that Wittgenstein employed in his later period, should be distinguished from those who have been influenced more indirectly by the general trends and philosophical atmosphere that arose in large part from Wittgenstein's work.

### Wittgensteinians

Close students of his ideas have tended to work chiefly on particular concepts that lie at the core of traditional philosophical problems. As an example of such an investigation, a monograph entitled *Intention* (1957), by G.E.M. Anscombe, an editor of Wittgenstein's posthumous works, may be cited as an extended study of what it is for a person to intend to do something, and of what the relationship is between his intention and the actions that he performs. This work has occupied a central place in a growing literature about human actions, which in turn has influenced views about the nature of psychology, of the social sciences, and of ethics. And, as an extension of this British influence into the United States, one of Wittgenstein's students,

Norman Malcolm of Cornell University, has investigated such concepts as knowledge, certainty, memory, and dreaming. As these topics suggest, Wittgensteinians have tended to concentrate on Wittgenstein's ideas about the nature of mental concepts and to work in the area of philosophical psychology. Typically, they begin with classical philosophical theories and attack them by arguing that they employ some key concept, such as that of knowledge, in a manner incongruous with the way in which the concept would actually be employed in various situations. Their works thus abound with descriptions of hypothetical, though usually homely, situations and with questions of the form, "What would a person say if...?" or "Would one call this a case of *X*?" In doing so, they are following out Wittgenstein's advice that, instead of trying to capture the essence of a concept by an abstract analysis, the philosopher should look at how it is employed in a variety of situations.

#### Oxford Philosophers

After World War II, Oxford University was the center of extraordinary philosophical activity; and, although Wittgenstein's general outlook on philosophy – his turning away, for example, from the notion of formal methods in philosophical analysis – was an important ingredient, many of the Oxford philosophers could not be called Wittgensteinians in the strict sense. The method employed by many of these philosophers has often been characterized – especially by critics – as an "appeal to ordinary language," and they were thus identified as belonging to the school of "ordinary language" philosophy. Exactly what this form of argument is supposed to be and what exemplifies it in the writings of these philosophers has been by no

means clear. Gilbert Ryle, Moore's successor as editor of a leading journal, *Mind* – and especially in his *The Concept of Mind* – was among the most prominent of those analysts who were regarded as using ordinary language as a philosophical tool. Ryle, like Wittgenstein, pointed out the mistake of regarding the mind as what he called “a ghost in a machine” – to defeat the radical dualism of mind and body that has characterized much of philosophical thinking – by investigating how people employ a variety of concepts, such as memory, perception, and imagination, that designate “mental” properties. He tried to show that, when philosophers carry out such investigations, they find that, roughly speaking, it is the way people act and behave that leads to attributing these properties to them, and that there is no involvement of anything internally private. He also attempted to show how philosophers have come to dualistic conclusions – usually from having a wrong model in terms of which to interpret human activities. A dualistic model may be constructed, for example, by wrongly supposing that an intelligently behaving person must be continually utilizing knowledge of facts – knowledge that something is the case. Ryle contended, on the contrary, that much intelligent behavior is a matter of knowing how to do something and that, once this fact is acknowledged, there is no temptation to explain the behavior by looking for a private internal knowledge of facts. Though Ryle's objectives were similar to those of Wittgenstein, his results have often seemed more behavioristic than Wittgenstein's.

It is true that Ryle did ask, in pursuit of his method, some fairly detailed questions about when a person would say, for example, that someone had been imagining something; but it is by no means clear that he was appealing to ordinary language in the sense that his was an investigation into how, say, speakers of English use certain expressions. In any case, the charge, often



voiced by critics, that this style of philosophizing trivializes and perverts philosophy from its traditional function would probably also have to be levelled against Aristotle, who frequently appealed to “what we would say.”

A powerful philosophical figure among postwar Oxford philosophers was John Austin, who was White’s professor of moral philosophy until his death, in 1960. Austin felt that many philosophical theories derive their plausibility from overlooking distinctions – often very fine – between different uses of expressions, and he also thought that philosophers too frequently think that any one of a number of expressions will do just as well for their purposes. (Thus, ignoring the difference between an illusion and a delusion, for example, gives credence to the view that what one immediately perceives are not physical objects, but sense data.) Austin’s work was, in many respects, much closer to the ideal of philosophy as comprising the analysis of concepts than was that of Ryle or Wittgenstein. He was also much more concerned with the nature of language itself and with general theories of how it functions. This novel approach, as exemplified in *How to Do Things with Words* (1962), set a trend that has been followed out in a growing literature in the philosophy of language. Austin took the total speech act as the starting point of analysis, which allowed him to make distinctions based not only upon words and their place in a language but also upon such points as the speaker’s intentions in making the utterance and its expected effect on the audience. There was also in Austin’s approach something of the program of Russell and the early Wittgenstein for laying bare the fundamental structure of language.

### Recent Trends in the United States

Although the Oxford philosophers and the posthumous publication of Wittgenstein's writings have produced a revolution in Anglo-American philosophy, the branch of Analytic philosophy that emphasized formal analyses by means of modern logic has by no means been dormant. Since the appearance of *Principia Mathematica*, striking new findings have emerged in logic, many of which, though requiring for their understanding a high level of mathematical sophistication, are nevertheless important for philosophy.

Among those philosophers for whom symbolic logic occupies a central position, W.V.O. Quine, Pierce professor of philosophy at Harvard University, has been especially important. Symbolic logic represented for him, as it did for many earlier Analytic philosophers, the framework for the language of science. There were two important themes in his work, however, that represent significant departures from, say, the positions of the logical atomists and the Logical Positivists. In the first place, Quine rejected the distinction between those statements in which their truth or falsity depends upon the meaning of the terms involved and those in which their truth or falsity is a matter of empirical and observable fact – a distinction that had played an essential role in Logical Positivism and was thought by most Empiricists to be the basis for a division between the deductive and the empirical sciences. Quine, in “Two Dogmas of Empiricism” (1951) and subsequent writings, argued that the sort of distinction intended by philosophers is impossible to draw. In the course of his argument, a similar doubt was cast upon concepts traditional not only to philosophy but also to linguistics – in particular, the concept of synonymy or sameness of meaning. Quine's attack has been a threat not only to some long-held doctrines of the

Analytic tradition but also to its conception of the nature of philosophy, which has generally depended upon contrasting it with the empirical sciences.

The second important departure of Quine's philosophy has been his attempt to show that science can be successfully conducted without what he calls "intentional entities." In contrast to "extensional," used above as an essential feature of standard symbolic logic, intentional entities include many of the common items that Analytic philosophers often assume that they can talk about without difficulty, such as the meanings of expressions, propositions, or the property of certain statements (such as those of mathematics) of being necessarily true. Quine's program – as exemplified by *Word and Object* (1960) – is intended in part to show that science can say everything that it needs to say without using concepts that cannot be expressed in the extensional language of standard logic. Quine's work, though by no means widely accepted, has made Analytic philosophers at least wary of uncritically accepting certain of their standard distinctions.

Since the mid-20th century, there has been an interaction between the science of linguistics and Analytic philosophy. This did not occur before because Analytic philosophers had almost always considered their study of language to be a priori and unconcerned with empirical facts about particular languages. Recently, however, a book by Noam Chomsky, a U.S. generative grammarian, entitled *Syntactic Structures* (1957), has produced a theory of grammar that not only has profoundly affected the course of linguistics but also bears striking resemblances to philosophical analysis. At first, some Analytic philosophers saw in Chomsky's theory a technique that could be applied to philosophy. It was subsequently considered, however, that, whereas the possibility of looking at grammar in Chomsky's way had contributed valuable concepts for philosophers, the possibility that it would become a

methodology for Analytic philosophy had receded. The interchange between linguists and philosophers, however, has continued.

### Analytic Philosophy Today

It is not possible to forecast in any detail the future trends of Analytic philosophy in Anglo-American and Scandinavian countries. It seems relatively certain, however, that the two conceptions of the subject that stem from Moore and Russell will both continue.

Analytic philosophers, mainly influenced by Oxford philosophy, and those for whom symbolic logic is a touchstone analyze many of the same problems and benefit from each other's work. Analysis in the more rigorous sense that Russell's theory of definite descriptions represents is more frequently an aim, despite the doubts of Wittgenstein and many of the Oxford philosophers. The general idea that the only ultimate explanations of the world are the scientific ones and the usual corollary that philosophy is in the service of science – which was a central idea for Russell, for the Logical Positivists, and (in recent times) for Quine – has apparently lost nothing of its vigour. The opposing tendencies, noted above, among Empiricists in general, and present also in Analytic philosophy, toward behaviorism or Materialism, on the one hand, and toward an Idealism of a phenomenalist sort (such as that of the Irish bishop George Berkeley), on the other, are not present in the same form – mainly because of the sustained criticisms of Wittgenstein, of his followers, and of the Oxford philosophers. The battleground has shifted to a more subtle level. A substantial number of Analytic philosophers who are styled Materialists or physicalists have proposed a novel technique for reducing

mental events and states to physical states. They avoid the well-exposed difficulties of older attempts in which it was held that, when one apparently talks about a separate realm of the mind – speaking of such things as thoughts, emotions, and sensations – the proper analysis of its meaning would be in terms of physical properties and events (usually observable behavior). The novel idea, on the contrary, is that there is, in fact, an identity between so-called mental events and certain physical events, particularly those occurring in the brain, an identity that it is eventually the task of science to specify – in a way modelled after that in which science discovered that lightning is identical with an electrical discharge. The opposition against this new brand of scientific Materialism does not set up against it a view of the mind as a separate realm coexisting with the physical nor as an essentially private collection of nonphysical events and objects. Rather, the issue has been joined on the question whether the language (or perhaps the concepts) of the psychological and the physical are such as to allow for a scientifically discovered identity between items of the one and items of the other. That there still remains a division among Analytic philosophers concerning the problem of the mental and the physical (though in much altered form) shows both the continuity of the movement and the changes that have occurred.

### Empiricism

In its most general sense, Empiricism is the name applied to the attitude that beliefs are to be accepted and acted upon only if they first have been confirmed by actual experience – a definition that accords with the derivation of the name from the Greek word *empeiria*, “experience.”

More specifically, Empiricism comprises a pair of closely related, but still distinct, philosophical doctrines – one pertaining to concepts and the other to propositions:

1. The first of these doctrines, a theory of meaning, holds that words (e.g., the word substance) can be understood or the concepts requisite for any articulate thought possessed only if they are connected by their users with things that they have experienced or could experience (e.g., pieces of wood, or the gases in a gasoline engine).

2. The second doctrine, a philosophical theory of knowledge, views beliefs, or at least some vital classes of beliefs (e.g., that Jane is kind), as depending ultimately and necessarily on experience for justification (Jane is seen performing acts of kindness).

It is not obvious, however, that either of these two doctrines strictly implies the other. Several recognized Empiricists have admitted that there are a priori propositions but have denied that there are a priori concepts. The reverse disconnection between the two forms of Empiricism, however, has no obvious exponents, since there are hardly any philosophers who totally deny a priori propositions and certainly none who would at the same time accept a priori concepts.

Stressing experience, Empiricism is thus opposed to the claims of authority, intuition, imaginative conjecture, and abstract, theoretical, or systematic reasoning as sources of reliable belief. Its most fundamental antithesis is with the latter (i.e., with Rationalism, also called intellectualism or apriorism). A Rationalist theory of meaning asserts that there are concepts not derived from or correlated with experienceable features of the world, such

as “cause,” “identity,” or “perfect circle,” and that these concepts are a priori (Latin: “from the former”) in the traditional sense of being part of the mind’s innate or natural equipment – as opposed to being a posteriori (Latin: “from the latter”), or grounded in the experience of facts. On the other hand, a Rationalist theory of knowledge holds that there are beliefs that are a priori (i.e., that depend for their justification upon thought alone), such as the belief that everything must have a sufficient reason or that a process cannot exist by itself but must occur within some substance. Such beliefs can arise either from intellectual intuition, the direct apprehension of self-evident truth, or from purely deductive reasoning.

## Various Meanings of Empiricism

### Broader Senses

In both everyday attitudes and philosophical theories, the experiences referred to are principally those arising from stimulation of the sense organs, in particular those of sight and touch. Most philosophical Empiricists, however, have maintained that sensation is not the only provider of experience, admitting as empirical the awareness of mental states in introspection or reflection, such as feelings of pain or of fear, often metaphorically described as present to the “inner sense.” It is a controversial question whether still further types of experience, such as moral, aesthetic, or religious experience, ought to be acknowledged as empirical.

Two other viewpoints related to but not the same as Empiricism are the Pragmatism of the American philosopher and psychologist William James, an aspect of which was Radical Empiricism, and Logical Positivism, also called

Logical Empiricism. Though these philosophies are, indeed, empirical, each has a distinctive focus that warrants its treatment as a separate movement. Pragmatism stresses the involvement of ideas in practical experience and action, whereas Logical Empiricism is more concerned with scientific experience.

When describing an everyday attitude, the word Empiricism sometimes conveys an unfavorable implication of ignorance of or indifference to relevant theory. Thus, to call a doctor an “Empiric” has been to call him a quack – a usage traceable to a sect of medical men who were opposed to the elaborate medical, and in some views metaphysical, theories of Galen, a prominent Greek physician of the 2nd century CE, theories which dominated medicine until the 17th century. The medical Empiricists opposed to Galen preferred to rely on treatments of observed clinical effectiveness, without inquiring into the mechanisms sought by therapeutic theory. But “Empiricism,” detached from this medical association, may also be used, more favorably, to describe a hard-headed refusal to be swayed by anything but the facts that the thinker has observed for himself, a blunt resistance to received opinion or precarious chains of abstract reasoning.

#### Stricter Senses

As a more strictly defined movement, Empiricism reflects certain fundamental distinctions and occurs in varying degrees.



## Fundamental Distinctions

If the blurring of the distinction between concepts and propositions has confused discussions of Empiricism, another influence at least equally vexing is that which, embodied in the traditional terminology of the debate, contrasts the empirical not with the a priori but with the innate. Since logical problems are easily confused with psychological problems, it is difficult to disentangle the question of the causal origin of man's concepts and beliefs from that of their meaning and justification.

A concept, such as "Five," is said to be innate if a man's possession of it is causally independent of his experience – e.g., of groupings of five objects. A concept, such as "Ought," is a priori; on the other hand, if the logical conditions of its application (or those of the word expressing it) do not include any reference to experienceable states of affairs (thus "Ought" cannot be defined in terms of facts alone). Similarly, a belief is innate if its acceptance is causally independent of the believer's experience; and it is a priori if its justification is logically independent of experience. Propositions could be innate without being a priori: for example, the baby's empirical belief that its mother's breast will nourish it.

Some color is lent to the confusion of the a priori and the innate by the fact that most empirical concepts are actually acquired through the technique of ostensive definition, in which a concept (such as "long") is conveyed by introducing instances of it (several long pencils) into the experience of the learner. But it is not in virtue of their mode of acquisition that concepts are empirical; it is the way in which they are applied, once they are possessed, that qualifies them as such. Even if a man were born with an instinctive capacity to use the word blue and never had to learn how to use it, it would

still be an empirical concept if the occasion for its use were always his sense experience of a blue object. Furthermore, the fact that men learn, postnatally, to use the word cause does not prove that it expresses an empirical concept if its application to something always implies more than the sense which experience of that kind of thing presents to the mind.

Another supposedly identical but in fact more or less irrelevant property of concepts and beliefs is that of the universality of their possession or acceptance – that a priori or innate concepts must be the common possession of all men and that such beliefs must be accepted by everyone. There may be, in fact, some basis for inferring universality from innateness, since many innate characteristics such as the fear of loud noises appear to be common to the whole species.

Two main kinds of concept have been held to be a priori and thus nonempirical. First, there are certain formal concepts of logic and of mathematics that reflect the basic structure of discourse: “not,” “and,” “or,” “if,” “all,” “some,” “existence,” “unity,” “number,” “successor,” “infinity,” Secondly, there are categorial concepts, such as “substance,” “cause,” “mind,” and “God,” so called after the “categories of thought” as listed by Aristotle and Kant, which the mind imposes upon the given data of experience.

A very large variety of different types of proposition has been held to be a priori. Few would deny this status to such definitional truisms or obvious tautologies as “all hairless heads are bald” or “a rose is a rose.” There are also the truths of logic, of mathematics, and of metaphysics – whether transcendent, such as the existence of God or things-in-themselves (lying behind appearances), or immanent and thus discernible within reality, such as the principles (presupposed by much natural science) of conservation,

causality, and sufficient reason. Some have held that the basic principles of ethics or the causal laws of nature are a priori. Empiricism maintains, however, that some of these are a priori.

### Degrees of Empiricism

Empiricism, whether concerned with meaning or knowledge, can be held with varying degrees of strength. On this basis, absolute, substantive, and partial Empiricisms can be distinguished.

Absolute Empiricists hold that there are no a priori concepts, either formal or categorial, and no a priori propositions. Absolute Empiricism about knowledge is less common than that about concepts, and nearly all philosophers admit that at least obvious tautologies and definitional truisms are a priori; but many would add that these represent a degenerate case.

A more moderate form of Empiricism is that of the substantive Empiricists, who are unconvinced by attempts that have been made to interpret formal concepts empirically and who therefore concede that formal concepts are a priori but deny that categorial concepts, such as “substance,” “cause,” and “God,” are a priori. In this view, formal concepts would be no longer semantical, pertaining to the relation of words to things; they would be, instead, merely descriptive or purely syntactical, pertaining to the relations between ideas. On this basis “God,” for example, would not be an entity alongside other entities but a device for arranging a man’s factual beliefs about the world; the concept “God” would thus play a structural and not an informative role.

The parallel point of view about knowledge assumes that the truth of logical and mathematical propositions is determined, as is that of definitional truisms, by the relationships between meanings that are established prior to experience. The truth often espoused by moralists, for example, that one is truly obliged to rescue a man from drowning only if it is possible to do so is a matter of meanings and not of facts about the world. On this view, all propositions that, in contrast to the foregoing example, are in any way substantially informative about the world are empirical. Even if there are a priori propositions, they are all formal or verbal or conceptual in nature, and their necessary truth derives simply from the meanings that man has attached to the words he uses. A priori knowledge is useful because it makes explicit the hidden implications of substantive, factual assertions. But a priori propositions do not themselves express genuinely new knowledge about the world; they are factually empty, “true in all possible worlds.” Thus “All bachelors are unmarried” merely gives explicit recognition to the commitment to describe as unmarried anyone who has been described as a bachelor; but it does not add anything new.

Substantive Empiricism about knowledge, which is fundamental to most contemporary Analytical philosophy, regards all a priori propositions as being more-or-less concealed tautologies, or, in Kantian terms, as being analytic. If a person’s “duty” is thus defined as that which he should always do, the statement “A person should always do his duty” then becomes “A person should always do what he should always do.” Deductive reasoning is conceived accordingly as a way of bringing this concealed tautological status to light. That such extrication is nearly always required means that a priori knowledge is far from trivial.

For the substantive Empiricist, truisms and the propositions of logic and mathematics exhaust the domain of the a priori. Science, on the other hand – from the fundamental assumptions about the structure of the universe to the singular items of evidence used to confirm its theories – is regarded as empirical throughout. The propositions of ethics and those of metaphysics, which deals with the nature of Being as such (for example, “Only that which is not subject to change is real”), are either disguised tautologies or empirical statements or only pseudo-propositions; i.e., combinations of words that, despite their grammatical respectability, cannot be taken as true or false assertions at all.

The least thoroughgoing type of Empiricism here distinguished, ranking third in degree, can be termed partial Empiricism. Many philosophers hold that other concepts besides the formal are a priori and that there are substantially informative propositions about the world that are nevertheless not empirical. The theses of transcendental, or Kantian, metaphysics and those of theology, the general scientific principles of conservation and causality, the basic principles of morality, and the causal laws of nature have all been held to be at once synthetic and a priori – substantial and yet establishable by reasoning alone without recourse to experience. In all versions of this view, however, there remain a great many straightforwardly empirical concepts and propositions: ordinary singular propositions about matters of fact and the concepts that figure in them are held to fall in the empirical domain.

## History of Empiricism

### In Ancient Philosophy

So-called common sense is inarticulately empiricist; and philosophy, in seeking to correct it, has to start from a rationalistic position. Philosophical Empiricism is thus always critical, a resistance to the pretensions of a more speculative philosophy. The ground was prepared for Plato, the greatest of Rationalist philosophers, by three earlier bodies of thought: the Ionian cosmologies of the 6th century BCE – so-called from their concentration along the western coast of Asia Minor – with their distinction between sensible appearance and a reality accessible only to pure reason; the philosophy of Parmenides (early 5th century BCE), the important early monist, in which purely rational argument is used to prove that the world is really an unchanging unity; and Pythagoreanism, which, holding that the world is really made of numbers, took mathematics to be the repository of ultimate truth.

The first Empiricists in Western philosophy were the Sophists, who rejected such Rationalist speculation about the world as a whole and took man and society to be the proper objects of philosophical inquiry. Invoking sceptical arguments to undermine the claims of pure reason, they posed a challenge that invited the reaction that comprised Plato's philosophy.

Plato and to a lesser extent Aristotle were both Rationalists. But Aristotle's successors in the ancient Greek schools of Stoicism and Epicureanism advanced an explicitly Empiricist account of the formation of man's concepts or ideas. For the Stoics the human mind is at birth a clean slate, which comes to be stocked with ideas by the sensory impingement of

the material world upon it. Yet they also held that there are some ideas or beliefs, the “common notions,” present to the minds of all men; and these soon came to be conceived in a nonempirical way. The Empiricism of the Epicureans, however, was more pronounced and consistent. For them man’s concepts are memory images, the mental residues of previous sense experience; and knowledge is as empirical as the ideas of which it is composed.

### In Medieval Philosophy

Most medieval philosophers after St. Augustine took an Empiricist position, at least about concepts, even if they recognized much substantial but nonempirical knowledge. The standard formulation of this age was: “There is nothing in the intellect that was not previously in the senses.” Thus St. Thomas Aquinas (1225-74) altogether rejected innate ideas. Both soul and body participate in perception, and all of man’s ideas are abstracted by the intellect from what is given to the senses. Man’s ideas of unseen things, like God and angels, are derived by analogy from the seen.

The 13th-century scientist Roger Bacon emphasized empirical knowledge of the natural world and anticipated the polymath Renaissance philosopher of science Francis Bacon (1561-1626) in preferring observation to deductive reasoning as a source of knowledge. The Empiricism of the 14th-century Franciscan Nominalist William of Ockham was more systematic. All knowledge of what exists in nature, he held, comes from the senses, though there is, to be sure, “abstractive knowledge” of necessary truths; but this is hypothetical and does not imply the existence of anything. His more extreme

followers extended his line of reasoning toward a radical Empiricism, in which causation is not a rationally intelligible connection but merely an observed regular sequence.

### In Modern Philosophy

In the earlier and unsystematically speculative phases of Renaissance philosophy, the claims of Aristotelian logic to yield substantial knowledge were attacked by several 16th-century logicians, and, in the same century, the role of observation was stressed. One mildly sceptical Christian thinker, Pierre Gassendi (1592-1655), advanced a deliberate revival of the empirical doctrines of Epicurus. But the most important defender of Empiricism was Francis Bacon, who, though he did not deny the existence of a priori knowledge, claimed that, in effect, the only knowledge that is worth having (as contributing to the relief of man's estate) is empirically based knowledge of the natural world, which should be pursued by the systematic, indeed almost mechanical, arrangement of the findings of observation and is best undertaken in the cooperative and impersonal style of modern scientific research. Bacon was, indeed, the first to formulate the principles of scientific induction.

A Materialist and Nominalist, Thomas Hobbes (1588-1679), combined an extreme Empiricism about concepts, which he saw as the outcome of material impacts on the bodily senses, with an extreme Rationalism about knowledge, of which, like Plato, he took geometry to be the paradigm. For him all genuine knowledge is a priori, a matter of rigorous deduction from definitions. The senses provide ideas; but all knowledge comes from



“reckoning,” from deductive calculations carried out on the names that the thinker has assigned to them. True knowledge is thus not merely a priori but also analytic. Yet it all concerns material and sensible existences: everything that exists is a body.

The most elaborate and influential presentation of Empiricism was made by John Locke (1632-1704), an early Enlightenment philosopher, in the first two books of his *Essay Concerning Human Understanding* (1690). All knowledge, he held, comes from sensation or from reflection, by which he meant the introspective awareness of the workings of man’s own mind. Locke confused the two issues of the nature of concepts and the justification of beliefs. His Book I, though titled “Innate Ideas,” is largely devoted to refuting innate knowledge. And even so, he later admitted that much substantial knowledge – in particular, that of mathematics and morals – is a priori. He argued that infants know nothing; that if men are said to know innately what they are capable of coming to know, then all knowledge is, trivially, innate; and that no beliefs whatever are universally accepted. Locke was more consistent about the empirical character of all man’s concepts and displayed in detail the ways in which simple ideas can be combined to form complex ideas of what has not in fact been experienced. One group of dubiously empirical concepts – those of unity, existence, and number – he took to be derived both from sensation and from reflection. But he allowed one a priori concept – that of substance – which the mind adds, seemingly from its own resources, to its conception of any regularly associated group of perceptible qualities.

Bishop George Berkeley (1685-1753), a theistic Idealist and opponent of Materialism, applied Locke’s Empiricism about concepts to refute Locke’s account of man’s knowledge of the external world. He drew and embraced the inevitable conclusion that material things are simply collections of perceived

ideas, a position that ultimately leads to phenomenalism; i.e., to the view that reality is nothing but sensations. He accounted for the continuity and orderliness of the world by supposing that its reality is upheld in the perceptions of an unsleeping God. The theory of spiritual substance involved in Berkeley's position seems to be vulnerable, however, to most of the same objections as those that he posed against Locke.

The Scottish sceptical philosopher David Hume (1711-76) fully elaborated Locke's Empiricism and used it reductively to argue that there can be no more to man's concepts of body, mind, and causal connection than what occurs in the experiences that he has of them. For Hume all necessary truth is formal or conceptual, determined by the relations of identity and exclusion that hold between ideas.

Voltaire imported Locke's philosophy into France; and its Empiricism, in a very stark form, is the basis of sensationalism, in which all of the constituents of human mental life are analyzed in terms of sensations alone.

A genuinely original and clarifying attempt to resolve the controversy between Empiricists and their opponents was made in the critical philosophy of Immanuel Kant (1724-1804), drawing upon Leibniz and Hume. With the dictum that, although all knowledge begins with experience it does not all arise from experience, he established a clear distinction between the innate and the a priori. He held that there are a priori concepts, or categories – substance and cause being the most important – and also substantial or synthetic a priori truths. Although not derived from experience, the latter apply to experience. A priori concepts and propositions do not relate to a reality that transcends experience; they reflect, instead, the mind's way of organizing the amorphous mass of sense impressions that flow in upon it.

Lockean Empiricism prevailed in 19th-century England until the turn to Hegel occurred in the last quarter of the century. To be sure, the Scottish philosophers who followed Hume but avoided his sceptical conclusions insisted that man does have substantial a priori knowledge. But the philosophy of John Stuart Mill (1806-73), logician, economist, and Utilitarian moralist, is thoroughly Empiricist. He held that all knowledge worth having, including mathematics, is empirical. The apparent necessity of mathematics, according to Mill, is the result of the unique massiveness of its empirical confirmation. All real knowledge for Mill is inductive and empirical; and deduction is sterile. On similar lines, the philosopher of evolution Herbert Spencer (1820-1903) offered another explanation of the apparent necessity of some of man's beliefs: they are the well-attested empirical beliefs of his ancestors from whom he has inherited them, an evolutionary revival of the doctrine of innateness. Two important mathematicians and pioneers in the philosophy of modern physics, W.K. Clifford (1845-79) and Karl Pearson (1857-1936), defended radically Empiricist philosophies of science, anticipating the Logical Empiricism of the 20th century.

#### In Contemporary Philosophy

The most influential Empiricist of the 20th century was the great British philosopher and logician Bertrand Russell (1872-1970), who at first was Lockean in his theory of knowledge – admitting both synthetic a priori knowledge and concepts of unobservable entities. Ludwig Wittgenstein (1889-1951), the influential pioneer of the school of Linguistic Analysis, convinced Russell that the truths of logic and mathematics are analytic; and Russell then came to believe, with Hume, that the task of philosophy is to

analyze all concepts in terms of what can be directly present to the senses. In this spirit, he tried to show that even the concepts of formal logic are ultimately empirical though the experience that supplies them may be introspective instead of sensory.

Doctrines developed through the collaboration of Russell and Wittgenstein yielded the Logical Positivism of the German philosopher Rudolf Carnap (1891-1970) and of the Vienna Circle, a discussion group in which that philosophy was worked out. The Empiricism of Logical Positivism is especially evident in its restatement of the fundamental thesis of Hume's philosophy in a form known as "the verification principle," which recognizes as meaningful and synthetic only those sentences that are in principle verifiable by reference to sense experience.

### Criticism and Evaluation

The earliest expressions of Empiricism in ancient Greek philosophy were those of the Sophists. In reaction to them Plato presented the Rationalistic view that man has only "opinion" about changing, perceptible, existing things in space and time; that "knowledge" can be had only of timeless, necessary truths; and that the objects of knowledge – the unchanging and imperceptible forms or universals (such as "Bed," "Man," etc.) – are the truly real. The circles and triangles of geometrical "knowledge," in this view, are quite different in their perfect exactness from the approximately circular and triangular things present to man's senses. In the *Phaedo*, Plato expounded a theory of literally innate ideas; man, for example, has a conception of exact

“equality,” which, since it could not have been supplied by the senses, must have been acquired by the soul before it was embodied.

Aristotle agreed with Plato that knowledge is of the universal but held that such universal forms should not be conceived as “separated” from the matter embodying them. This belief does not make Aristotle an Empiricist, although he was certainly a less extreme Rationalist than Plato. Aristotle took the Rationalist view that every science or body of knowledge must resemble Euclidean geometry in consisting of deductions from first principles that are self-evidently and necessarily true and that, although the senses acquaint man with the sensible forms of things, he cannot have knowledge of them unless reason is brought into play to acquaint him with their intelligible forms as well.

The Stoic view of “common notions,” or beliefs that are held by all men – a Rationalistic element in an otherwise Empirical school of thought – was expanded during the early medieval period by the Christian Platonist St. Augustine (CE 354-430), a thoroughgoing Rationalist. The Stoic common notions, Augustine held, are truths that God has implanted in the human mind through direct illumination.

Although the early modern expression of Empiricism in the 17th century by Francis Bacon heralded the scientific age, its influence was lessened by his failure to appreciate the revolutionary use of mathematics that comprised the genius of Galileo’s new physics and, even more fundamentally, by his underestimation of the need for imaginative conjecture in the formation of scientific hypotheses to restrict the overwhelming number of facts that would otherwise have to be handled. In contrast to Bacon’s view, the philosopher and mathematician René Descartes (1596-1650), his contemporary and one of

the principal founders of modern thought, developed a comprehensive Rationalism that was more immediately influential. For Descartes all clear and distinct ideas, and in particular those of philosophy and of geometrical physics, are innate; sense experience is at most the agency that elicits ideas already present in the mind. In principle, all knowledge is a priori and demonstrable by pure reasoning, but in practice, because of man's finite intellect, it is necessary to rely on experience to confirm propositions for which rational proof is beyond reach. In England innate ideas and knowledge were defended by Edward Lord Herbert of Cherbury (1582-1648), precursor of Deism, and by a school of Puritan Humanists known as the Cambridge Platonists. The case for innate ideas, however, is hard to establish; there can be in the nature of the case little actual evidence that one can possess concepts before having had some relevant experience.

In the second half of the 17th century, the Empiricist views of John Locke were similarly controverted by a systematic thinker and man of affairs, G.W. Leibniz, who examined Locke's views in minute detail in his book *Nouveaux essais sur l'entendement humain* (1704, published 1765; Eng. trans., *New Essays*, 1916), arguing that ideas can be virtually innate in a less trivial sense than Locke allowed. Interpreting Locke's notion of reflection as reasoning rather than as introspection, Leibniz supposed that Locke was more of a Rationalist than he really was.

In contemporary philosophy, there are thinkers who, though broadly sympathetic to Positivism, have voiced reservations about its more specifically Empiricist elements. One important philosopher of science, Karl Popper, has rejected the inductivism that views the growth of empirical knowledge as the result of a mechanical routine of generalization. To him it is falsifiability by experience that makes a statement empirical. An influential

American philosopher and logician, W.V. Quine, has been critical of the Logical Empiricists' frequent recourse to the concept of meaning and has rejected the sharp distinction they make between analytic and factual truths, on which most of contemporary Empiricism rests. For Quine, both human concepts and beliefs are the joint outcome of experience and conventional decision, and he denies that the role of the two factors can be readily distinguished as Empiricists assert.

The theory of knowledge has been the central discipline in philosophy since the 17th century, and its most basic issue is that between Empiricism and Rationalism, an issue that is still being actively debated. On the one hand, the idea that science rests on substantial but nonempirical presuppositions has been put in question by the fact that in some areas it seems to get along without them: without conservation in cosmology, without causality in quantum physics. On the other hand, the traditional theory of the innate powers of the mind has been reanimated by the considerations underlying the theory of language offered by Noam Chomsky, a generative grammarian, who holds that the learning of language is too rapid and too universal to be attributed entirely to an empirical process of conditioning. The basic strength of Empiricism consists in its recognition that human concepts and beliefs apply to a world outside oneself, and that it is by way of the senses that this world acts upon the individual. The question, however, of just how much the mind itself contributes to the task of processing its sensory input is one that no simple argument can answer.

## Existentialism

The various philosophies (dating from about 1930) that have been referred to by the term Existentialism have in common an interpretation of human existence in the world that stresses its concreteness and its problematic character.

### Nature of Existentialist Thought and Manner

According to Existentialism: (1) Existence is always particular and individual – always *my* existence, *your* existence, *his* existence. (2) Existence is primarily the problem of existence (i.e., of its mode of being); it is, therefore, also the investigation of the meaning of Being. (3) This investigation is continually faced with diverse possibilities, from among which the existent (i.e., man) must make a selection, to which he must then commit himself. (4) Because these possibilities are constituted by man's relationships with things and with other men, existence is always a being-in-the-world – i.e., in a concrete and historically determinate situation that limits or conditions choice. Man is therefore called *Dasein* (“being there”) because he is defined by the fact that he exists, or is in the world and inhabits it.

With respect to the first point, that existence is particular, Existentialism is opposed to any doctrine that views man as the manifestation of an absolute or of an infinite substance. It is thus opposed to most forms of Idealism, such as those that stress Consciousness, Spirit, Reason, Idea, or Oversoul. Secondly, it is opposed to any doctrine that sees in man some given and complete reality that must be resolved into its elements in order to be known or contemplated. It is thus opposed to any form of objectivism or scientism



since these stress the crass reality of external fact. Thirdly, Existentialism is opposed to any form of necessitarianism; for existence is constituted by possibilities from among which man may choose and through which he can project himself. And, finally, with respect to the fourth point, Existentialism is opposed to any solipsism (holding that I alone exist) or any epistemological Idealism (holding that the objects of knowledge are mental), because existence, which is the relationship with other beings, always extends beyond itself, toward the being of these entities; it is, so to speak, transcendence.

Starting from these bases, Existentialism can take diverse and contrasting directions. It can insist on the transcendence of Being with respect to existence, and, by holding this transcendence to be the origin or foundation of existence, it can thus assume a theistic form. On the other hand, it can hold that human existence, posing itself as a problem, projects itself with absolute freedom, creating itself by itself, thus assuming to itself the function of God. As such, Existentialism presents itself as a radical atheism. Or it may insist on the finitude of human existence – i.e., on the limits inherent in its possibilities of projection and choice. As such, Existentialism presents itself as a humanism.

From 1940 on, with the diffusion of Existentialism through continental Europe, its directions have developed in terms of the diversity of the interests to which they are subject: the religious interest, the metaphysical (or nature of Being) interest, the moral and political interest. This diversity of interests is rooted, at least in part, in the diversity of sources on which Existentialism has drawn. One such source has been the subjectivism of the 4th-5th-century theologian St. Augustine, who exhorted man not to go outside himself in the quest for truth, for it is within him that truth abides. “If you find that you are by nature mutable,” he wrote, “transcend yourself.” Another source has been

the Dionysian Romanticism of Nietzsche, who exalted life in its most irrational and cruel features and made this exaltation the proper task of the “higher man,” who exists beyond good and evil. Still another source has been the nihilism of Dostoyevsky, who, in his novels, presented man as continually defeated as a result of his choices and as continually placed by them before the insoluble enigma of himself. As a consequence of the diversity of these sources, Existentialist doctrines have focused on several aspects of existence.

They have focused, first, on the problematic character of the human situation, through which man is continually confronted with diverse possibilities or alternatives, among which he may choose and on the basis of which he can project his life.

Second, the doctrines have focused on the phenomena of this situation and especially on those that are negative or baffling, such as the concern or preoccupation that dominates man because of the dependence of all his possibilities upon his relationships with things and with other men; the dread of death or of the failure of his projects; the “shipwreck” upon insurmountable “limit situations” (death, the struggle and suffering inherent in every form of life, the situation in which everyone daily finds himself); the guilt inherent in the limitation of choices and in the responsibilities that derive from making them; the boredom from the repetition of situations; the absurdity of man’s dangling between the infinity of his aspirations and the finitude of his possibilities.

Third, the doctrines have focused on the intersubjectivity that is inherent in existence and is understood either as a personal relationship between two individuals, I and thou, such that the thou may be another man or God, or as

an impersonal relationship between the anonymous mass and the individual self deprived of any authentic communication with others.

Fourth, Existentialism focusses on ontology, on some doctrine of the general meaning of Being, which can be approached in any of a number of ways: through the analysis of the temporal structure of existence; through the etymologies of the most common words – on the supposition that in ordinary language Being itself is disclosed, at least partly (and thus is also hidden); through the rational clarification of existence by which it is possible to catch a glimpse, through ciphers or symbols, of the Being of the world, of the soul, and of God; through existential psychoanalysis that makes conscious the fundamental “project” in which existence consists; or, finally, through the analysis of the fundamental modality to which all the aspects of existence conform – i.e., through the analysis of possibility.

There is, in the fifth place, the therapeutic value of existential analysis that permits, on the one hand, the liberating of human existence from the beguilements or debasements to which it is subject in daily life and, on the other, the directing of human existence toward its authenticity; i.e., toward a relationship that is well-grounded on itself, and with other men, with the world, and with God.

The various forms of Existentialism may also be distinguished on the basis of language, which is an indication of the cultural traditions to which they belong and which often explains the differences in terminology among the various authors. The principal representatives of German Existentialism are Martin Heidegger and Karl Jaspers; those of French personalistic Existentialism are Gabriel Marcel and Jean-Paul Sartre; that of French Phenomenology is Maurice Merleau-Ponty; that of Spanish Existentialism is

José Ortega y Gasset; that of Russian Idealistic Existentialism is Nikolay Berdyayev (who, however, lived half of his adult life in France); and that of Italian Existentialism is Nicola Abbagnano. The linguistic differences, however, are not decisive for a determination of philosophical affinities. For example, Marcel and Sartre are farther apart than Heidegger and Sartre; and there is greater affinity between Abbagnano and Merleau-Ponty than between Merleau-Ponty and Marcel.

#### Historical Survey of Existentialism

Many of the theses that Existentialists defend or illustrate in their analyses are drawn from the wider philosophical tradition.

#### Precursors of Existentialism

The problem of what man is in himself can be discerned in the Socratic imperative “know thyself,” as well as in the work of Montaigne and Pascal, a religious philosopher and mathematician. Montaigne had said: “If my mind could gain a foothold, I would not write essays, I would make decisions; but it is always in apprenticeship and on trial.” And Pascal had insisted on the precarious position of man situated between Being and Nothingness: “We burn with the desire to find solid ground and an ultimate sure foundation whereon to build a tower reaching to the Infinite. But our whole groundwork cracks, and the earth opens to abysses.”

The stance of the internal tribunal – of man’s withdrawal into his own spiritual interior – which reappears in some Existentialists (in Marcel and

Sartre, for example) already belonged, as earlier noted, to St. Augustine. In early 19th-century French philosophy, it was defended by a reformed *Idéologue*, Marie Maine de Biran, who wrote: “Even from infancy I remember that I marvelled at the sense of my existence. I was already led by instinct to look within myself in order to know how it was possible that I could be alive and be myself.” From then on, this posture inspired a considerable part of French philosophy.

The theme of the irreducibility of existence to reason, common to many Existentialists, was also defended by a leading German Idealist, F.W.J. von Schelling, as he argued against Hegel in the last phase of his philosophy, and Schelling’s polemic, in turn, inspired the thinker usually cited as the father of Existentialism, the religious Dane Søren Kierkegaard.

The requirement to know man in his particularity and, therefore, in terms of a procedure different from those used by science to obtain knowledge of natural objects was confronted by Wilhelm Dilthey, an expounder of historical reason, who viewed “understanding” as the procedure and thus as the proper method of the human sciences. Understanding, according to Dilthey, consists in the reliving and reproducing of the experience of others. Hence it is also a feeling together with others and a sympathetic participation in their emotions. Understanding, therefore, accomplishes a unity between the knowing object and the object known.

## The Immediate Background and Founding Fathers

The theses of Existentialism found a particular relevance during World War II, when Europe found itself threatened alternately by material and spiritual destruction. Under those circumstances of uncertainty, the optimism of Romantic inspiration, by which the destiny of man is infallibly guaranteed by an infinite force (such as Reason, the Absolute, or Mind) and propelled by it toward an ineluctable progress, appeared to be untenable. Existentialism was moved to insist on the instability and the risk of all human reality, to acknowledge that man is “thrown into the world” – i.e., abandoned to a determinism that could render his initiatives impossible – and to hold that his very freedom is conditioned and hampered by limitations that could at any moment render it empty. The negative aspects of existence, such as pain, frustration, sickness, and death – which 19th-century optimism refused to take seriously because they do not touch the infinite principle that these optimists believed to be manifest in man – become for Existentialism the essential features of human reality.

The thinkers who, by virtue of the negative character of their philosophy, constituted the exception to 19th-century Romanticism thus became the acknowledged masters of the Existentialists. Against Hegelian necessitarianism, Kierkegaard interpreted existence in terms of possibility: dread – which dominates existence through and through – is “the sentiment of the possible.” It is the feeling of what can happen to a man even when he has made all of his calculations and taken every precaution. Despair, on the other hand, discovers in possibility its only remedy, for “If man remains without possibilities, it is as if he lacked air.” Karl Marx, in holding that man is constituted essentially by the “relationships of work and production” that tie him to things and other men, had insisted on the alienating character that these

relationships assume in capitalistic society, where private property transforms man from an end to a means, from a person to the instrument of an impersonal process that subjugates him without regard for his needs and his desires. Nietzsche had viewed the *amor fati* (“love of fate”) as the “formula for man’s greatness.” Freedom consists in desiring what is and what has been and in choosing it and loving it as if nothing better could be desired.

### Emergence as a Movement

Contemporary Existentialism reproduces these ideas and combines them in more or less coherent ways. Human existence is, for all the forms of Existentialism, the projection of the future on the basis of the possibilities that constitute it. For some Existentialists (the Germans Heidegger and Jaspers, for example), the existential possibilities, inasmuch as they are rooted in the past, merely lead every project for the future back to the past, so that only what has already been chosen can be chosen (Nietzsche’s *amor fati*). For others (such as Sartre), the possibilities that are offered to existential choice are infinite and equivalent, such that the choice between them is indifferent; and for still others (Abbagnano and Merleau-Ponty), the existential possibilities are limited by the situation, but they neither determine the choice nor render it indifferent. The issue is one of individuating, in every concrete situation and by means of a specific inquiry, the real possibilities offered to man. For all the Existentialists, however, the choice among possibilities – i.e., the projection of existence – implies risks, renunciation, and limitation. Among the risks, the most serious is man’s descent into inauthenticity or into alienation, his degradation from a person into a thing. Against this risk, for the theological forms of Existentialism (as in Gabriel Marcel, a Socratic dramatist; Karl

Barth, a Swiss Neo-orthodoxist; Rudolf Bultmann, a biblical interpreter), there is the guarantee of the transcendent help from God, which in its turn is guaranteed by faith.

Existentialism, consequently, by insisting on the individuality and nonrepeatability of existence (following Kierkegaard and Nietzsche), is sometimes led to regard one's coexistence with other people (held to be, however, an ineluctable fact of the human situation) as a condemnation or alienation of man. Marcel has said that all that exists in society beyond the individual is "expressible by a minus sign," and Sartre has affirmed in his major work *L'Être et le néant* (1943; *Being and Nothingness*, 1956) that "the Other is the hidden death of my possibilities." For the other forms of Existentialism, however, a coexistence that is not anonymous (as that of a mob) but is grounded on personal communication conditions man's authentic existence.

Existentialism has had ramifications in various areas of contemporary culture. In literature, Franz Kafka, author of haunting novels, walking in Kierkegaard's footsteps, described human existence as the quest for a stable, secure, and radiant reality that continually eludes it (*Das Schloss* [1926; *The Castle*, 1930]); or he described it as threatened by a guilty verdict about which it knows neither the reason nor the circumstances but against which it can do nothing – a verdict that ends with death (*Der Prozess* [1925; *The Trial*, 1937]).

The theses of contemporary Existentialism were then diffused and popularized by the novels and plays of Sartre, by the writings of the French novelists and dramatists Simone de Beauvoir and Albert Camus. In *L'Homme révolté* (1951; *The Rebel*, 1953), Camus described the "metaphysical



rebellion” as “the movement by which a man protests against his condition and against the whole of creation.” In art, the analogues of Existentialism may be considered to be Surrealism, Expressionism, and in general those schools that view the work of art not as the reflection of a reality external to man but as the free immediate expression of human reality.

Existentialism made its entrance into psychopathology through Karl Jaspers’ *Allgemeine Psychopathologie* (1913; *General Psychopathology*, 1965), which was inspired by the need to understand the world in which the mental patient lives, by means of a sympathetic participation in his experience. Later, Ludwig Binswanger, a Swiss psychiatrist of the *Daseinsanalyse* school, in one of his celebrated works, *Über Ideenflucht* (1933; “On the Flight of Ideas”), inspired by Heidegger’s thought, viewed the origin of mental illness as a failure in the existential possibilities that constitute human existence (*Dasein*). From Jaspers and Binswanger, the Existentialist current became diffused and variously stated in contemporary psychiatry.

In theology, Barth’s *Römerbrief* (1919; *The Epistle to the Romans*, 1933) started the “Kierkegaard revival,” the emblem of which was expressed by Barth himself; it is “the relation of this God with this man; the relation of this man with this God – this is the only theme of the Bible and of philosophy.” Within the bounds of this current, on the one hand, there was an insistence upon the absolute transcendence of God with respect to man, who could place himself in relationship with God only by denying himself and by abandoning himself to a gratuitously granted faith. On the other hand, there was the requirement to demythologize the religious content of faith, particularly of the Christian faith, in order to allow the message of the

eschatological event (of salvation) to emerge from among the existential possibilities of man.

### Methodological Issues in Existentialism

The methods that the Existentialists employ in their interpretations have a presupposition in common: the immediacy of the relationship between the interpreter and the interpreted, between the interrogator and the interrogated, between the problem of being and Being itself. The two terms coincide in existence; for the man who poses the question “What is Being?” cannot but pose it to himself and cannot respond without starting from his own being.

This common ground notwithstanding, each Existentialist thinker has defended and worked out his own method for the interpretation of existence. Heidegger, an Existentialist with ontological (nature of Being) concerns, availed himself of the philosophy of Edmund Husserl, founder of Phenomenology, which, as *logos* of the *phainomenon*, employs speech that manifests or discloses what it is that one is speaking about and that is true – in the etymological use of the Greek word *aletheia* (i.e., the sense of uncovering or manifesting what was hidden). The phenomenon is, from Heidegger’s point of view, not mere appearance, but the manifestation or disclosure of Being in itself. Phenomenology is thus capable of disclosing the structure of Being and hence is an ontology of which the point of departure is the being of the one who poses the question about Being, namely man.

Jaspers, an authority in psychopathology as well as in the philosophy of human existence, on the other hand, employed the method of the rational clarification of existence; he maintained that existence, as the quest for Being,

is man's effort of rational self-understanding, or universalizing, of communicating – a method that presupposes that existence and reason are the two poles of man's being. Reason is possible existence; i.e., existence that, as Jaspers writes in his *Vernunft und Existenz* (1935; *Reason and Existence*, 1955), becomes “manifest to itself and as such real, if, *with, through* and *by* another existence, it arrives at itself.” This activity, however, is never consummated; thus, when the impossibility of its achievement is recognized, it is changed into faith, into the recognition of transcendence as providing the only possibility of its final achievement.

According to the views of Sartre, the foremost philosopher of mid-20th-century France, the method of philosophy is existential psychoanalysis; i.e., the analysis of the “fundamental project” in which man's existence consists. In contrast to the precepts of Freudian psychoanalysis, which stop short at the irreducibility of the libido, or primitive psychic drive, existential psychoanalysis tries to determine the “original choice” through which man constructs his world and decides in a preliminary way upon particular choices (which, however, may place in crisis the primordial choice itself).

According to Marcel, a Christian Existentialist philosopher and dramatist, the method of philosophy depends upon a recognition of the mystery of Being (*Le Mystère de l'être* [1951; *The Mystery of Being*, 1950-51]); i.e., on the impossibility of discovering Being through objective or rational analyses or demonstrations. Philosophy should lead man up, however, to the point of making possible for him “the productive illumination of Revelation.”

Finally, according to humanistic Existentialism, as represented by Abbagnano, the leading Italian Existentialist, and by Merleau-Ponty, a French

Phenomenologist, the method of philosophy consists of the analysis and the determination – by employing all available techniques including those of science – of the structures that constitute existence; i.e., of the relations that connect man with other beings and that figure, therefore, not only in the constitution of man but in the constitution of the other beings as well.

### Substantive Issues in Existentialism

#### Fundamental Concepts and Contrasts

Both the ontology and manner of human existence are of concern to Existentialism.

#### Ontic Structure of Human Existence

The fundamental characteristic of Existentialist ontology is the primacy that that study of the nature of existence gives to the concept of possibility. This priority dominated the philosophy of Kierkegaard and also was amply utilized by Husserl, who had explicitly affirmed the ontological priority of possibility over reality. Possibility, however, is not understood by the Existentialists in the purely logical sense as absence of contradiction nor in the sense of traditional metaphysics as potentiality destined to become actuality but, rather, in the sense of ontic or objective possibility, which is the very structure of human existence; it is thus the specific modality of man's being.

Another way of expressing this thesis is the affirmation of Heidegger and Sartre that “existence precedes essence,” which signifies that man does

not have a nature that determines his modes of being and acting but that, rather, these modes are simply possibilities from which he may choose and on the basis of which he can project himself. In this sense, Heidegger has said that “*Dasein* is always its own possibility,” and Sartre has written: “It is true that the possible is – so to speak – an option on being, and if it is true that the possible can come into the world only through a being which is its own possibility, this implies for human reality the necessity of being its being in the form of an option on its being.”

As possibility, human existence is the anticipation, the expectation, the projection of the future. The future is its fundamental temporal dimension, to which the present and the past are subordinate and secondary; existence is always stretched out toward the future. As possibility, existence is also transcendence, being beyond, because all of its constitutive possibilities organize it beyond itself toward the other beings of the world and toward the world in its totality. To transcend thus means to move toward something that is not one’s own existence; i.e., toward things and toward other men, with which man is related in every situation in which he finds himself.

Yet for some Existentialists, the being of these other entities has a modality that differs from the being of man’s existence: their existence is not possible being but real or factual being. To existence, Heidegger contrasts the presence of the things in the world – a presence that assumes, as man takes notice of these things for his needs, the aspect of utilizability. But utilizability is not a simple quality of things; it is their very being. Analogously, Sartre distinguishes the for-itself – the mode of being of man’s existence that he identifies, following Descartes and Husserl, with consciousness – from the in-itself, the being or reality of things that he identifies with their utilizability. According to Jaspers, over against the existence of the possible (man, *Dasein*)

stands the world as the infinite horizon that encompasses within itself each possible existence and, therefore, cannot itself be encompassed by any one of them. This is a world that is a reality of fact, at the origin of which there is a Being that is pure transcendence and that, therefore, never reveals itself.

Similarly, the religious forms of Existentialism insist on transcendence, considering it to be the property of the Being that is beyond the existential possibilities and that can enter among them solely under the form of mystery (Marcel) and of the extratemporal revelation of faith (Barth, Jaspers). Marcel, in this regard, has contrasted Being, which is a mystery, with having, which is the condition of man in the world; that is to say, man has objects before him that are foreign to his subjectivity. He tries to organize them and discover the bond that ties them together so as to control and use them.

In all of these doctrines, there is the dominating theme of the contrast between the modality proper to existence, which is possibility, and the modality proper to Being, which is reality or facticity. As a result of this contrast, existence (as possibility) appears as the nothingness of Being, as the negation of every reality of fact. In a brief but famous essay, *Was ist Metaphysik?* (1929), Heidegger affirmed that “Human existence cannot have a relationship with being unless it remains in the midst of nothingness.” Rudolf Carnap, a semanticist and leading Logical Positivist, in an equally famous essay, “Überwindung der Metaphysik durch die logische Analyse der Sprache” (1931; “The Elimination of Metaphysics Through Logical Analysis of Language”), criticized this hypostatization (or making real) of Nothingness as one of the grosser fallacies of metaphysics. In truth, Nothingness is, for the Existentialists, possible existence, as the negation of the reality of fact. Sartre has written: “The possible is the *something* which the For-itself lacks *in order*

to be itself”; it is what the subject lacks in order to be an object; thus it does not exist except as a lacking.

This is also true of value, which is such insofar as it does not exist. For even when value occurs or is perceived in certain acts, it lies beyond them and constitutes the limit or the goal toward which they aim. Analogously, knowledge, in which the object (the in-itself) presents itself to consciousness (the for-itself), is a relationship of nullification, because the object cannot be offered to consciousness except as that which is not consciousness. Furthermore, another existence is such insofar as it is not mine; thus this negation is “the constitutive structure of the being-of-others.”

But this reduction of existence to Nothingness can lead in two directions: it can lead to insisting on the lack of meaning – i.e., on the absurdity of existence and of every possible project – as it does in Sartre, in Camus, and in atheistic Existentialism; or it can lead toward the quest for a more direct relationship of existence with Being, beyond the constitutive possibilities of existence, so that Being reveals itself, at least partly, in existence – through language or through faith or through some mystical form of religiousness, as happens in the later phase of Heidegger’s thought, in Jaspers, and in all of the forms of theological Existentialism.

### Manner and Style of Human Existence

Existentialism is never a solipsism in the proper sense of the term (that I alone exist), because every existential possibility relates man to things and to other men. Sometimes it is presented as humanism in the sense that it places human destiny in the hands of men themselves. But this version is rejected by

all of the currents of the movement that, starting with Heidegger, insist on the priority and the initiative of Being with regard to human existence. The opposition between these two points of view depends on how the different Existentialists solve the problem of freedom.

Man always finds himself in a situation in which his constitutive possibilities are rooted. For Heidegger and Jaspers, this situation determines the choice that he makes among these possibilities; for Sartre, conversely, the situation is determined by the choice. Existentialism fluctuates in this way between the concept of a destiny in which, like Nietzsche's *amor fati*, man accepts what has already been chosen and the concept of a radical freedom whereby the choices are offered to man in an absolute indifference. From the first point of view, every project of life falls back on or is reduced to the situation from which it starts; thus the possibility of being, of acting, of willing, of choosing is really, as Jaspers points out in his *Philosophie* (1932), the impossibility of being, acting, willing, and choosing in a manner different from the way things are; i.e., from the factual conditions of the situation. From the second point of view, the fundamental project, which is the primordial choice, has no conditions; as Sartre says: "Since I am free, I project my total possible, but I thereby posit that I am free and that I can always nihilate this first project and make it past." From the first, or deterministic, point of view, the past determines the future and assimilates it to itself; from the second, or libertarian, point of view, the meaning of the past depends upon the present project. In the latter instance, freedom is a kind of damnation: as Sartre affirms: "We said that freedom is not free not to be free and that it is not free not to exist."

A choice, however, is offered to man even from the destinarian point of view: that between understanding and not understanding one's own



nothingness. According to Heidegger, a man achieves what he calls “authentic existence” when he understands the impossibility of all of the possibilities of existence – the impossibility of which the sign or term is death. Jaspers affirms, in his turn, that the only choice offered to man is that between accepting or rejecting the situation with which he is identified. The rejection of it, however, is a betrayal that plunges him back into the situation itself.

Existentialist ontology thus fluctuates between Being and Nothingness and concludes by regarding Nothingness as the only possible revelation of Being. In the atheistic version, it is man, as Sartre affirms, who “strives to be God” and consumes himself vainly in the effort. In the cosmological or theological version, it is Being that intervenes, in a way that is more or less mysterious or hidden, to redeem man from Nothingness.

### Problems of Existentialist Philosophy

The key problems for Existentialism are those of man himself, of his situation in the world, and of his more ultimate significance.

### Man and Human Relationships

Existentialist anthropology is strictly connected with its ontology. The traditional distinction between soul and body is completely eliminated; thus the body is a lived-through experience that is an integral part of man’s existence in its relationship with the world. According to Sartre, “In each project of the For-itself, in each perception the body is there; it is the immediate Past in so far as it still touches on the Present which flees it.” As

such, however, the body is not reduced to a datum of consciousness, to subjective representation. Consciousness, according to Sartre, is constant openness toward the world, a transcendent relationship with other beings and thereby with the in-itself. Consciousness is existence itself, or, as Jaspers says, it is “the manifestation of being.” In order to avoid any subjectivistic equivocation, Heidegger went so far as to renounce the use of the term consciousness, preferring the term *Dasein*, which is more appropriate for designating human reality in its totality. For the same reasons, the traditional opposition between subject and object, or between the self and the nonself, loses all sense. *Dasein* is always particular and individual. It is always a self; but it is also always a project of the world that includes the self, determining or conditioning its modes of being.

All of these modes of being thus arise, as Heidegger shows in his masterpiece *Sein und Zeit* (1927; *Being and Time*, 1962), from the relationship between the self and the world. Heidegger has regarded concern (in the Latin sense of the term) to be the fundamental aspect of this relationship, insofar as it is man’s concern to obtain the things that are necessary for him and even to transform them with his work as well as to exchange them so as to make them more suitable to his needs. Concern demonstrates that man is “thrown into the world,” into the midst of other beings, so that in order to project himself he must exist among them and utilize them. Being thrown means, for man, being abandoned to the whirling flow of things in the world and to their determinism.

This happens inevitably, according to Heidegger, in inauthentic existence – day-to-day and anonymous existence in which all behavior is reduced to the same level, made “official,” conventional, and insignificant. Chatter, idle curiosity, and equivocation are the characteristics of this

existence, in which “One says this” and “One does that” reign undisputed. Anonymous existence amounts to a simple “being together” with others, not a true coexistence, which is obtained only through the acceptance of a common destiny.

All of the Existentialists are in agreement on the difficulty of communication; i.e., of well-grounded intersubjective relationships. Jaspers has perhaps been the one to insist most on the relationship between truth and communication. Truths are and can be different from existence. But if fanaticism and dogmatism (which absolutize a historical truth) are avoided on the one hand while relativism and scepticism (which affirm the equivalence of all truths) are avoided on the other, then the only other way is a constant confrontation between the different truths through an always more extended and deepened intersubjective communication.

Sartre, however, denies that there is authentic communication. According to him, consciousness is not only the nullification of things but also the nullification of the other person as other. To look at another person is to make of him a thing. This is the profound meaning of the myth of Medusa. Sexuality itself, which Sartre holds to be an essential aspect of existence, fluctuates between sadism and masochism, in which either the other person or oneself is merely a thing. On this basis, the intersubjective relationship is obviously impossible.

### The Human Situation in the World

Heidegger has pointed to the foundation of the intersubjective relationship in dread. When a man decides to escape from the banality of

anonymous existence – which hides the nothingness of existence, or the nonreality of its possibilities, behind the mask of daily concerns – his understanding of this nothingness leads him to choose the only unconditioned and insurmountable possibility that belongs to him: death. The possibility of death, unlike the possibilities that relate him to other things and to other men, isolates him. It is a certain possibility, not through its apodictic evidence but because it continuously weighs upon existence. To understand this possibility means to decide for it, to acknowledge “the possibility of the impossibility of any existence at all” and to live for death. The emotive tonality that accompanies this understanding is dread, through which man feels himself to be “*face to face* with the ‘nothing’ of the possible impossibility of [his] existence.”

But neither the understanding of death nor its emotive accompaniment opens up a specific task for man, a way to transform his own situation in the world. They enable him only to perceive the common destiny to which all men are subject; and they offer to him, therefore, the possibility of remaining faithful to this destiny and of freely accepting the necessity that all men share in common. In this fidelity consists the historicity of existence, which is the repetition of tradition, the return to the possibilities from which existence had earlier been constituted, the wanting for the future what has been in the past. And in this historicity participate not only man but all of the things of the world, in their utilizability and instrumentality, and even the totality of Nature as the locus of history.

Dread, therefore, is not fear in the face of a specific danger. It is rather the emotive understanding of the nullity of the possible, or, as Jaspers says, of the possibility of Nothingness. It has, therefore, a therapeutic function in that it leads human existence to its authenticity. From the fall into factuality into

which every project plunges him, man can save himself only by projecting not to project; i.e., either by abandoning himself decisively to the situation in which he finds himself or by being indifferent to any possible project – with regard to which Sartre says, “Thus it amounts to the same thing whether one gets drunk alone or is a leader of nations.”

The pivotal point of that conclusion – the conclusion most widely held among the Existentialists and the one in fact often identified with Existentialism – is the antithesis between possibility and reality. On the one hand, existence is interpreted in terms of possibilities that are not purely logical possibilities or manifestations of a man’s ignorance of what exists but are, rather, effective, or ontic, possibilities that constitute man as such; on the other hand, contrasted to possibilities in this sense is a reality, a for-itself, a world, a transcendence that is a factual presence, insurmountable and oppressive, with respect to which possibility is a pure Nothingness. The contradiction to which this antithesis leads becomes clear when the same reality is interpreted in terms of possibility: when the being of things, for example, is reduced to their possibility of being utilized; when the being of other men is reduced to the possibility of anonymous or personal relationships that the individual can have with them; and when the being of transcendence, or of God, is reduced to the possibility of the relationship, although ineffable and mysterious, between transcendence, or God, and man.

It has been said that a coherent Existentialism should avoid the constant mortal leap between Being and Nothingness; should not confuse the problematic character of existence with the fall into factuality; should not confuse the finitude of possibilities with resignation to the situation, choice with determinism; freedom conditioned by the limits of the situation with the acknowledgment of the omnipresent necessity of the Whole. In this inquiry, it

is held, Existentialism could well benefit from a more attentive consideration of science, which it has viewed until now only as a preparatory, imperfect, and objectifying knowledge in comparison with the authentic understanding of Being, which it considers to be a more fundamental mode of the being of man in the world. Science, it is submitted, offers today the example of an extensive and coherent use of the concept of the possible in the key notions that it employs, especially in those branches that are interdisciplinary – among them such notions as indeterminacy, chance, probability, field, model, project, structure, and conditionality.

Some steps in this direction have been taken by Abbagnano and by Merleau-Ponty. According to the latter, considerations of probability are rooted in the being of man, inasmuch as he is situated in the world and invested with the ambiguity of his events. Merleau-Ponty has written in his *Phénoménologie de la perception* (1945):

Our freedom does not destroy our situation, but is engaged with it. The situation in which we live is open. This implies both that it appeals to modes of privileged resolution and that it is of itself powerless to obtain one of them.

From this point of view, there is always a certain freedom in situations, although its degree varies from situation to situation.

### Significance of Being and Transcendence

Among the thinkers most frequently mentioned here, the concept of the necessity of Being prevails as the basis of their metaphysical or theological orientations. Heidegger has come more and more to insist on the massive

presence of Being in the face of human existence, by attributing to Being all initiative and to man only the possibility of abandoning himself to Being and to the things that are the modes of the language of Being. For Heidegger, Being is interpreted better through the etymology of those words that designate the most common things of daily life than through the analysis of existential possibilities. Jaspers has seen the revelation of transcendence in ciphers – i.e., in persons, doctrines, or poems – all of which can be interpreted as symbols of existential situations and above all of limit situations, the insurmountability of which, in provoking the total “shipwreck” of human possibilities, makes man feel the presence of absolute transcendence. In a less philosophically elaborate form, Being has been understood as mystery by Marcel; as the perfect actuality that guarantees the existential possibilities by Louis Lavelle, a leader of the French *philosophie de l'esprit*; and as the absolute value that man encounters in his own spiritual intimacy by René Le Senne, also of the *philosophie de l'esprit*.

### Problems of Existentialist Theology

Existentialism has a theological dimension. Though Heidegger rejects the label of atheist, he also denies to the Being of which he speaks the essential qualifications of divinity, inasmuch as it is not the ultimate cause and the Good. But Jaspers, in his last writings, emphasized more and more the religious character of faith in transcendence. Faith is the way to withdraw from the world and to resume contact with the Being that is beyond the world. Faith is life itself, in that it returns to the encompassing Whole and allows itself to be guided and fulfilled by it. Jaspers has even developed a theology of history. He speaks of an axial age, which he places between the 8th and 2nd

centuries before Christ, the age in which the great religions and the great philosophers of the Orient arose – Confucius and Lao-tzu, the *Upanisads*, Buddha, Zoroaster, the great prophets of Israel – and in Greece the age of Homer and of classical philosophy as well as Thucydides and Archimedes. In this age, for the first time, man became aware of Being in general, of himself, and of his limits. The age in which man now lives, that of science and technology, is perhaps the beginning of a new axial age that is the authentic destiny of man but a destiny that is far off and unimaginable.

For Bultmann, the theologian of the demythologization of Christianity, inauthentic existence is tied to the past, to fact, to the world, while authentic existence is open to the future, to the nonfact, to the nonworld; i.e., to the end of the world and to God. Thus, authentic existence is not the self-projection of man in the world but, rather, the self-projection of man in the love of and obedience to God. But this self-projection is no longer the work of human freedom; it is the saving event that enters miraculously through faith into the future possibilities of man.

In these theological speculations and in others that are comparable, the common presupposition of the Existentialists is recognized – i.e., the gap between human existence and Being. There is either an acknowledgment of that gap, with existence assuming the role of the demonic (the alternative that Sartre and others have all illustrated above all in their literary works), or an acknowledgment of the hidden participation of human existence in Being through a gratuitous initiative on the part of Being.

Kierkegaard had earlier distinguished three stages of existence between which there is neither development nor continuity but gaps and jumps: the aesthetic stage is the one in which one lives for the pleasure of the moment;



the ethical stage is the one based on the stability and continuity of life in work and in matrimony; and the religious stage is the one characterized by faith, which is always a “dreadful certainty” – i.e., a dread that becomes certain of a hidden relationship with God.

The ethical and religious stages correspond roughly to what Heidegger and Jaspers call, respectively, the inauthenticity and the authenticity of existence. Art is not as a rule recognized by contemporary Existentialists as an autonomous stage; it is almost always for them an essential manifestation of existence itself. For Jaspers, it is a mode of reading in nature, in history, and in men the cipher of transcendence; i.e., the negative symbol in which transcendence is revealed. According to Camus, it is an aspect of man’s revolt against the world. The artist tries to remake the sketch of the world that is before him and to give it the style – that is to say, the coherence and unity – that it lacks. For this purpose, he selects the elements of the world and freely combines them in order to create a value that escapes man continuously but that the artist perceives and tries to salvage from the flux of history.

From this point of view, art would be a way of reshaping the world beyond its factual forms, in order that it might show their negative and troublesome characteristics. The directions of contemporary art that have deliberately forsaken the imitation of reality find their justification in this point of view.

### Social and Historical Projections of Existentialism

The metaphysical or theological dimension of Existentialism does not leave man with nothing to do. Once the nullity of the existential possibilities is

recognized, man cannot but resign himself to Being, which, in one of its new manifestations in the world or beyond it, conducts him to a new epoch. Even someone like José Ortega y Gasset, the leading Spanish Existentialist and writer, who, in examining the social aspects of existence, has characterized the present epoch by the advent of the masses and the socialization of man, has halted at the recognition of the crisis and the total uncertainty that dominates the future of man (*La rebelión de las masas* [1929; *The Revolt of the Masses*, 1932]).

On the other hand, humanistic Existentialism has recognized the positive and the to-some-degree determining function that man may have in history. It has insisted, as in Merleau-Ponty, on man's duty to assume the responsibility of an effective action for the transformation of society and, in general, of the world that he inhabits.

Along this line of assuming responsibility, Existentialism has moved toward Marxism, with which it shares the diagnoses of existence as the primordial and ineradicable relationship of man with nature and with society. In the *Critique de la raison dialectique* (1960; "Critique of Dialectical Reason"). Sartre attempted a synthesis between Existentialism and Marxism by modifying the notion of "project" that he defended in *L'Être et le néant* and by utilizing the notion of dialectic as understood by Marx. The project of which existence consists is not the result of an arbitrary choice (as Sartre had previously maintained); it is, instead, that of a conditioning by the objective possibilities that Sartre identifies (as does Marx) with "the material conditions of existence." The project remains, however, that of the particular individual of a unique consciousness – but of a consciousness that tries to become totalized; i.e., to enter into relationship with others so as to constitute, with others, human groups that are more and more comprehensive. In this manner

it tends toward a complete and definitive totalization without appeals. Dialectical reason would be precisely such a process of growing totalization; and it becomes, moreover, the true protagonist of history and becomes that with which the interior freedom of any individuals who participate in history is identified.

From the defense of the freedom of the individual, Sartre has thus moved to the defense of the absolute dialectical necessity of history despite its being interiorized and lived by individuals. A historical project of human life that tries to remove the characteristics of inauthenticity or of alienation from existence – a project that may bring Existentialism and Marxism close together – thus ends by losing, in this form, its risky and problematic character and the awareness of the conditions and the modalities of its realization. These features are also lost in the “transcendental project” of a new society elaborated by one of the leaders of the New Left, the German-born American Herbert Marcuse. While insisting on the requirement that the “transcendental project” be “in accord with the real possibilities open at the attained level of the material and intellectual culture,” Marcuse entrusts its realization to an impersonal and contemplative Reason, which cannot but invite the “great refusal” of contemporary society.

Having developed in different and contrasting directions, Existentialism has furnished philosophy and the whole of contemporary culture with conceptual tools, of which the nature and techniques of employment have still not been clarified – as, for example, terms like “problematicity,” “chance,” “condition,” “choice,” “freedom,” and “project.” Although these tools can be employed usefully for the interpretation of existence – i.e., to orient philosophical inquiry in the fields of epistemology, ethics, aesthetics, education, and politics – it is nonetheless indispensable that the pivot on

which they turn, “possibility,” be granted its own ontological status that does not reduce it either to Nothingness or to Being. It is indispensable, moreover, that a positive datum be perceived in possibility, a datum that is verifiable with appropriate techniques and that, while not offering infallible guarantees, allows man to project and to act in the world with calculated risks and with a prudent trust.

### Idealism

As a philosophical term, Idealism refers to any view that stresses the central role of the ideal or the spiritual in man’s interpretation of experience. It may hold that the world or reality exists essentially as spirit or consciousness, that abstractions and laws are more fundamental in reality than sensory things, or, at least, that whatever exists is known to man in dimensions that are chiefly mental – through and as ideas. Thus the two basic forms of Idealism are metaphysical Idealism, which asserts the ideality of reality, and epistemological Idealism, which holds that in the knowledge process the mind can grasp only the psychic or that its objects are conditioned by their perceptibility. In its metaphysics, Idealism is thus directly opposed to Materialism, the view that the basic substance of the world is matter and that it is known primarily through and as material forms and processes; and in its epistemology, it is opposed to Realism, which holds that in human knowledge objects are grasped and seen as they really are – in their existence outside and independently of the mind. As a philosophy often expressed in bold and expansive syntheses, Idealism is also opposed to various restrictive forms of thought: to Scepticism, with occasional exceptions as in the British Hegelian F.H. Bradley (1846-1924); to Positivism, which stresses observable facts and

relations as opposed to ultimates and therefore spurns the speculative “pretensions” of every metaphysic; and often to atheism, since the Idealist commonly extrapolates the concept of mind to embrace an infinite Mind. The essential orientation of Idealism can be sensed through some of its typical tenets: “Truth is the whole, or the Absolute”; “to be is to be perceived”; “reality reveals its ultimate nature more faithfully in its highest qualities (mental) than in its lowest (material)”; “the Ego is both subject and object.”

### Approaches to Understanding Idealism

What Idealism is may be clarified by approaching it in three ways: through its basic doctrines and principles, through its central questions and answers, and through its significant arguments.

### Basic Doctrines and Principles

Six common, basic conceptions distinguish Idealistic philosophy:

#### 1. The Union of Individuality and Universality

Abstract universals, such as “canineness,” which express the common nature or essence that the members of a class (e.g., individual dogs or wolves) share with one another, are acknowledged by all philosophers. Many Idealists, however, emphasize the concept of a concrete universal, one that is also a concrete reality, such as “mankind” or “literature,” which can be imagined as gatherable into one specific thing. As opposed to the fixed, formal, abstract

universal, the concrete universal is essentially dynamic, organic, and developing. Thus universality and individuality merge.

## 2. The Contrast Between Contemporaneity and Eternity

While most philosophers tend to focus on matters of contemporary concern, Idealists always seek a much wider perspective that embraces epochs and eras in the broad sweep of history. In the words of the 17th-century Rationalist Spinoza, they strive to view the contemporary world “under the aspect of eternity.” Thus, in spite of the extensive formative influence of culture, Idealists claim that their philosophy transcends the parochialism of a particular culture; and Idealisms are found, in fact, in all of the major cultures of the world.

## 3. The Doctrine of Internal Relations and the Coherence Theory of Truth

It seems natural to suppose, as non-Idealists usually do, that the consideration of two things in their relatedness to one another can have no effect on the things themselves – i.e., that a relation is something in addition to the things or terms related and is thus external. On this basis, truth would be defined as a relation of correspondence between a proposition and a state of affairs. The Idealist believes, however, that reality is more subtle than this. The relationship between a mineral deposit and the business cycle, for example, is an internal one: the deposit changes to an ore when prices render it profitable to mine the mineral. Similarly, it is part of the essence of a brick that it is related to a wall or pavement. Thus terms and relations logically

determine one another. Ultimate reality is therefore a system of judgments or propositions, and truth is defined in terms of the coherence of these propositions with one another to form a harmonious whole. Thus a successful spy is judged either a hero or a villain only in relation to a total system of international relations, an accepted philosophy of history, and the moral judgments involved. There are therefore degrees of reality and degrees of truth within a system of truth cohering by internal relations, and the truth of a judgment reflects its place in this system.

#### 4. The Dialectical Method

Idealism seeks to overcome contradictions by penetrating into the overall coherent system of truth and continually creating new knowledge to be integrated with earlier discoveries. Idealism is thus friendly to all quests for truth, whether in the natural or behavioral sciences or in art, religion, and philosophy. It seeks the truth in every positive judgment and in its contradictory as well. Thus it uses the dialectical method of reasoning to remove the contradictions characteristic of human knowledge. Such removal leads to a new synthetic judgment that incorporates in a higher truth the degree of truth that was present in each of the two lower judgments.

#### 5. The Centrality of Mind in Knowledge and Being

Idealism is not reductive, as are opposing philosophies that identify mind with matter and reduce the higher level of reality to the protons and electrons of mathematical physics. On the contrary, Idealism defends the

principle that the lower is explained by the higher – specifically, that matter can be explained by mind but that mind cannot be explained by matter. The word spirit can be substituted for “mind” or even placed above it; and “Spiritualism” is often used, especially in Europe, as a synonym for Idealism.

#### 6. The Transmutation of Evil Into Good

Nearly all Idealists accept the principle that the evils with which man has to deal may become ingredients in a larger whole that overcomes them. The eminent American Hegelian Josiah Royce (1855-1916) held that the larger whole is the Absolute Mind, which keeps evils under control as a man might hold a viper under the sole of his boot. Along with this doctrine of the sublimation or transmutation of evil, Royce incorporated into his metaphysics a point from the 19th-century irrationalism of Schopenhauer, itself a voluntaristic form of Idealism, viz., that “the world is my idea.” Schopenhauer, however, was probably the only Idealist who defended the converse principle that good is transmuted into evil.

#### Basic Questions and Answers

In defining philosophical Idealism in its historical development as a technical metaphysical doctrine, three most difficult and irreducible questions arise. From the efforts to answer these questions there has been created an extensive literature that is the corpus of philosophical Idealism.



## Ultimate Reality

The first of the three questions is metaphysical: What is the ultimate reality that is given in human experience? Historically, answers to this question have fallen between two extremes. On the one hand is the Scepticism of the 18th-century Empiricist David Hume, who held that the ultimate reality given in experience is the moment by moment flow of events in the consciousness of each individual. This concept compresses all of reality into a solipsistic specious present – the momentary sense experience of one isolated percipient. At the other extreme, followers of the 17th-century Rationalist Spinoza adopted his definition of ultimate substance as that which can exist and can be conceived only by itself. According to the first principle of his system of pantheistic Idealism, God, or Nature, or Substance is the ultimate reality given in human experience. Hegel said that this dogmatic absolutism was the lion's den into which all tracks enter and from which none ever returns. In answering the first question, most philosophical Idealists steer between Hume and Spinoza and in so doing create a number of types of Idealism, which will be discussed below.

## The Given

The second question to arise in defining Idealism is: What is given? What results can be obtained from a logical interpretation and elaboration of the given? According to Idealists the result, though it is frequently something external to individual experience, is, nevertheless, a concrete universal, an order system (like the invisible lattice structure of a crystal), or an ideality in the sense explained earlier. In Hegel's words: "What is real is rational, and

what is rational is real.” Idealists believe that the collective human spirit of intellectual inquiry has discovered innumerable order systems that are present in external, nonhuman reality, or nature, and that this collective creative intelligence has produced the various sciences and disciplines. This production has required a long period of time called history. But history was antedated by the achievements of ancestors who created languages and religions and other primitive institutions. Consequently, the logical interpretation and elaboration of the given is actually the complete transformation of the earth by its various inhabitants; so that the moon flights portend a similar transformation of the planetary system. An inherent part of the collective intelligence is the spiritual force that Idealists call the spirit of philosophy.

### Change

The third question is: What position or attitude is a thinker to take toward temporal becoming and change, and toward the presence of ends and values within the given? According to Idealists, reason not only discovers a coherent order in nature but also creates the state and other cultural institutions, which together constitute the cultural order of a civilized society. Idealistic political philosophers recognize the primacy of this cultural order over the private order or family and over the public order – the governing agencies and economic institutions. The conservation and enhancement of the values of all three orders is the basic moral objective of every civilized people. A useful distinction drawn by the German philosopher Ernst Cassirer (1874-1946), a member of the late 19th- and 20th-century Marburg school of Neo-Kantianism, between the efficient energies and the formative energies of a

people emphasizes the way in which these moral forces function: the efficient energies are the conserving, and the formative are the creative forces in society. It is on the basis of this distinction that Idealists have made a contribution to international ethics, which charges that no nation has a right to use its efficient energies to exercise power over another civilized people except to further the formative energies of that people, to enrich their cultural order. Ethically, then, there can be no power over without power for; economic exploitation is wrong.

Modern Idealists have also created an Idealistic philosophy of history. An eminent early 20th-century Italian Idealist, Benedetto Croce (1866-1952), expressed it in the formula “every true history is contemporary history”; and at the same time in France a subjective Idealist, Léon Brunschvicg (1869-1944), agreed. There are close relations between the philosophy of history and the philosophy of values.

### Basic Arguments

Idealists delight in arguments. They agree with Socrates and Plato in thinking that every philosopher should follow the argument wherever it leads, and, like them, they believe that it will eventually lead to some type of Idealism. Four basic arguments found in the literature of Idealism may be briefly summarized.

*The esse est percipi (to be is to be perceived) argument of Berkeley.*

According to this argument all of the qualities attributed to objects are sense qualities. Thus hardness is the sensing of a resistance to a striking action, and

heaviness is a sensation of muscular effort when holding the object in one's hand, just as blueness is a quality of visual experience. But these qualities exist only while they are being perceived by some subject or spirit equipped with sense organs. A classical 18th-century British Empiricist, George Berkeley (1685-1753), rejected the idea that sense perceptions are caused by material substance, the existence of which he denied. Intuitively he grasped the truth that "to be is to be perceived." The argument is a simple one, but it has provoked an extensive and complicated literature, and to some contemporary Idealists it seems irrefutable.

#### The Reciprocity Argument

Closely related to the *esse est percipi* argument is the contention that subject and object are reciprocally dependent upon each other. It is impossible to conceive of a subject without an object, since the essential meaning of being a subject is being aware of an object and that of being an object is being an object to a subject, this relation being absolutely and universally reciprocal. Consequently, every complete reality is always a unity of subject and object – i.e., an immaterial ideality, a concrete universal.

#### The Mystical Argument

In the third argument, the Idealist holds that in man's most immediate experience, that of his own subjective awareness, the intuitive self can achieve a direct apprehension of ultimate reality, which reveals it to be spiritual. Thus the mystic bypasses normal cognition, feeling that, for metaphysical probings,

the elaborate processes of mediation interposed between sense objects and their perceptions reduces its reliability as compared to the direct grasp of intuition.

It is significant that the claims of this argument have been made by numerous thinkers, in varying degrees Idealistic and mystical, living in different periods and in different cultures. In ancient Greece, for example, it was made by Plato, to whom the final leap to the Idea of the Good was mystical in nature. In Indian Hindu Vedānta philosophy it was made by the 9th-century monistic theologian Shāṅkara, by the 12th-century dualistic Brahmin theist Ramaṅuja, and by the recent philosopher-president of India Sarvepalli Radhakrishnan. In Buddhism the claims were made by the sometimes mystical, extreme subjectivism of the Vijñānavāda school of Mahāyāna (represented by Ashvaghosa in the 1st and Asaṅga in the 4th century) and in China by the Ch'an school and by the 7th-century scholar Hui-neng, author of its basic classic *The Platform Scripture*. In Islamic lands it was made by Sufis (mystics) – in particular, by the 13th-century Persian writer Jalāl ad-Dīn ar-Rūmī. And in the recent West it was made by several distinguished Idealists: in Germany, by the seminal modern theologian Friedrich Schleiermacher (1768-1834); in France, by the evolutionary intuitionist Henri Bergson (1859-1941), by the philosopher of action Maurice Blondel (1861-1949), and by the Jewish religious Existentialist Martin Buber (1878-1965); and in English-speaking countries, by the Scottish metaphysician James Frederick Ferrier (1808-64) and the American Hegelian William E. Hocking (1873-1966).

## The Ontological Argument

This famous argument originated as a proof of the existence of God. It came to the 11th-century Augustinian, St. Anselm of Canterbury, as an intuitive insight from his personal religious experience that a being conceived to be perfect must necessarily exist, for otherwise he would lack one of the essentials of perfection. God's perfection requires his existence. Some Idealist philosophers have generalized the argument to prove Idealism. They distinguish conceptual essences that exist only in the intellect from categorial essences that actually exist *in re* (in the thing). Every actual reality, therefore, is a unity of one or more categorial essences and existence; and again, this means that it is an immaterial ideality or concrete universal. According to Hegel "the ideality of the finite" is "the main principle of philosophy."

## Types of Philosophical Idealism

Several types of Idealism have already been distinguished. Some modern types should now be mentioned, classified first by cultures and then by branches of philosophy.

## Types Classed by Culture

Cultural differences suggest a division into Western and Oriental Idealisms.

## Western Types

Berkeley's Idealism is called subjective Idealism because he reduced reality to spirits (his name for subjects) and the ideas entertained by spirits. In Berkeley's philosophy the apparent objectivity of the world outside the self was accommodated to his subjectivism by claiming that its objects are ideas in the mind of God. The foundation for a series of more objective Idealisms was laid in the late 18th century by Immanuel Kant, whose epochal work *Kritik der reinen Vernunft* (2nd ed., 1787; *Critique of Pure Reason*, 1929) presented a formalistic or transcendental Idealism, so named because Kant thought that the human self, or "transcendental ego," constructs knowledge out of sense impressions, upon which are imposed certain universal concepts that he called categories. Three systems constructed in the early 19th century by, respectively, the moral Idealist J.G. Fichte, the aesthetic Idealist F.W.J. Schelling, and the dialectical Idealist G.W.F. Hegel, all on a foundation laid by Kant, are called objective Idealisms in contrast to Berkeley's subjective Idealism. The designations, however, are not consistent; and when the contrast with Berkeley is not at issue, Fichte himself is often called a subjective Idealist, inasmuch as he exalted the subject above the object, employing the term Ego to mean God in the two memorable propositions: "The Ego posits itself" and "The Ego posits the non-Ego (or nature)." And in contrast now to the subjective Idealism of Fichte, Schelling's is called an objective Idealism and Hegel's an absolute Idealism.

All of these terms form backgrounds for contemporary Western Idealisms, most of which are based either on Kant's transcendental Idealism or on those of Fichte, Schelling, and Hegel. Exceptions are those based on other great Idealists of the past – Plato, Plotinus, Spinoza, Leibniz, and others. A revised form of Spinoza's spiritual monism, for example, which held that

reality is one Substance to be identified with God, has been formulated by the Idealist logician H.H. Joachim (1868-1938), a follower of the British Hegelian F.H. Bradley.

Unwilling to accept any of the above titles, one school of modern Idealists adopted the motto “Back to Kant” and are thus called Kantian Idealists. Edward Caird (1835-1908), who imported German Idealism into England, and the German philosopher of “As If,” Hans Vaihinger (1852-1933), who held that much of man’s so-called knowledge reduces to pragmatic fictions, were Kantian Idealists or transcendentalists. On this tradition are based the Idealism of the austere religious essayist Thomas Carlyle (1795-1881) in *Sartor Resartus* (1833-34) and the New England transcendentalism of Ralph Waldo Emerson (1803-82). It must be stated, however, that Kant preferred the name critical Idealism to that of transcendental Idealism.

Another group of Idealists, adopting the motto “From Kant forward,” founded the so-called Marburg school of Neo-Kantian, or scientific, Idealism. They rejected the Idealisms of Fichte, Schelling, and Hegel and the classical Newtonian dynamics presupposed by Kant and built instead upon the new quantum and relativity theories of modern physics. Founded by Hermann Cohen (1842-1918), champion of a new interpretation of Kant, and his colleague, the Platonic scholar Paul Natorp (1854-1924), who applied Kant’s critical method to humanistic as well as to scientific studies, this school underwent a remarkable development, especially under the leadership of Ernst Cassirer, noted for his profound analyses of man defined as that animal that creates culture through a unique capacity for symbolic representation. The Russian novelist Boris Pasternak, in his *Autobiography*, tells of enrolling in Cohen’s graduate seminar on Kant at the University of Marburg. Undoubtedly



this type of Idealism continues to wield considerable influence on intellectuals in Soviet Russia.

Theistic Idealism was founded by the medical instructor R.H. Lotze (1817-81), who became a broadly learned metaphysician and whose theory of the world ground, in which all things find their unity, has been widely accepted by theistic philosophers and Protestant theologians. To Lotze, the world ground is the transcendent synthesis of an evolutionary world process, which is both mechanical and teleological (purposive); it is an infinite spiritual being, or God. In England, the absolute Idealism of T.H. Green (1836-82), a philosopher influenced chiefly by Plato and Kant, was shared by his disciple, the more Hegelian thinker Bernard Bosanquet (1848-1923), whose views are based upon Lotze's Idealism, and by the somewhat sceptical metaphysician of the movement, F.H. Bradley (1846-1924).

Theistic absolutism is represented by a pioneer of contemporary philosophical theology, F.R. Tennant (1866-1957), and by the eminent German-American theologian Paul Tillich (1886-1956). It differs from the personalistic form of absolute Idealism in accepting the traditional theological monotheism that is essential to the Jewish, Christian, and Islamic religions. It revives classic arguments for the existence of God that were rejected by Kant and uses recent advances in the physical, biological, and behavioral sciences to support these revisions. The cosmological argument, for example, is restated as the continuing relation of the cosmos to a world ground that is spiritual in essence; thus the concept of God as a first cause is rejected. The concept of the fitness of the environment to life and to human history and other recent scientific concepts are used to modernize the teleological argument. Nevertheless, all of this revision is kept within the framework of Idealistic metaphysics and epistemology. A theistic spiritual pluralism, which

interprets reality in terms of a multitude of interacting psychic monads (elementary units), was developed by the English philosopher James Ward (1843-1925). On the other hand, an atheistic spiritual pluralism, which holds that reality consists entirely of individual minds and their contents, was espoused by the Cambridge Hegelian J.M. Ellis McTaggart (1866-1925).

During the late 19th century a movement known as American Hegelian Idealism arose in the United States. The movement found vigorous early expression in the work of W.T. Harris (1835-1909), central figure in a midwestern group of scholars known as the St. Louis school and editor of its *Journal of Speculative Philosophy*, and finds current expression in the recently organized Hegel Society of America. In its later development, American Idealism split into two branches: one, of the aforementioned Bradley-Bosanquet type, and a second, of the Royce-Hocking type, so called because it was founded by one of America's most distinguished philosophers, the absolute Idealist and personal pantheist Josiah Royce (1855-1916), and developed by his disciple W.E. Hocking (1873-1966). The American philosopher of religion Borden Parker Bowne (1847-1910) founded another important American school, that of Personalism, a Kantian- and Lotzean-based variety of theistic Idealism similar to the spiritual pluralism of Ward. Whereas most previous Idealisms had stressed the rational as the highest category of reality and hence as its paradigm, Personalism saw in the centred structures of personhood, both finite and infinite, an even higher category, displaying dimensions richer than the rational alone. Personalism has had an influential development in America, most notably through the Methodist philosopher E.S. Brightman (1884-1953), known for his defense of the doctrine of a finite God, and through *The Personalist*, edited by one of Bowne's disciples, R.T. Flewelling (1871-1960). Personalism is also found in

the French philosopher C.B. Renouvier (1815-1903) and in several Latin American philosophers.

To the above types should be added the vitalism or creative evolutionism of the French anti-intellectualist Henri Bergson (1859-1941), which first found in the apprehension of subjective time a more valid insight into reality than in that of an objective space-time order and then, extending this metaphysics to the cosmic level, discerned there an Idealistic *élan vital* (or vital impetus) that is more fundamental than matter, which subsequently appeared in the role of a husk born of the mechanization of the *élan*. In this same tradition, the voluntarism of Maurice Blondel (1861-1949), a unique theory of belief in God as a live option that must be deliberately willed by the self before it can be found to be true in experience, is an important contribution to Idealistic philosophy. Miguel de Unamuno y Jugo (1864-1936), a Spanish philosopher, developed a unique type of Idealism, more literary than philosophical. He stressed the significance of each individual and argued for personal immortality.

#### Eastern Types

For centuries, philosophical Idealism has dominated the philosophy of India. An Idealism that is quite influential in Japan is that of Nishida Kitaro, a distinguished Berlin-trained philosopher. Prior to World War II, Kitaro created a system of absolute Idealism that employed the dialectical method of Hegel to clarify the Zen Buddhist doctrine of nothingness, which, in his view, is that of which all phenomenal existences are determinations and in which they all appear.

Some classical types of Indian and Chinese Idealism were considered above. A number of gifted Indian and Chinese scholars have restated and revitalized the principles and arguments of classic Oriental Idealisms in an extensive literature.

Probably the major recent proponent of Indian Idealism has been Radhakrishnan, who has spent a long lifetime expounding and defending its mystical types and has presented authoritative analyses of all of its classical systems. He saw his modernized Idealism as destined to save civilization from exploitation by Western commercial technology. Surendranath Dasgupta, an outstanding Sanskrit and Pali scholar, in a monumental work, has revived the classic systems of Indian Idealism, concluding that "Idealism has not only been one of the most dominant phases of Indian thought in metaphysics, epistemology, and dialectics, but it has also very largely influenced the growth of the Indian ideal as a whole." Ghose Aurobindo, reinterpreting the Indian Idealistic heritage in the light of his own Western education, rejected the *maya* doctrine of illusion, replacing it with the concept of evolution. Arguing that the "illumination of individuals will lead to the emergence of a divine community," Aurobindo founded the influential Pondicherry Ashram, a religious and philosophical community, and headed it until his death. Late in the 19th century, Swami Vivekananda, a spiritual monist, promulgated the Idealistic philosophy of mystical Brahmanism in lectures on the Vedanta delivered and published widely.

The inwardness of subjectivity of Indian Idealism has been contrasted with the outwardness of Western objective Idealism, and a synthesis of the two has been advocated in comparative studies made by P.T. Raju, an Indian philosopher who has taught both in Indian universities and in the U.S.

Prior to World War II, Sir Rabindranath Tagore, a distinguished Hindu Idealist poet and Nobel laureate, contributed to what Dasgupta has called the “Indian ideal as a whole.” A selection from Tagore’s aphorisms will convey its spirit:

*Let your life lightly dance on the edges of Time like dew on the tip of a leaf.*

*Our little heaven, where dwell only two immortals, is too absurdly narrow.*

*Is it then true that the mystery of the Infinite is written on this little forehead of mine?*

*Where is this hope for union except in thee my God?*

*Raise my veil and look at my face proudly, O Death, my Death.*

*All is done and finished in the eternal Heaven. But Earth’s flowers of illusion are kept externally fresh by death.*

*If my claims to immortal fame after death are shattered, make me immortal while I live.*

*This I know that the moment my God has created me he has made himself mine.*

In addition to the Ch’an and Hui-neng schools mentioned above, three other notable Idealistic schools have flourished in China. Representing one wing of the Neo-Confucian movement of the 11th and 12th centuries, Ch’eng Hao and his disciple, the rationalist Chu Hsi, developed a dualistic philosophy that has been compared to Cartesianism. In this view, however, reason takes precedence over matter and the two together are the primary cause of the universe or the absolute; thus this view is essentially Idealistic. At the turn of the 15th century, a more purely Idealistic school arose – forming the other

wing of Neo-Confucianism – under the leadership of Wang Yang-ming, who, having had an inner experience of enlightenment, sought to understand the cosmos within his own mind and heart. The third school is that of the 20th-century Idealist Hsung Shih-li, who, borrowing to some extent from Wang Yang-ming, proclaimed a “new doctrine of consciousness only,” of which the basic ideas are the unity of substance and function and the primacy of the original Mind. To Hsung Shih-li, reality and all of its manifestations are one, and the original Mind is will and consciousness as well as reason.

#### Types Classed by Branches of Philosophy

Another way of classifying Idealisms is to use branches of philosophy to distinguish the various types. Such types, however, overlap those given above.

A term that covers several of the above types (the spiritual, theistic, and Hegelian; Personalism; vitalism) is metaphysical Idealism. A.N. Whitehead (1861-1947), noted for his collaboration with Bertrand Russell in mathematical logic and for his process metaphysics, who was profoundly influenced by Bradley, created an original Idealistic philosophy of science, a highly complicated form of metaphysical Idealism; and the leading metaphysician Charles Hartshorne (1897- ) may be regarded as a representative of Whiteheadian Idealism, although rightly claiming originality. Epistemological Idealism, of which the Kantian scholar N.K. Smith's (1872-1958) *Prolegomena to an Idealist Theory of Knowledge* is an excellent example, covers all Idealistic theories of epistemology, or knowledge. Aesthetic Idealism is devoted to philosophical theories of beauty in nature and in all forms of art. Because Schelling claimed that art is the best

approach to an understanding of philosophy, his system is designated aesthetic Idealism. Axiological Idealism is a name referring to such philosophies as those of Wilbur M. Urban (1873-1952) and others who have developed Idealistic theories of value and valuation. Ethical Idealism deals with moral values, rights, and obligations. Several of the above-mentioned philosophers, such as Fichte and Green, as well as the Plato scholar A.E. Taylor (1864-1945), the theistic pluralist Hastings Rashdall (1858-1924), and the absolutist W.R. Sorley (1855-1935), could be called ethical Idealists in the sense that they have produced well-thought-out systems of ethics. The writings of the German philosopher of life and action Rudolf Eucken (1846-1926) provide an excellent example of ethical Idealism.

These classifications are not exhaustive. The actual existence of so many types of philosophical Idealism, however, proves its fertility and ubiquity.

### Criticism and Appraisal

Obviously, some of the types of Idealism in the above classifications conflict with one another. For example, spiritual monism and spiritual pluralism are opposite types; Personalism rejects absolute Idealism; and atheistic spiritual pluralism is in sharp conflict with theistic spiritual pluralism. These and other debatable issues keep Idealists in dialogue with each other, but each type tends to preserve itself.

Over against these internal disputes stand the criticisms of the anti-Idealists. The wide-ranging Realist Ralph Barton Perry's (1876-1957) article "The Ego-Centric Predicament" (1910) is a widely discussed criticism. Perry admitted that the primary approach of every philosopher to the problem of

ultimate reality must be through his own thought, using his own ideas; but this is a human predicament that has been unjustifiably exploited by the Idealists, according to Perry, and turned into the “fallacious” *esse est percipi* argument.

The famous “Refutation of Idealism” prepared by the meticulous Cambridge philosopher G.E. Moore (1873-1958) and a similar refutation by the Realist Bertrand Russell (1872-1970) rest upon the distinction between a subject’s act of perceiving and the perceptual object of this act, which they both called a “sense datum.” They claimed that Berkeley’s *esse est percipi* argument is vitiated by his failure to make this distinction.

Logical Positivism claims that a basic weakness in Idealism is its rejection of the doctrine of empirical verifiability, according to which every proposition that claims to be true must be verified by searching out the sense experience in which its terms originated. Linguistic philosophy attacks Idealism by making a detailed analysis of its more technical terms in an effort to prove that they are full of ambiguities and double meanings. Critics have also severely attacked the ontological and the mystical arguments for Idealism. Karl Marx (1818-83) and his followers borrowed and adapted the dialectical argument of Hegel and used it effectively to develop dialectical Materialism, an archenemy of all Idealisms. Buttressed by the political endorsements of various Communist regimes, Marxism (*q.v.*) poses a formidable opposition to Idealism; and even in the non-Communist countries of Europe it presents a significant cultural alternative to spiritualism and Thomism.

Idealists consider all of the foregoing criticisms to be external. Instead of answering them in detail, some Idealists prefer to challenge the critics to make really constructive efforts to build an adequate substitute for Idealism – a



system to be reached by seriously working at the problems from within philosophy. So far a satisfactory substitute has not been achieved. To produce such a substitute would require careful reconsideration of the arguments of at least some of the above Idealistic systems.

In evaluating the effects of these criticisms and attacks, the question remains: Will they succeed in eradicating philosophical Idealism? Although it is now on the wane, at least in Western culture, the great Idealist tradition has survived many other historic periods of turmoil and has often been reborn in prolonged periods of settled and peaceful social conditions. Will it rise again? Only the future holds the answer. But Idealism shows evidence of being, perhaps, a reflection of some permanent aspect of the human spirit, and it may then be a perennial philosophy. In any case, it seems highly unlikely that such a rich heritage of philosophical thought will vanish entirely.

## Materialism

The word Materialism has been used in modern times to refer to a family of metaphysical theories (i.e., theories on the nature of reality) that can best be defined by saying that a theory tends to be called Materialism if it is felt sufficiently to resemble a paradigmatic theory that will here be called mechanical Materialism. This section covers the various types of Materialism and the ways by which they are distinguished and traces the history of Materialism from the Greeks and Romans to modern and contemporary Materialisms.

### Types of Materialist Theory

Mechanical Materialism is the theory that the world consists entirely of hard, massy material objects, which, though perhaps imperceptibly small, are otherwise like such things as stones. (A slight modification is to allow the void – or empty space – to exist also in its own right.) These objects interact in the sort of way that stones do: by impact and possibly also by gravitational attraction. The theory denies that immaterial or apparently immaterial things (such as minds) exist or else explains them away as being material things or motions of material things.

### Types Distinguished by Departures from the Paradigm

In modern physics (if interpreted realistically), however, matter is conceived as made up of such things as electrons, protons, and mesons, which are very unlike the hard, massy, stonelike particles of mechanical Materialism. In it the distinction between matter and energy has also broken down. It is therefore natural to extend the word Materialist beyond the above paradigm case (of mechanical Materialism) to cover anyone who bases his theory on whatever it is that physics asserts ultimately to exist. This sort may be called physicalistic Materialism. Such a Materialist allows the concept of material thing to be extended so as to include all of the elementary particles and other things that are postulated in fundamental physical theory – perhaps even continuous fields and points of space-time. Inasmuch as some cosmologists even try to define the elementary particles themselves in terms of the curvature of space-time, there is no reason why a philosophy based on such a

geometricized cosmology should not be counted as Materialist, provided that it does not give an independent existence to nonphysical things such as minds.

Another sort of departure from the paradigm leads in the direction of what might be called a deistic Materialism. In this view it would be allowed that, although there is a spiritual Creator of the universe, he does not interfere with the created universe, which is itself describable in terms of mechanical or physicalist Materialism.

Still another departure from the paradigm is the theory that holds that everything is composed of material particles (or physical entities generally) but also holds that there are special laws applying to complexes of physical entities, such as living cells or brains, that are not reducible to the laws that apply to the fundamental physical entities. (To avoid inconsistency, such a theory may have to allow that the ordinary laws of physics do not wholly apply within such complex entities.) Such a theory, which could be called “emergent Materialism,” can shade off, however, into theories that one would not wish to call Materialist, such as hylozoism, which ascribes vital characteristics to all matter, and panpsychism, which attributes a mindlike character to all constituents of material things.

Another common relaxation of the paradigm is that which allows as compatible with Materialism such a theory as epiphenomenalism, according to which sensations and thoughts do exist in addition to material processes but are nonetheless wholly dependent on material processes and without causal efficacy of their own. They are related to material things somewhat in the way that a man’s shadow is related to the man. A similar departure from the paradigm is a form of what might be called “double-aspect Materialism,” according to which in inner experience men are acquainted with nonphysical

*properties* of material processes, though these properties are not causally effective. A form of double-aspect theory in which these properties were allowed to be causally effective would be a species of emergent Materialism.

Of course, more than one of these qualifications might be made at the same time: thus a person might wish to speak of “physicalist deistic epiphenomenalist Materialism.” If no other qualifications are intended, it is convenient to use the word extreme and to speak, for example, of “extreme physicalist Materialism” – which is probably the type most discussed among professional philosophers in English-speaking countries.

#### Types Distinguished by Its View of History

In the wider world, however, the word Materialism most commonly brings to mind dialectical Materialism, which is the orthodox philosophy of Communist countries. This is most importantly a theory of how changes arise in human history, though a general metaphysical theory lies in the background. Dialectical Materialists contrast their view with what they call “vulgar” Materialism; and it does, indeed, appear that their theory is not an extreme Materialism, whether mechanical or physicalist. They seem to hold merely that mental processes are dependent on or have evolved from material ones. Though they might be akin to emergent Materialists, it is hard to be sure; their assertion that something new emerges at higher levels of organization might refer only to such things as that a wireless receiver is different from a mere heap of the same components. And if so, even an extreme physicalistic Materialist could acquiesce in this view. The distinctive features of dialectical Materialism would, thus, seem to lie as much in its

being dialectical as in its being Materialist. Its dialectical side may be epitomized in three laws: (1) that of the transformation of quality into quantity, (2) that of the interpenetration of opposites, and (3) that of the negation of the negation. Nondialectical philosophers find it hard, however, to interpret these laws in a way that does not make them into either platitudes or falsehoods.

Perhaps because of the historical determinism implicit in dialectical Materialism, and perhaps because of memories of the mechanical Materialist theories of the 18th and 19th centuries, when physics was deterministic, it is popularly supposed that Materialism and determinism must go together. This is not so. As indicated below, even some ancient Materialists were indeterminists, and a modern physicalist Materialism must be indeterministic because of the indeterminism that is built into modern physics. Modern physics does imply, however, that macroscopic bodies behave in a way that is effectively deterministic, and, because even a single neuron (nerve fibre) is a macroscopic object by quantum mechanical standards, a physicalistic Materialist may still regard the human brain as coming near to being a mechanism that behaves in a deterministic way.

#### Types Distinguished by Their Account of Mind

A rather different way of classifying Materialist theories, which to some extent cuts across the classifications already made, emerges when the theories are divided according to the way in which a Materialist accounts for minds. A central-state Materialist identifies mental processes with processes in the brain. An analytical behaviorist, on the other hand, argues that, in talking

about the mind, one is not talking about an actual entity, whether the brain or an immaterial soul, but, rather, one is somehow talking about the way in which people would behave in various circumstances. According to the analytical behaviorist, there is no more of a problem for the Materialist in having to identify mind with something material than there is in identifying such an abstraction as the average plumber with some concrete entity. Analytical behaviorism differs from psychological behaviorism, which is merely a methodological program to base theories on behavioral evidence and to eschew introspective reports. The analytical behaviorist usually has a not too plausible theory of introspective reports according to which they are what are sometimes called “avowals”: roughly, he contends that to say “I have a pain” is to engage in a verbal surrogate for a wince. Epistemic Materialism is a theory that can be developed either in the direction of central-state Materialism or in that of analytical behaviorism and that rests on the contention that the only statements that are intersubjectively testable are either observation reports about macroscopic physical objects or statements that imply such observation reports (or are otherwise logically related to them).

Before leaving this survey of the family of Materialistic theories, a quite different sense of the word Materialism should be noted in which it denotes not a metaphysical theory but an ethical attitude. A person is a Materialist in this sense if he is interested mainly in sensuous pleasures and bodily comforts and hence in the material possessions that bring these about. A man might be a Materialist in this ethical and pejorative sense without being a metaphysical Materialist, and conversely. An extreme physicalistic Materialist, for example, might prefer a Beethoven record to a comfortable mattress for his bed; and a person who believes in immaterial spirits might opt for the mattress.

## History of Materialism

### Greek and Roman Materialism

Though Thales of Miletus (c. 580 BCE) and some of the other Pre-Socratic philosophers have some claims to being regarded as Materialists, the Materialist tradition in Western philosophy really begins with Leucippus and Democritus, Greek philosophers who were born in the 5th century BCE. Leucippus is known only through his influence on Democritus. According to Democritus, the world consists of nothing but atoms (indivisible chunks of matter) in empty space (which he seems to have thought of as an entity in its own right). These atoms can be imperceptibly small, and they interact either by impact or by hooking together, depending on their shapes. The great beauty of atomism was its ability to explain the changes in things as due to changes in the configurations of unchanging atoms. The view may be contrasted with that of the earlier philosopher Anaxagoras (c. 480 BCE), who thought that when, for example, the bread that a person eats is transformed into human flesh, this must occur because bread itself already contains hidden within itself the characteristics of flesh. Democritus thought that the soul consists of smooth, round atoms and that perceptions consist of motions caused in the soul atoms by the atoms in the perceived thing.

Because Epicurus' philosophy was expounded in a lengthy poem by Lucretius, a Roman philosopher of the 1st century BCE, Epicurus (died 270 BCE) was easily the most influential Greek Materialist. He differed from Democritus in that he postulated an absolute up-down direction in space, so that all atoms fall in roughly parallel paths. To explain their impacts with one another, he then held that the atoms are subject to chance swerves – a doctrine that was also used to explain free will. Epicurus' Materialism therefore

differed from that of Democritus in being an indeterministic one. Epicurus' philosophy contained an important ethical part, which was a sort of enlightened egoistic hedonism. His ethics, however, were not Materialistic in the pejorative sense of the word.

### Modern Materialism

Materialism languished throughout the medieval period, but the Epicurean tradition was revived in the first half of the 17th century in the atomistic Materialism of the French Catholic priest Pierre Gassendi. In putting forward his system as a hypothesis to explain the facts of experience, Gassendi showed that he understood the method characteristic of modern science, and he may well have helped to pave the way for corpuscular hypotheses in physics. Gassendi was not thoroughgoing in his Materialism inasmuch as he accepted on faith the Christian doctrine that men have immortal souls. His contemporary, the English philosopher Thomas Hobbes, also propounded an atomistic Materialism and was a pioneer in trying to work out a mechanistic and physiological psychology. Holding that sensations are corporeal motions in the brain, Hobbes skirted, rather than solved, the philosophical problems about consciousness that had been raised by another contemporary, the great French philosopher René Descartes. Descartes's philosophy was dualistic, making a complete split between mind and matter. In his theory of the physical world, however, and especially in his doctrine that animals are automata, Descartes's own system had a mechanistic side to it that was taken up by 18th-century Materialists, such as Julien de La Mettrie, the French physician whose appropriately titled *L'Homme machine* (1747; *Man a Machine*, 1750) applied Descartes's view about animals to man



himself. Denis Diderot, an 18th-century French Encyclopaedist, supported a broadly Materialist outlook by considerations drawn from physiology, embryology, and the study of heredity; and his friend Paul, baron d'Holbach, published his *Système de la nature* (1770), which expounded a deterministic type of Materialism in the light of evidence from contemporary science, reducing everything to matter and to the energy inherent in matter. He also propounded a hedonistic ethics as well as an uncompromising atheism, which provoked a reply even from the Deist Voltaire.

The 18th-century French Materialists had been reacting against orthodox Christianity. In the early part of the 19th century, however, certain writers in Germany – usually with a biological or medical background – reacted against a different orthodoxy, the Hegelian and Neo-Hegelian tradition in philosophy, which had become entrenched in German universities. Among these were Ludwig Büchner and Karl Vogt. The latter is notorious for his assertion that the brain secretes thought just as the liver secretes bile. This metaphor of secretion, previously used by P.-J.-G. Cabanis, a late 18th-century French Materialist, is seldom taken seriously, because to most philosophers it does not make sense to think of thought as a *stuff*. The Hobbesian view, also espoused by Büchner, that thought is a *motion* in the brain is usually viewed as a more promising one.

The synthesis of urea (the chief nitrogenous end product of protein metabolism), discovered in 1828, broke down the discontinuity between the organic and the inorganic in chemistry, which had been a mainstay of nonmaterialistic biology. Materialist ways of thinking were later strengthened enormously by the Darwinian theory of evolution, which not only showed the continuity between man and other living things right back to the simplest organisms but also showed how the apparent evidences of design in natural

history could be explained on a purely causal basis. There still seemed to be a gap, however, between the living and the nonliving, though E.H. Haeckel, a 19th-century German zoologist, thought that certain simple organisms could have been generated from inorganic matter and, indeed, that a certain simple sea creature may well be in process of generation in this way even now. Though Haeckel was wrong, 20th-century biologists have proposed much more sophisticated and more plausible theories of the evolution of life from inorganic matter. Haeckel and his contemporary, the British zoologist T.H. Huxley, did much to popularize philosophical accounts of the world that were consonant with the scientific thought of their time, but neither could be regarded as an extreme Materialist.

### Contemporary Materialism

Perhaps because recent developments in biochemistry and in physiological psychology have greatly increased the plausibility of Materialism, there has lately been a resurgence of interest in the philosophical defense of central-state Materialism. Central-state Materialists have proposed their theories partly because of dissatisfaction with the analytical behaviorism of the Oxford philosopher Gilbert Ryle. Ryle himself is reluctant to call himself a Materialist, partly because of a dislike of all “isms” and partly because he thinks that the notion of matter has meaning only by contrast with that of mind, which he thinks to be an illegitimate sort of contrast. Nevertheless, it would seem that analytical behaviorism could be used to support a physicalist Materialism that would go on to explain human behavior by means of neural mechanisms. (Ryle himself is suspicious of mechanistic accounts of biology and psychology.) Analytical behaviorism has been felt to

be unsatisfactory, however, chiefly because of its account of introspective reports as avowals, which most philosophers have found to be unconvincing.

Philosophers have distinguished two forms of central-state Materialism, namely, the translation form and the disappearance form. The translation form is the view that mentalistic discourse can be translated into discourse that is neutral between physicalism and dualism, so that the truth of a man's introspective reports is compatible with the objects of these reports being physical processes. The disappearance form is the view that such a translation cannot be done and that this fact, however, does not refute physicalism but shows only that man's ordinary introspective reports are contaminated by false theories.

#### Translation Central-State Theories

Among the philosophers who have advocated the translation form is the U.S. philosopher Herbert Feigl, earlier a member of the Vienna Circle, who, in an influential monograph, did the most to get contemporary philosophers to treat central-state Materialism as a serious philosophical theory. Against the objection that, for example, "visual sensation" does not *mean* "process in the visual cortex," advocates of the translation form point out that "the morning star" does not mean the same as "the evening star," and yet the morning star as a matter of fact *is* the evening star. The objection confuses meaning and reference. Against the objection that a purely physical process (a dance of electrons, protons, and so on) cannot have the sensory quality of greenness that is observed in a visual experience of seeing grass, say, they reply that to talk of the sensory experience of something looking green (or having a green

mental image) is not to talk of anything that is literally green, but is simply to report that some internal process is of the sort that normally goes with seeing something, such as a lawn, which really is green. Though an immaterialist might say that the sort of process in question is a spiritual process, the Materialist can equally claim that it is a material process in the brain. The analysis of the introspective report is neutral between these two contentions; the Materialist, however, opts for his contention on various grounds. The British Materialist U.T. Place does so on the ground of normal scientific methodology; and the Australian Materialist J.J.C. Smart does so with a metaphysical application of the principle (called “Ockham’s razor”) that entities should not be multiplied beyond necessity. A physicalistic Materialist has, of course, an obligation to go on to give a suitable account of such apparently nonphysicalist qualities as the greenness of grass. At one time Smart analyzed colors in terms of the discriminatory behavior of human beings. Another Australian Materialist, D.M. Armstrong, holds, on the other hand, that colors are as a matter of fact properties of objects, such properties being of the sort describable in the theoretical terms of physics. Feigl, in turn, is to some extent (and rather reluctantly) a double-aspect theorist. He qualifies the position taken by the other translation theorists, conceding that the translations do leave something out, viz., the immediately introspectable properties of “raw feels,” such as that of hearing the tone of middle C. He holds, however, that such properties are irrelevant to causal explanations of phenomena. The translation form of central-state Materialism thus has some affinities with the earlier epistemic Materialism of the Positivist philosophers Rudolf Carnap and Hans Reichenbach, Germans who settled in the United States. Thus Carnap has suggested that mental predicates be treated as applying to material entities: for example, “Carnap sees green” could be taken as meaning “the body Carnap is in the state of green-seeing,” the state of

green-seeing being a purely physical state that explains the behavioral facts that led one to ascribe the predicate “sees green” to Carnap in the first place. David K. Lewis, a United States philosopher of science and language, has developed a translation form of central-state Materialism on the basis of a theory regarding the definition of theoretical terms in science. According to this theory, entities such as electrons, protons, and neutrons are defined in terms of the causal roles that they play in relation to observational phenomena – e.g., phenomena in cloud chambers – but the method of definition is able to do justice to the causal and other interrelations between the theoretical entities themselves. Lewis applies this account to commonsense psychology. Since mental entities, such as pains, are defined in commonsense psychology in terms of their causal roles (in relation to observable behavior) and since there is empirical reason to ascribe the same causal roles to brain processes, Lewis identifies mental events, processes, and states with brain events, processes, and states.

#### Disappearance Central-State Theories

The disappearance form of central-state Materialism is the sort of theory held by P.K. Feyerabend, a U.S. philosopher, who denies that the Materialist can give a neutral analysis of introspective reports. In Feyerabend’s view, commonsense introspective reports are irreducibly immaterialist in content. He argues, however, that this admission does not show the untenability of Materialism. Ordinary mentalistic discourse, he holds, is comparable to the medieval discourse about epileptics as being “possessed by the devil.” If one now “identified” demon possession with a certain medical condition of the brain, this would really be an assertion that there is no such thing as a demon-

possessed state: the medieval way of looking at the matter is thus rejected. It is in this sort of way that Feyerabend wants to “identify” the mind with the brain: he simply rejects the ordinary mentalistic conceptual scheme and so feels no obligation to show its compatibility with Materialism.

The influential American philosophers W.V. Quine and Wilfrid Sellars also hold theories that could be regarded as disappearance forms of physicalistic Materialism, though there is a Kantian twist to Sellars’ philosophy that makes it hard to classify. Sellars holds that mentalistic concepts cannot be eliminated from man’s commonsense picture of the world, which he calls “the manifest image.” In a way reminiscent of Kant he holds that, although the manifest image is inescapable, it does not give metaphysical truth about the world as it really is in itself. This truth is given, instead, by “the scientific image” – i.e., by theoretical science, which is physicalist. In the case of Quine, there is a certain Platonism in that he believes in the objective reality of nonspatiotemporal entities, viz., those that are the subject matter of pure mathematics. Because he holds that the reason for believing mathematics is that it is needed as part of physical theory, his reasons for believing in numbers and the like are not in principle different from those for believing in electrons; thus Quine’s Platonism does not really compromise his physicalism.

The Austrian philosopher Ludwig Wittgenstein, who lived to the mid-20th century and was professor of philosophy at Cambridge University, has sometimes been interpreted as a behaviorist, though his insistence that an inner process stands in need of outward criteria could possibly be interpreted as a sort of epistemic and central-state Materialism. Nevertheless, to count Wittgenstein as a Materialist would be to take considerable liberties with him; for, while displaying at times a certain mystical attitude, he also held very strongly that the business of a philosopher is not to put forward any

metaphysical theory but to clear up conceptual confusions – to show the fly the way out of the fly bottle.

### Eastern Materialism

This historical survey has been concerned with Materialism in Western philosophy. On the whole, Materialism is contrary to the spirit of both Indian and traditional Chinese philosophy, though the *Carvaka* school of Materialists flourished from the 6th century BCE until medieval times in India. Mention should also be made of the strong naturalistic tendency in Theravada Buddhism, as also in certain schools of Chinese philosophy that exalt *ch'i* (“ether” or “material force”) above principle and mind.

### Substantive Issues in Materialism

#### Reductionism, Consciousness, and Brain

The main attraction of Materialism today is the way in which it fits in with a unified picture of science – a picture that has become very plausible. Thus, chemistry is reducible to physics inasmuch as there is a quantum-mechanical theory of the chemical bond. Biology is mainly an application of physics and chemistry to the structures described in natural history (including the natural history that one can explore through powerful microscopes). Increasingly, biological explanations resemble explanations in engineering, in which material structures are described and then the laws of physics and chemistry are used to explain the behavior of these structures. (In the biological case, of course, these structures are often dynamic in the sense that

their molecules are continually being replaced.) Through the influence of neurophysiology and also cybernetics (the science of information and control, which can be applied also to artificial automata), scientific psychology is also fitting well into the same mechanistic scheme. The recalcitrant residue appears in the phenomena of consciousness. Here mental events seem, indeed, to be correlated with physical events; but, if the mental events are not the very same as the physical events, one is left with apparently ultimate (or irreducible) physical-mental laws that do not fit happily into unified science, and one is thus faced with a situation unlike that of the rest of science. Looking at science generally, one expects *ultimate* laws to relate simple entities, such as fundamental particles. A physical-mental law, however, would have to refer to something very complex – a brain process involving perhaps millions of neurons, with each neuron being itself an almost fantastically complex entity. There would be a multitude of physical-mental laws, which would look like excrescences on the face of science. Because they would not fit into the network of scientific laws, Herbert Feigl has called them “nomological danglers.” To get rid of these danglers is one of the chief attractions of Materialism. Of course, an immaterialist might assert that mental entities exist and also that there are no physical-mental laws. But it might be hard for him to reconcile this position with the empirical evidence; and in any case he would be faced with the problem of how to distinguish the free exercise of such anomalous physical-mental interaction from mere chance behavior.

The development of computers and other devices to take over much of the more routine sort of human behavior has led to attempts on the part of scientists and technologists, such as the American M.L. Minsky, to develop real artificial intelligence. So far, the success that these scientists hoped for



has not been achieved. An American linguistic theorist, Noam Chomsky, has argued on the basis of his theories of generative grammar that the brain is quite unlike any already-understood type of mechanism. Indeed, any physicalistic Materialist must certainly concede that there are very deep problems about the brain, which apparently can no longer be thought of as a bundle of conditioned reflex mechanisms or the like, as it often has seemed to be to many psychologists. The physicalist can stress, however, that the investigator's ignorance need not lead him to assume that he will never be able to find an explanation of intelligence and of linguistic abilities in terms consonant with his present notion of a physical mechanism. (There is also the possibility that physical laws not yet discovered might be needed to explain the workings of the brain. So long as these turned out to be basic laws of physics, such discoveries would not imply a shift to emergentist Materialism.)

#### Logic, Intentionality, and Psychical Research

Some philosophers, such as the Oxford philosopher J.R. Lucas, have tried to produce positive arguments against a mechanistic theory of mind by employing certain discoveries in mathematical logic, especially Gödel's theorem, which implies that no axiomatic theory could possibly capture all arithmetical truths. In general, philosophers have not found such attempts to extract an antimaterialist philosophy from mathematical logic to be convincing. Nevertheless, the problems of mechanizing intelligence, including the mathematical abilities of human beings, do pose unsolved problems that the Materialist is obliged to take seriously.

Perhaps the most common challenge to Materialism comes from philosophers who hold that it cannot do justice to the concept of intentionality, which Franz Brentano, a pre-World War I German philosopher, made the distinguishing mark between the mental and the nonmental. (A related objection is that Materialism cannot do justice to the distinction between behavior and mere bodily movements.) Brentano held that mental events and states somehow point toward objects beyond themselves (or have a “content”). Many contemporary philosophers agree with Brentano that purely physical entities cannot have this property. If it is said, for example, that punched holes on the tape of a computer can refer beyond themselves in the way that thoughts do, then it is commonly replied that, in themselves, the holes on the tape have no reference or content – for this belongs only to the thoughts in the mind of a person who reads the tape. The Materialist reply may be to argue, however, that there is a fundamental unclarity in the very notion of intentionality (this is roughly Quine’s position) or else to argue that purely physical systems can, after all, possess intentionality.

The alleged spiritualistic and other phenomena reported in psychical research are sometimes adduced against Materialism. The Materialist, however, can well afford to postpone discussion of these phenomena until such time as they are accepted by the general scientific community, which on the whole still remains sceptical of them.

At present, there are reputable philosophers who accept Materialism, and there are also reputable philosophers who either reject it as false or hold that it is not the business of a philosopher to propound any sort of metaphysical system. Perhaps Materialists are still in a minority; but at any rate there is much less tendency than there was a generation ago for this type of theory to be thought philosophically naive.

## Phenomenology

In the 20th century, Phenomenology is mainly used as the name for a philosophical movement the primary objective of which is the direct investigation and description of phenomena as consciously experienced, without theories about their causal explanation and as free as possible from unexamined preconceptions and presuppositions. The word itself is much older, going back at least to the 18th century, when the Swiss-German mathematician and philosopher Johann Heinrich Lambert applied it to that part of his theory of knowledge that distinguishes truth from illusion and error. In the 19th century the word became associated chiefly with the *Phänomenologie des Geistes* (1807; *Phenomenology of Mind*, 2nd ed., 1931), by G.W.F. Hegel, who traced the development of the human spirit from mere sense experience to “absolute knowledge.” The so-called Phenomenological movement did not get under way, however, until early in the 20th century. But even this new Phenomenology includes so many varieties that a comprehensive characterization of the subject requires their consideration.

## Characteristics of Phenomenology

In view of the spectrum of Phenomenologies that have issued directly or indirectly from the original work of the Austrian-born German philosopher Edmund Husserl, it is not easy to find a common denominator for such a movement beyond its common source. But similar situations occur in other philosophical as well as non-philosophical movements.

## Essential Features and Variations

Although, as seen from Husserl's last perspective, all departures from his own views could only appear as heresies, a more generous assessment will show that all those who consider themselves Phenomenologists subscribe, for instance, to his watchword, *Zu den Sachen selbst* ("To the things themselves"), by which they meant the taking of a fresh approach to concretely experienced phenomena, an approach, as free as possible from conceptual presuppositions, and the attempt to describe them as faithfully as possible. Moreover, most adherents to Phenomenology hold that it is possible to obtain insights into the essential structures and the essential relationships of these phenomena on the basis of a careful study of concrete examples supplied by experience or imagination and by a systematic variation of these examples in imagination. Some Phenomenologists also stress the need for studying the ways in which the phenomena appear in men's object-directed ("intentional") consciousness.

Beyond this merely static aspect of appearance, some also want to investigate its genetic aspect, exploring, for instance, how the phenomenon intended – for example, a book – shapes ("constitutes") itself in the typical unfolding of experience. Husserl himself believed that such studies require a previous suspension of belief in the reality of these phenomena, whereas others consider it not indispensable but helpful. Finally, in existential Phenomenology, the meanings of certain phenomena (such as anxiety) are explored by a special interpretive ("hermeneutic") Phenomenology, the methodology of which needs further clarification.

### Contrasts with Related Movements

It may also be helpful to bring out the distinctive essence of Phenomenology by confronting it with some of its philosophical neighbours. In contrast to Positivism and to traditional Empiricism, from which Husserl's teacher at Vienna, Franz Brentano, had started out and with which Phenomenology shares an unconditional respect for the positive data of experience ("We are the true positivists," Husserl claimed in his *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* [1913; "Ideas for a Pure Phenomenology and Phenomenological Philosophy"]), Phenomenology does not restrict these data to the range of sense experience but admits on equal terms such non-sensory ("categorical") data as relations and values, as long as they present themselves intuitively. Consequently, Phenomenology does not reject universals; and, in addition to analytic a priori statements, whose predicates are logically contained in the subjects and the truth of which is independent of experience (e.g., "All material bodies have extension"), and the synthetic a posteriori statements, whose subjects do not logically imply the predicate and the truth of which is dependent on experience (e.g., "My shirt is red"), it recognizes knowledge of the synthetic a priori, a proposition whose subject does not logically imply the predicate but one in which the truth is independent of experience (e.g., "Every color is extended"), based on insight into essential relationships within the empirically given.

In contrast to phenomenalism, a position in the theory of knowledge (epistemology) with which it is often confused, Phenomenology – which is not primarily an epistemological theory – accepts neither the rigid division between appearance and reality nor the narrower view that phenomena are all that there is (sensations or permanent possibilities of sensations). These are

questions on which Phenomenology as such keeps an open mind – pointing out; however, that phenomenism overlooks the complexities of the intentional structure of men's consciousness of the phenomena.

In contrast to a Rationalism that stresses conceptual reasoning at the expense of experience, Phenomenology insists on the intuitive foundation and verification of concepts and especially of all a priori claims; in this sense it is a philosophy from “below,” not from “above.”

In contrast to an Analytic philosophy that substitutes simplified constructions for the immediately given in all of its complexity and applies “Ockham's razor,” Phenomenology resists all transforming reinterpretations of the given, analyzing it for what it is in itself and on its own terms.

Phenomenology shares with Linguistic Analysis a respect for the distinctions between the phenomena reflected in the shades of meaning of ordinary language as a possible starting point for phenomenological analyses. Phenomenologists, however, do not think that the study of ordinary language is a sufficient basis for studying the phenomena, because ordinary language cannot and need not completely reveal the complexity of phenomena.

In contrast to an Existential philosophy that believes that human existence is unfit for phenomenological analysis and description, because it tries to objectify the unobjectifiable, Phenomenology holds that it can and must deal with these phenomena, however cautiously, as well as other intricate phenomena outside the human existence.

## Origin and Development of Husserl's Phenomenology

### Basic Principles

Phenomenology was not founded; it grew. Its fountainhead was Edmund Husserl, who held professorships at Göttingen and Freiburg im Breisgau and who wrote *Die Idee der Phänomenologie* (*The Idea of Phenomenology*, 1964) in 1906. Yet, even for Husserl, the conception of Phenomenology as a new method destined to supply a new foundation for both philosophy and science developed only gradually and kept changing to the very end of his career. Trained as a mathematician, Husserl was attracted to philosophy by Franz Brentano, whose descriptive psychology seemed to offer a solid basis for a scientific philosophy. The concept of intentionality, the directedness of the consciousness toward an object, which is a basic concept in Phenomenology, was already present in Brentano's *Psychologie vom empirischen Standpunkte* (1874): "And thus we can define psychic phenomena by saying that they are those phenomena which, precisely as intentional, contain an object in themselves." Brentano dissociated himself here from Sir William Hamilton, known for his philosophy of the "unconditioned," who had attributed the character of intentionality to the realms of thought and desire only, to the exclusion of that of feeling.

The point of departure of Husserl's investigation is to be found in the treatise *Der Begriff der Zahl* (1887; "The Concept of Number"), which was later expanded into *Philosophie der Arithmetik: Psychologische und logische Untersuchungen* (1891). Numbers are not found ready-made in nature but result from a mental achievement. Here Husserl was preoccupied with the question of how something like the constitution of numbers ever comes about. This treatise is important to Husserl's later development for two reasons: first,

because it contains the first traces of the concepts “reflection,” “constitution,” “description,” and the “founding constitution of meaning,” concepts that later played a predominant role in Husserl’s philosophy; and second, because it reflected two events – (1) a criticism of his book by Gottlob Frege, a seminal thinker in logic, who had charged him with confusing logical and psychological considerations, and (2) Husserl’s discovery of the *Wissenschaftslehre* (1837; *Logic and Scientific Methods*, 1971) by Bernard Bolzano, a Bohemian mathematician, theologian, and social moralist, and his view concerning “truths in themselves” – which led Husserl to an analysis and critical discussion of psychologism, the view that psychology could be used as a foundation for pure logic, which he clearly felt to be no longer possible.

In the first volume of *Logische Untersuchungen* (1900-01; *Logical Investigations*, 1970), entitled *Prolegomena*, Husserl began with a criticism of psychologism. And yet he continued by conducting a careful investigation of the psychic acts in and through which logical structures are given; these investigations, too, could give the impression of being descriptive psychological investigations, though they were not conceived of in this way by the author. For the issue at stake was the discovery of the essential structure of these acts. Here Brentano’s concept of intentionality received a richer and more refined signification. Husserl distinguished between perceptual and categorical intuition and stated that the latter’s theme lies in logical relationships. The real concern of Phenomenology was clearly formulated for the first time in his *Logos* article, “Philosophie als strenge Wissenschaft” (1910-11; *Philosophy as Rigorous Science*, 1965). In this work Husserl wrestled with two unacceptable views: naturalism and historicism.

Naturalism attempts to apply the methods of the natural sciences to all other domains of knowledge, including the realm of consciousness. Reason



becomes naturalized. Although an attempt is then made to find a foundation for the human sciences (*Geisteswissenschaften*) by means of experimental psychology, it proves to be impossible, because in so doing one is unable to grasp precisely what is at stake in knowledge as found in the natural sciences.

What a philosopher must examine is the relationship between consciousness and Being; and in doing so, he must realize that from the standpoint of epistemology, Being is accessible to him only as a correlate of conscious acts. He must thus pay careful attention to what occurs in these acts. This can be done only by a science that tries to understand the very essence of consciousness; and this is the task that Phenomenology has set for itself. Because clarification of the various types of objects must follow from the basic modes of consciousness, Husserl's thought remained close to psychology. In contradistinction to what is the case in psychology, however, in Phenomenology, consciousness is thematized in a very special and definite way, viz., just insofar as consciousness is the locus in which every manner of constituting and founding meaning must take place. In man's intuition, conscious occurrences must be given immediately in order to avoid introducing at the same time certain interpretations. The nature of such processes as perception, representation, imagination, judgment, and feeling must be grasped in immediate self-givenness. The call "To the things themselves" is not a demand for realism, because the things at stake are the acts of consciousness and the objective entities that get constituted in them: these things form the realm of what Husserl calls the phenomena.

Thus, the objects of Phenomenology are "absolute data grasped in pure, immanent intuition," and its goal is to discover the essential structures of the acts (*noesis*) and the objective entities that correspond to them (*noema*).

On the other hand, Phenomenology must also be distinguished from historicism, a philosophy that stresses the immersion of all thinkers within a particular historical setting. Husserl objected to historicism because it implies relativism. He gave credit to Wilhelm Dilthey, author of “Entwürfe zur Kritik der historischen Vernunft” (“Outlines for the Critique of Historical Reason,” in *Gesammelte Schriften*, 12 vol. [1914-36], vol. 5, 6), for having developed a typification of world views, but he doubted and even rejected the scepticism that flows necessarily from the relativity of the various types. History is concerned with facts, whereas Phenomenology deals with the knowledge of essences. To Husserl, Dilthey’s doctrine of world views was incapable of achieving the rigour required by genuine science. Contrary to all of the practical tendencies found in world views, Husserl demanded that philosophy be founded as a rigorous science. Its task implies that nothing be accepted as given beforehand but that the philosopher should try to find the way back to the real beginnings. This is tantamount to saying, however, that he must try to find the way to the foundations of meaning that are found in consciousness. Just as for Immanuel Kant the empirical has merely relative validity and never an absolute, or apodictic, validity, so for Husserl, too, what is to be searched for is a scientific knowledge of essences in contradistinction to a scientific knowledge of facts.

### Basic Method

The basic method of all Phenomenological investigation, as Husserl developed it himself – and on which he worked throughout his entire lifetime – is the “reduction”: the existence of the world must be put between brackets, not because the philosopher should doubt it but merely because this existing

world is not the very theme of Phenomenology; its theme is rather the manner in which knowledge of the world comes about. The first step of the reduction consists in the phenomenological reduction, through which all that is given is changed into a phenomenon in the sense of that which is known in and by consciousness; for this kind of knowing – which is to be taken in a very broad sense as including every mode of consciousness, such as intuition, recollection, imagination, and judgment – is here all-important. There are several reasons why Husserl gave a privileged position to intuition: among them is the fact that intuition is that act in which a person grasps something immediately in its bodily presence and also that it is a primordially given act upon which all of the rest is to be founded. Furthermore, Husserl's stress on intuition must be understood as a refutation of any merely speculative approach to philosophy.

This reduction reverses – “re-flects” – man's direction of sight from a straightforward orientation toward objects to an orientation toward consciousness.

The second step is to be found in the eidetic reduction. To get hold of consciousness is not sufficient; on the contrary, the various acts of consciousness must be made accessible in such a way that their essences – their universal and unchangeable structures – can be grasped. In the eidetic reduction one must forego everything that is factual and merely occurs in this way or that. A means of grasping the essence is the *Wesensschau*, the intuition of essences and essential structures. This is not a mysterious kind of intuition. Rather, one forms a multiplicity of variations of what is given, and while maintaining the multiplicity, one focusses attention on what remains unchanged in the multiplicity; i.e., the essence is that identical something that

continuously maintains itself during the process of variation. Husserl, therefore, called it the invariant.

To this point, the discussion of reduction has remained within the realm of psychology, albeit a new – namely, a phenomenological – psychology. The second step must now be completed by a third, the transcendental reduction. It consists in a reversion to the achievements of that consciousness that Husserl, following Kant, called transcendental consciousness, although he conceived of it in his own way. The most fundamental event occurring in this consciousness is the creation of time awareness through the acts of protention (future) and retention (past), which is something like a self-constitution. To do phenomenology was for Husserl tantamount to returning to the transcendental ego as the ground for the foundation and constitution (or making) of all meaning (German *Sinn*). Only when a person has reached this ground can he achieve the insight that makes his comportment transparent in its entirety and makes him understand how meaning comes about, how meaning is based upon meaning like strata in a process of sedimentation.

Husserl worked on the clarification of the transcendental reduction until the very end of his life. It was precisely the further development of the transcendental reduction that led to a division of the Phenomenological movement and to the formation of a school that refused to become involved in this kind of system of problems.

## Basic Concepts

In an effort to express what it is to which this method gives access, Husserl wrote:

In all pure psychic experiences (in perceiving something, judging about something, willing something, enjoying something, hoping for something, etc.) there is found inherently a being-directed-toward. . . . Experiences are intentional. This being-directed-toward is not just joined to the experience by way of a mere addition, and occasionally as an accidental reaction, as if experiences could be what they are without the intentional relation. With the intentionality of the experiences there announces itself, rather, the essential structure of the purely psychical.

The phenomenological investigator must examine the different forms of intentionality in a reflective attitude because it is precisely in and through the corresponding intentionality that each domain of objects becomes accessible to him. Husserl took as his point of departure mathematical entities and later examined logical structures, in order finally to achieve the insight that each being must be grasped in its correlation to consciousness, because each datum becomes accessible to a person only insofar as it has meaning for him. From this position, regional ontologies, or realms of being, develop: for instance, those dealing with the region of “nature,” the region of “the psychic,” or the region of “the spirit.” Moreover, Husserl distinguished formal ontologies – such as the region of the logical – from material ontologies.

In order to be able to investigate a regional ontology, it is first necessary to discover and examine the founding act by which realities in this realm are constituted. For Husserl, constitution does not mean the creation or fabrication

of a thing or object by a subject; it means the founding constitution of its meaning. There is meaning only for consciousness. All founding constitution of meaning is made possible by transcendental consciousness. Speaking of this transcendental motif, Husserl wrote:

It is the motif of questioning back to the last source of all achievements of knowledge, of reflection in which the knower reflects on himself and his knowing life, in which all the scientific constructs which have validity for him, occur teleologically, and as permanent acquisitions are kept and become freely available to him.

In the realm of such transcendental problems, it is necessary to examine how all of the categories in and through which one understands mundane beings or purely formal entities originate from specific modes of consciousness. In Husserl's view, the temporalization must be conceived as a kind of primordial constitution of transcendental consciousness itself.

Understood in this way, Phenomenology does not place itself outside the sciences but, rather, attempts to make understandable what takes place in the various sciences and, thus, to thematize the unquestioned presuppositions of the sciences.

In his last publication, *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie: Eine Einleitung in die phänomenologische Philosophie* (1936; *The Crisis of European Sciences and Transcendental Phenomenology*, 1970), Husserl arrived at the life-world – the world as shaped within the immediate experience of each man – by questioning back to the foundations that the sciences presuppose. In *Die Krisis* he analyzed the grounds that had led to the European crisis of culture and

philosophy, which found its immediate expression in the contrast between the great successes of the sciences of nature and the failure of the sciences of man. In the modern era, scientific knowledge had become fragmented into an objectivistic-physicalist and a transcendental knowledge. Until recently this split could not be overcome. It led, rather, to the attempt to develop the sciences of man in accordance with the procedures used in the exact sciences of nature (naturalism) – an attempt doomed to failure. In opposition to this attempt, Husserl wished to show that in the new approach one must reflect on the activities of the scientists.

As the immediately given world, this merely subjective world, was forgotten in the scientific thematization, the accomplishing subject, too, was forgotten and the scientist himself was not thematized.

Husserl demonstrated this point by using the example of Galileo and his mathematization of our world. The truth characteristic of the life-world is by no means an inferior form of truth when compared to the exact, scientific truth but is, rather, always a truth already presupposed in all scientific research. That is why Husserl claimed that an ontology of the life-world must be developed – i.e., a systematic analysis of the constitutive achievements the result of which is the life-world, a life-world that, in turn, is the foundation of all scientific constitutions of meaning. The stimulating change that occurred here consists in the fact that truth is no longer measured after the criterion of an exact determination. For what is decisive is not the exactness but, rather, the part played by the founding act.

It is in this connection that, rather abruptly, historicity, too, became relevant for Husserl. He began to reflect upon the emergence of philosophy among the Greeks and on its significance as a new mode of scientific

knowledge oriented toward infinity; and he interpreted the philosophy of René Descartes, often called the father of modern philosophy, as the point at which the split into the two research directions – physicalist objectivism and transcendental subjectivism – came about. Phenomenology must overcome this split, he held, and thus help mankind to live according to the demands of reason. In view of the fact that reason is the typical characteristic of man, mankind must find itself again through Phenomenology.

## Later Developments

### Phenomenology of Essences

A different type of Phenomenology, the Phenomenology of essences, developed from a tangential continuation of that of the *Logische Untersuchungen*. Its supporters were Husserl's students in Göttingen and a group of young philosophers in Munich, originally students of Theodor Lipps, a Munich psychologist and philosopher – students who had turned away from Lipps's psychologism and discovered powerful support in Husserl. The Phenomenological movement, which then began to take shape, found its most tangible expression in the publication of the *Jahrbuch für Philosophie und phänomenologische Forschung* (1913-30), a Phenomenological yearbook with Husserl as its main editor, the preface of which defined Phenomenology in terms of a return to intuition (*Anschauung*) and to the essential insights (*Wesenseinsichten*) derived from it as the ultimate foundation of all philosophy.

The 11 volumes of the *Jahrbuch* contained, in addition to Husserl's own works, the most important fruits of the movement in its broader application.



Of the co-editors, Alexander Pfänder contributed chiefly to the development of phenomenological psychology and pure logic but developed also the outlines of a complete Phenomenological philosophy. Moritz Geiger applied the new approach particularly to aesthetics and Adolf Reinach to the philosophy of law. The most original and dynamic of Husserl's early associates, however, was Max Scheler, who had joined the Munich group and who did his major Phenomenological work on problems of value and obligation. A Polish philosopher, Roman Ingarden, did major work in structural ontology and analyzed the structures of various works of art in its light; Hedwig Conrad-Martius, a cosmic Realist at the University of Munich, worked intensively in the ontology of nature; and others made comparable contributions in other fields of philosophy. None of these early Phenomenologists, however, followed Husserl's road to transcendental Idealism; and some tried to develop a Phenomenology along the lines of Realism.

#### Heidegger's Hermeneutic Phenomenology

Martin Heidegger, one of Germany's foremost philosophers at the middle of the 20th century, was inspired to philosophy through Brentano's work *Von der mannigfachen Bedeutung des Seienden nach Aristoteles* (1862; "On the Multifarious Meaning of Being According to Aristotle"). While he was still studying theology, from 1910 to 1911, Heidegger encountered Husserl's *Logische Untersuchungen*. From then on he pursued the course of Phenomenology with the greatest interest, and from 1916 he belonged to the narrow circle of students and followers of the movement. The typical character of the Phenomenological intuition was at that time the focus of

Husserl's seminar exercises. To be sure, there appeared very early a difference between Husserl and Heidegger. Discussing and absorbing the works of the important philosophers in the history of metaphysics was, for Heidegger, an indispensable task, whereas Husserl repeatedly stressed the significance of a radically new beginning and – with few exceptions (among them Descartes, Locke, Hume, and Kant) – wished to bracket the history of philosophy.

Heidegger's basic work, *Sein und Zeit* (1927; *Being and Time*, 1962), which was dedicated to Husserl, strongly acknowledged that its author was indebted to Phenomenology. In it, Phenomenology was understood as a methodological concept – a concept that was conceived by Heidegger in an original way and resulted from his questioning back to the meanings of the Greek concepts of *phainomenon* and *logos*. *Phainomenon* is “that which shows itself from itself,” but together with the concept of *logos*, it means “to let that which shows itself be seen from itself in the very way in which it shows itself from itself.” This conception of Phenomenology, which relied more on Aristotle than on Husserl, constituted a change that was later to lead to an estrangement between Husserl and Heidegger. For in *Sein und Zeit* there is no longer a phenomenological reduction, a transcendental ego, or an intuition of essences in Husserl's sense. Heidegger's new beginning was, at the same time, a resumption of the basic question of philosophy: that concerning the meaning (*Sinn*) of Being. His manner of questioning can be defined as hermeneutical in that it proceeds from the interpretation of man's situation. What he thematized is, thus, the explanation of what is already understood.

At the heart of *Sein und Zeit* lies Heidegger's analysis of the one (the man) who asks the question – who is capable of asking the question – concerning Being, who precisely through this capability occupies a privileged

position in regard to all other beings, viz., that of *Dasein* (literally, “being there”). By conceiving of *Dasein* as being-in-the-world, Heidegger made the ancient problem concerning the relationship between subject and object superfluous. The basic structures of *Dasein* are primordial moodness (*Befindlichkeit*), understanding (*Verstehen*), and logos (*Rede*). These structures are, in turn, founded in the temporalization of *Dasein*, from which future, having-been (past), and present originate. The two basic possibilities of man’s existing (from the Latin *ex* and *sistere*, “standing out from”) are those in which *Dasein* either comes to its self (called authenticity) or loses itself (called inauthenticity); *Dasein* is inauthentic, for example, when it lets the possibilities of the choice for its own “ek-sisting” be given to it by others instead of deciding for itself. Heidegger’s concept of care (*Sorge, cura*) has nothing to do with distress (*Bekümmernis*) but includes the unity of the articulated moments of man’s being-in-the-world.

The hermeneutic character of Heidegger’s thought manifested itself also in his interpretation of poetry, in which he discovered a congenial spirit in Friedrich Hölderlin, one of Germany’s greater poets, of whose poetry he inaugurated a completely new interpretation; but it manifested itself equally well in his interpretation of metaphysics, which Heidegger tried to envision as an occurrence determined by the forgottenness of Being, an occurrence in the center of which man finds himself and of which the clearest manifestation is to be found in “technicity,” the attempt of modern man to dominate the earth by controlling beings that are considered as objects.

The concept of transcendental consciousness, which was central for Husserl, is not found in Heidegger – which clearly shows how Heidegger, in *Sein und Zeit*, had already dissociated himself from Husserl’s Phenomenology.

## Other Developments

Eugen Fink, for several years Husserl's collaborator, whose essay "Die phänomenologische Philosophie Edmund Husserls in der gegenwärtigen Kritik" (1933) led to a radicalization of Husserl's philosophical, transcendental Idealism, later turned in another direction, one that approached Heidegger's position and divorced itself at the same time from that of Husserl.

Ludwig Landgrebe, who was Husserl's personal assistant for many years, published in 1938 *Erfahrung und Urteil* ("Experience and Judgment"), the first of Husserl's posthumous works devoted to the genealogy of logic. Among German-language scholars, Landgrebe remained closest to Husserl's original views and has developed them consistently in several works.

## Dissemination of Phenomenology

### Phenomenology in Various Countries

Following upon the work of Husserl, Phenomenology spread into a worldwide movement.

### In France

One of the first French authors to become familiar with Husserl's philosophy was Emmanuel Lévinas, a pluralistic Personalist, who combined ideas from Husserl and Heidegger in a very personal way. Similarly, Jean-Paul Sartre, the leading Existentialist of France, took his point of departure

from the philosophies of Husserl and Heidegger. His first works, *L'Imagination* (1936; *Imagination: A Psychological Critique*, 1962) and *L'Imaginaire: Psychologie phénoménologique de l'imagination* (1940; *The Psychology of Imagination*, 1950), remain completely within the context of Husserl's analyses of consciousness. Sartre explains the distinction between perceptual and imaginative consciousness with the help of Husserl's concept of intentionality, and he frequently employs the method of ideation (*Wesensschau*).

In *L'Être et le néant* (1943; *Being and Nothingness*, 1956), an essay on Phenomenological ontology, it is obvious that Sartre borrowed from Heidegger. Some passages from Heidegger's *Was ist Metaphysik?* (1929; *What Is Metaphysics?*, 1949), in fact, are copied literally. The meaning of nothingness, which Heidegger in this lecture made the theme of his investigations, became for Sartre the guiding question. Sartre departs from Heidegger's analytic of *Dasein* and introduces the position of consciousness (which Heidegger had overcome).

The distinction between being-in-itself (*en-soi*) and being-for-itself (*pour-soi*) pervades the entire investigation. The in-itself is the opaque, matter-like substance that remains the same, whereas the for-itself is consciousness permeated by nothingness. The influence of the Idealist G.W.F. Hegel becomes apparent when the author tries to interpret everything in a dialectical way; i.e., through a tension of opposites. The dialectic of men's being-with-one-another is central: thus, seeing and being-seen correspond to dominating and being-dominated. The basic characteristic of being-for-itself is bad faith (*mauvaise foi*), which cannot be overcome because facticity (being-already) and transcendence (being-able-to-be) cannot be combined.

The Phenomenological character of Sartre's analyses of consciousness consists in the way in which he elucidates certain modes of behavior: love, hatred, sadism, masochism, and indifference. Although Sartre sees and describes these forms of behavior strikingly and precisely, he limits himself to those modes that fit his philosophical interpretation. The significance of psychology, recognized by Husserl, emerges again in Sartre and leads to a demand for an Existential psychoanalysis.

Sartre's definition of man as a being of possibilities that finds or loses itself in the choice that it makes in regard to itself refers to Heidegger's definition of *Dasein* as a being that has to materialize itself. For Sartre, freedom is the basic characteristic of man; thus Sartre belongs to the tradition of the great French moralist philosophers.

In his later works, as in his *Critique de la raison dialectique* (1960; *Search for a Method*, 1963), Sartre turned to Marxism, though he developed a method of understanding that was influenced by hermeneutics. Here the choice made by the individual is limited by social and psychological conditions. Sartre's outstanding two-volume interpretation of Flaubert, *L'Idiot de la famille; Gustave Flaubert de 1821-1857* (1971), is an example of this new method of understanding and interpretation, which combines Marxist elements with interpretations of a highly personal nature taken from depth psychology.

Maurice Merleau-Ponty (died 1961), who, together with Sartre and his associate Simone de Beauvoir, a writer and novelist, was an important representative of French Existentialism, was at the same time the most important French Phenomenologist. His works, *La Structure du comportement* (1942; *Structure of Behaviour*, 1963) and *Phénoménologie de la perception*

(1945; *Phenomenology of Perception*, 1962), were the most original further developments and applications of Phenomenology to come from France. Merleau-Ponty gave a new interpretation of the meaning of the human body from the viewpoint of Phenomenology and, connected with this, of man's perception of space, the natural world, temporality, and freedom.

Starting from Husserl's later phenomenology of the life-world, Merleau-Ponty anchored the phenomena of perception in the phenomenology of the lived body (the body as it is experienced and experiences), in which the perceiving subject is incarnated as the mediating link to the phenomenal world. Such a phenomenology of human "presence" in the world was also to offer an alternative to the rigid dichotomy between Idealism and Realism, in which consciousness and world could be reciprocally related. Phenomenology thus became a way of showing the essential involvement of human existence in the world, starting with everyday perception.

Although it is true that Merleau-Ponty was originally close to Husserl in his thought, he later developed noticeably in the direction of Heidegger, a change that became particularly manifest in *L'Oeil et l'esprit* (1964; "Eye and Mind," in *The Primacy of Perception*, 1964).

Paul Ricoeur, a student of the volitional experience, whose translation of Husserl's *Ideen zu einer reinen Phänomenologie* brought Husserl closer to the younger French generation, writes in a Phenomenological vein but with the intention of further developing Husserl's conception of Phenomenology. Ricoeur's two-volume *Philosophie de la volonté* (1950-60; "Philosophy of the Will") also deals with the problems involved in the theological concept of guilt.

Suzanne Bachelard, who in 1957 translated Husserl's *Formale und transzendente Logik: Versuch einer Kritik der logischen Vernunft*, has pointed to the significance of Husserl for modern logic; and Jacques Derrida, an original French thinker on the limits of thought and language, has combined Phenomenology and Structuralism in his interpretation of literature.

### In Germany

After World War II, interest in Phenomenology sprang up again in its own homeland. The influence of Ludwig Landgrebe in Cologne has been particularly felt, as have the activities of the Husserl Archives in Cologne, with editions by Walter Biemel, who also published *Philosophische Analysen zur Kunst der Gegenwart* (1968; "Philosophical Analyses of Contemporary Art") and essays on the relationships between Husserl and Heidegger. The circle around Gerhard Funke in Mainz, author of *Phänomenologie – Metaphysik oder Methode?* (1966), has also had a positive influence.

### In Other European Countries

In Belgium, at the Catholic University of Louvain, are located the entire posthumous works of Husserl, as well as his personal library. Thanks to the initiative of H.L. Van Breda, founder of the Husserl Archives, several scholars worked intensively on the manuscripts for several decades. By 1972, 12 volumes of collected works had been published. Van Breda was also the director of the *Phaenomenologica* series – totalling 42 volumes by 1972 – in which the most important publications in the field of Phenomenology (taken



in a very broad sense) have been published. Thus, mainly through Van Breda's efforts, Louvain has become the most important center for Phenomenology. Van Breda also organized international colloquia on Phenomenology. The influence of Alphonse de Waelhens, a Belgian philosopher of fresh experience and author of *Phénoménologie et vérité* (1953) and *Existence et signification* (1958), also bears mentioning.

In The Netherlands, Stephan Strasser, oriented particularly toward phenomenological psychology, has been especially influential. And in Italy, the Phenomenology circle has centred around Enzo Paci. The Husserl scholar Jan Patočka, a prominent expert in Phenomenology as well as in the metaphysical tradition, was influential in Czechoslovakia; in Poland, Roman Ingarden represented the cause of Phenomenology; and there have also been important representatives in such countries as Portugal, England, South America, Japan, and India.

#### In the United States

Phenomenology in the United States has lived a rather marginal existence for quite some time, notwithstanding the meritorious journal of *Philosophy and Phenomenological Research* founded by Husserl's student Marvin Farber, who is also the author of *The Foundation of Phenomenology* (1943). More recently, however, a noticeable change has taken place, chiefly because of the work of two scholars at the New School for Social Research in New York, Alfred Schütz, an Austrian-born sociologist and student of human cognition (died 1959), and Aron Gurwitsch, a Lithuanian-born philosopher. Schütz came early to Phenomenology, developing a social science on a

phenomenological basis. Gurwitsch, author of *Théorie du champ de la conscience* (1957; *The Field of Consciousness*, 1964), came to Phenomenology through his study of the Gestalt psychologists Adhemar Gelb and Kurt Goldstein. While in Paris, Gurwitsch influenced Merleau-Ponty. The essays on Phenomenology published by Gurwitsch in the United States are among the best. His comprehensive knowledge ranges from mathematics, via the natural sciences, to psychology and metaphysics. The work *The Phenomenological Movement* (2nd ed., 1965), by Herbert Spiegelberg, an Alsatian-American Phenomenologist, is the movement's first encompassing historical presentation.

#### Phenomenology in Other Disciplines

Of greater significance is the role of Phenomenology outside of philosophy proper in stimulating or reinforcing phenomenological tendencies in such fields as mathematics and the biological sciences. Much stronger was its impact on psychology, in which Franz Brentano and the German Carl Stumpf had prepared the ground and in which the U.S. psychologist William James, the Würzburg school, and the Gestalt psychologists had worked along parallel lines. But Phenomenology has probably made its strongest contribution in the field of psychopathology, in which the German Karl Jaspers, a foremost contemporary Existentialist, stressed the importance of phenomenological exploration of a patient's subjective experience. Jaspers was followed by the Swiss Ludwig Binswanger and several others. The Phenomenological strand is also very pronounced in American Existential psychiatry and has affected sociology, history, and the study of religion.

## Conclusion

At the turn of the fourth quarter of the 20th century, it remained to be seen whether Phenomenology could make solid contributions to philosophical knowledge. To this end, it needed to develop rigorous standards, which had not always been observed by some of its most brilliant practitioners, such as Max Scheler, and which were likely to be violated in a philosophy the ultimate appeal of which had to be made to intuitive verification. With this proviso, Phenomenology may well be qualified not only to become a bridge for better international communication in philosophy but also to shed new light on philosophical problems old and new, to reclaim for philosophy parts of man's quotidian world that have been abandoned by science as too private and too subjective, and, finally, to give access to layers of man's experience unprobed in everyday living, thus providing deeper foundations for both science and life.

## Positivism and Logical Empiricism

As a philosophical ideology and movement, Positivism first assumed its distinctive features in the work of the French philosopher Auguste Comte, who also named and systematized the science of sociology. It then developed through several stages known by various names, such as Empiriocriticism, Logical Positivism, and Logical Empiricism, and finally, in the mid-20th century, flowed into the movement known as Analytic and Linguistic philosophy.

The basic affirmations of Positivism are (1) that all knowledge regarding matters of fact is based on the "positive" data of experience, and (2) that

beyond the realm of fact is that of pure logic and pure mathematics, which were already recognized by the Scottish Empiricist and sceptic David Hume as concerned with the “relations of ideas” and, in a later phase of Positivism, were classified as purely formal sciences. On the negative and critical side, the Positivists became noted for their repudiation of metaphysics; i.e., of speculation regarding the nature of reality that radically goes beyond any possible evidence that could either support or refute such “transcendent” knowledge claims. In its basic ideological posture, Positivism is thus worldly, secular, antitheological, and antimetaphysical. Strict adherence to the testimony of observation and experience is the all-important imperative of the Positivists. This imperative is reflected also in their contributions to ethics and moral philosophy, and most Positivists have been Utilitarians to the extent that something like “the greatest happiness for the greatest number of people” was their ethical maxim. It is notable, in this connection, that Auguste Comte was the founder of a short-lived religion, in which the object of worship was not the deity of the monotheistic faiths but humanity.

There are distinct anticipations of Positivism in ancient philosophy. Though the relationship of Protagoras – a 5th-century-BCE Sophist – for example, to later Positivistic thought was only a distant one, there was a much more pronounced similarity in the classical sceptic Sextus Empiricus, who lived at the turn of the 3rd century CE, and in Pierre Bayle, his 17th-century reviver. Moreover, the medieval Nominalist William of Ockham had clear affinities with modern Positivism. An 18th-century forerunner who had much in common with the Positivistic antimetaphysics of the following century was the German thinker Georg Lichtenberg.

Positivism clearly has its proximate roots, however, in the French Enlightenment, which stressed the clear light of reason, and in the 18th-

century British Empiricism, particularly that of Hume and of Bishop George Berkeley, which stressed the role of sense experience. Comte was influenced specifically by the Enlightenment Encyclopaedists (such as Denis Diderot, Jean d'Alembert, and others) and, especially in his social thinking, was decisively influenced by the founder of French Socialism, Claude-Henri, comte de Saint-Simon, whose disciple he had been in his early years and from whom the very designation Positivism stems.

#### The Social Positivism of Comte and Mill

Comte's Positivism was posited on the assertion of a so-called law of the three phases (or stages) of intellectual development. There is a parallel, as Comte saw it, between the evolution of thought patterns in the entire history of man, on the one hand, and in the history of an individual's development from infancy to adulthood, on the other. In the first, or so-called theological, stage, natural phenomena are explained as the results of supernatural or divine powers. It matters not whether the religion is polytheistic or monotheistic; in either case, miraculous powers or wills are believed to produce the observed events. This stage was criticized by Comte as anthropomorphic; i.e., as resting on all-too-human analogies. Generally, animistic explanations – made in terms of the volitions of soullike beings operating behind the appearances – are rejected as primitive projections of unverifiable entities.

The second phase, called metaphysical, is in some cases merely a depersonalized theology: the observable processes of nature are assumed to arise from impersonal powers, occult qualities, vital forces, or entelechies (internal perfecting principles). In other instances, the realm of observable

facts is considered as an imperfect copy or imitation of eternal ideas, as in Plato's metaphysics of pure Forms. Again, Comte charged that no genuine explanations result; questions concerning ultimate reality, first causes, or absolute beginnings are thus declared to be absolutely unanswerable. The metaphysical quest can lead only to the conclusion expressed by the German biologist and physiologist, Emil du Bois-Reymond: "*Ignoramus et ignorabimus*" ("We are and shall be ignorant"); it is a deception through verbal devices and the fruitless rendering of concepts as real things.

The sort of fruitfulness that it lacks can be achieved only in the third phase, the scientific, or "positive," phase – hence the title of Comte's magnum opus: *Cours de philosophie positive* (1830-42; *The Positive Philosophy of Auguste Comte*, 1853) – because it claims to be concerned only with positive facts. The task of the sciences, and of knowledge in general, is to study the facts and regularities of nature and society and to formulate the regularities as (descriptive) laws; explanations of phenomena can consist in no more than the subsuming of special cases under general laws. Mankind reached full maturity of thought only after abandoning the pseudoexplanations of the theological and metaphysical phases and substituting an unrestricted adherence to scientific method.

In his three stages Comte combined what he considered to be an account of the historical order of development with a logical analysis of the levelled structure of the sciences. By arranging the six basic and pure sciences one upon the other in a pyramid, Comte prepared the way for Logical Positivism to "reduce" each level to the one below it. He placed at the fundamental level the science that does not presuppose any other sciences – viz., mathematics – and then ordered the levels above it in such a way that each science depends upon, and makes use of, the sciences below it on the scale: thus arithmetic and

the theory of numbers are declared to be presuppositions for geometry and mechanics, astronomy, physics, chemistry, biology (including physiology), and sociology. Each higher level science, in turn, adds to the knowledge content of the science or sciences on the levels below, thus enriching this content by successive specialization. Psychology is conspicuously missing in Comte's system of the sciences. Anticipating some ideas of 20th-century Behaviorism and physicalism, Comte assumed that psychology should become a branch of biology (especially of brain neurophysiology), on the one hand, and of sociology, on the other. As the "father" of sociology, Comte maintained that the social sciences should proceed from observations to general laws, very much as (in his view) physics and chemistry do. He was sceptical of introspection in psychology, being convinced that, in attending to one's own mental states; these states would be irretrievably altered and distorted. In thus insisting on the necessity of objective observation, he was close to the basic principle of the methodology of 20th-century Behaviorism.

Among Comte's disciples or sympathizers were Cesare Lombroso, an Italian psychiatrist and criminologist, and Paul-Emile Littré, J.-E. Renan, and Louis Weber.

Despite some basic disagreements with Comte, the 19th-century English philosopher John Stuart Mill, also a logician and economist, must be regarded as one of the outstanding Positivists of his century. In his *System of Logic* (1843), he developed a thoroughly Empiricist theory of knowledge and of scientific reasoning, going even so far as to regard logic and mathematics as empirical (though very general) sciences. The broadly synthetic philosopher Herbert Spencer, author of a doctrine of the "unknowable" and of a general evolutionary philosophy, was, next to Mill, an outstanding exponent of a Positivistic orientation.

### The Critical Positivism of Mach and Avenarius

The influences of Hume and of Comte were also manifest in important developments in German Positivism, just prior to World War I. The outstanding representatives of this school were a philosophical critic of the physics of Newton, an Austrian, Ernst Mach, who was also an original thinker as a physicist and excelled as a historian of mechanics, thermodynamics, and optics, and Richard Avenarius, founder of a philosophy known as Empiriocriticism.

Mach, in the introductory chapter of his book *Beiträge zur Analyse der Empfindungen* (1886; *Contributions to the Analysis of the Sensations*, 1897), reviving the Humean antimetaphysics, contended that all factual knowledge consists of a conceptual organization and elaboration of what is given in the elements; i.e., in the data of immediate experience. Very much in keeping with the spirit of Comte, he repudiated the transcendental Idealism of Kant. For Mach, the most objectionable feature in Kant's philosophy was the doctrine of the *Dinge an sich* – i.e., of the “things-in-themselves” – the ultimate entities underlying phenomena, which Kant had declared to be absolutely unknowable though they must nevertheless be conceived as partial causes of man's perceptions. Hermann von Helmholtz, a wide-ranging scientist and philosopher and one of the great minds of the 19th century, by contrast, held that the theoretical entities of physics are, precisely, the things-in-themselves – a view which, though generally Empiricist, was thus clearly opposed to the Positivist doctrine. Theories and theoretical concepts, according to the Positivist understanding, were merely instruments of prediction. From one set of observable data, theories formed a bridge over which the investigator could pass to another set of observable data. Positivists generally maintained that theories might come and go, whereas the facts of



observation and their empirical regularities constituted a firm ground from which scientific reasoning could start and to which it must always return in order to test its validity. In consequence, most Positivists were reluctant to call theories true or false but preferred to consider them merely as more or less useful.

The task of the sciences, as it earlier had been expressed by the German physicist Gustav Kirchhoff, was the pursuit of a compendious and parsimonious description of observable phenomena. Concern with first causes or final reasons was to be excluded from the scientific endeavor as fruitless, or hopeless (if not meaningless). Even the notion of explanation became suspect and was at best taken (as already in Comte) to be no more than an ordering and connecting of observable facts and events by empirically ascertainable laws.

Mach and, along with him, Wilhelm Ostwald, the originator of physical chemistry, were the most prominent opponents of the atomic theory in physics and chemistry. Ostwald even attempted to derive the basic chemical laws of constant and multiple proportions without the help of the atomic hypothesis. To the Positivist the atom, since it could not be seen, was to be considered at best a “convenient fiction” and at worst an illegitimate ad hoc hypothesis. Hans Vaihinger, a subjectivist who called himself an “idealistic Positivist,” pursued the idea of useful fictions to the limit, and was convinced that the concept of the atom, along with the mathematical concepts of the infinite and the infinitesimal, and those of causation, free will, the economic man, and the like, were altogether fictitious, some of them even containing internal contradictions.

The anti-atomistic strand in the thought of the Positivists was an extreme manifestation of their phobia regarding anything unobservable. With the undeniably great success of the advancing microtheories in physics and chemistry, however, the Positivist ideology was severely criticized, not only by some contemporary philosophers but also by outstanding scientists. The Austrian Ludwig Boltzmann and the German Max Planck, for example, both top-ranking theoretical physicists, were in the forefront of the attack against Mach and Ostwald. Boltzmann and Planck, outspoken Realists, were deeply convinced of the reality of unobservable microparticles, or microevents, and were clearly impressed with the ever-growing and converging evidence for the existence of atoms, molecules, quanta, and subatomic particles. Nevertheless, the basic Positivist attitude was tenaciously held by many scientists, and striking parallels to it appeared in American Pragmatism and instrumentalism; in parts of the work of the Pragmatists Charles Sanders Peirce, William James, and John Dewey, there is a philosophy of pure experience essentially similar to that of Mach.

Though Richard Avenarius has not become widely known, he too anticipated a good deal of what the American Pragmatists propounded. His Positivism, like that of Mach, comprised a biologically oriented theory of knowledge. From the needs of organisms in their adaptation to the exigencies of their environment develop the conceptual tools needed for prediction of future conditions. In Avenarius' view, the raw material of the construction of the concepts of common sense and of the sciences, however, was "the given"; i.e., the data of immediate sensory experience. Just as Mill in the 19th century considered ordinary physical objects as "permanent possibilities of sensation," so Mach and Avenarius construed the concepts pertaining to what men commonsensically regard as the objects of the real world as "complexes of

sensations.” Thus, it was maintained that a stone, for example, is no more than a collection of such sensory qualities as hardness, color, and mass. The traditional assumption that there must be an underlying substance that has these properties was repudiated. To the question “What would be left over if all of the perceptible qualities were stripped (in thought) away from an observable object?” these Positivists answered: “Precisely nothing.” Thus the concept of substance was declared not only superfluous but meaningless as well.

In similar fashion, the concept of causation was explicated not as a real operating principle but as regularity of succession or as functional dependency among observable or measurable variables. Because these dependencies are not logically necessary, they are contingent and ascertained by observation, and especially by experimentation and inductive generalization.

The Newtonian doctrine according to which space and time are absolute or substantive realities had been incisively criticized by the 17th-century Rationalist Gottfried Leibniz and was subjected by Mach to even more searching scrutiny. While Leibniz had already paved the way for the conception of space and time as exclusively a matter of relations between events, Mach went still further in attacking the arguments of Newton in favor of a dynamic and absolute space and time. In particular, the inertial and centrifugal forces that arise in connection with accelerated or curvilinear motions had been interpreted by Newton as effects of such motions with respect to a privileged reference medium imagined as an absolute Cartesian mesh system graphed upon a real space. In a typically Positivistic manner, however, Mach found the idea quite incredible. How, he asked, could an absolutely empty space have such powerful effects? Mach conjectured that any privileged reference system must be generated not by an imperceptible

grid but by material reality – specifically, by the total mass of the universe (galaxies and fixed stars), an idea that later served as an important starting point for Einstein’s general theory of relativity and gravitation.

The Positivist theory of knowledge, as proposed by Mach and Avenarius, impressed many scholars, most notable among whom was probably the leading British logician and philosopher Bertrand Russell in one of the earlier phases of his thought. In a work entitled *Our Knowledge of the External World* (1914), Russell analyzed the concept of physical objects as comprising classes of (perceptual) aspects or perspectives, an idea that later stimulated the work of Rudolf Carnap, an outstanding philosophical semanticist and Analyst, entitled *Der logische Aufbau der Welt* (1928; *The Logical Structure of the World*, 1967). Mach remained the most influential thinker among Positivists for a long time, though some of his disciples, like Josef Petzoldt, are now largely forgotten. But *The Grammar of Science* (1892), written by Karl Pearson, a scientist, statistician, and philosopher of science, still receives some attention; and in France it was Abel Rey, also a philosopher of science, who, along the lines of Mach, severely criticized the traditional mechanistic view of nature. In the United States, John Bernard Stallo, a German-born American philosopher of science (also an educator, jurist, and statesman), developed a Positivistic outlook, especially in the philosophy of physics, in his book *The Concepts and Theories of Modern Physics* (1882), in which he anticipated to a degree some of the general ideas later formulated in the theory of relativity and quantum mechanics.

## Logical Positivism and Logical Empiricism

A first generation of 20th-century Viennese Positivists began its activities, strongly influenced by Mach, around 1907. Notable among them were a physicist, Philipp Frank, mathematicians Hans Hahn and Richard von Mises, and an economist and sociologist, Otto Neurath. This small group was also active during the 1920s in the Vienna Circle of Logical Positivists, a seminal discussion group of gifted scientists and philosophers that met regularly in Vienna, and in the related Berlin Society for Empirical Philosophy.

These two schools of thought, destined to develop into an almost worldwide and controversial movement, were built on the Empiricism of Hume, on the Positivism of Comte, and on the philosophy of science of Mach. Equally important influences came from several eminent figures who were at the same time scientists, mathematicians, and philosophers – G.F. Bernhard Riemann, the author of a non-Euclidean geometry; Hermann von Helmholtz, a pioneer in a broad range of scientific studies; Heinrich Hertz, the first to produce electromagnetic waves in his laboratory; Ludwig Boltzmann, a researcher in statistical mechanics; Henri Poincaré, equally eminent in mathematics and philosophy of science; and David Hilbert, distinguished for his formalizing of mathematics. Most significant, however, was the impact of Albert Einstein, as well as that of the three great mathematical logicians of the past 100 years – the ground-breaking German Gottlob Frege and the authors of the monumental *Principia Mathematica* (1910-13), Bertrand Russell and Alfred North Whitehead.

### The Earlier Positivism of Viennese Heritage

The confluence of ideas from these sources and the impressions that they made upon the Vienna and Berlin groups in the 1920s gave rise to the philosophical outlook of Logical Positivism – a label supplied in 1931 by A.E. Blumberg and the Minnesota philosopher of science Herbert Feigl. The leader of the Vienna Circle between 1924 and 1936 was Moritz Schlick, who in 1922 succeeded to the chair (previously held by Mach and Boltzmann) for the philosophy of the inductive sciences at the University of Vienna. By 1924 an evening discussion group had been formed with Schlick, Hans Hahn, Otto Neurath, Victor Kraft, Kurt Reidemeister, and Felix Kaufmann as the prominent active participants. The most important addition to the circle was Rudolf Carnap, who joined the group in 1926. One of the early activities was the study and critical discussion of the *Tractatus Logico-Philosophicus* (1922) of Ludwig Wittgenstein, a seminal thinker in Analytical and Linguistic philosophy. It seemed at the time that the views of Carnap and Wittgenstein, although they had been formulated and elaborated quite differently, shared a large measure of basic agreement. Parallel, but not completely independent, developments occurred in the Berlin group, in which Hans Reichenbach, Richard von Mises, Kurt Grelling, and Walter Dubislav were the leading spirits.

Both the Vienna and Berlin groups consisted mainly of philosophically interested scientists or scientifically trained and oriented philosophers. Schlick had already anticipated some of the basic epistemological tenets of the groups in his *Allgemeine Erkenntnislehre* (1918; “General Theory of Knowledge”). But the philosophical outlook was sharpened and deepened when, in the late 1920s, the Viennese Positivists published a pamphlet *Wissenschaftliche Weltauffassung: Der Wiener Kreis* (1929; “Scientific Conception of the

World: The Vienna Circle”), which was to be their declaration of independence from traditional philosophy – and, in the minds of its authors (Carnap, Hahn, and Neurath, aided by Waismann and Feigl), a “philosophy to end all philosophies.”

### Language and the Clarification of Meaning

The basic ideas of Logical Positivism were roughly as follows: the genuine task of philosophy is to clarify the meanings of basic concepts and assertions (especially those of science) – and not to attempt to answer unanswerable questions such as those regarding the nature of ultimate reality or of the Absolute. Inasmuch as an extremely ambitious Hegelian type of metaphysics, Idealistic and absolutist in orientation, was still prevalent in the German-speaking countries, there were many who believed that the antidote was urgently needed. Moreover, the Logical Positivists also had only contempt and ridicule for the ideas of the German Existentialist Martin Heidegger, whose interminable torment regarding such questions as “Why is there anything at all?” and “Why is what there is, the way it is?” and especially his pronouncements about Nothingness seemed to them to be not only sterile but so confused as to be nonsensical. The Logical Positivists viewed metaphysics as a hopelessly futile way of trying to do what great art, and especially poetry and music, already do so effectively and successfully. These activities, they held, are expressions of visions, feelings, and emotions and, as such, are perfectly legitimate as long as they make no claims to genuine cognition or representation of reality. What Logical Positivism recommended positively, on the other hand, was a logic and methodology of

the basic assumptions and of the validation procedures of knowledge and of evaluation.

An adequate understanding of the functions of language and of the various types of meaning is another of the fundamentally important contributions of the Logical Positivists. Communication and language serve many diverse purposes: one is the representation of facts, or of the regularities in nature and society; another is the conveying of imagery, the expression and arousal of emotions; a third is the triggering, guidance, or modification of actions. Thus, they distinguished cognitive-factual meaning from expressive and evocative (or emotive) significance in words and sentences. It was granted that, in most utterances of everyday life (and even of science), these two types of meaning are combined or fused. What the Logical Positivists insisted upon, however, was that the emotive type of expression and appeal should not be mistaken for one having genuinely cognitive meanings. In such expressions as moral imperatives, admonitions, and exhortations there is, of course, a factually significant core; viz., regarding the (likely) consequences of various actions. But the normative element – expressed by such words as “ought,” “should,” “right,” and their negations (as in “Thou shalt not...”) – is by itself not cognitively meaningful but has primarily emotional and motivative significance.

Early statements about moral value judgments, such as those by Carnap or by A.J. Ayer, a more radical British Positivist, seemed shocking to many philosophers, to whom it seemed that, in their careless formulation, moral norms were to be treated like expressions of taste. Equally shocking was their condemnation as nonsense (really non-sense; i.e., complete absence of factual meaning) of all moral, aesthetic, and metaphysical assertions. More adequate and delicate analyses, such as that of the American Positivist Charles



Stevenson, were soon to correct and modify those extremes. By proper allocation of the cognitive and the normative (motivative) components of value statements, many thinkers rendered the originally harsh and implausible Positivist view of value judgments more acceptable. Nevertheless, there is – in every Positivistic view – an ineluctable element of basic, noncognitive commitment in the acceptance of moral, or even of aesthetic, norms.

### The Verifiability Criterion of Meaning and Its Offshoots

The most noteworthy, and also most controversial, contribution of the Logical Positivists was the so-called verifiability criterion of factual meaningfulness. In its original form, this criterion had much in common with the earlier Pragmatist analysis of meaning (as in Charles Sanders Peirce and William James). Schlick's rather careless formulation: "The meaning of a [declarative sentence] is the method of its verification," which was really intended only to exclude from the realm of the cognitively meaningful those sentences for which it is logically inconceivable that either supporting or refuting evidence can be found, was close to the Pragmatist and, later, to the operationalist slogan that may be paraphrased by: "A difference must make a difference in order to be a difference" – or (more fully explicated): only if there is a difference in principle, open to test by observation, between the affirmation and the denial of a given assertion does this assertion have factual meaning. To take the classical example from Hume's analysis of the concept of causation, there is no difference between saying "*A* is always followed by *B*" and saying "*A* is necessarily always followed by *B*." That all *effects* have causes is true by virtue of the (customary) definitions of "cause" and "effect"; it is a purely formal or logical truth. But to say (instead of speaking of effects)

that all *events* have causes is to say something factual – and conceivably false. (It should be noted that these rather crude uses of “causality” and “necessity” were later replaced by much more subtle analyses.)

One of the most important examples that stimulated the formulation of the meaning criterion was Einstein’s abandonment, in 1905, of the ether hypothesis and of the notion of absolute simultaneity. The hypothesis that there exists a universal ether, as a medium for the propagation of light (and of electromagnetic waves generally), had been quite plausible and was widely accepted by physicists during the second half of the 19th century. To be sure, there were a number of serious difficulties with the idea: the properties that had to be ascribed to the ether were difficult to conceive in a logically compatible manner; and the ether hypothesis in the last stage of its development (by the Dutch physicist Hendrik Lorentz and the Irish physicist George Fitzgerald) had become objectionable in that it sought to provide excuses for the absolute unobservability of that mysterious, allegedly all-pervasive, universal substance. Similarly, it had become impossible, except at the price of intolerably ad hoc hypotheses, to maintain the notions of absolute time and of absolute simultaneity. Thus Einstein, by eliminating these empirically untestable assumptions, was led to his special theory of relativity.

Several important changes in the formulation of the meaning criterion took place in the ensuing decades from 1930 to 1960. The original version formulated in terms of verifiability was replaced by a more tolerant version expressed in terms of testability or confirmability. Obviously, universal propositions, such as “All cats have claws,” being only partially supportable by positive instances (one cannot examine every cat that exists), are not conclusively verifiable. Nevertheless, scientists do accept lawlike statements on the basis of only incomplete, as well as indirect, verification – which is

what “confirmation” amounts to. It was in coming to this juncture in his critique of Positivism that Karl Popper, an Austro-English philosopher of science, in his *Logik der Forschung* (1935; *The Logic of Scientific Discovery*, 1959), insisted that the meaning criterion should be abandoned and replaced by a criterion of demarcation between empirical (scientific) and transempirical (nonscientific, metaphysical) questions and answers – a criterion that, according to Popper, is to be testability, or, in his own version, falsifiability; i.e., refutability. Popper was impressed by how easy it is to supposedly verify all sorts of assertions – those of psychoanalytic theories seemed to him to be abhorrent examples. But the decisive feature, as Popper saw it, should be whether it is in principle conceivable that evidence could be cited that would refute (or disconfirm) a given law, hypothesis, or theory. Theories are (often) bold conjectures. It is true that scientists should be encouraged in their construction of theories – no matter how far they deviate from the tradition; it is also true, however, that all such conjectures should be subjected to the most severe and searching criticism and experimental scrutiny of their truth claims. The growth of knowledge thus proceeds through the elimination of error; i.e., through the refutation of hypotheses that are either logically inconsistent or entail empirically refuted consequences.

Despite valuable suggestions in Popper’s philosophy of science, the Logical Positivists and Empiricists continued to reformulate their criteria of factual meaningfulness. The Positivist Hans Reichenbach, who emigrated from Germany to California, proposed, in his *Experience and Prediction* (1938), a probabilistic conception. If hypotheses, generalizations, and theories can be made more or less probable by whatever evidence is available, he argued, then they are factually meaningful. In another version of meaningfulness, first adumbrated by Schlick (under the influence of

Wittgenstein's thought), the philosopher's attention is focused on concepts rather than on propositions. If the concepts in terms of which theories are formulated can be related, through chains of definitions, to concepts that are definable ostensibly – i.e., by pointing to or exhibiting items or aspects of direct experience – then those theories are factually meaningful. This is the version also advocated by Richard von Mises, an Austro-American mathematician and methodologist, in his *Positivism* (1951) and, later, more technically elaborated by Carnap, in *Minnesota Studies in the Philosophy of Science*, vol. 1 (1956).

#### Other Issues

These views of meaningfulness are essentially refinements of the doctrine of so-called protocol sentences, developed in the late 1920s and early 1930s and elaborated especially by Carnap, by Otto Neurath, a polymath sociologist and philosopher, and also (with some differences) by Schlick. Protocol sentences, originally conceived along the lines of an interpretation, developed in the Vienna Circle, of Wittgenstein's elementary propositions, were identified as those sentences that make statements about the data of direct experience. But Neurath – and independently also Popper – warned of the danger that this doctrine might lead to subjective Idealism and recommended that it be given a rational reconstruction on an intersubjective basis. Thus, Neurath and Carnap preferred that a physicalistic thing-language be employed as the starting point and testing ground of all knowledge claims. Propositions in this language would describe objectively existing, directly observable states of affairs or events. Because all objective and intersubjective knowledge was seen, in such a physicalism, to rest on statements representing

things and their properties, relations and ongoing processes as they are found in unbiased, and presumed theory-free, observation, the physicalists were thus proclaiming a first thesis of the so-called Unity of Science principle. Though Mach had proceeded from the basis of (neutral) immediate experience, his insistence on the unity of all knowledge and all science was retained – at least in general spirit – by the later Positivists. In this view, all classifications of the sciences, or divisions of their subject matter, were seen as artificial, valuable at best only administratively, but without philosophical justification.

Sharply to be distinguished from this first thesis of the Unity of Science is a second that formulates a reductionism of a very different type: whereas the first thesis concerns the unity of the observational basis of all the sciences, the second proposes (tentatively) a unity of the explanatory principles of science. Reductions within physics itself, such as that of thermodynamics to the kinetic theory of heat (statistical mechanics) and of optics to electromagnetics; and, beyond that, the explanation of chemical phenomena, with the help of the quantum theory, in terms of atomic and molecular processes; and, furthermore, the progress that has been made in the physical explanation of biological phenomena (especially in the recent development of molecular biology) – all of these encourage the idea of a unitary set of physical premises from which the regularities of all of reality could be derived. But it must be admitted that, in contrast to the first thesis (which, by comparison is almost trivial), the second, being a bold conjecture about future reductions in the sciences, might well prove to be limited in the scope of its validity. The most controversial part of this reductionist ideology, however, concerns the realms of organic life and especially that of mind; it concerns, in other words, the reducibility of biology to physics and chemistry and of

psychology to neurophysiology – and (though this is clearly utopian at present) of both ultimately to basic physics.

The most serious alternative to this reducibility thesis of the Unity of Science movement is the theory of emergent evolution, according to which life or mind (or both) are genuinely novel forms of reality that could not possibly have been derived from, or predicted by, any laws or theories of the lower or earlier levels of existence.

Historically, it may be plausible that the notorious perplexities of the traditional problem of how mind relates to body motivated both the phenomenalist Positivists as well as the Behaviorists and physicalists. In either view, the mind-body problem conveniently disappears; it is branded as a metaphysical pseudoproblem. The phenomenism of Mach and the early Russell was expressed in a position called neutral monism, according to which both psychological and physical concepts are viewed as logical constructions on the basis of a neutral set of data of immediate experience. There are thus not two realities – the mental and the physical; there are merely different ways of organizing the experiential data. In the Behaviorist-physicalist alternative, on the other hand, the philosopher, considering the concepts that are ordinarily taken to characterize private mental acts and processes, defines them on the basis of publicly (intersubjectively) observable features of the behavior, including the linguistic behavior, of man.

The absolute privacy of mental events was first criticized, however, by Carnap and later by an Oxford Analytical philosopher, Gilbert Ryle; and Wittgenstein, in an argument against the very possibility of a private language, maintained that, unless men have objective criteria for the occurrence of mental states, they cannot even begin to communicate

meaningfully with each other about their direct experiences. Wittgenstein thus repudiated the traditional view according to which a man's knowledge of other persons' minds must be based on analogical inference from his own case. In a similar vein, an American psychologist, B.F. Skinner, tried to account for man's acquisition of subjective terms in his language by a theory of verbal behavior. A man learns to describe his mental states, explained Skinner, from the utterances of others who ascribe these states to him by virtue of their observation of his behavior (e.g., in the social context; or when a certain stimulus situation prevails in his environment).

Both Carnap and Ryle have emphasized that many mental features or properties have a dispositional character. Dispositional terms, whether used in psychology or more broadly, have to be understood as shorthand expressions for test conditions – or test-result conditionals. Thus, even in ordinary life, a man appraises, for example, the intelligence of a person in the light of what he does, how he does it, how fast he does it, when confronted with various tasks or problems. Just as such physical properties as malleability, brittleness, or thermal or electrical conductivity must be defined in terms of what happens when certain conditions are imposed, so also mental dispositions are to be construed as similarly hypothetical; i.e., as (in the simplest case) stimulus-response relationships.

### The Later Positivism of Logical Empiricism

Logical Positivism, essentially the doctrine of the Vienna Circle (c. 1924-38), underwent a number of important changes and innovations in the middle third of the century, which suggested the need for a new name. The

designation Positivism had been strongly connected with the Comte-Mach tradition of instrumentalism and phenomenalism. The emphasis that this tradition had placed, however, on the positive facts of observation and their negative attitude toward the atomic theory and the existence of theoretical entities in general were no longer in keeping with the spirit of 20th-century science. Nevertheless, the requirement that hypotheses and theories be empirically testable, though it became more flexible and tolerant, could not be relinquished. It was natural, then, that the word “empiricism” should occur in any new name. Accordingly, retaining the term “logical” in roughly its same earlier meaning, the new name “Logical Empiricism” was coined.

#### The Status of the Formal and A Priori

The intention of the word “logical” was to insist on the distinctive nature of logical and mathematical truth. In opposition to Mill’s view, according to which even logic and pure mathematics are empirical (i.e., are justifiable or refutable by observation), the Logical Positivists – essentially following Frege and Russell – had already declared mathematics to be true only by virtue of postulates and definitions. Expressed in the traditional terms used by Kant, logic and mathematics were recognized as a priori disciplines (valid independently of experience) precisely because their denial would amount to a self-contradiction, and statements within these disciplines were expressed in what Kant called analytic propositions; i.e., propositions that are true or false only by virtue of the meanings of the terms they contain. In his own way, the broad-ranging scholar Gottfried Leibniz had seen this in the 17th century long before Kant. The truth of such a simple arithmetical proposition as, for example, “ $2 + 3 = 5$ ” is necessary, universal, a priori, and analytic because of



the very meaning of “2,” “+,” “3,” “5,” and “=.” Experience could not possibly refute such truths because their validity is established (as Hume said) merely by the “relation of ideas.” Even if – “miraculously” – putting two and three objects together should on some occasion yield six objects, this would be a fascinating feature of those objects (rabbits, perhaps); but it would not in the least tend to refute the purely definitional truths of arithmetic.

The case of geometry is altogether different. Geometry can be either an empirical science of natural space or an abstract system with uninterpreted basic concepts and uninterpreted postulates. The latter is the conception introduced in rigorous fashion by a late 19th-century mathematician, David Hilbert, and, still later, by a United States geometer, Oswald Veblen. In the axiomatizations that they developed, the basic concepts, called primitives, are implicitly defined by the postulates: thus, such concepts as point, straight line, intersection, betweenness, and plane are related to each other in a merely formal manner. The proof of theorems from postulates, and with explicit definitions of derived concepts (such as of triangle, polygon, circle, or conic section), is achieved by strict deductive inference. Very different, however, is geometry as understood in practical life, and in the natural sciences and technologies, in which it constitutes the science of space. Ever since the development of the non-Euclidean geometries in the first half of the 19th century, it has no longer been taken for granted that Euclidean geometry is the only geometry uniquely applicable to the spatial order of physical objects or events. In Einstein’s general theory of relativity and gravitation, in fact, a four-dimensional Riemannian geometry with variable curvature was successfully employed, an event that amounted to a final refutation of the Kantian contention that the truths of geometry are “synthetic a priori.” With respect to the relation of postulates to theorems, geometry is thus analytic, like

any other rigorously deductive discipline; but the postulates themselves, when interpreted – i.e., when construed as statements about the structure of physical space – are indeed synthetic, but also a posteriori; i.e., their adequacy depends upon the results of observation and measurement.

### Developments in Linguistic Analysis and Their Offshoots

Important contributions, beginning in the early 1930s, were made by Carnap, by Kurt Gödel, a Moravian-American mathematical logician, and others to the logical analysis of language. Charles Morris, a Pragmatist concerned with Linguistic Analysis, had outlined the three dimensions of semiotics (the general study of signs and symbolisms): syntax, semantics, and pragmatics (the relation of signs to their users and to the conditions of their use). Syntactical studies, concerned with the formation and transformation rules of language (i.e., its purely structural features), soon required supplementation by semantical studies, concerned with rules of designation and of truth. Semantics, in the strictly formalized sense, owed its origin to Alfred Tarski, a leading member of the Polish school of logicians, and was then developed by Carnap and applied to problems of meaning and necessity. As Wittgenstein had already shown, the necessary truth of tautologies simply amounts to their being true under all conceivable circumstances. Thus the so-called eternal verity of the principles of identity ( $p$  is equivalent with itself), of noncontradiction (one cannot both assert and deny the same proposition), and the principle of excluded middle (any given proposition is either true or false; there is no further possibility) is an obvious consequence of the rules according to which the philosopher uses (or decides to use) the words “proposition,” “negation,” “equivalence,” “conjunction,” “disjunction,” and

others. Quite generally, questions regarding the meanings of words or symbols are answered most illuminatingly by stating the syntactical and the semantical rules according to which they are used.

Two different schools of thought originated from this basic insight: (1) the philosophy of “ordinary language” Analysis – initiated by Wittgenstein, especially in his later work, and (following him) developed in differing directions in the works of Gilbert Ryle and John Langshaw Austin, both Oxford philosophers, of the Cambridge Analyst John Wisdom, and others; and (2) the ideology, essentially that of Carnap, usually designated as logical reconstruction, which builds up an artificial language. In the procedures of “ordinary language” Analysis, an attempt is made to trace the ways in which a person commonly expresses himself. In this manner, many of the traditional vexatious philosophical puzzles and perplexities are shown to arise out of deviant uses of language. (Lewis Carroll had already anticipated some of these oddities in his whimsical manner in *Alice in Wonderland*.) The much more rigorous procedures of the second school – of Tarski, Carnap, and many other logicians – rest upon the obvious distinction between the language (and all of its various symbols) that is the object of analysis, called the object language, and that in which the analysis is formulated, called the metalanguage. If needed and fruitful, this process can be repeated, in that the erstwhile metalanguage can become the object of a metametalanguage, and so on – without the danger of a vicious infinite regress.

With the help of semantical concepts, an old perplexity in the theory of knowledge can then be resolved. Positivists have often tended to conflate the truth conditions of a statement with its confirming evidence, a procedure which has led to certain absurdities committed by phenomenologists and operationalists, such as the pronouncement that the meanings of statements

about past events consist in their (forthcoming future) evidence. Clearly, the objects – the targets or referents – of such statements are the past events. Thus the meaning of a historical statement is its truth conditions; i.e., the situation that would have to obtain if the historical statement is to be true. The confirmatory evidence, however, may be discovered either in the present or in the future. Similarly, the evidence for an existential hypothesis in the sciences may consist, for example, in cloud-chamber tracks, spectral lines, or the like, whereas the truth conditions may relate to subatomic processes or to astrophysical facts. Or, to take an example from depth psychology, the occurrences of unconscious wishes or conflicts are the truth conditions for which the observable symptoms (Freudian lapses, manifest dream contents, and the like) serve merely as indicators or clues; i.e., as items of confirming evidence.

The third dimension of language (in Morris' view of semiotic) – i.e., the pragmatic aspect – has not been as fully and formally analyzed as the other two dimensions. There is even some disagreement as to whether some of the cognitive activities (such as verifying, refuting, or interpreting), in addition to the noncognitive functions (such as the motivative and persuasive appeals), are to be included in studies of pragmatics.

One of the most surprising and revolutionary offshoots of the metalinguistic (formal) analyses was Kurt Gödel's discovery, in 1931, of an exact proof of the undecidability of certain types of mathematical problems, a discovery that dealt a severe blow to the expectations of the Formalistic school of mathematics championed by Hilbert and his collaborator, Paul Bernays. Before Gödel's discovery, it had seemed plausible that a mathematical system could be complete in the sense that any well-formed formula of the system could be either proved or disproved on the basis of the

given set of postulates. But Gödel showed rigorously (what had been only a conjecture on the part of the Dutch Intuitionist L.E.J. Brouwer and his followers) that, for a large class of important mathematical systems, such completeness cannot be achieved.

Both Carnap and Reichenbach, in their very different ways, made extensive contributions to the theory of probability and induction. Impressed with the need for an interpretation of the concept of probability that was thoroughly empirical, Reichenbach elaborated a view that conceived probability as a limit of relative frequency and buttressed it with a pragmatic justification of inductive inference. Carnap granted the importance of this concept (especially in modern physical theories) but attempted, in increasingly refined and often revised forms, to define a concept of degree-of-confirmation that was purely logical. Statements ascribing an inductive probability to a hypothesis are, in Carnap's view, analytic, because they merely formulate the strength of the support bestowed upon a hypothesis by a given body of evidence.

#### Current Criticisms and Controversies

Logical Positivism and Logical Empiricism have from their very beginnings been subjected to searching criticisms. At first it was the verifiability criterion of meaningfulness that produced a storm of oppositions. One group of critics asked whether the criterion was meaningful in the light of its own standard. Carnap replied that the criterion itself was not intended as a factual assertion but rather as a proposal for a better and clearer use of language. Nevertheless, the Logical Empiricists felt that the (tolerant-liberal)

formulation of the meaning criterion – far from being an arbitrary injunction – came rather close to what enlightened common sense, and especially the scientific attitude, intended by the difference between sense and non-sense.

Other recent and current criticisms concern the Logical Empiricist views regarding the nature of scientific explanation, in regard to which matters are not as simple as they were originally conceived to be. Closer attention to the history of scientific theories has revealed important discontinuities, or revolutions, in the conceptual schemes of the sciences. The significant role of statistical (or probabilistic) explanations in most modern sciences, for example, is receiving increasingly sophisticated analyses.

Nevertheless, the prevalence of scientific revolutions and anarchism or subjectivism in scientific method has been exaggerated in differing ways by several scholars. As has been conceded by all competent philosophers of science and even by the greatest scientist-philosophers of the century – Albert Einstein, Niels Bohr, Erwin Schrödinger, and others – there is no straight logical path, no standard recipe, by which to move from the data of observation and arrive at scientific theories. It may also be admitted that, though scientific creativity has psychologically much in common with artistic creation, the criteria of appraisal are certainly quite different. And, although, from the present critical point of view, all and any scientific assertions are in principle subject to revision, it is nonetheless felt to be grotesque to deny the relative stability of the empirical laws that serve as the testing ground of alternative theories.

## Pragmatism

In its broadest and most familiar sense, “pragmatism” refers to the usefulness, workability, and practicality of ideas, policies, and proposals as criteria of their merit and claims to attention. Achieving results, “getting things done” in business and public affairs is often said to be “pragmatic.” There is a harsher and more brutal connotation of the term in which any exercise of power in the successful pursuit of practical and specific objectives is called “pragmatic.” The character of American business and politics is often so described. In these cases “pragmatic” carries the stamp of justification: a policy is justified pragmatically if it is successful. The familiar and the academic conceptions have in common an opposition to invoking the authority of precedents or of abstract and ultimate principles. Thus in law, judicial decisions that have turned on the weighing of consequences and probable general welfare rather than on being deduced from precedents have been called pragmatic.

The word pragmatism goes back to the Greek *π ρ α γ μ* (“action,” “affair”). The Greek historian Polybius (died 118 BCE) called his writings “pragmatic,” meaning thereby that they were intended to be instructive and useful to his readers. In his introduction to the *Philosophy of History*, Hegel commented on this “pragmatical” approach as the second kind of reflective history, and for this genre he cited Johannes von Müller’s *History of the World* (Eng. trans. 1840). As the psychologist and leading Pragmatist William James remarked, “the term is derived from the same Greek word *π ρ α γ μ α* meaning action, from which our words ‘practice’ and ‘practical’ come.” Charles Peirce, another pioneering Pragmatist, who may have been the first to use the word to designate a specific philosophic doctrine, had Kant’s German term rather than the Greek word in mind: *Pragmatisch* refers to experimental,

empirical, and purposive thought “based on and applying to experience.” In the philosophy of education the notion that children learn by doing, that critical standards of procedure and understanding emerge from the application of concepts to directly experienced subject matters, has been called “pragmatic.” In semiotics, the general theory of language, that part that studies the relation of the user to the words or other signs that he uses is called pragmatics (as distinct from semantics and syntax).

#### Major Theses of Philosophic Pragmatism

During the first quarter of the 20th century, Pragmatism was the most influential philosophy in America, exerting an impact on the study of law, education, political and social theory, art, and religion. Six fundamental theses of this philosophy can be distinguished. It is, however, unlikely that any one thinker would have subscribed to them all; and even on points of agreement, varying interpretations mark the thought and temper of the major Pragmatists. The six theses are:

1. Responsive to Idealism and evolutionary theory, Pragmatists have emphasized the “plastic” nature of reality and the practical function of knowledge as an instrument for adapting to reality and controlling it. Existence is fundamentally concerned with action, which some Pragmatists exalted to an almost metaphysical level. Change being an inevitable condition of life, Pragmatists have called attention to the ways in which change can be directed for individual and social benefit. They have consequently been most critical of moral and metaphysical doctrines in which change and action are relegated to the “merely practical,” on the lowest level of the hierarchy of



values. Some Pragmatists anticipated the more concrete and life-centred philosophy of Existentialism by arguing that only in acting – confronted with obstacles, compelled to make choices, and concerned to give form to experience – is man’s being realized and discovered.

2. Pragmatism is a continuation of critical Empiricism in emphasizing the priority of actual experience over fixed principles and a priori reasoning in critical investigation. For James this meant that the Pragmatist

turns away from abstraction and insufficiency, from verbal solutions, from bad a priori reasons, from fixed principles, closed systems, and pretended absolutes and origins. He turns towards concreteness and adequacy, towards facts, towards action... It means the open air and possibilities of nature, as against... dogma, artificiality, and the pretence of finality in truth.

3. The pragmatic meaning of an idea, belief, or proposition is said to reside in the distinct class of specific experimental or practical consequences that result from the use, application, or entertainment of the notion. As Peirce commented: “Our idea of anything is our idea of its sensible effects.” Two propositions for which no different effects can be discerned have merely a verbal appearance of dissimilarity, and a proposition for which no definite theoretical or practical consequences can be determined is pragmatically meaningless. For Pragmatists “there is no distinction of meaning so fine as to consist in anything but a possible difference of practice.” Meaning thus has a predictive component, and some Pragmatists came close to identifying the meaning of a term or proposition with the process of its verification.

4. While most philosophers have defined truth in terms of a belief's "coherence" within a pattern of other beliefs or as the "correspondence" between a proposition and an actual state of affairs, Pragmatism has, in contrast, generally held that truth, like meaning, is to be found in the process of verification. Thus truth *is* the verification of a proposition, or the successful working of an idea. Crudely, truth is "what works." Less crudely and more theoretically, truth is in Peirce's words, the "limit towards which endless investigation would tend to bring scientific belief." For John Dewey, founder of the "Instrumentalist" school of Pragmatism, these are beliefs "warranted" by inquiry.

5. In keeping with their understanding of meaning and truth, Pragmatists have interpreted ideas as instruments and plans of action. In contrast to the conception of ideas as images and copies of impressions or of external objects, Pragmatist theories have emphasized the functional character of ideas: ideas are suggestions and anticipations of possible conduct; they are hypotheses or forecasts of what will result from a given action; they are ways of organizing behavior in the world rather than replicas of the world. Ideas are thus analogous in some respects to tools; they are efficient, useful, and valuable, or not, depending on the role that they play in contributing to the successful direction of behavior.

6. In methodology, Pragmatism is a broad philosophical attitude toward the formation of concepts, hypotheses, and theories and their justification. To Pragmatists man's interpretations of reality are motivated and justified by considerations of efficacy and utility in serving his interests and needs; the molding of language and theorizing are likewise subject to the critical objective of maximum usefulness according to man's various purposes.

## History of Pragmatism

### Antecedents in Modern Philosophy

Pragmatism was a part of a general revolt against the overly intellectual, somewhat fastidious, and closed systems of Idealism in 19th-century philosophy. These boldly speculative Idealists had expanded man's subjective experience of mind till it became a metaphysical principle of cosmic explanation. To the Idealist, all of reality was one fabric, woven from parts that cohered by virtue of the internal relations that they bore to one another; and this reality was often interpreted in abstract and fixed intellectual categories. The theory of evolution, then still new, seemed to the Pragmatists, on the other hand, to call for a new, non-Idealist interpretation of nature, life, and reason – one that challenged the long-established conceptions of fixed species. The new emphasis was on the particular variations and struggles of life in adapting to the environment. Philosophically, the fact of growth and the development of techniques for instituting changes favorable to life became the significant factors rather than the Idealist's ambitious rationalistic account of human goals and of the universe in general, and important developments in natural science and logic also encouraged a critical attitude toward earlier systems.

There were two main influences on the early formation of Pragmatism: One was the tradition of British Empiricism in the work of John Stuart Mill, Alexander Bain, and John Venn, which had stressed the role of experience in the genesis of knowledge – and particularly their analyses of belief as being intimately tied in with action and, indeed, as definable in terms of one's disposition and motive to act. The work of George Berkeley, an important 18th-century empirical Idealist, which presented a theory of the practical and

inferential nature of knowledge, of sensations as signs (and thus predictive) of future experience, led Peirce to refer to him as “the introducer of Pragmatism.” The other major influence came from modern German philosophy: from Kant’s analysis of the purposive character of belief and of the roles of will and desire in forming belief and his doctrine of “regulative ideas,” such as God or the Soul, which guide the understanding in achieving systematic completeness and unity of knowledge; from Romantic Idealists, for whom all reason is “practical” in expanding and enriching human experience; and from Hegel’s historical and social conception of changing and developing subject matters. In sum, Peirce was profoundly impressed by Kant and by the Scottish philosophy of common sense, James by British Empiricism and by the voluntarisms (stressing the role of choice or will) of the genetic epistemologist James Ward and the relativistic French Personalist Charles Renouvier, Dewey by Coleridge’s version of Kant’s active conception of mind and by neo-Kantian and Hegelian Idealism.

Finally, to these influences must be added that of American social experience in the 19th century: the rapid expansion of industry and trade and a popular optimism, with its roots in Puritan theology, holding that hard work and virtue are bound to be rewarded. Both the precariousness of frontier life, however, and the rapidly expanding economy weakened the prevailing Calvinistic belief in a predestined future and encouraged the emergence of inventiveness, a sense of living still in the New World experiment, and adoption of the ideal of “making good.”

### The Metaphysical Club

It was in the critical group discussions of the “Metaphysical Club” in the 1870s in Cambridge, Massachusetts, that Pragmatism first received philosophic expression. In addition to Peirce and James, membership in the club included Chauncey Wright, F.E. Abbot, and Justice Oliver Wendell Holmes, Jr. A version of Peirce’s now classic paper “The Fixation of Belief” (November 1877) seems to have been presented at the club. But James also published a paper in 1878, “Spencer’s Definition of Mind as Correspondence,” in which his Pragmatism and analysis of thought and belief are clearly discernible. It was in a lecture delivered 20 years later, however, that James introduced Pragmatism, and then fully crediting the idea to Peirce. It was primarily James’s exposition that became famous and was received by the world at large.

### The Classical Pragmatists

The Pragmatic philosophy of Charles Sanders Peirce was part of a more general theory of thought and of signs. Thought, or “inquiry,” it was held, results from doubt, a state in which habitual actions are blocked or confused and from which organic irritation and irresolution result. Resolution, unobstructed conduct, on the other hand, are products of belief, which is a form of stability and satisfaction. It is the function of scientific thought to produce true beliefs. In a prolonged effort to embed this analysis of doubt and inquiry within a more comprehensive theory of signs in which communication, thought, knowledge, and intelligent conduct could be fully understood, Peirce achieved a wealth of original insights. A sign is a socially

standardized way by which something (a thought, word, object) refers man (the community of sign users) to something else (the interpretant), which, in turn, is itself another sign. Peirce's Pragmatism is thus a method for translating certain kinds of signs into clearer signs in order to surmount linguistic or conceptual confusion. Getting at the interpretant involves determining the "effects" or consequences of the signs or ideas in question.

Peirce's Pragmatism is therefore primarily a theory of meaning that emerged from his first-hand reflections on his own scientific work, in which the experimentalist understands a proposition as meaning that, if a prescribed experiment is performed, a stated experience will result. The method has two different uses:

(1) It is a way of showing that when disputes permit no resolution, the difficulties are due to misuses of language, to subtle conceptual confusions. Such questions as whether the physical world is an illusion, whether man's senses always mislead him, or whether his actions are fated are "not real problems."

(2) The method may be employed for clarification. As Peirce wrote:

Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then our conception of these effects is the whole of our conception of the object.

To say, for example, that an object *O* is hard means that if the operation of scratching *O* is performed, *O* will not be scratched by most substances. One thus achieves clarity when one can supply a conditional statement of this kind.

Similarly, in his theory of truth, one means by truth of belief that if a certain operation is the subject of continuous scientific inquiry by the community of investigators, assent to the belief would increase and dissent decrease “in the long run.” Consequently, not only is thought purposive but meaning carries a reference to the future. Peirce’s concept of the community of sign users and inquirers also has social and moral relevance, for it is nothing less than the ideal of rational democracy.

Witnessing his doctrine undergo a medley of dubious interpretations, Peirce eventually dissociated himself from these by calling his own view “Pragmatism,” a term he called so ugly as to be safe from uninformed use. Parts of the work of Dewey, of the social Pragmatist G.H. Mead, and of the conceptualistic Pragmatist C.I. Lewis are a further development of the logical Pragmatism of Peirce. The English logician F.P. Ramsey and the Italians Giovanni Vailati and Mario Calderoni also undertook significant extensions of Peirce’s Pragmatism.

An alternative, though not wholly different, version of Pragmatism was developed by William James. It took a psychological and moral form largely unforeseen and unintended by Peirce.

A basic difference between Peirce and James is discernible in their respective conceptions of the direction to be taken by Pragmatic analysis. While Peirce construed meaning in general, conditional schema, and interpretants, James focused upon the distinct contributions that ideas and beliefs make to specific forms of human experience on the living level of practical wants and purposes. Between the two close friends there persisted a fundamental philosophical difference in outlook that affected even their styles. While James was a Nominalist, holding that the full significance of ideas,

meanings, and actions lies in their particular concrete existent occurrence, Peirce – as a scholastic Realist – sharply criticized him at this point, arguing that “a thing in general is as real as in the concrete.”

The most conspicuous feature of James’s writings on Pragmatism is the dominant place given to considerations of value, worth, and satisfaction – consequences of his teleological (purposive) conception of mind (*cf.* his *Principles of Psychology*). James maintained that thought is adaptive and purposive but also suffused with ideal emotional and practical interests – “should-be’s” – which, as conditions of action, work to transform the world and create the future, even to “make the truth which they declare.” Consequently, truth and meaning are species of value: “The true is the name of whatever proves itself to be good in the way of belief.”

James took meaning to be an intimate part of the use of ideas for expediting action. The notion of the difference that a proposition makes in experience was fundamental in James’s Pragmatic methodology. He remarked that “it is a good rule in physiology, when we are studying the meaning of an organ,” to look to the specific function that it performs. In like manner, the special difference that the presence of mind makes in observable cases, reflected in its unique functioning, defines the use of “mind”; “In particular, the pursuance of future ends and the choice of means... are thus the mark and criterion of the presence of mentality.”

With his training in medicine and psychology and the influence of Darwin in the background, James considered that the main function of thought is to help us establish “satisfactory relations with our surroundings.” Thus man helps to mold the character of reality according to his needs and desires. Indeed, this is fundamental in James’s defense of the right to believe in his



famous essay “The Will to Believe” (1897). James argued that we may have a reasonable right to hold a religious or metaphysical belief (e.g., that there is a perfect, eternal, and personal aspect of the universe) when the belief in question would supply a vital psychological and moral benefit to the believer, when evidence for and against the belief is equal, and when the decision to believe is forced and momentous. In James’s functional conception of truth, the “working,” and hence the truth, of ideas is their role in opening up valuable possible directions of thought and action – “a leading that is worth while.”

James’s “working” view of truth and of a reality that man in part makes by acting out and realizing ideas, and especially his essay “The Will to Believe,” were enthusiastically received by F.C.S. Schiller in England and by Giovanni Papini in Italy, and these doctrines became a cause célèbre for Pragmatists and their critics.

An admirer and friend of James, Schiller, now nearly forgotten, was once the most famous Pragmatist in England and Europe. Schiller was initially a humanist in the sense that, for him, both reality and knowledge are reflections of human activity – “the taken” rather than “the given.” He first came to appreciate James’s “The Will to Believe” in 1897 and subsequently acknowledged its impact on his thinking in an early and important paper, “Axioms As Postulates” (1902). He was a tireless critic of the “closed” systems of Idealism of F.H. Bradley, J.M.E. McTaggart, and Bernard Bosanquet and an advocate of the intellectual freedom that consists in “open,” plural, changing, and to some extent never finished philosophical theorizing. According to Schiller, reality and truth are “man-made” rather than eternal verities. The true and the false are basically forms of good and bad and are relative to the private purposes of some particular person. He attempted to

describe and analyze the “logic” of the experimental “trying” through which such needs are satisfied. For Schiller, reality is wholly plastic; and, starting out from initial postulates, one proceeds to construct one’s schemes for achieving a satisfactory outcome of desire, finally rendering one’s unformed possibilities (*hyle*) into a common world of language and action. On this view, all of science derives from and is inescapably guided by the psychological process of human thought; man is the measure of all things.

John Dewey once noted that “Peirce wrote as a logician and James as a humanist.” This distinction characterizes not only the course of Pragmatism but also the shaping of Dewey’s own thought. Dewey first felt the influence of James in the 1890s, during the period in which he was struggling to free himself from the hold of Hegelian Idealism. Later, he recognized the value of Peirce’s work, which clearly prefigured certain ideas that he had developed independently.

With indefatigable effort and care Dewey reformulated Pragmatism, critically readjusting some of its conflicting doctrines, drawing upon his own work in psychology and education, and finding stimulation in the social Pragmatism of his friend George Herbert Mead. The resulting construction was Instrumentalism, which Dewey conceived as a single coherent theory embracing both the logical and humanistic currents of Pragmatism and thus integrating the methods and conclusions of scientific knowledge with beliefs about values and purposes.

While scientific, moral, and social experiences may differ in subject matter, the method of thought functioning “in the experimental determinations of future consequences” remains the same for all inquiry. Initially provoked by doubtful or problematic conditions, intelligent conduct is addressed to a

resolution and settling of these conditions and to a “warranted assertion” – Dewey’s version of “truth.” Such is the “mediative function” of reason. “Truth” is thus identified with the outcome of competent inquiry. Actions occurring on the organic level, if they be at first confused and obstructed, can then become organized, coherent, and liberated through such inquiry.

Dewey’s analysis of the organic, cultural, and formal conditions of intelligent action implies that all reflective conduct issues in an evaluation of a situation with respect to future action and consequences: thus inquiry is essentially an evaluative procedure. This method, most impressively applied in the sciences, is nonetheless a paradigm of moral activity as well. In ethics, “the action needed to satisfy” the situation is not to be found simply by the application of moral codes. The meaning has to be searched for [since] there are conflicting desires and alternative apparent goods... Hence inquiry is exacted... The good of the situation has to be discovered, projected and attained on the basis of the exact defect and trouble to be rectified.

In general, for Instrumentalism, moral ideals and “ends” function as means and hypotheses in guiding the deliberative process directed to controlling experience and attaining future goods. Not health as an end fixed once for all, but the needed improvement in health – a continual process – is the end and good... Not perfection as a final goal, but the ever-enduring process of perfecting, maturing, refining is the aim of living... Growth itself is the only moral ‘end.’

Inquiry possessed a genuine religious significance for Dewey, and in its functioning as a critical, self-corrective social process of human growth he envisaged the working ethic of democracy.

## Other American Pragmatists

Two important contributions to American Pragmatism, which have not yet received the attention that they deserve, came from Mead and Lewis.

Mead's orientation was social psychology. He had studied physiological psychology in Germany, had earlier worked under James and Josiah Royce at Harvard, and was also familiar with Peirce's analyses of thought and signs. Dewey regarded him as one of the most fertile minds in American philosophy.

Mead developed the most comprehensive of the Pragmatist theories of mind. He depicted the evolution of mind and self-consciousness as emerging from social interactions and the use of gestures and "significant symbols" such as words. In contrast to other creatures, an individual regarded as having mind, engaging with others in social acts, can respond to his own gestures as others respond to them – thus taking on social roles and becoming an "other" in respect to himself. It is therefore by means of language, the use of "significant symbols," that mind emerges.

Fundamental to Mead's philosophy is his conception of the social act, in which individuals modify and direct one another's activities, work out their purposes, and accordingly transform their environments. In the social act the future controls present conduct, and this is distinctive of consciousness. Since the function of intelligence is to render the world "favorable for conduct," Mead viewed the development of scientific knowledge and the evolutionary process as coinciding.

Lewis's theory of "conceptualistic Pragmatism" was derived partly from his study of modern logic and partly from the influence of Royce and the

classic Pragmatists. The critical results of a careful study of Kant are traceable in his work.

Lewis's Pragmatism focusses upon concepts, categories, and principles through which experience is interpreted. Though the sensuously given is "unalterable," how it is taken, how conceptually interpreted, depends on the purposes and initiatives of the mind – the a priori element in knowledge, which, functioning as categorical criteria of reality, is "true no matter what." It is by means of these that a systematic interpretation of reality is developed. However, there may be alternative conceptual systems, giving rise to alternative descriptions of experience, which are equally objective and equally valid... When this is so, choice will be determined... on pragmatic grounds.

In stressing the purposive character of conceptualization, Lewis is thus in the main course of American Pragmatism.

### Pragmatism in Europe

In his preface to *Pragmatism*, James commented that the Pragmatic movement was the focal expression of a number of philosophic tendencies suddenly becoming conscious of themselves and of "their combined mission." He mentioned the French thinkers Maurice Blondel, Édouard Le Roy, and B. de Saily and the Italian Giovanni Papini. Blondel was the author of *L'Action* (1893) and spokesman for a voluntaristic and activist theory of knowledge. He was a founder of the "school of action," a liberal Catholic group that was part of the modernist movement (which employed the new historico-critical approach to the Bible and promoted a rationalistic interpretation of the faith). As early as 1888, Blondel appropriated the term *Pragmatisme*, only to

abandon it when he learned of American Pragmatism, which was a more naturalistic philosophy than his own. Le Roy, closer to James than other French thinkers, also called his views Pragmatism. In broad respects he was like James in holding that the truth and the full significance of beliefs is found in acting them out. Le Roy was a disciple of Henri Poincaré, who had argued that scientific theories are not mere summaries of data, nor deduced from axioms, but are creative constructions, products of human thought and ingenuity, “conventions.” To the question of what limits are imposed on otherwise arbitrary conventions, of what justifies them, Le Roy suggested their convenience in use. James saw similar forms of Pragmatism in Ernst Mach, Wilhelm Ostwald, Pierre Duhem, and Théodore Ruysen in “the notion that no theory is absolutely a transcript of reality” and that “their great use is to summarize old facts and lead to new ones” so that they are a “man-made language, a conceptual shorthand... in which we write our reports of nature.”

Another French thinker, Georges Sorel, undertook to reformulate James’s Pragmatism into a “useful” doctrine of social criticism. Mussolini later cited Sorel and James as two of his philosophic mentors. He claimed to find in James “that faith in action, that ardent will to live and fight, to which Fascism owes a great part of its success.” To the democratic James, no lesson could have been more badly learned.

A more immediate and direct form of James’s Pragmatism occurred in Italy with its center in the journal *Leonardo*, under the leadership of the iconoclastic critic Giovanni Papini. James referred to Papini as “a brilliant, humorous and witty writer.” He called him a genius and was addressed in turn by him as “the Master.” Papini’s Pragmatism, derived from James’s “The Will to Believe,” became a theory of the will to action. In action, through creative power and passion, man achieves a kind of divinity. This romantic exaltation

of action was appealing to artists but also to fanatics. Papini and his associate Giuseppe Prezzolini comprised the “magical” school of Pragmatism (in the sense of seeking “divinely-creative” power) in contrast to the “logical” school inspired by Peirce of G. Vailati and M. Calderoni.

### Later Tendencies

Certain extensions and applications of Pragmatism are to be found in current American philosophy. Sidney Hook has directed some of the critical techniques of analysis against a number of ideologies. In the tradition of the scientifically oriented Pragmatisms of Peirce and Dewey, he has explored the relation between the logic of experimental inquiry and the ethic of democracy. A converging of Pragmatism and Logical Positivism resulted in the movement of “logical empiricism” which, in addition to Dewey and Lewis, included the top-rank philosophers of science P.W. Bridgman, Rudolf Carnap, and Ernest Nagel, and the philosophical semanticist Charles W. Morris, all of whom were responsive to the Pragmatisms of Peirce, James, and Dewey. More recent and detailed studies of the structure of science, the nature of theories and explanation, by Carnap, Lewis, and Nagel, and a new interest in Instrumentalism deriving from the work of F.P. Ramsey, Ludwig Wittgenstein, W.H. Watson, and Gilbert Ryle (as well, of course, as from Dewey) exhibit a further continuation of Pragmatism.

Maintaining a “more thorough Pragmatism” than that of Carnap and Lewis, who viewed choices made within scientific frameworks as pragmatic decisions, the prominent logician W.V. Quine has argued against the alleged boundary between analytic and synthetic truths. No portion of the conceptual

scheme of science is exempt (as analytic truths were supposed to be) from possible revision in the flux of experience and in the light of pragmatic interests in efficacy and comprehension in predicting future experience. In important respects Quine's view of the evolution, organization, and function of the conceptual structure of science is close to that of Schiller, James, and Dewey.

Quine has also defended a methodological Pragmatism and relativism on ontological questions on the nature of being or reality. This position, also taken by another contemporary philosopher of science and language, Nelson Goodman, recalls the earlier Pragmatists' notion of the "plastic" character of reality, now seen as conceptually plastic in the sense of being expressible in a variety of systems of symbols and languages. It is conceptually misguided to seek *the* nature of objects, since what there *is* is not describable *in abstracto* from the particular language in which an ontological question has been put. Objects declared to be real, be they classes, numbers, atoms, or stones, may differ widely. But differences between the "theoretical" and the "factual" entities are basically differences of degree and purpose in evolving conceptualization. Hence reality is anything that it is truly said to be – in any of many linguistic and symbolic systems; and where differences in ways of speaking about objects call for choices, the ensuing adjudications will be pragmatic.



## Evaluation of Pragmatism

Pragmatism has been vulnerable to certain criticisms. It has often been portrayed as a rationalization of the American business ethos – a portraiture perhaps inspired, but not by any scrutiny of the writings of the philosophers themselves. Similarly, the Pragmatic theory of truth has been assailed. Concerning an idea or belief, James had held that one can say: “ ‘It is useful because it is true’ or that ‘it is true because it is useful.’ “ “Both phrases,” he added, “mean the same thing.” Most scholars, however, have denied this equivalence. His position may seem, moreover, to allow for an idea to be true (i.e., useful or expedient) for one person and false (inexpedient) for others. Finally, James was accused of reducing truth to a subjective play of opinions that one happens to relish or find useful to believe. To these charges James replied that “what immediately feels most ‘good’ is not always most ‘true’ when measured by the verdict of the rest of experience.” He also warned: “Woe to him whose beliefs play fast and loose with the order which realities follow in his experience.”

As a single movement, Pragmatism is no longer extant; but as a body of ideas it contributes a heritage that is destined for future analysis and development. Chief among these are the interpretation of thought and meaning as forms of purposive behavior, of knowledge as evaluative procedure in which normative and descriptive materials are integrally related, and of the logic of scientific inquiry as a norm of intelligent conduct in the affairs of men. Finally, Pragmatism has succeeded in its critical reaction to the 19th-century philosophy from which it emerged. It has influenced the current conception of philosophy as a critical method of investigating problems and clarifying communication rather than as a universal synthesis of knowledge. Pragmatism thus has certain affinities with the critical philosophizing of G.E.

Moore and Bertrand Russell, as well as with the thought of the French intuitionist and vitalist Henri Bergson and his disciple Édouard Le Roy, of Blondel, of the early Positivists Mach and Duhem, of the fictionalist Hans Vaihinger, of the Vienna Circle and the philosopher of logic and language Ludwig Wittgenstein, and also of the founder of Phenomenology, Edmund Husserl, and some of the continuing forms of Phenomenology and Existentialism. It has recognized the relative, contingent, and fallible (yet still authentic) character of human reason, rather than perpetuating the dubious ideal of philosophy as a system of eternal truths. In so doing, and in thus altering the philosophical scene, Pragmatism has become vitally implicated in the practices of current intellectual life; and in the light of this fact, a more pragmatic justification of Pragmatism is difficult to imagine.

### Rationalism

Rationalism is the philosophical view that regards reason as the chief source and test of knowledge. Holding that reality itself has an inherently logical structure, the Rationalist asserts that a class of truths exists that the intellect can grasp directly. There are, according to the Rationalists, certain rational principles – especially in logic and mathematics, and even in ethics and metaphysics – that are so fundamental that to deny them is to fall into contradiction. The Rationalist's confidence in reason and proof tends, therefore, to detract from his respect for other ways of knowing. Rationalism has long been the rival of Empiricism, the doctrine that all knowledge comes from, and must be tested by, sense experience. As against this doctrine, Rationalism holds reason to be a faculty that can lay hold of truths beyond the reach of sense perception, both in certainty and generality. In stressing the

existence of a “natural light,” Rationalism has also been the rival of systems claiming esoteric knowledge, whether from mystical experience, revelation, or intuition, and has been opposed to various irrationalisms that tend to stress the biological, the emotional or volitional, the unconscious, or the existential at the expense of the rational.

### Types and Expressions of Rationalism

Rationalism has somewhat different meanings in different fields, depending upon the kind of theory to which it is opposed. In the psychology of perception, for example, Rationalism is in a sense opposed to the genetic psychology of the Swiss scholar Jean Piaget, who, exploring the development of thought and behavior in the infant, argued that the categories of the mind develop only through the infant’s experience in concourse with the world. Similarly, Rationalism is opposed to Transactionalism, a point of view in psychology according to which man’s perceptual skills are achievements, accomplished through actions performed in response to an active environment. On this view, the experimental claim is made that perception is conditioned by probability judgments formed on the basis of earlier actions performed in similar situations. As a corrective to these sweeping claims, the Rationalist defends a nativism, which holds that certain perceptual and conceptual capacities are innate – as suggested in the case of depth perception by experiments with “the visual cliff,” which, though platformed over with firm glass, the infant perceives as hazardous – though these native capacities may, at times, lie dormant until the appropriate conditions for their emergence arise.

In the comparative study of languages, a similar nativism was developed in the 1950s by the innovating syntactician Noam Chomsky, who, acknowledging a debt to Descartes, explicitly accepted the rationalistic doctrine of “innate ideas.” Though the 4,000 languages spoken in the world differ greatly in sounds and symbols, they sufficiently resemble each other in syntax to suggest that there is “a schema of universal grammar” determined by “deep structures” or “innate presettings” in the human mind itself. These presettings, which have their basis in the brain, set the pattern for all experience, fix the rules for the formation of meaningful sentences, and explain why languages are readily translatable into one another. It should be added that what Rationalists have held about innate ideas is not that some ideas are full-fledged at birth but only that the grasp of certain connections and self-evident principles, when it comes, is due to inborn powers of insight rather than to learning by experience.

Common to all forms of speculative Rationalism is the belief that the world is a rationally ordered whole, the parts of which are linked by logical necessity and the structure of which is therefore intelligible. Thus in metaphysics it is opposed to the view that reality is a disjointed aggregate of incoherent bits and is thus opaque to reason. In particular, it is opposed to the logical atomisms of such thinkers as David Hume and Ludwig Wittgenstein, who held that facts are so disconnected that any fact might well have been different from what it is without entailing a change in any other fact. Rationalists have differed, however, with regard to the closeness and completeness with which the facts are bound together. At the lowest level, they have all believed that the law of contradiction “A and not-A cannot coexist” holds for the real world, which means that every truth is consistent with every other; at the highest level, they have held that all facts go beyond

consistency to a positive coherence; i.e., they are so bound up with each other that none could be different without all being different.

In the field where its claims are clearest – in epistemology, or theory of knowledge – Rationalism holds that some, at least, of man's knowledge is gained through a priori (prior to experience), or rational, insight as distinct from sense experience, which too often provides a confused and merely tentative approach. In the debate between Empiricism and Rationalism, Empiricists hold the simpler and more sweeping position, the Humean claim that all knowledge of fact stems from perception. Rationalists, on the contrary, urge that some, though not all, knowledge arises through direct apprehension by the intellect. What the intellectual faculty apprehends is objects that transcend sense experience – universals and their relations. A universal is an abstraction, a characteristic that may reappear in various instances: the number three, for example, or the triangularity that all triangles have in common. Though these cannot be seen, heard, or felt, Rationalists point out that man can plainly think about them and about their relations. This kind of knowledge, which includes the whole of logic and mathematics as well as fragmentary insights in many other fields, is, in the Rationalist view, the most important and certain knowledge that the mind can achieve. Such a priori knowledge is both necessary (i.e., it cannot be conceived as otherwise) and universal, in the sense that it admits of no exceptions. In critical philosophy, epistemological Rationalism finds expression in the claim that the mind imposes its own inherent categories or forms upon incipient experience.

In ethics Rationalism holds the position that reason, rather than feeling, custom, or authority, is the ultimate court of appeal in judging good and bad, right and wrong. Among major thinkers, the most notable representative of rational ethics is Immanuel Kant, who held that the way to judge an act is to

check its self-consistency as apprehended by the intellect: to note, first, what it *is* essentially, or in principle – a lie, for example, or a theft – and then to ask if one can consistently will that the principle be made universal. Is theft, then, right? The answer must be “No,” because, if theft were generally approved, no one’s property would be his own as opposed to anyone else’s and theft would then become meaningless; the notion, if universalized, would thus destroy itself, as reason, by itself, is sufficient to show.

In religion Rationalism commonly means that all of man’s knowledge comes through the use of his natural faculties, without the aid of supernatural revelation. “Reason” is here used in a broader sense, referring to man’s cognitive powers generally, as opposed to supernatural grace or faith – though it is also in sharp contrast to so-called existential approaches to truth. Reason, for the Rationalist, thus stands opposed to many of the religions of the world, including Christianity, which have held that the divine has revealed itself through inspired persons or writings and which have required, at times, that its claims be accepted as infallible, even when they do not accord with natural knowledge. Religious Rationalists hold, on the other hand, that if the clear insights of man’s reason must be set aside in favor of alleged revelation, then human thought is everywhere rendered suspect – even in the reasonings of the theologians themselves. There cannot be two ultimately different ways of warranting truth, they assert; hence Rationalism urges that reason, with its standard of consistency, must be the final court of appeal. Religious Rationalism can reflect either a traditional piety, when endeavoring to display the alleged sweet reasonableness of religion, or an anti-authoritarian temper, when aiming to supplant religion with the “goddess of reason.”

## History of Rationalism

### Epistemological Rationalism in Ancient Philosophies

The first Western philosopher to stress rationalist insight was Pythagoras, a shadowy figure of the 6th century BCE. Noticing that, for a right triangle, a square built on its hypotenuse equals the sum of those on its sides and that the pitches of notes sounded on a lute bear a mathematical relation to the lengths of the strings, Pythagoras held that these harmonies reflected the ultimate nature of reality. He summed up the implied metaphysical Rationalism in the words “All is number.” It is probable that he had caught the Rationalist’s vision, later seen by Galileo, of a world governed throughout by mathematically formulable laws.

The difficulty in this view, however, is that, working with universals and their relations, which, like the multiplication table, are timeless and changeless, it assumes a static world and ignores the particular, changing things of daily life. The difficulty was met boldly by the Rationalist Parmenides, who insisted that the world really is a static whole and that the realm of change and motion is an illusion, or even a self-contradiction. His disciple Zeno of Elea further argued that anything thought to be moving is confronted with a row of points infinite in number, all of which it must traverse; hence it can never reach its goal, nor indeed move at all. Of course, perception tells us that we do move; but Zeno, compelled to choose between perception and reason, clung to reason.

The exalting of rational insight above perception was also prominent in Plato (c. 427-347 BCE). In the *Meno*, Socrates dramatized the innateness of knowledge by calling upon an illiterate slave boy and, drawing a square in the

sand, proceeding to elicit from him, step by step, the proof of a theorem in geometry of which the boy could never have heard (to double the size of a square, draw a square on the diagonal). Such knowledge, Rationalists insist, is certain, universal, and completely unlearned.

Plato so greatly admired the rigorous reasoning of geometry that he is alleged to have inscribed over the door of his Academy "Let no one unacquainted with geometry enter here." His famous "ideas" are accessible only to reason, not to sense. But how are they related to sensible things? His answers differed. Sometimes he viewed the ideas as distilling those common properties of a class in virtue of which one identifies anything as a member of it. Thus what makes anything a triangle is its having three straight sides; this is its essence. At other times, Plato held that the idea is an ideal, a non-sensible goal to which the sensible thing approximates; the geometer's perfect triangle "never was on sea or land," though all actual triangles more or less embody it. He conceived the ideas as more real than the sensible things that are their shadows and saw that the philosopher must penetrate to these invisible essences and see with the eye of his mind how they are linked together. For Plato they formed an orderly system that was at once eternal, intelligible, and good.

Plato's successor Aristotle (384-322 BCE) conceived of the work of reason in much the same way, though he did not view the ideas as independent. His chief contribution to Rationalism lay in his syllogistic logic, regarded as the chief instrument of rational explanation. Man explains particular facts by bringing them under general principles. Why does one think Socrates will die? Because he is a man, and man as such is mortal. Why should one accept the general principle itself that all men are mortal? In human experience such principles have so far held without exception. But the



mind cannot finally rest in this sort of explanation. Man never wholly understands a fact or event until he can bring it under a principle that is self-evident and necessary; and he then has the clearest explanation possible. On this central thesis of Rationalism, the three great Greeks were in accord.

Nothing comparable in importance to their thought appeared in Rationalistic philosophy in the next 1,800 years, though the work of Thomas Aquinas in the 13th century was an impressive attempt to blend Greek Rationalism and Christian revelation into a single harmonious system.

Thoroughgoing Rationalism is to be found only in the philosophical tradition that has come down from Greece; the mysticism of India and the practicality of China have offered a less congenial soil for it. The nearest parallels to it in Eastern thought are found in the work of the Indian philosopher Shankara, who flourished about CE 800, and in that of the Chinese sage Chu-Hsi (1130-1200). Both were commentators on the ancient scriptures of their lands; and in ordering the scattered insights of these sources into intelligible systems, they did for their respective peoples something like what Aquinas did for the West in his harmonizing of Greek with Christian thought. Shankara held, as Sir Sarvepalli Radhakrishnan has expressed it, that “the Absolute is the unattainable goal towards which the finite intellect strives.” Perception is confined to what is transient and fragmentary; reason rises to truth that is timeless and universal; but even reason falls short of full understanding, which is achieved, if at all, only through mystical vision. Chu Hsi, who has influenced Chinese thought for the past six centuries, was a disciple of Confucius, though he had a stronger speculative interest than his master. He held that in all human minds a single reason was at work, which he called “the Way.” All things were in some degree manifestations of it, and

hence the understanding of the world lay in more complete identification with it.

### Epistemological Rationalism in Modern Philosophies

The first modern Rationalist was René Descartes (1596-1650), who was an original mathematician whose ambition was to introduce into philosophy the rigour and clearness that delighted him in mathematics. He set out to doubt everything in the hope of arriving in the end at something indubitable. This he reached in his famous *cogito ergo sum*, “I think, therefore I am”; for to doubt one’s own doubting would be absurd. Here then was a fact of absolute certainty, rendered such by the clearness and distinctness with which it presented itself to his reason. His task was to build on this as a foundation, to deduce from it a series of other propositions, each following with the same self-evidence. He hoped thus to produce a philosophical system on which men could agree as completely as they do on the geometry of Euclid. The main cause of error, he held, lay in the impulsive desire to believe before the mind is clear. The clearness and distinctness upon which he insisted was not that of perception but of conception, the clearness with which the intellect grasps an abstract idea, such as the number three, or its being greater than two.

His method was adopted in essentials by both Benedict Spinoza (1632-77) and G.W. Leibniz (1646-1716), who agreed that the framework of things could be known by a priori thinking. They differed from him, however, in their starting points. What was most undeniable to Spinoza was not the existence of his self but that of the universe, called by him Substance. From the idea of Substance, and with the aid of a few definitions and axioms, he

derived his entire system, which he set forth in his *Ethics* in a formal fashion patterned after Euclid's geometry. Still, for both Spinoza and Leibniz much in nature remained stubbornly opaque. Leibniz distinguished necessary truths, those of which the opposite is impossible (as in mathematics), from contingent truths, the opposite of which is possible, such as "snow is white." But was this an ultimate distinction? At times Leibniz said boldly that if only man knew enough, he would see that every true proposition was necessarily true – that there are no contingent truths, that snow must be white.

How, then, does reason operate and how is it possible to have knowledge that goes beyond experience? A new answer was given by Immanuel Kant (1724-1804) in his *Critique of Pure Reason*, which, as he said, involved a Copernican revolution in philosophy. The reason man can be certain that his logic and mathematics will remain valid for all experience is simply that their framework lies within his own mind; they are forms of arrangement imposed from within upon the raw materials of sensation. Man will always find things arranged in certain patterns because it is he who has unwittingly so arranged them. Kant held, however, that these certainties were bought at a heavy price. Just because a priori insights are the reflection of man's own mind, he cannot trust them as a reflection of the world outside himself. Whether the rational order in which man arranges his sensation – the order, for example, of time, space, and causality – represents an order holding among things-in-themselves (German *Dinge-an-sich*) he cannot hope to know. Kant's Rationalism was thus the counterpart of a profound Scepticism.

G.W.F. Hegel (1770-1831), the most thoroughgoing of Rationalist thinkers, attempted to break out of this Scepticism. He argued that to think of an unknowable is already to bring it within the sphere of what is known and that it is meaningless to talk of a region in which logic is invalid. Further, to

raise the question “Why?” is to presume that there is an intelligible answer to it; indeed the faith of the philosopher must be that the real is the rational and the rational real, for this faith is implicit in the philosophic enterprise itself. As an attempt to understand and explain the world, philosophy is a process of placing something in a context that reveals it as necessary. But this necessity is not, as earlier Rationalists had supposed, an all-or-nothing affair issuing in a self-evident finality. Understanding is a matter of degree. What alone would wholly satisfy thought is a system that is at once all-inclusive and so ordered that its parts entail each other. Hegel believed that the universe constitutes such a whole and, as an idealist, held that it is a single, absolute mind. To the degree that the philosopher embodies and realizes this mind, his own mind will achieve both truth and reality. Indeed, the advance of civilization reflects the enlarging presence and control of such a system in the human spirit. Broadly similar Rationalistic systems were developed in England by F.H. Bradley (1846-1924) and Bernard Bosanquet (1848-1923) and in America by Josiah Royce (1855-1916).

### Ethical Rationalism

The views of Kant were presented above as typical of this position. But few moralists have held to ethical Rationalism in this simple and sweeping form. Many have held, however, that the main rules of conduct are truths as self-evident as those of logic or mathematics. Lists of such rules were drawn up by Ralph Cudworth and Henry More among the Cambridge Platonists of the 17th century, who were noted for holding that moral principles were intrinsic to reality; and in the 18th century Samuel Clarke and Richard Price, defenders of “natural law” ethics, and the “common sense” moralist Thomas

Reid also presented such lists. A 20th-century revision of this Rationalism has been offered by the Rational Intuitionists H.A. Prichard and Sir David Ross of Oxford under the name of deontology (Greek *deon*, “duty”), which respects duty more than consequences. Ross provides a list of propositions regarding fidelity to promises, reparation for injuries, and other duties, of which he says: “In our confidence that these propositions are true there is involved the same trust in our reason that is involved in our trust in mathematics.” What is taken as self-evident, however, is not specific rules of conduct, but *prima facie* duties – the claims that some types of action have on men because of their nature. If a man is considering whether to repay a debt or to give the money to charity, each act has a self-evident claim on him; and their comparative strengths must be settled by a rational intuition.

The most influential variety of 20th-century ethical Rationalism has probably been the Ideal Utilitarianism of the British moralists Hastings Rashdall (1858-1924) and G.E. Moore (1873-1958). Both were teleologists (Greek *telos*, “end”) inasmuch as they held that what makes an act objectively right is its results (or end) in intrinsic goods or evils. To determine what is right, reason is required in two senses: firstly, the inference to the consequences is an act of inductive reasoning; secondly, the judgment that one consequence is intrinsically better than another is a priori and self-evident. Moore thought that there is a single rule for all conduct – one should so act as to produce the greatest good – and that this is also a principle self-evident to reason.

## Religious Rationalism

Stirrings of religious Rationalism were already felt in the Middle Ages regarding the Christian revelation. Thus the sceptical mind of Abelard (1079-1142) raised doubts by showing in his *Sic et Non* (“Yes and No”) many contradictions among beliefs handed down as revealed truths by the Church Fathers. The greatest of the Medieval thinkers, Thomas Aquinas (1225-74), was a Rationalist in the sense of believing that the larger part of revealed truth was intelligible to and demonstrable by reason, though he thought that a number of dogmas opaque to reason must be accepted on authority alone.

## Expansion of Religious Rationalism

Religious Rationalism did not come into its own, however, until the 16th and 17th centuries, when it took two chief forms: the scientific and the philosophic.

Galileo (1564-1642) was a pioneer in astronomy and the founder of modern dynamics. He conceived of nature as governed throughout by laws statable with mathematical precision; the book of nature, he said, is “written in mathematical form.” This notion not only ruled out the occasional appeal to miracle; it also collided with dogmas regarding the permanent structure of the world – in particular with that which viewed the Earth as the motionless center of the universe. When Galileo’s demonstration that the Earth moves around the Sun was confirmed by the work of Newton and others, a battle was won that marked a turning point in the history of Rationalism, since it provided a decisive victory in a crucial case of conflict between reason and apparently revealed truth.

The Rationalism of Descartes, as already shown, was the outcome of philosophic doubt rather than of scientific inquiry. The self-evidence of the *cogito*, seen by his “natural light,” he made the ideal for all other knowledge. The uneasiness that the church soon felt in the face of such a test was not unfounded, for Descartes was in effect exalting the natural light into the supreme court even in the field of religion. He argued that man’s guarantee against the possibility that even this natural light might deceive him lay in the goodness of the Creator. But then to prove this Creator, he had to assume the prior validity of the natural light itself. Logically, therefore, the last word lay with rational insight, not with any outside divine warrant. Descartes was inadvertently beginning a Copernican revolution in theology. Before his time, the truths regarded as most certain were those accepted from revelation; afterwards these truths were subject to the judgment of human reason, thus breaking the hold of authority on the European mind.

#### Four Waves of Religious Rationalism

The Rationalist attitude quickly spread, its advance forming several waves of general interest and influence. The first wave occurred in England in the form of Deism. Deists accepted the existence of God, but spurned supernatural revelation. The earliest member of this school, Lord Herbert of Cherbury (1583-1648), held that a just God would not reveal himself to a part of his creation only and that the true religion is thus a universal one, which achieves its knowledge of God through common reason. The Deistic philosopher John Toland (1670-1722), in his *Christianity Not Mysterious*, sought to show that “there is nothing in the Gospels contrary to reason, nor above it”; any doctrine that is really above reason would be meaningless to

man. Attacking revelation, the freethinking polemicist Anthony Collins (1676-1729) maintained that the prophecies of the Old Testament failed of fulfillment; and the religious controversialist Thomas Woolston (1670-1733) urged that the New Testament miracles, as recorded, are incredible. Matthew Tindall (1657-1733), most learned of the English Deists, argued that the essential part of Christianity is its ethics, which, being clearly apparent to natural reason, leaves revelation superfluous. Thus the Deists, professing for the most part to be religious men themselves, did much to reconcile their public to the free play of ideas in religion.

The second wave of religious Rationalism, less moderate in tone and consequences, was French. This wave, reflecting an engagement with the problem of natural evil, involved a decay in the natural theology of Deism such that it merged eventually with the stream that led to materialistic Atheism. Its moving spirit was Voltaire (1694-1778), who had been impressed by some of the Deists during a stay in England. Like them, he thought that a rational man would believe in God but not in supernatural inspiration. Hardly a profound philosopher, he was a brilliant journalist, clever and humorous in argument, devastating in satire, and warm in human sympathies. In his *Candide* and in many other writings, he poured irreverent ridicule on the Christian scheme of salvation as incoherent and on the church hierarchy as cruel and oppressive. In these attitudes he had the support of Diderot (1713-84), editor of the most widely read encyclopaedia that had appeared in Europe. The Rationalism of these men and their followers, directed against both the religious and the political traditions of their time, did much to prepare the ground for the explosive French Revolution.

The next wave of religious Rationalism occurred in Germany under the influence of Hegel, who held that a religious creed is a halfway house on the



road to a mature philosophy, the product of a reason that is still under the sway of feeling and imagination. This idea was taken up and applied with learning and acuteness to the origins of Christianity by David Friedrich Strauss (1808-74), who published in 1835, at the age of 27, a remarkable and influential three-volume work, *Das Leben Jesu (The Life of Jesus, Critically Examined)*, 1846). Relying largely on internal inconsistencies in the Synoptic Gospels, Strauss undertook to prove these books to be unacceptable as revelation and unsatisfactory as history. He then sought to show how an imaginative people innocent of either history or science, convinced that a Messiah would appear, and deeply moved by a unique moral genius, inevitably wove myths about his birth and death, his miracles, and his divine communings.

Strauss's thought as it affected religion was continued by the philosophical historian Ernest Renan (1823-92) and as it affected philosophy by the humanist Ludwig Feuerbach (1804-72) of the Hegelian left. Renan's *Vie de Jésus* (1863; *Life of Jesus*) did for France what Strauss's book had done for Germany, though the two differed greatly in character. Whereas Strauss's work had been an intellectual exercise in destructive criticism, Renan's was an attempt to reconstruct the mind of Jesus as a wholly human person – a feat of imagination, performed with a disarming admiration and even reverence for its subject and with a felicity of style that gave it a large and lasting audience. Feuerbach's *Wesen des Christentums* (1841; Eng. trans. by George Eliot, *Essence of Christianity*, 1853) applied the myth theory even to belief in the existence of God, holding that “man makes God in his own image.”

The fourth wave occurred in Victorian England, following the publication in 1859 of Darwin's *Origin of Species*. This book was taken as a challenge to the authority of Scripture because there was a clear inconsistency

between the Genesis account of creation and the biological account of man's slow emergence from lower forms of life. The battle raged with bitterness for several decades but died away as the theory of evolution gained more general acceptance.

### Status of Rationalism

#### Religious

With increasing freedom of thought and wider acceptance of scientific views, Rationalism in religion has lost its novelty and much of its controversial excitement. To the contemporary mind, it is too obvious to warrant debate that reason and revelation cannot both qualify as sources of ultimate truth for, were they to conflict, truth itself would become self-contradictory. Hence theologians have sought accommodation through new interpretative principles that discern different grades of authenticity within the Scriptures and through new views of religious truth, existential rather than cognitive, that turn from propositional dogmas to the explication of lived human existence. Criticism of supernaturalism, however, is still carried on by such societies as the Rationalist Press Association, in Great Britain, and the Humanist Association, in the United States.

#### Ethical

Rationalism in ethics has suffered its share of criticism. Regarding its lists of rules – on the keeping of promises, the return of loaned goods, etc. – it has been argued, for example, that if they were specific enough to be useful

(as in the rule against lying or stealing), they would tend to have exceptions – which no rule laid down by reason ought to have. On the other hand, if without exceptions, they would often prove to be tautologies: the rule of justice, for example, that we should give everyone his due would then mean only that we should give him what is justly his. After enduring a period of eclipse, however, during which noncognitive theories of ethics (emotive and existential) and relativism had preempted the field, rationalistic views, which agree in holding that moral standards do not depend upon the varying attitudes of persons or peoples, were receiving renewed attention in the mid-20th century. Prominent among these developments has been the “good-reasons” approach taken by the broadly gauged scholar Stephen Toulmin, by Kurt Baier, and others, which examines the contexts of various moral situations and explores the kinds of justification appropriate for each.

### Metaphysical

Typical of the ways of reasoning employed by Rationalists are two approaches taken to the metaphysical doctrine that all things are connected by internal relations: one a logical, the other a causal argument. An internal relation is one that could not be removed without affecting the terms themselves between which the relation holds. The argument runs: Everything is related to everything else at least by the relation “*A is different from B.*” But difference is itself an internal relation, since the terms could not remain the same if it were removed. Hence everything is so connected with everything else that it could not be what it is unless they were what they are. The appeal to internal relations played an important part in the philosophies of Hegel, F.H. Bradley, and A.N. Whitehead (1861-1947).

The other line of argument is causal. Every event, it is maintained, is connected with every other, either directly or indirectly. Sir James Jeans argued that if the law of gravitation is valid, a man cannot crook his little finger without affecting the fixed stars. Here the causal relation is direct. It can also be shown that seemingly unrelated events are joined indirectly through their common connection with some remote historical event, by a chain of events leading back, for example, to Columbus' discovery of America. But if this had been different, all of its consequences would presumably have been different; thus an indirect and internal relation proves to have been present.

Many Rationalists have held with Spinoza that the causal relation is really a logical one – that a causal law, if precisely stated, would reveal a connection in which the character of the cause logically necessitates that of its effect; and if this is true, they maintain, the facts and events of the world must thus compose a single rational and intelligible order.

In the 20th century, such Rationalism met with a new and unexpected difficulty presented by quantum physics. According to the indeterminacy principle, formulated in 1927 by the German physicist Werner Heisenberg, it is impossible to discover with precision both the position and the velocity of a moving electron at the same time. This implies that definite causal laws for the behavior of these particles can never be attained, but only statistical laws governing the behavior of immense aggregates of them. Causality, and with it the possibility of rational understanding, seemed to be suspended in the subatomic world. Some interpreters of the new physics, however, notably Max Planck, Albert Einstein, and Bertrand Russell, sustained the hopes of the Rationalists by insisting that what was excluded by the indeterminacy

principle was not the fact of causality in this realm, but only the precise knowledge of it.

Indeed, some leaders of 20th-century science took the new developments in physics as on the whole supporting Rationalism. Protons and electrons, they contended, though beyond the reach of the senses, can still be known; and their behavior, at least in groups, is increasingly found to conform to mathematical law. In 1932, Sir James Jeans, an astrophysicist and popularizer of science, said with a curious echo of Galileo, “the universe appears to have been designed by a pure mathematician.”

#### Challenges to Epistemological Rationalism

At first glance the claim of Empiricism that knowledge must come from sense experience seems obvious: how else could one hope to make contact with the world around one? Consequently, Rationalism has been sharply challenged – in the 19th century by the Empiricism of John Stuart Mill (1806-73) and in the 20th by that of the Logical Positivists. Mill argued that all a priori certainties are illusory: why does man believe, for example, that two straight lines cannot enclose a space? Is it because he sees it as logically necessary? No; it is because he has experienced so long and so unbroken a row of instances of it – a new one whenever he sees the corner of a table or the bordering rays of a light beam – that he has formed the habit of thinking in this way and is now unable to break it. A priori propositions, Mill claimed, are merely empirical statements of very high generality.

This theory has now been abandoned by most Empiricists themselves. Its implication that such statements as “ $2 + 2 = 4$ ” are only probably true and

may have exceptions has proved quite unconvincing. The Rationalist's rejoinder is that one cannot, no matter how hard one tries, conceive  $2 + 2$  as making 5; for its equalling 4 is necessary. But a priori knowledge is also universal. Neither of these two characteristics can be accounted for by sense experience. That a crow is black can be perceived, but not that it must be black or that crows will always be black; no run of perceptions, however long, could assure us of such truths. On the other hand, a priori truths can be seen with certainty – that if a figure, for instance, is a plane triangle within a Euclidean space, its angles must and always will equal two right angles.

Perhaps the most formidable challenge to Rationalism has come in the 20th century from such Logical Positivists as the Oxford Empiricist A.J. Ayer (1910- ) and Rudolf Carnap (1891-1970), who had been a central figure in the Vienna Circle, where this movement first arose. Unlike Mill, they accepted a priori knowledge as certain; but they laid down a new challenge – the denial of its philosophic importance. A priori propositions, they said, are (1) linguistic, (2) conventional, and (3) analytic: (1) they are statements primarily of how one proposes to use words; if one says that “a straight line is the shortest line between two points,” this merely reports one's definition of “straight” and declares one's purpose to use it only of the shortest. (2) Being a definition, such a statement expresses a convention to which there are alternatives; it may be defined in terms of the paths of light rays if one chooses. (3) The statement is analytic in that it merely repeats in its predicate a part or the whole of the subject term and hence tells nothing new; it is not a statement about nature but about meanings only. And since Rationalistic systems depend throughout upon statements of this kind, their importance is illusory.

To this clear challenge some leading Rationalists have replied as follows: (1) Positivists have confused real with verbal definition. A verbal definition does indeed state what a word means; but a real definition states what an object is, and the thought of a straight line is the thought of an object, not of words. (2) The Positivists have confused conventions in thought with conventions in language. One is free to vary the language in which a proposition is expressed, but not the proposition itself. Start with the concept of a straight line, and there is no alternative to accepting it as the shortest. (3) Some a priori statements are admittedly analytic, but many are not. In “whatever is colored is extended,” color and extension are two different concepts of which the first entails the second, but is not identical with it in whole or part. Contemporary Rationalists therefore hold that the a priori has emerged victorious from the Empiricists’ efforts to discredit such knowledge and the Positivists’ attempts to trivialize it.

### Utilitarianism

The fundamental principle of Utilitarianism, a tradition in ethics stemming from the late 18th- and 19th-century English philosophers and economists Jeremy Bentham and John Stuart Mill, is that an action is right if it tends to promote happiness and wrong if it tends to produce the reverse of happiness – not just the happiness of the performer of the action but that of everyone affected by it. Such a theory is in opposition to egoism, the view that a man should pursue his own self-interest, even at the expense of others, and to any ethical theory that regards some acts or types of acts as right or wrong independently of their consequences. Utilitarianism also differs from ethical theories that make the rightness or wrongness of an act dependent upon the

motive of the agent; for, according to the Utilitarian, it is possible for the right thing to be done from a bad motive.

### The Nature of Utilitarianism

Utilitarianism is an effort to provide an answer to the practical question “What ought a man to do?” Its answer is that he ought to act so as to produce the best consequences possible.

### Basic Concepts

In the notion of consequences the Utilitarian includes all of the good and bad produced by the act, whether arising after the act has been performed or during its performance. If the difference in the consequences of alternative acts is not great, some Utilitarians do not regard the choice between them as a moral issue. According to Mill, acts should be classified as morally right or wrong only if the consequences are of such significance that a person would wish to see the agent compelled, not merely persuaded and exhorted, to act in the preferred manner.

In assessing the consequences of actions, Utilitarianism relies upon some theory of intrinsic value: something is held to be good in itself, apart from further consequences, and all other values are believed to derive their worth from their relation to this intrinsic good as a means to an end. Bentham and Mill were hedonists; i.e., they analyzed happiness as a balance of pleasure over pain and believed that these feelings alone are of intrinsic value and disvalue. Utilitarians also assume that it is possible to compare the intrinsic



values produced by two alternative actions and to estimate which would have better consequences. Bentham believed that a hedonic calculus is theoretically possible. A moralist, he maintained, could sum up the units of pleasure and the units of pain for everyone likely to be affected, immediately and in the future, and could take the balance as a measure of the overall good or evil tendency of an action. Such precise measurement as Bentham envisioned is perhaps not essential, but it is nonetheless necessary for the Utilitarian to make some interpersonal comparisons of the values of the effects of alternative courses of action.

### Methodologies

As a normative system providing a standard by which an individual ought to act and by which the existing practices of society, including its moral code, ought to be evaluated and improved, Utilitarianism cannot be verified or confirmed in the way in which a descriptive theory can; but it is not regarded by its exponents as simply arbitrary. Bentham believed that only in terms of a Utilitarian interpretation do words such as “ought,” “right,” and “wrong” have meaning and that whenever anyone attempts to combat the principle of utility, he does so with reasons drawn from the principle itself. Bentham and Mill both believed that human actions are motivated entirely by pleasure and pain; and Mill saw that motivation as a basis for the argument that, since happiness is the sole end of human action, the promotion of happiness is the test by which to judge all human conduct.

One of the leading Utilitarians of the late 19th century, a Cambridge philosopher, Henry Sidgwick, rejected their theories of motivation as well as

Bentham's theory of the meaning of moral terms and sought to support Utilitarianism by showing that it follows from systematic reflection on the morality of "common sense." Most of the requirements of commonsense morality, he argued, could be based upon Utilitarian considerations. In addition, he reasoned that Utilitarianism could solve the difficulties and perplexities that arise from the vagueness and inconsistencies of commonsense doctrines.

Most opponents of Utilitarianism have held that it has implications contrary to their moral intuitions – that considerations of utility, for example, might sometimes sanction the breaking of a promise. Much of the defense of Utilitarian ethics has consisted in answering these objections, either by showing that Utilitarianism does not have the implications that they claim it has or by arguing against the moral intuitions of its opponents. Some Utilitarians, however, have sought to modify the Utilitarian theory to account for the objections.

### Criticisms

One such criticism is that, although the widespread practice of lying and stealing would have bad consequences, resulting in a loss of trustworthiness and security, it is not certain that an occasional lie to avoid embarrassment or an occasional theft from a rich man would not have good consequences, and thus be permissible or even required by Utilitarianism. But the Utilitarian readily answers that the widespread practice of such acts would result in a loss of trustworthiness and security. To meet the objection to not permitting an occasional lie or theft, some philosophers have defended a modification

labelled “rule” Utilitarianism. It permits a particular act on a particular occasion to be adjudged right or wrong according to whether it is in accordance with or in violation of a useful rule; and a rule is judged useful or not by the consequences of its general practice. Mill has sometimes been interpreted as a “rule” Utilitarian, whereas Bentham and Sidgwick were “act” Utilitarians.

Another objection, often posed against the hedonistic value theory held by Bentham, holds that the value of life is more than a balance of pleasure over pain. Mill, in contrast to Bentham, discerned differences in the quality of pleasures that made some intrinsically preferable to others independently of intensity and duration (the quantitative dimensions recognized by Bentham). Some philosophers in the Utilitarian tradition have recognized certain wholly nonhedonistic values without losing their Utilitarian credentials. A British philosopher, G.E. Moore, a pioneer of 20th-century Analysis, regarded many kinds of consciousness – including love, knowledge, and the experience of beauty – as intrinsically valuable independently of pleasure, a position labelled “ideal” Utilitarianism. Even in limiting the recognition of intrinsic value and disvalue to happiness and unhappiness, some philosophers have argued that those feelings cannot adequately be further broken down into terms of pleasure and pain and have thus preferred to defend the theory in terms of maximizing happiness and minimizing unhappiness. It is important to note, however, that even for the hedonistic Utilitarians, pleasure and pain are not thought of in purely sensual terms; pleasure and pain for them can be components of experiences of all sorts. Their claim is that, if an experience is neither pleasurable nor painful, then it is a matter of indifference and has no intrinsic value.

Another objection to Utilitarianism is that the prevention or elimination of suffering should take precedence over any alternative act that would only increase the happiness of someone already happy. Some recent Utilitarians have modified their theory to require this focus or even to limit moral obligation to the prevention or elimination of suffering – a view labelled “negative” Utilitarianism.

### Historical Survey

The ingredients of Utilitarianism are found in the history of thought long before Bentham.

### Antecedents of Utilitarianism Among the Ancients

A hedonistic theory of the value of life is found in the early 5th century BCE in the ethics of Aristippus of Cyrene, founder of the Cyrenaic school, and 100 years later in that of Epicurus, founder of an ethic of retirement, and their followers in ancient Greece. The seeds of ethical universalism are found in the doctrines of the rival ethical school of Stoicism and in Christianity.

### Growth of Classical English Utilitarianism

In the history of English philosophy, some historians have identified Bishop Richard Cumberland, a 17th-century moral philosopher, as the first to have a Utilitarian philosophy. A generation later, however, Francis

Hutcheson, a British “moral sense” theorist, more clearly held a Utilitarian view. He not only analyzed that action as best that “procures the greatest happiness for the greatest numbers” but proposed a form of “moral arithmetic” for calculating the best consequences. The sceptic David Hume, Scotland’s foremost philosopher and historian, attempted to analyze the origin of the virtues in terms of their contribution to utility. Bentham himself said that he discovered the principle of utility in the 18th-century writings of various thinkers: of Joseph Priestley, a dissenting clergyman famous for his discovery of oxygen; of the Frenchman Claude-Adrien Helvétius, author of a philosophy of mere sensation; of Cesare Beccaria, an Italian legal theorist; and of Hume. Helvétius probably drew from Hume, and Beccaria from Helvétius.

Another strand of Utilitarian thought took the form of a theological ethics. John Gay, a biblical scholar and philosopher, held the will of God to be the criterion of virtue; but from God’s goodness he inferred that God willed that men promote human happiness.

Bentham, who apparently believed that an individual in governing his own actions would always seek to maximize his own pleasure and minimize his own pain, found in pleasure and pain both the cause of human action and the basis for a normative criterion of action. The art of governing one’s own actions Bentham called “private ethics.” The happiness of the agent is the determining factor; the happiness of others governs only to the extent that the agent is motivated by sympathy, benevolence, or interest in the good will and good opinion of others. For Bentham, the greatest happiness of the greatest number would play a role primarily in the art of legislation, in which the legislator would seek to maximize the happiness of the entire community by creating an identity of interests between each individual and his fellows. By laying down penalties for mischievous acts, the legislator would make it

unprofitable for a man to harm his neighbour. Bentham's major philosophical work, *An Introduction to the Principles of Morals and Legislation* (1789), was designed as an introduction to a plan of a penal code.

With Bentham, Utilitarianism became the ideological foundation of a reform movement, later known as "philosophical radicalism," that would test all institutions and policies by the principle of utility. Bentham attracted as his disciples a number of younger (earlier 19th-century) men. They included David Ricardo, who gave classical form to the science of economics; John Stuart Mill's father, James Mill; and John Austin, a legal theorist. James Mill argued for representative government and universal male suffrage on Utilitarian grounds; he and other followers of Bentham were advocates of parliamentary reform in England in the early 19th century. John Stuart Mill was a spokesman for women's suffrage, state-supported education for all, and other proposals that were considered radical in their day. He argued on Utilitarian grounds for freedom of speech and expression and for the noninterference of government or society in individual behavior that did not harm anyone else. Mill's essay "Utilitarianism," published in *Fraser's Magazine* (1861), is an elegant defense of the general Utilitarian doctrine and perhaps remains the best introduction to the subject. In it Utilitarianism is viewed as an ethics for ordinary individual behavior as well as for legislation.

#### Late 19th- and 20th-century Utilitarianism

By the time Sidgwick wrote, Utilitarianism had become one of the foremost ethical theories of the day. His *Methods of Ethics* (1874), a comparative examination of egoism, the ethics of common sense, and

Utilitarianism, contains the most careful discussion to be found of the implications of Utilitarianism as a principle of individual moral action.

The 20th century has seen the development of various modifications and complications of the Utilitarian theory. G.E. Moore argued for a set of ideals extending beyond hedonism by proposing that one imaginatively compare universes in which there are equal quantities of pleasure but different amounts of knowledge and other such combinations. He felt that he could not be indifferent toward such differences. The recognition of “act” Utilitarianism and “rule” Utilitarianism as explicit alternatives was stimulated by the analysis of moral reasoning in “rule” Utilitarian terms by Stephen Toulmin, a British philosopher of science and moralist, and by Patrick Nowell-Smith, a moralist of the Oxford linguistic school; by the interpretation of Mill as a “rule” Utilitarian by another Oxford Analyst, J.O. Urmson; and by the analysis by John Rawls, a Harvard moral philosopher, of the significance for Utilitarianism of two different conceptions of moral rules. “Act” Utilitarianism, on the other hand, has been defended by J.J.C. Smart, a British-Australian philosopher.

#### Effects of Utilitarianism in Other Fields

The influence of Utilitarianism has been widespread, permeating the intellectual life of the last two centuries. Its significance in law, politics, and economics is especially notable.

The Utilitarian theory of the justification of punishment stands in opposition to the “retributive” theory, according to which punishment is intended to make the criminal “pay” for his crime. According to the

Utilitarian, the rationale of punishment is entirely to prevent further crime by either reforming the criminal or protecting society from him and to deter others from crime through fear of punishment.

In its political philosophy Utilitarianism bases the authority of government and the sanctity of individual rights upon their utility, thus providing an alternative to theories of natural law, natural rights, or social contract. What kind of government is best thus becomes a question of what kind of government has the best consequences – an assessment that requires factual premises regarding human nature and behavior.

Generally, Utilitarians have supported democracy as a way of making the interest of government coincide with the general interest; they have argued for the greatest individual liberty compatible with an equal liberty for others on the ground that each individual is generally the best judge of his own welfare; and they have believed in the possibility and the desirability of progressive social change through peaceful political processes.

With different factual assumptions, however, Utilitarian arguments can lead to different conclusions. If the inquirer assumes that a strong government is required to check man's basically selfish interests and that any change may threaten the stability of the political order, he may be led by Utilitarian arguments to an authoritarian or conservative position. On the other hand, William Godwin, an early 19th-century political philosopher, assumed the basic goodness of human nature and argued that the greatest happiness would follow from a radical alteration of society in the direction of anarchistic Communism.



Classical economics received some of its most important statements from Utilitarian writers, especially Ricardo and John Stuart Mill. Ironically, its theory of economic value was framed primarily in terms of the cost of labour in production rather than in terms of the use value, or utility, of commodities. Later developments more clearly reflected the Utilitarian philosophy. William Jevons, one of the founders of the marginal utility school of analysis, derived many of his ideas from Bentham; and “welfare economics,” while substituting comparative preferences for comparative utilities, reflected the basic spirit of the Utilitarian philosophy. In economic policy, the early Utilitarians had tended to oppose governmental interference in trade and industry on the assumption that the economy would regulate itself for the greatest welfare if left alone; later Utilitarians, however, lost confidence in the social efficiency of private enterprise and were willing to see governmental power and administration used to correct its abuses.

As a movement for the reform of social institutions, 19th-century Utilitarianism was remarkably successful in the long run. Most of their recommendations have since been implemented unless abandoned by the reformers themselves; and, equally important, Utilitarian arguments are now commonly employed to advocate institutional or policy changes.

### Summary and Evaluation

As an abstract ethical doctrine, Utilitarianism has established itself as one of the small number of live options that must be taken into account and either refuted or accepted by any philosopher taking a position in normative ethics. In contemporary discussion it has been divorced from adventitious

involvements with the analysis of ethical language and with the psychological theory with which it was presented by Bentham. Utilitarianism now appears in various modified and complicated formulations. Bentham's ideal of a hedonic calculus is usually considered a practical if not a theoretical impossibility. Present-day philosophers have noticed further problems in the Utilitarian procedures. One of them, for example, is with the process of identifying the consequences of an act – a process that raises conceptual as well as practical problems as to what are to be counted as consequences, even without precisely quantifying the value of those consequences. The question may arise whether the outcome of an election is a consequence of each and every vote cast for the winning candidate if he receives more than the number necessary for election; and in estimating the value of the consequences, one may ask whether the entire value or only a part of the value of the outcome of the election is to be assigned to each vote. There is also difficulty in the procedure of comparing alternative acts. If one act requires a longer period of time for its performance than another, one may ask whether they can be considered alternatives. Even what is to count as an act is not a matter of philosophical consensus.

These problems, however, are common to almost all normative ethical theories since most of them recognize the consequences – including the hedonic – of an act as being relevant ethical considerations. The central insight of Utilitarianism, that one ought to promote happiness and prevent unhappiness whenever possible, seems undeniable. The critical question, however, is whether the whole of normative ethics can be analyzed in terms of this simple formula.

## Bibliography

### *Atomism:*

E. CANTORE, *Atomic Order: An Introduction to the Philosophy of Microphysics* (1969); F. COPLESTON, *A History of Philosophy*, 8 vol. (1950-66); E.J. DIJKSTERHUIS, *Die Mechanisierung des Weltbildes* (1956; Eng. trans., *The Mechanization of the World Picture*, 1961), a history of science from antiquity to the 17th century; A.S. EDDINGTON, *The Philosophy of Physical Science* (1939); K. LASSWITZ, *Geschichte der Atomistik vom Mittelalter bis Newton*, 2 vol. (1890, reprinted 1963), a 19th-century classic; A.G.M. VAN MELSEN, *Van atomos naar atoom* (1949; Eng. trans., *From Atomos to Atom: The History of the Concept Atom*, 2nd ed. 1960), including references for the primary sources; L.K. NASH, *The Atomic-Molecular Theory* (1950), a discussion of the first phase of the chemical atomic theory; E.T. WHITTAKER, *History of the Theories of Aether and Electricity*, rev. ed., 2 vol. (1951-54), only for readers with a solid background in science; L.L. WHYTE, *Essay on Atomism: From Democritus to 1960* (1961), a brief introduction to the idea of Atomism and its history. See also MRINALKAUTI GANGOPADHYAYA, *Indian Atomism: History and Sources* (1980).

### *Eleaticism:*

The main edition of the fragments of the Eleatic, as of all the Pre-Socratic, philosophers is still HERMANN DIELS, *Die Fragmente der Vorsokratiker* (1903; 11th ed. rev. by WALTHER KRANZ, 3 vol., 1964), which is a critical edition of the Greek fragments with German translations; for English translations see KATHLEEN FREEMAN, *Ancilla to the Pre-Socratic Philosophers* (1948, reprinted 1962); PILO ALBERTELLI, *Gli*

*Eleati: testimonianze e frammenti* (1939), is a good Italian translation with commentary. Much of the best material is in general works on ancient Greek or Pre-Socratic philosophy. The most comprehensive treatment is in EDUARD ZELLER, *Die Philosophie der Griechen*, 6-7th ed., 3 vol., ed. by W. NESTLE (1920-23); in the revised Italian trans. of Zeller, ed. with extensive additions by ROLDOLFO MONDOLFO, the portion on the Eleatic school by GIOVANNI REALE (1967) occupies the whole 3rd volume of the 1st section and contains a good selected bibliography; an English translation of Zeller is entitled *A History of Greek Philosophy, from the Earliest Period to the Time of Socrates*, 2 vol. (1881). See also JOHN BURNET, *Early Greek Philosophy*, 4th ed. (1930, reprinted 1963); GEOFFREY KIRK and JOHN E. RAVEN, *The Presocratic Philosophers*, pp. 263-306 (1957); W.K.C. GUTHRIE, *A History of Greek Philosophy*, vol. 2 (1965); and GUIDO CALOGERO, *Storia della logica antica*, vol. 1, pp. 109-208 (1967).

*Epicureanism:*

The first complete collection of the extant works and fragments of Epicurus is H. USENER (ed.), *Epicurea* (1887, reprinted 1966). A smaller selection, with Eng. trans. and commentary, is CYRIL BAILEY (ed.), *Epicurus: The Extant Remains* (1926), a very useful book that includes the "Vatican Fragments." All of the ethical fragments (and several other items) are published in CARLO DIANO (ed.), *Epicuri Ethica* (1946), with extensive Latin commentaries. CARLO DIANO (ed. and trans.), *Lettere di Epicuro e dei suoi* (1946), contains 14 letters of Epicurus and his friends taken from Pap. Herc. 1418. G. ARRIGHETTI (ed.), *Epicuro, Opere* 2nd ed. (1967), contains all of the works and fragments (including the *Peri Physeos*), with notes and an *index verborum*; to be used with caution. Lucretius can be read in the three

volumes prepared, with introduction, translations, and comments, by CYRIL BAILEY, *Lucreti, De Rerum Natura* (1947).

English translations of Epicurus and Lucretius include WHITNEY J. OATES (ed.), *The Stoic and Epicurean Philosophers* (1940), which contains translations by CYRIL BAILEY and by H.A.J. MUNRO. See also *The Philosophy of Epicurus: Letters, Doctrines, and Parallel Passages from Lucretius*, trans. by GEORGE K. STRODACH (1963); DIOGENES LAERTIUS, *Lives of Eminent Philosophers*, bk. 10 on Epicurus, trans. by R.D. HICKS (1925); and LUCRETIUS, *On the Nature of the Universe*, trans. by R.E. LATHAM (1964).

Valuable for its breadth and richness of detail, CYRIL BAILEY, *The Greek Atomists and Epicurus* (1928; new ed., 1964), is a fundamental work. For Epicurus' psychology and his relation to Aristotle, see CARLO DIANO, "La psicologia d'Epicuro e la teoria delle passioni," in *Giornale critico della filosofia italiana* (1939-42). A book that stresses Epicurus' anti-Platonism is N.W. DEWITT, *Epicurus and His Philosophy* (1954). Also important for its perceptive study of Epicurus' religiosity and ethics is A.J. FESTUGIERE, *Épicure et ses dieux* (1946; Eng. trans., *Epicurus and His Gods*, 1956). See also the article "Epikur," by W. SCHMID in the *Reallexikon für Antike und Christentum*, 5:681-819 (1961); L.L. WHYTE, *Essay on Atomism: From Democritus to 1960* (1961); and BENJAMIN FARRINGTON, *The Faith of Epicurus* (1967). G.D. HADZSITS, *Lucretius and His Influence* (1935), traces the influence of Epicurean ideas, especially since Roman times, in a broad perspective. For further bibliography, see PHILLIP DE LACY, "Some Recent Publications on Epicurus and Epicureanism (1937-1954)," in *Classical Weekly*, 48:169-177 (1955). BERNARD FRISCHER, *The Sculpted Word:*

*Epicureanism and Philosophical Recruitment in Ancient Greece* (1982), a discussion of the school's success.

*Pythagoreanism:*

The collection of the fragments in HERMANN DIELS and WALTHER KRANZ, *Die Fragmente der Vorsokratiker*, 6th ed., vol. 1 (1951), is insufficient; additions are given in MARIA TIMPANARO CARDINI (ed.), *Pitagorici: Testimonianze e frammenti*, 3 vol. (1958-64); and in CORNELIA J. DE VOGEL, *Pythagoras and Early Pythagoreanism* (1966). For the pseudo-Pythagoreans, see HOLGER THESLEFF (ed.), *The Pythagorean Texts of the Hellenistic Period* (1965).

The best comprehensive introduction to Pythagoreanism is the long chapter "Pythagoras and the Pythagoreans," in W.K.C. GUTHRIE, *A History of Greek Philosophy*, vol. 1, pp. 146-340 (1962). Somewhat different approaches have been taken by DE VOGEL (*op. cit.*); and JAMES A. PHILIP, *Pythagoras and Early Pythagoreanism* (1966), works that demand more active criticism by the reader. Fairly full references to the discussion of Pythagoreanism up to 1960 are in WALTER BURKERT, *Weisheit und Wissenschaft: Studien zu Pythagoras, Philolaos, und Platon* (1962; Eng. trans., *Lore and Science in Ancient Pythagoreanism*, 1972), a highly technical and at times rather overcritical work. Among later technical discussions, likely to become influential, are the articles "Pythagoras" and "Pythagoreer" in *Pauly-Wissowa Realencyclopädie*, vol. 47, (1963), and suppl. vol. 10 (1965) – of the contributors, KURT VON FRITZ and H. DORRIE arrive at less controversial conclusions than B.L. VAN DER WAERDEN.

Hellenistic Pythagoreanism is treated in HOLGER THESLEFF, *An Introduction to the Pythagorean Writings of the Hellenistic Period* (1961); additions and corrections in *Entretiens Fondation Hardt*, vol. 18 (1972). Neo-Pythagoreanism is treated in PHILIP MERLAN, *From Platonism to Neoplatonism* (1953).

For up-to-date bibliographical accession, see *L'Année philologique* (annual), under the subject heading "Pythagorica" and the various Pythagoreans.

*Realism:*

There is no single monograph that covers comprehensively the whole topic of Realism. The following works will be helpful for the study of its particular phases.

For Medieval Realism, see M.H. CARRÉ, *Realists and Nominalists* (1946, reissued 1967). For Neo-realism and critical Realism, see E.B. HOLT *et al.*, *The New Realism* (1912, reprinted 1970); DURANT DRAKE *et al.*, *Essays in Critical Realism* (1920, reprinted 1968); RENÉ KREMER, *La Théorie de la connaissance chez les néo-réalistes anglais* (1928); T.E. HILL, "Realistic Theories," *Contemporary Theories of Knowledge*, pp. 77-205 (1961, reissued 1980), good general coverage of the American and English fields.

Neoscholastic Realisms are treated in LÉON NOËL, *Le Réalisme immédiat* (1938); and works by ÉTIENNE GILSON: *Le Réalisme méthodique* (1936), which presents the author's own views; ch. 5, "Vade Mecum of a Young Realist," trans. by W.J. QUINN, in R. HOUDE and J. MULLALLY (eds.), *Philosophy of Knowledge* (1960); and *Réalisme Thomiste et critique de*

*la connaissance* (1939), a critique of the leading Neoscholastic views. For the linguistic approach, see MARTIN LEAN, *Sense-Perception and Matter* (1953, reprinted 1973); J.L. AUSTIN, *Sense and Sensibilia* (1962).

Universals in contemporary thought are treated in I.M. BOCHENSKI, ALONZO CHURCH, and NELSON GOODMAN, *The Problem of Universals* (1956); FARHANG ZABEEH, *Universals* (1966); PANAYOT BUTCHVAROV, *Resemblance and Identity: An Examination of the Problem of Universals* (1966, reissued 1982); NICHOLAS WOLTERSTORFF, *On Universals: An Essay in Ontology* (1970).

For Scientific Realism, see BERTRAND RUSSELL, *Our Knowledge of the External World*, rev. ed. (1926, various printings); W.H. WERKMEISTER, *The Basis and Structure of Knowledge* (1948, reissued 1968), bibliography, pp. 420-438; MORITZ SCHLICK, "Are Natural Laws Conventions?" in H. FEIGL and MAY BRODBECK (eds.), *Readings in the Philosophy of Science*, pp. 181-188 (1953); ROMANO HARRÉ, *Theories and Things* (1961); GROVER MAXWELL, "The Ontological Status of Theoretical Entities," in *Minnesota Studies in the Philosophy of Science*, 3:3-27 (1962); J.J.C. SMART, *Philosophy and Scientific Realism* (1963); DAVID M. ARMSTRONG, *Universals and Scientific Realism*, 2 vol. (1980).

Other 20th-century Realisms are discussed in G.D. HICKS, *Critical Realism* (1938); JAMES FEIBLEMAN, *The Revival of Realism* (1946, reissued 1972); WILFRID SELLARS, *Science, Perception and Reality* (1963); R.M. CHISHOLM (ed.), *Realism and the Background of Phenomenology* (1961), convenient bibliography, pp. 290-304; J.D. WILD (ed.), *The Return to Reason: Essays in Realistic Philosophy* (1953); E.B. MCGILVARY, *Toward a Perspective Realism* (1956); D.M. ARMSTRONG,



*A Materialist Theory of the Mind* (1968); INGEBORG WIRTH, *Realismus und Apriorismus in Nicolai Hartmanns Erkenntnistheorie* (1965); GUSTAV BERGMANN, *Realism: A Critique of Brentano and Meinong* (1967).

*Scholasticism:*

For the latest and most detailed bibliography, see W. TOTOK, *Handbuch der Geschichte der Philosophie*, vol. 2, *Mittelalter und frühe Neuzeit* (1970). Among the most reliable, best grounded presentations of the whole period are: E. GILSON, *History of Christian Philosophy in the Middle Ages* (1955); F. COPLESTON, *A History of Philosophy*, vol. 2, *Mediaeval Philosophy*, vol. 3, *Late Mediaeval and Renaissance Philosophy* (1950, 1953; paperback edition, 1962, 1963); M. DE WULF, *Histoire de la philosophie médiévale*, 6th ed., 3 vol. (1934-47; Eng. trans. of vol. 1, 1951); and E. BREHIER, *La Philosophie du moyen âge*, 2nd ed. (1949). Still indispensable, though obsolete in some details is: F. UEBERWEG, *Grundriss der Geschichte der Philosophie*, vol. 2, B. GEYER, *Die patristische und scholastische Philosophie*, 11th ed. (1928). Lucidly arranged and divided is the 13th volume of FLICHE-MARTIN, *Histoire de l'Église: Le Mouvement doctrinal de XI<sup>e</sup> au XIV<sup>e</sup> siècle* (1951), which includes contributions by A. Forest, F. van Steenberghen, and M. de Gandillac. M. GRABMANN's masterpiece, *Die Geschichte der scholastischen Methode*, 2 vol. (1909-11, reprinted 1956), covers only the time until the first years of the 13th century. For a first introduction for the general reader, see J. PIEPER, *Scholastik* (1960; Eng. trans., *Scholasticism*, 1960). Special problems concerning the continuing influence of medieval Scholasticism are treated in the following monographs: A. KOYRE, *Descartes und die Scholastik* (1923); A. TELLKAMP, *Das Verhältnis John Locke's zur Scholastik* (1927); and J.O. FLECKENSTEIN, *Scholastik, Barock, exakte Wissenschaften* (1949). The following are sources

on Neoscholasticism: J.P. GOLINAS, *La Restauration du Thomisme sous Leon XIII et les philosophies nouvelles* (1959); GIOVANNI ROSSI, *Le origini del Neotomismo nell'ambiente di studio del Collegio Alberoni* (1957); A. VIEL, "Le Mouvement thomiste au XIX<sup>e</sup> siècle," *Revue Thomiste* (1909-10); E. BETTONI, *La Situation actuelle de la philosophie parmi les catholiques dans les divers pays* (1948), a survey of centres of study, institutes, and publications; and J.S. ZYBURA (ed.), *Present-Day Thinkers and the New Scholasticism: An International Symposium* (1926).

*Scepticism:*

The basic statements and arguments of various forms of Scepticism are given in: (Academic Scepticism) – CICERO, *Academica* and *De natura deorum*, both with trans. by H. RACKHAM, Loeb Classical Library (1956). (Pyrrhonian Scepticism) – SEXTUS EMPIRICUS, *Adversus Mathematicos*, with trans. by R.G. BURY, Loeb Classical Library: vol. 1-2, *Against the Logicians* and *Outlines of Pyrrhonism* (1933-36); vol. 3, *Against the Physicists*, *Against the Ethicists* (1936); vol. 4, *Against the Professors* (1959-60); and *Scepticism, Man and God: Selections from the Major Writings of Sextus Empiricus*, ed. by P. HALLIE, trans. by S.G. ETHERIDGE (1964). (Renaissance Scepticism) – MICHEL DE MONTAIGNE, "L'Apologie de Raimond Sebond," in PIERRE VILLEY (ed.), *Les Essais de Michel de Montaigne*, new ed. (1922). (Scepticism and fideism) – BLAISE PASCAL, *Pensées*, ed. by L. BRUNSCHVICG (1951). (Scepticism in relation to modern philosophy) – PIERRE BAYLE, *Dictionnaire historique et critique*, esp. the articles "Pyrrho" and "Zeno of Elea," both of which appear in BAYLE'S *Historical and Critical Dictionary: Selections*, trans. and ed. by RICHARD H. POPKIN (1965); DAVID HUME, *Dialogues Concerning Natural Religion*, ed. by N. KEMP SMITH (1947); *Enquiries Concerning the Human*

*Understanding and Concerning the Principles of Morals*, 2nd ed. (1957), and *A Treatise of Human Nature*, both ed. by L.A. SELBY-BIGGE (1958).

The standard studies of ancient Scepticism are: EDWYN R. BEVAN, *Stoics and Sceptics* (1959); VICTOR BROCHARD, *Les Sceptiques grecs* (1887); NORMAN MACCOLL, *The Greek Sceptics from Pyrrho to Sextus* (1869); MARY MILLS PATRICK, *The Greek Sceptics* (1929); LEON ROBIN, *Pyrrhon et le scepticisme grec* (1944); and EDUARD ZELLER, *The Stoics, Epicureans and Sceptics*, trans. by O.J. REICHEL (1880). A recent fine study of the epistemological problems involved in ancient Scepticism is CHARLOTTE L. STOUGH, *Greek Scepticism* (1969). See also RAOUL RICHTER, *Der Skeptizismus in der Philosophie* (1904-08); RICHARD H. POPKIN, "Scepticism," *Encyclopedia of Philosophy*, vol. 7, pp. 449-461 (1967), which contains a bibliography on the subject; these examine Scepticism from ancient times to the 19th century. JOHN OWEN, *The Sceptics of the French Renaissance* (1893), is an interesting discussion of Renaissance and 17th-century Scepticism, though not particularly scholarly. DON CAMERON ALLEN, *Doubt's Boundless Sea: Scepticism and Faith in the Renaissance* (1964); and RICHARD H. POPKIN, *The History of Scepticism from Erasmus to Descartes*, rev. ed. (1968), which contains a lengthy bibliography, are studies of Renaissance Scepticism and its impact on philosophy and religion. RICHARD H. POPKIN, "Berkeley and Pyrrhonism," *Review of Metaphysics*, 5:223-246 (1951-52); "David Hume and the Pyrrhonian Controversy," *ibid.*, 6:65-81 (1952-53); "David Hume: His Pyrrhonism and His Critique of Pyrrhonism," *Philosophical Quarterly*, 1:385-407 (1950-51); "The High Road to Pyrrhonism," *American Philosophical Quarterly*, 2:1-15 (1965); "The sceptical Crisis and the Rise of Modern Philosophy," *Review of Metaphysics*, 7:132-151, 307-322, 499-510 (1953-54);

“The sceptical Precursors of David Hume,” *Philosophy and Phenomenological Research*, 16:61-71 (1955-56); and “Scepticism in the Enlightenment,” in T. BESTERMANN (ed.), *Studies on Voltaire and the Eighteenth Century*, 26:1321-1345 (1963), are specialized studies on aspects of Scepticism in relation to modern philosophy. ARNE NAESS, *Scepticism* (1968), is a most interesting attempt to clarify Scepticism in relation to contemporary thought and to defend it as a viable outlook today. BENSON MATES, *sceptical Essays* (1981), discusses epistemological problems and free will.

*Sophists:*

Ancient sources and fragments are presented in R.K. SPRAGUE, *The Older Sophists, a Complete Translation* (1972), and in K. FREEMAN, *Ancilla to the Pre-Socratic Philosophers* (1948), to be used together with Freeman’s *The Pre-Socratic Philosophers*, 2nd ed. (1949). The original Greek texts are in H. DIELS and W. KRANZ (eds.), *Die Fragmente der Vorsokratiker*, 6th ed., vol. 2 (1952); and are edited with an Italian translation and commentary in M. UNTERSTEINER, *Sofisti*, 4 vol. (1949-62). (*General discussions*): T. GOMPERZ, *Greek Thinkers*, Eng. trans. by L. MAGNUS, vol. 1, bk. 3, ch. 5-7 (1901); M. UNTERSTEINER, *The Sophists*, Eng. trans. by K. FREEMAN (1954); W.K.C. GUTHRIE, *A History of Greek Philosophy*, vol. 3, *The Fifth-Century Enlightenment* (1969). G.B. KERFERD, *The Sophistic Movement* (1981), is a study of the intellectual contributions made by the movement.

The Second Sophistic period is treated in G.W. BOWERSOCK, *Greek Sophists in the Roman Empire* (1969).

*Stoicism:*

HANS VON ARNIM, *Stoicorum Veterum Fragmenta*, 4 vol. (1905-24), is the standard text collection. The following works of classic Stoic authors and substantive issues in Stoicism in antiquity are most conveniently available in the “Loeb Classical Library”: MARCUS AURELIUS, *Meditations*; EPICTETUS, *Discourses*; CICERO, *De fato, De finibus, De natura deorum*, and *Academica*; DIOGENES LAERTIUS, *Lives of Eminent Philosophers*, vol. 2, book 7; SENECA, *Epistulae Morales* and *Moral Essays*; SEXTUS EMPIRICUS, *Outlines of Pyrrhonism* and *Against the Dogmatists*, 4 vol.; GEORGE MURRAY, *The Stoic Philosophy* (1915), the classical statement of the grandeur of the Stoic philosophy; MAX POHLENZ, *Die Stoa*, 2 vol. (1948-49); and PAUL BARTH, *Die Stoa* (1903), are representative of scholarly studies of Stoic philosophy; JOHNNY CHRISTENSEN, *An Essay on the Unity of Stoic Philosophy* (1962), is a recent and comprehensive essay; LUDWIG EDELSTEIN, *The Meaning of Stoicism* (1966); and JOSIAH B. GOULD, *The Philosophy of Chrysippus* (1970), are among the best of recent studies of Greco-Roman Stoicism; EDUARD ZELLER, *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung*, 5 vol. (1856-68; in part translated as *Stoics, Epicureans, and Sceptics*, rev. ed., 1962); EDWYN R. BEVAN, *Stoics and Sceptics* (1913, reprinted 1959); and ROBERT D. HICKS, *Stoic and Epicurean* (1910, reprinted 1962), are illustrations of Stoic philosophy in the Hellenistic period. See also JASON L. SAUNDERS, *Greek and Roman Philosophy After Aristotle* (1966); and HARRY A. WOLFSON, *Philo: Foundations of Religious Philosophy in Judaism, Christianity and Islam*, 2 vol. (1962). EDWARD V. ARNOLD, *Roman Stoicism* (1911, reprinted 1958); and FREDERICK W. BUSSELL, *Marcus Aurelius and the Later Stoics* (1910), are excellent statements of Stoicism in the later Roman

period. PIERRE DE LABRIOLLE, *Histoire de la littérature latine chrétienne* (1920; Eng. trans., *History and Literature of Christianity from Tertullian to Boethius*, 1924), an excellent presentation of the influence of Stoic views in late antiquity and the patristic period; ETIENNE GILSON, *History of Christian Philosophy in the Middle Ages* (1955); HARRY A. WOLFSON, *The Philosophy of the Church Fathers*, 3rd ed. rev. (1970); MAURICE DE WULF, *Histoire de la philosophie médiévale*, 2 vol. (1925; Eng. trans., *History of Mediaeval Philosophy*, 2 vol., 1926); and ISAAC HUSIK, *A History of Medieval Jewish Philosophy* (1940), are careful introductions to Stoic influences in patristic and medieval times; JASON L. SAUNDERS, *Justus Lipsius: The Philosophy of Renaissance Stoicism* (1955); HAROLD HOFFDING, *A History of Modern Philosophy*, 2 vol. (1950); and FREDERICK C. COPLESTON, *A History of Philosophy*, rev. ed., vol. 3-6 (1962), trace the Stoic influence from its revival in the Renaissance into modern philosophy. JOHN M. RIST (ed.), *The Stoics* (1978), is an excellent collection of essays covering logic, cosmology, ethics, psychology, and aesthetics.

Stoic logic and physics are treated in BENSON MATES, *Stoic Logic* (1953); SAMUEL SAMBURSKY, *The Physical World of the Greeks*, 2nd ed. (1960; orig. pub. in Hebrew) and *Physics of the Stoics* (1959).

*Analytic and Linguistic philosophy:*

G.J. WARNOCK, *English Philosophy Since 1900* (1958), is a very readable account covering much of the history. J.O. URMSON, *Philosophical Analysis* (1956), is especially good on logical atomism and its demise. BERTRAND RUSSELL, *The Problems of Philosophy* (1959), is a nontechnical account of his views just prior to the period of logical atomism.

A collection of Russell's papers, *Logic and Knowledge*, ed. by R.C. MARSH (1956), contains his "Lectures on Logical Atomism," together with more technical papers. G.E. MOORE, *Some Main Problems of Philosophy* (1953), gives a good introduction to his methods and philosophical concerns. Two key papers by Moore are "A Defense of Common Sense," in *Contemporary British Philosophy*, Second Series (1925), and "Proof of an External World," in *Proceedings of the British Academy*, 25:273-300 (1939). Among anthologies are those of A.J. AYER (ed.), *Logical Positivism* (1959), which also includes papers critical of the movement and has an excellent bibliography; BERNARD WILLIAMS and ALAN MONTEFIORE (eds.), *British Analytical Philosophy* (1966); RICHARD RORTY (ed.), *The Linguistic Turn* (1967); J.A. FODOR and J.J. KATZ (eds.), *The Structure of Language* (1964); and LEONARD LINSKY (ed.), *Semantics and the Philosophy of Language* (1952). The 1961 translation of WITTGENSTEIN'S *Tractatus Logico-Philosophicus* by D.F. PEARS and B.F. MCGUINNESS is superior to the original English version. Wittgenstein's *Philosophical Investigations* (1953) is the best known and historically the most influential of the posthumously published works from his later period. A.J. AYER, *Language, Truth and Logic*, 2nd ed. (1946), remains the best introduction to Logical Positivism. GILBERT RYLE, *The Concept of Mind* (1949), is the most famous example of what has been called "ordinary language" philosophy. J.L. AUSTIN, *How To Do Things with Words* (1962), contains the most discussed features of his views. W.V.O. QUINE, *From a Logical Point of View* (1953), is a collection of fairly nontechnical essays that provide good examples of the continuing influence of formal logic.

Aristotle. *General works:*

There are several good introductions to Aristotle's thought: JONATHAN BARNES, *Aristotle* (1982); J.L. ACKRILL, *Aristotle the Philosopher* (1981); D.J. ALLAN, *The Philosophy of Aristotle*, 2nd ed. (1970, reissued 1978); G.E.R. LLOYD, *Aristotle: The Growth and Structure of His Thought* (1968); W.D. ROSS, *Aristotle*, 5th ed. (1949, reprinted 1977); and FRANZ BRENTANO, *Aristotle and His World View* (1978; originally published in German, 1911). For a comprehensive survey see INGEMAR DÜRING, *Aristoteles: Darstellung und Interpretation seiner Denkens* (1966). Two of the most influential books on Aristotle written in the 20th century are WERNER W. JAEGER, *Aristotle: Fundamentals of the History of His Development*, 2nd ed. (1948, reissued 1962; originally published in German, 1923), which advances a theory of the development of Aristotle's thought; and HAROLD CHERNISS, *Aristotle's Criticism of Plato and the Academy* (1944, reissued 1962), which discusses, in a uniformly critical spirit, Aristotle's knowledge and assessment of Plato's work.

Most of the scholarly work done on Aristotle appears in articles rather than in books. There is a useful anthology: JONATHAN BARNES, MALCOLM SCHOFIELD, and RICHARD SORABJI (eds.), *Articles on Aristotle*, 4 vol. (1975-79). The proceedings of the triennial *Symposium Aristotelicum* contain some of the most up-to-date work.

*Life:* For all aspects of Aristotle's life, see INGEMAR DÜRING, *Aristotle in the Ancient Biographical Tradition* (1957); for his writings, see PAUL MORAUX, *Les Listes anciennes des ouvrages d'Aristote* (1951); for the history of the Lyceum, see JOHN PATRICK LYNCH, *Aristotle's School: A Study of a Greek Educational Institution* (1972); and PAUL MORAUX,



*Der Aristotelismus bei den Griechen: Von Andronikos bis Alexander von Aphrodisias*, 2 vol. (1973-84).

*Thought:*

(*Logic*): On Aristotle's formal syllogistic the classic study is JAN LUKASIEWICZ, *Aristotle's Syllogistic from the Standpoint of Modern Formal Logic*, 2nd ed. enlarged (1957, reprinted 1967); and the standard work is GÜNTHER PATZIG, *Aristotle's Theory of the Syllogism: A Logico-Philological Study of Book "A" of the "Prior Analytics"* (1969; originally published in German, 2nd ed. 1963). A less formal account can be found in ERNEST KAPP, *Greek Foundations of Traditional Logic* (1942, reissued 1967). See also JONATHAN LEAR, *Aristotle and Logical Theory* (1980); and, for the *Topics*, the introduction to JACQUES BRUNSCHWIG (trans.), *Topiques* (1967). On the development of Aristotle's ideas in logic, see FRIEDRICH SOLMSEN, *Die Entwicklung der aristotelischen Logik und Rhetorik* (1929, reprinted 1975). For Aristotle's modal logic, see STORRS McCALL, *Aristotle's Modal Syllogisms* (1963); and for less formal treatments of his ideas about modality, see JAAKKO HINTIKKA, *Time & Necessity: Studies in Aristotle's Theory of Modality* (1973); and SARAH WATERLOW, *Passage and Possibility: A Study of Aristotle's Modal Concepts* (1982). On the connection between Aristotle's logic and his scientific methodology, see J.M. LE BLOND, *Logique et méthode chez Aristote: étude sur la recherche des principes dans la physique aristotélicienne*, 2nd ed. (1970).

(*Theory of science*):

The standard introduction to the *Physics* is AUGUSTE MANSION, *Introduction à la physique aristotélicienne*, 2nd rev. ed. (1946); see also

FRIEDRICH SOLMSEN, *Aristotle's System of the Physical World: A Comparison with His Predecessors* (1960, reprinted 1970). Among the most stimulating recent studies are WOLFGANG WIELAND, *Die aristotelische Physik*; 2nd rev. ed. (1970); RICHARD SORABJI, *Necessity, Cause, and Blame: Perspectives on Aristotle's Theory* (1980), and *Time, Creation, and the Continuum: Theories in Antiquity and the Early Middle Ages* (1983); and SARAH WATERLOW, *Nature, Change, and Agency in Aristotle's "Physics"* (1982).

(Biology):

It is still worth consulting D'ARCY WENTWORTH THOMPSON, *On Aristotle as a Biologist* (1913); the best recent study is PIERRE PELLEGRIN, *La Classification des animaux chez Aristote: statut de la biologie et unité de l'aristotélisme* (1982).

(Psychology):

FRANZ BRENTANO, *The Psychology of Aristotle: In Particular His Doctrine of the Active Intellect* (1977; originally published in German, 1867), remains one of the most valuable works in this area. The standard study of the development of Aristotle's views on the soul is FRANÇOIS NUYENS, *L'Évolution de la psychologie d'Aristote* (1948, reissued 1973). Among more recent works are EDWIN HARTMAN, *Substance, Body, and Soul: Aristotelian Investigations* (1977); and DAVID CHARLES, *Aristotle's Philosophy of Action* (1984).

(*Metaphysics*):

There are two large and comprehensive volumes: JOSEPH OWENS, *The Doctrine of Being in the Aristotelian Metaphysics: A Study in the Greek Background of Medieval Thought*, 3rd ed. rev. (1978); and PIERRE AUBENQUE, *Le Problème de l'être chez Aristote: essai sur la problématique aristotélicienne*, 4th ed. (1977). There is a helpful brief introduction in G.E.M. ANSCOMBE and P.T. GEACH, *Three Philosophers* (1961, reprinted 1963). On special aspects of the metaphysics, see FRANZ BRENTANO, *On the Several Senses of Being in Aristotle* (1975, reprinted 1981; originally published in German, 1862); R.M. DANCY, *Sense and Contradiction: A Study in Aristotle* (1975); SUZANNE MANSION, *Le Jugement d'existence chez Aristote*, 2nd ed. rev. (1976); and A.C. LLOYD, *Form and Universal in Aristotle* (1981).

(*Ethics*):

W.F.R. HARDIE, *Aristotle's Ethical Theory*, 2nd ed. (1980), provides a helpful companion. Some of the best recent work is collected in AMÉLIE OKSENBURG RORTY (ed.), *Essays on Aristotle's "Ethics"* (1980). See also STEPHEN R.L. CLARK, *Aristotle's Man: Speculations upon Aristotelian Anthropology* (1975, reprinted 1983); JAMES J. WALSH, *Aristotle's Conception of Moral Weakness* (1963); JOHN M. COOPER, *Reason and Human Good in Aristotle* (1975); ANTHONY KENNY, *The Aristotelian Ethics: A Study of the Relationship Between the Eudemian and Nicomachean Ethics of Aristotle* (1978), and *Aristotle's Theory of the Will* (1979); and TROELS ENGBERG-PEDERSEN, *Aristotle's Theory of Moral Insight* (1983, reprinted 1985).

(*Politics*):

The standard discussion is ERNEST BARKER, *The Political Thought of Plato and Aristotle* (1906, reissued 1959); see also R.G. MULGAN, *Aristotle's Political Theory: An Introduction for Students of Political Theory* (1977). On Aristotle's historical interests, see GEORGE HUXLEY, *On Aristotle and Greek Society: An Essay* (1979).

(*Rhetoric*): WILLIAM M.A. GRIMALDI, *Studies in the Philosophy of Aristotle's Rhetoric* (1972). On the psychological aspects of rhetoric, see W.W. FORTENBAUGH, *Aristotle on Emotion: A Contribution to Philosophical Psychology, Rhetoric, Poetics, Politics, and Ethics* (1975).

(*Poetics*):

JOHN JONES, *On Aristotle and Greek Tragedy* (1962, reissued 1980); and RICHARD JANKO, *Aristotle on Comedy: Towards a Reconstruction of "Poetics" II* (1984).

Aristotelianism. *Aristotelianism as covered in general histories:*

Extensive treatment of Aristotelianism is included in the fundamental history of philosophy by FRIEDRICH UEBERWEG, *A History of Philosophy, from Thales to the Present Time*, 2 vol. (1872-74, reprinted 1972; originally published in German, 4th ed., 3 vol., 1871-73), with a vast bibliography. Useful histories of philosophy, general or partial, are FREDERICK C. COPLESTON, *A History of Philosophy*, 9 vol. (1946-74); MEYRICK H. CARRÉ, *Phases of Thought in England* (1949, reprinted 1972), which is particularly good on Aristotelianism; JOHN HERMAN RANDALL, *The Career of Philosophy*, 2 vol. (1962-65, reissued 1970),

imaginative and stimulating; and ÉTIENNE GILSON, *History of Christian Philosophy in the Middle Ages* (1955, reissued 1980), a personal interpretation, with documentation and bibliography.

*Aristotelianism in various periods or cultures:*

INGEMAR DÜRING, “Von Aristoteles bis Leibniz: Einige Hauptlinien in der Geschichte des Aristotelismus,” *Antike und Abendland*, 4:118-154 (1954), mostly on Greek and medieval Aristotelianism; LORENZO MINIO-PALUELLO, *Opuscula: The Latin Aristotle* (1972), a collection of articles and essays concerning the Latin transmission of Aristotle’s works; and RICHARD McKEON, “Aristotelianism in Western Christianity,” in JOHN THOMAS McNEILL, MATTHEW SPINKA, and HAROLD R. WILLOUGHBY (eds.), *Environmental Factors in Christian History*, pp. 206-231 (1939, reissued 1970). On Boethius, see HENRY CHADWICK, *Boethius: The Consolation of Music, Logic, Theology, and Philosophy* (1981); and MARGARET GIBSON (ed.), *Boethius: His Life, Thought, and Influence* (1981). (*On Greek Aristotelianism*): EDUARD ZELLER, *Die Philosophie der Griechen*, vol. 2, *Sokrates, Plato, Aristoteles* (1846), and vol. 3, parts 1-2, *Die nacharistotelische Philosophie* (1852), parts of which have been translated from various editions: *Aristotle and the Earlier Peripatetics*, trans. by B.F.C. COSTELLOE and J.H. MUIRHEAD (1897); and *A History of Eclecticism in Greek Philosophy*, trans. by S.F. ALLEYNE (1883), fundamental for the first eight centuries; PAUL MORAUX, *D’Aristote à Bessarion: trois exposés sur l’histoire et la transmission de l’aristotélisme grec* (1970); “Rückblick: Der Peripatos in vorchristlicher Zeit,” in FRITZ R. WEHRLI (ed.), *Die Schule des Aristoteles*, vol. 10, pp. 93-128 (1959); KLAUS OEHLER, “Aristotle in Byzantium,” *Greek, Roman, and Byzantine Studies*, 5(2):133-146 (Summer 1964); and BASILE TATAKIS, *La Philosophie byzantine*, 2nd ed. (1959), an

extensive survey, with a rich bibliography. (*On Latin Aristotelianism*): FERNAND VAN STEENBERGHEN, *Aristotle in the West: The Origins of Latin Aristotelianism*, 2nd ed. (1970; originally published in French, 1946), a scholarly survey of contemporary studies; RICHARD J. LEMAY, *Abu Ma'shar and Latin Aristotelianism in the Twelfth Century: The Recovery of Aristotle's "Natural Philosophy" Through Arabic Astrology* (1962), important contributions; D.A. CALLUS, "Introduction of Aristotelian Learning to Oxford," *Proceedings of the British Academy*, 29:229-281 (1943), original, fundamental research; PAUL MORAUX *et al.*, *Aristote et Saint Thomas d'Aquin* (1957), which includes some of the most reliable studies on the subject; M.-D. CHENU, *La Théologie comme science au XIII siècle*, 3rd ed. rev. (1957, reissued 1969), on the interplay of Aristotelian methodology and dogma; and HASTINGS RASHDALL, *The Universities of Europe in the Middle Ages*, new ed., 3 vol. (1936, reissued 1969), basic for Aristotelianism in the schools. (*On Syriac, Arabic, and Jewish Aristotelianism*): ANTON BAUMSTARK, *Geschichte der syrischen Literatur mit Ausschluss der christlich-palästinensischen Texte* (1922, reprinted 1968), with exhaustive factual information and a bibliography; ANTON BAUMSTARK (ed.), *Aristoteles bei den Syrern vom 5. bis 8. Jahrhundert: Syrische Texte* (1900, reprinted 1975), specialized research and texts; T.J. DE BOER, *The History of Philosophy in Islam* (1903, reprinted 1983; originally published in German, 1901); CARL BROCKELMANN, *Geschichte der arabischen Litteratur*, 2 vol. (1898-1902), exhaustive factual information and bibliography; F.E. PETERS, *Aristoteles Arabus: The Oriental Translations and Commentaries of the Aristotelian Corpus* (1968), from Syriac and Arabic; R. WALZER, "Aristutalis," in *The Encyclopaedia of Islam*, new ed., vol. 1, pp. 630-633, and related articles; ISAAC HUSIK, *A History of Mediaeval Jewish Philosophy* (1916, reissued 1974); GEORGES VAJDA, *Introduction à la pensée juive du*

*Moyen Age* (1947), limited in scope, with a good bibliography; HARRY A. WOLFSON, "Revised Plan for the Publication of a *Corpus Commentariorum Averrois in Aristotelem*," *Speculum*, 38(1):88-104 (January 1963), complete lists of Arabic, Latin, and Hebrew texts of Averroës' commentaries, and *Crescas' Critique of Aristotle: Problems of Aristotle's "Physics" in Jewish and Arabic Philosophy* (1929, reprinted 1971); and "Aristotle," in *Encyclopaedia Judaica*, vol. 3, col. 445-449 (1971), and related articles. (*On Renaissance and later Aristotelianism*): PAUL OSKAR KRISTELLER, *Renaissance Philosophy and the Mediaeval Tradition* (1966), a brilliant survey, with bibliography, and *Studies in Renaissance Thought and Letters* (1956, reprinted 1969), many relevant essays; BRUNO NARDI, *Saggi sull'Aristotelismo padovano dal secolo XIV al XVI* (1958), one of several fundamental works by this author; PETER PETERSEN, *Geschichte der aristotelischen Philosophie in protestantischen Deutschland* (1921, reprinted 1964), and *Die Philosophie Friedrich Adolf Trendelenburgs: ein Beitrag zur Geschichte des Aristoteles im 19. Jahrhundert* (1913); and CHARLES B. SCHMITT, *Aristotle and the Renaissance* (1983).

*Aristotelianism in various areas or disciplines:*

(*On logic*): WILLIAM KNEALE and MARTHA KNEALE, *The Development of Logic* (1962, reprinted 1984), an objective assessment of the Aristotelian and non-Aristotelian elements in the history of logic; and I.M. BOCHENSKI, *A History of Formal Logic*, 2nd ed. (1970; originally published in German, 1956), technical, with much bibliography. (*On science*): GEORGE SARTON, *Introduction to the History of Science*, 3 vol. in 5 (1927-48, reprinted 1975), fundamental, with extensive information and bibliography; RENÉ TATON (ed.), *A General History of the Sciences*, 4 vol. (1963-66; originally published in French, 1957-64); ALASTAIR C. CROMBIE, *Robert*

*Grosseteste and the Origins of Experimental Science, 1100-1700* (1953, reissued 1971), which upholds the view of Aristotelian impact on experimental method; ANNELIESE MAIER, *Studien zur Naturphilosophie der Spätscholastik*, 5 vol. (1949-58), fundamental research; and ALEXANDRE KOYRÉ, *Galileo Studies* (1978; originally published in French, 1939), indispensable for a proper evaluation of anti-Aristotelianism. (*On politics*): GEORGE H. SABINE, *A History of Political Theory*, 4th ed. rev. by THOMAS LANDON THORSON (1973); ALEXANDER PASSERIN D'ENTRÈVES, *The Medieval Contribution to Political Thought: Thomas Aquinas, Marsilius of Padua, Richard Hooker* (1939, reprinted 1959); GEORGES DE LAGARDE, *La Naissance de l'esprit laïque au déclin du Moyen Age*, 3rd ed., 5 vol. (1956-70), fundamental for the 14th century; and HORST DREITZEL, *Protestantischer Aristotelismus und absoluter Staat: Die "Politica" des Henning Arnisaeus (ca. 1575-1636)* (1970), excellent, with an extensive bibliography on German Aristotelianism. (*Poetics and rhetoric*): BERNARD WEINBERG, *A History of Literary Criticism in the Italian Renaissance*, 2 vol. (1961, reprinted 1974), containing good surveys concerning Aristotle; LANE COOPER, *The Poetics of Aristotle: Its Meaning and Influence* (1923, reissued 1972); MARVIN T. HERRICK, *The Fusion of Horatian and Aristotelian Literary Criticism, 1531-1555* (1946), and *The Poetics of Aristotle in England* (1930, reprinted 1976), indispensable complements to Cooper's book; and CHARLES S. BALDWIN, *Renaissance Literary Theory and Practice: Classicism in the Rhetoric and Poetic of Italy, France, and England, 1400-1600* (1939, reissued 1959), useful for both poetics and rhetoric.



*Empiricism:*

Classic texts include JOHN LOCKE, *An Essay Concerning Human Understanding*, 2 vol. (1690); DAVID HUME, *A Treatise of Human Nature*, book 1, pt. 1 (1739); IMMANUEL KANT, *Kritik der reinen Vernunft* (1781; Eng. trans., *Critique of Pure Reason*, 1929); JOHN STUART MILL, *A System of Logic, Ratiocinative and Inductive*, books 1 and 2 (1843).

W.H. WALSH, *Reason and Experience* (1947); and H.H. PRICE, *Thinking and Experience*, 2nd ed. (1969), are good general surveys. For a comprehensive selection of standard works from Locke to J.S. Mill, see A.J. AYER and R. WINCH (eds.), *The British Empirical Philosophers* (1952). Modern works in the Empiricist tradition include BERTRAND RUSSELL, *Human Knowledge* (1948); W.T. STACE, *Theory of Knowledge and Existence* (1932); RUDOLF CARNAP, *Der logische Aufbau der Welt* (1928; Eng. trans., *The Logical Structure of the World*, 1967); and A.J. AYER, *Language, Truth and Logic*, 2nd ed. (1946), a short exposition of the extreme Empiricist position. HAROLD MORICK (ed.), *Challenges to Empiricism* (1980), is a collection of essays.

*Existentialism:*

Fundamental texts include SOREN KIERKEGAARD, *Philosophiske smuler* (1844; *Philosophical Fragments*, 1936); *Afsluttende uvidenskabelig efterskrift til de filosofiske smuler* (1846; *Concluding Unscientific Postscript*, 1941). FRIEDRICH NIETZSCHE, *Also sprach Zarathustra* (1883-84; *Thus Spoke Zarathustra*, trans. by W. KAUFMANN in *The Portable Nietzsche*, 1954); *Zur Genealogie der Moral* (1877; *Toward a Genealogy of Morals*, trans. by W. KAUFMANN in *Basic Writings of*

*Nietzsche*, 1966). KARL JASPERS, *Psychologie der Weltanschauungen* (1919), the first work of contemporary Existentialism, announcing all of the fundamental theses; *Philosophie*, 3 vol. (1932; *Philosophy*, 3 vol., 1969-71); *Vernunft und Existenz* (1935; Eng. trans., *Reason and Existenz*, 1955). MARTIN HEIDEGGER, *Sein und Zeit* (1927; 10th ed., 1963; *Being and Time*, 1962); *Was ist Metaphysik?* (1929; “What Is Metaphysics?” trans. by R.F.C. HULL and A. CRICK in *Existence and Being*, 1949); *Einführung in die Metaphysik* (1953; *An Introduction to Metaphysics*, 1959). GABRIEL MARCEL, *Être et Avoir* (1935; *Being and Having*, 1949); *Le Mystère de l’être*, 2 vol. (1950; *The Mystery of Being*, 1950-51); *The Philosophy of Existence*, (1949). NICOLA ABBAGNANO, *La struttura dell’esistenza* (1939); N. LANGIULLI (ed. and trans.), *Critical Existentialism* (1969). JEAN-PAUL SARTRE, *L’Être et le néant* (1943; *Being and Nothingness*, 1956); *L’Existentialisme est un humanisme* (1946; *Existentialism and Humanism*, 1948). MAURICE MERLEAU-PONTY, *La Structure du comportement* (1942; *The Structure of Behavior*, 1963); *Phénoménologie de la perception* (1945; *The Phenomenology of Perception*, 1962).

Important surveys and analyses include MARJORIE GRENE, *Dreadful Freedom* (1948); HELMUT KUHN, *Encounter with Nothingness: An Essay on Existentialism* (1951); MAURICE NATANSON, *A Critique of Jean-Paul Sartre’s Ontology* (1951); JAMES COLLINS, *The Existentialists: A Critical Study* (1952); WILLIAM BARRETT, *What Is Existentialism?* (1964); ADOLPH LICHTIGFELD, *Jaspers’ Metaphysics* (1954); MARJORIE GRENE, *Martin Heidegger* (1957); MARY WARNOCK, *Existentialism* (1970); and ROBERT D. CUMMING, *Starting Point* (1979).

*Idealism:*

The two best books on Idealism in English are A.C. EWING, *Idealism: A Critical Survey* (1933); and R.F.A. HOERNLE, *Idealism as a Philosophy* (1927). A.C. EWING (ed.), *The Idealist Tradition from Berkeley to Blanshard* (1957), is a useful volume containing selections from the texts of the major Idealists and selected criticisms of Idealism. Other important collections are C. BARRETT (ed.), *Contemporary Idealism in America* (1932); J.H. MUIRHEAD (ed.), *Contemporary British Philosophy: Personal Statements*, First-Second Series, 2 vol. each (1924); and G.P. ADAMS and W.P. MONTAGUE (eds.), *Contemporary American Philosophy*, 2 vol. (1930). Works on the history and theory of the subject include: B. BLANSHARD, *Reason and Analysis* (1962), a careful critical examination of schools of philosophy opposed to Idealism; G.W. CUNNINGHAM, *The Idealistic Argument in Recent British and American Philosophy* (1933), a thorough and dependable treatise; S.N. DASGUPTA, *Indian Idealism* (1933); NICOLAI HARTMANN, *Die Philosophie des Deutsches Idealismus*, vol. 1, *Fichte, Schelling, und die Romantik* (1923), vol. 2, *Hegel* (1929), 2nd ed. (1 vol., 1960); A.J.M. MILNE, *The Social Philosophy of English Idealism* (1962); J.H. MUIRHEAD, *The Platonic Tradition in Anglo-Saxon Philosophy: Studies in the History of Idealism in England and America* (1931); P.T. RAJU, *Idealistic Thought of India* (1953); L.S. ROUNER (ed.), *Philosophy, Religion, and the Coming World Civilization: Essays in Honor of William Ernest Hocking* (1966); and A. STERN, *Philosophy of History and the Problem of Values* (1962), a good secondary source.

On the classical systems of Indian philosophy, see S. RADHAKRISHNAN, *Indian Philosophy*, 2 vol. (1923-27), an authoritative exposition; S.N. DASGUPTA, *A History of Indian Philosophy*, 5 vol. (1922-

55), an erudite examination of the Sanskrit and Pali texts; *Indian Idealism* (1933); SRI AUROBINDO, *The Life Divine* (1949), a reinterpretation of the heritage; and SWAMI VIVEKANANDA, *The Yogas and Other Works* (1953), a collection with biography. In *Pragmatism* (1907) and in *The Varieties of Religious Experience* (1902), WILLIAM JAMES quoted Vivekananda at length as a typical representative of spiritual monism. In the *Sacred Books of the East*, 50 vol., ed. by F. MAX MULLER (1879-1910), see especially vol. 1 and 15, *The Upanishads* and vol. 8, *The Bhagavadgîtâ*. In the *Harvard Oriental Series*, 47 vol., ed. by CHARLES ROCKWELL LANMAN (1890-1968), see especially vol. 3, *Buddhism in Translations*, and vol. 17, *The Yoga-System of Patañjali*.

Writings of Idealists are listed in their biographies. P.A. SCHILPP, editor of "The Library of Living Philosophers Series," has issued four important volumes on Idealists: *The Philosophy of Alfred North Whitehead*, 2nd ed. (1951); *The Philosophy of Ernst Cassirer* (1949); *The Philosophy of Sarvepalli Radhakrishnan* (1962); and *The Philosophy of Martin Buber* (1967); and a volume on Brand Blanshard is in preparation. Other works on Idealists include: J.H. COTTON, *Royce on the Human Self* (1954), one of the best books on Royce; D.S. ROBINSON, *Royce and Hocking: American Idealists* (1968); and GABRIEL MARCEL, *La Métaphysique de Royce* (1945; Eng. trans., 1956), which shows the relation of Marcel to Royce and Hocking. H.T. KIM, "Nishida and Royce," *Philosophy East and West*, 1:18-29 (1952), and "The Logic of the Illogical: Zen and Hegel," *ibid.*, 5:19-29 (1955), are informative accounts of Nishida's contributions to Idealism. The following volumes of the *Revue Internationale de Philosophie* contain valuable bibliographies: *Henri Bergson*, vol. 3 (1948); *Léon Brunschvicg*, vol. 5 (1951); *Hegel*, vol. 6 (1952); *George Berkeley*, vol. 7 (1953); *Benedetto*

*Croce*, vol. 7 (1953); *Kant*, vol. 8 (1954); *Whitehead*, vol. 15 (1961); *Leibniz*, vol. 20 (1966); and *Josiah Royce*, vol. 21 (1967). GODFREY VESEY (ed.), *Idealism Past and Present* (1982), includes historical essays on idealistic thought of the past 2,500 years.

*Materialism:*

For the period up to about 100 years ago, see F.A. LANGE, *Geschichte des Materialismus und Kritik seiner Bedeutung in der Gegenwart*, 2 vol. (1902; Eng. trans., *History of Materialism and Criticism of Its Present Importance*, 3rd ed., 3 vol. (1925). For more recent times, see JOHN PASSMORE, *A Hundred Years of Philosophy*, 2nd ed. (1966). There are excellent articles by KEITH CAMPBELL and H.B. ACTON on “Materialism” and “Dialectical Materialism” in the *Encyclopedia of Philosophy*, vol. 5, pp. 179-188 and vol. 2, pp. 389-397 (1967), which also contains excellent articles on nearly all of the noncontemporary philosophers here mentioned. Examples of work by most of the contemporary writers are given in JOHN O’CONNOR (ed.), *Modern Materialism: Readings on Mind-Body Identity* (1969); and C.V. BORST (ed.), *The Mind-Brain Identity Theory* (1970). See also HERBERT FEIGL, *The “Mental” and the “Physical”*: *The Essay and a Postscript* (1967); J.J.C. SMART, *Philosophy and Scientific Realism* (1963); D.M. ARMSTRONG, *A Materialist Theory of the Mind* (1968); and WILFRID SELLARS, *Science, Perception and Reality* (1963), especially ch. 1. A rather difficult book defending Materialism from the difficulties about intentionality is D.C. DENNETT, *Content and Consciousness* (1969). For two very different styles of antimaterialist argument, see J.R. LUCAS, *The Freedom of the Will* (1970); and NORMAN MALCOLM, *Problems of Mind* (1971). Another interesting critique of Materialism is in JOHN BELOFF, *The Existence of Mind* (1962). A mainly

mechanistic philosophy of biology is presented by the German biologist B. RENSCH in *Biophilosophie auf erkenntnistheoretischer Grundlage (Panpsychistischer Identismus)* (1968; Eng. trans., *Biophilosophy*, 1971), though Rensch's philosophy is also panpsychist.

Some classic Materialist works are: LUCRETIUS, *On the Nature of the Universe*, trans. by R.E. LATHAM (1951); THOMAS HOBBS, *Body, Mind and Citizen: Selections*, ed. by R.S. PETERS (1962); RENE DESCARTES, *Philosophical Writings*, trans. and ed. by ELIZABETH ANSCOMBE and P.T. GEACH (1954); and A. VARTANIAN, *La Mettrie's "L'Homme Machine": A Study in the Origins of an Idea* (1960), which is a critical edition with introductory monograph and notes.

For epistemic Materialism, see RUDOLF CARNAP, "Psychology in Physical Language," in A.J. AYER (ed.), *Logical Positivism* (1959); Carnap's replies to Herbert Feigl and A.J. Ayer in P.A. SCHILPP (ed.), *The Philosophy of Rudolf Carnap* (1964); and H. REICHENBACH, *Experience and Prediction* (1938).

The most relevant and important works by Ryle and Wittgenstein are: GILBERT RYLE, *The Concept of Mind* (1949); and LUDWIG WITTGENSTEIN, *Philosophical Investigations* (1953). For a Materialist critique of Ryle, see BRIAN MEDLIN, "Ryle and the Mechanical Hypothesis," in C.F. PRESLEY (ed.), *The Identity Theory of Mind*, 2nd ed. (1971).

### *Phenomenology:*

Most of the classical works on Phenomenology were written by Husserl himself (see the bibliography of the HUSSERL article). In EDMUND

HUSSERL, *Logische Untersuchungen*, 2nd ed., 2 vol. (1913-21; Eng. trans., *Logical Investigations*, 2 vol., 1970), one of the fundamental texts on Phenomenology, the phenomenological method is applied in the area of logic. The following works appeared in the journal *Jahrbuch für Philosophie und phänomenologische Forschung* (1913-30); Husserl's *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* (1913; Eng. trans., *Ideas: General Introduction to Pure Phenomenology*, 1931, reprinted 1969), through which Phenomenology established itself as transcendental philosophy and received worldwide reaction; *Vorlesungen zur Phänomenologie des inneren Zeitbewusstseins* (1928; Eng. trans., *The Phenomenology of Internal Time-Consciousness*, 1964); and *Formale und transzendente Logik* (1929; Eng. trans., *Formal and Transcendental Logic*, 1969); MAX SCHELER, *Der Formalismus in der Ethik* (1916); and MARTIN HEIDEGGER, *Sein und Zeit* (1927; Eng. trans., *Being and Time*, 1962). The following works appeared in the series *Husserliana* (Husserl's collected works): *Cartesianische Meditationen und Pariser Vorträge* (1950; Eng. trans., *The Paris Lectures*, 1964), which contains the text of the Paris lectures of 1929 and the subsequent elaboration; *Die Idee der Phänomenologie* (1950; Eng. trans., *The Idea of Phenomenology*, 1964), an introduction to Phenomenology in five lectures from 1907; *Ideen*, 3 vol. (1950-52); *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie* (1954; Eng. trans., *The Crisis of European Sciences and Transcendental Phenomenology*, 1970), Husserl's later work (1934-37), significant for the problems regarding the life-world; *Erste Philosophie*, 2 vol. (1956-59), a critical history of ideas and a theory of reduction presented in a series of lectures, 1923-24; *Phänomenologische Psychologie* (1962), lectures from 1925, a different wording of the *Encyclopædia Britannica* article of 1927, with remarks by Heidegger and the Amsterdam addresses of 1925; *Zur Phänomenologie des*

*inneren Zeitbewusstseins* (1966), text on the problem of time from 1893-1917 with lectures (in the middle) from 1905 on the inner time-consciousness (first edited by Heidegger); *Analysen zur passiven Synthesis* (1966), a phenomenological analysis having sensation as its subject matter; and *Philosophie der Arithmetik* (1970), early manuscripts from 1890 to 1901. His *The Basic Problems of Phenomenology*, trans. by ALBERT HOFSTADTER (1982; originally published in German., 1975), reproduces a course of lectures given in 1927. See also JOSEPH J. KOCKELMANS, *Edmund Husserl's Phenomenological Psychology* (1967); and RUDOLF BOEHM, *Vom Gesichtspunkt der Phänomenologie* (1968).

In the series “Phaenomenologica” works are published that are written from a Phenomenological perspective, HERBERT SPIEGELBERG, *The Phenomenological Movement*, 2nd ed., 2 vol. (1965), worthy of particular mention, also appeared in this series. Since 1904 MARVIN FARBER has edited the journal *Philosophy and Phenomenological Research* (by no means, however, exclusively dedicated to Phenomenology). In England *The Journal of the British Society for Phenomenology* first appeared in 1970. In the United States the following journals have appeared: *Journal of Phenomenological Psychology* (semi-annual); *Research in Phenomenology* (1971); and *Analecta Husserliana: The Yearbook of Phenomenological Research*.

*Plato:*

*Life and thought:* There are several good brief introductions to Plato, including C.J. ROWE, *Plato* (1984); J.E. RAVEN, *Plato's Thought in the Making: A Study of the Development of His Metaphysics* (1965, reprinted 1985); G.M.A. GRUBE, *Plato's Thought* (1935, reprinted 1980); G.C. FIELD, *The Philosophy of Plato*, 2nd ed. (1969, reprinted 1978); and A.E.



TAYLOR, *Plato, the Man and His Work*, 7th ed. (1960, reprinted 1969). On Plato's life, see also G.C. FIELD, *Plato and His Contemporaries: A Study in Fourth-Century Life and Thought* (1930, reprinted 1975); ALICE SWIFT RIGINOS, *Platonica: The Anecdotes Concerning the Life and Writings of Plato* (1976); and the old but still valuable work by GEORGE GROTE, *Plato, and the Other Companions of Sokrates*, new ed., 4 vol. (1888, reprinted 1974). On the history of the Academy, see HAROLD CHERNISS, *The Riddle of the Early Academy* (1945, reprinted 1980); and JOHN GLUCKER, *Antiochus and the Late Academy* (1978).

A full and scholarly account of Plato's philosophy can be found in W.K.C. GUTHRIE, *A History of Greek Philosophy*, vol. 4, *Plato: The Man and His Dialogues: Earlier Period* (1975), and vol. 5, *The Later Plato and the Academy* (1978), while vol. 3, *The Fifth-Century Enlightenment* (1969), contains a full account of what is known about Socrates. Other general accounts include PAUL FRIEDLÄNDER, *Plato*, 3 vol. (1958-69; originally published in German, 2nd ed., 1954-60); I.M. CROMBIE, *An Examination of Plato's Doctrines*, 2 vol. (1962-63; reissued 1979); and J.C.B. GOSLING, *Plato* (1973, reissued 1983). GILBERT RYLE, *Plato's Progress* (1966), is idiosyncratic. Much contemporary scholarly work has appeared in articles. GREGORY VLASTOS, *Platonic Studies*, 2nd ed. (1981), contains several classic papers. There are two useful anthologies: GREGORY VLASTOS (ed.), *The Philosophy of Socrates* (1971, reprinted 1980), and *Plato*, 2 vol. (1970-71, reprinted 1978).

On Plato's ethics, see in particular JOHN GOULD, *The Development of Plato's Ethics* (1955, reprinted 1972); PAMELA HUBY, *Plato and Modern Morality* (1972); and TERENCE IRWIN, *Plato's Moral Theory: The Early and Middle Dialogues* (1977, reissued 1979). On his political theory, see

R.H.S. CROSSMAN, *Plato Today*, rev. 2nd ed. (1959, reissued 1971); K.R. POPPER, *The Open Society and Its Enemies*, vol. 1, *The Spell of Plato*, 5th ed. (1966, reprinted 1971); RONALD B. LEVINSON, *In Defense of Plato* (1953, reissued 1970); RENFORD BAMBROUGH (ed.), *Plato, Popper and Politics: Some Contributions to a Modern Controversy* (1967); and ROBERT W. HALL, *Plato* (1981). See also MARY MARGARET MACKENZIE, *Plato on Punishment* (1981); and RICHARD KRAUT, *Socrates and the State* (1984). For Plato's views on aesthetics, see IRIS MURDOCH, *The Fire and the Sun: Why Plato Banished the Artists* (1977); and JULIUS MORAVCSIK and PHILIP TEMKO (eds.), *Plato on Beauty, Wisdom, and the Arts* (1982).

For Plato's view of the soul, see T.M. ROBINSON, *Plato's Psychology* (1970). On the physical theory of the *Timaeus*, see GREGORY VLASTOS, *Plato's Universe* (1975); and on his attitude to science, see JOHN P. ANTON (ed.), *Science and the Sciences in Plato* (1980).

On epistemology, see W.F.R. HARDIE, *A Study in Plato* (1936); NORMAN GULLEY, *Plato's Theory of Knowledge* (1962, reprinted 1973); W.G. RUNCIMAN, *Plato's Later Epistemology* (1962); NICHOLAS P. WHITE, *Plato on Knowledge and Reality* (1976); and JON MOLINE, *Plato's Theory of Understanding* (1981). The standard study of Plato's ideas on logic and dialectic is RICHARD ROBINSON, *Plato's Earlier Dialectic*, 2nd ed. (1953, reprinted 1984). See also JULIUS STENZEL, *Plato's Method of Dialectic* (1940, reprinted 1973; originally published in German, 2nd ed., 1931); and KENNETH M. SAYRE, *Plato's Analytic Method* (1969).

On metaphysics and the theory of Forms there is a comprehensive survey by W.D. ROSS, *Plato's Theory of Ideas* (1951, reissued 1976); and a useful collection of essays, R.E. ALLEN (ed.), *Studies in Plato's Metaphysics*

(1965, reprinted 1968). See also FRIEDRICH SOLMSEN, *Plato's Theology* (1942, reissued 1967); ANDERS WEDBERG, *Plato's Philosophy of Mathematics* (1955, reprinted 1977); RENFORD BAMBROUGH (ed.), *New Essays on Plato and Aristotle* (1965); J.N. FINDLAY, *Plato: The Written and Unwritten Doctrines* (1974); and WILLIAM J. PRIOR, *Unity and Development in Plato's Metaphysics* (1985).

*Plato Commentaries:*

Among the more useful commentaries are R.E. ALLEN, *Plato's Euthyphro and the Earlier Theory of Forms* (1970), and *Socrates and Legal Obligation* (1980); A.D. WOZLEY, *Law and Obedience: The Law of Plato's Crito* (1979); ROSAMUND KENT SPRAGUE, *Plato's Use of Fallacy: A Study of the Euthydemus and Some Other Dialogues* (1962); B.A.F. HUBBARD and E.S. KARNOFSKY, *Plato's Protagoras: A Socratic Commentary* (1982, reissued 1984); N.R. MURPHY, *The Interpretation of Plato's Republic* (1951, reprinted 1967); R.C. CROSS and A.D. WOZLEY, *Plato's Republic: A Philosophical Commentary* (1964, reissued 1980); NICHOLAS P. WHITE, *A Companion to Plato's Republic* (1979); JULIA ANNAS, *An Introduction to Plato's Republic* (1981); and GLENN R. MORROW, *Plato's Cretan City: A Historical Interpretation of the Laws* (1960).

*Platonism:*

There are few modern English translations of the basic works of Neoplatonism, though more will appear as a result of a project sponsored by the National Endowment for the Humanities. PLOTINUS, *The Enneads*, trans. by STEPHEN MACKENNA, 3rd ed. rev. by B.S. PAGE (1962), is not

entirely satisfactory; it is being replaced by the Loeb Classical Library edition, A.H. ARMSTRONG (trans.), *Plotinus* (1966- ), 5 vol. having appeared to 1986. Other basic works include PROCLUS, *The Elements of Theology*, trans. by E.R. DODDS, 2nd ed. (1963), *A Commentary on the First Book of Euclid's Elements*, trans. by GLENN R. MORROW (1970), and *Proclus: Alcibiades I*, trans. by WILLIAM O'NEILL, 2nd ed. (1971). French translations of Proclus' commentaries have been made by A.J. FESTUGIÈRE, *Commentaire sur le Timée*, 2 vol. (1966-68), and *Commentaire sur la République*, 3 vol. (1970). See also PROCLUS, *Théologie platonicienne*, trans. by H.D. SAFFREY and L.G. WESTERINK (1968- ), 4 vol. having appeared to 1986; JULIANUS, *Oracles chaldaïques*, trans. by ÉDOUARD DES PLACES (1971); and IAMBlichus, *Les Mystères d'Égypte*, trans. by ÉDOUARD DES PLACES (1966). A good source of information on the Platonic and Neoplatonic philosophers up to and including Anselm is *The Cambridge History of Later Greek and Early Medieval Philosophy*, ed. by A.H. ARMSTRONG (1967; reprinted with revised bibliographies, 1970). The bibliographies of this work include a list of the editions of ancient and medieval sources (complete and fragmentary), with the more important translations and modern works. PAUL SHOREY, *Platonism, Ancient and Modern* (1938), remains an excellent introduction, but much of the important work on the period between Plato and Plotinus is still confined to technical articles; this is also true of later Neoplatonism. J.N. FINDLAY, *Plato and Platonism: An Introduction* (1978), argues that Plato developed a complete metaphysical system. JOHN DILLON, *The Middle Platonists: 80 B.C. to A.D. 220* (U.K. title, *The Middle Platonists: A Study of Platonism, 80 B.C. to A.D. 220*, 1977), offers a clear and comprehensive account of its subject; it gives the background to the best general book on ancient Neoplatonism, R.T. WALLIS, *Neo-Platonism* (1972). Many of the important problems in Plotinus are discussed by J.M. RIST,

*Plotinus: The Road to Reality* (1967, reprinted 1977). Certain key ideas are traced in RICHARD SORABJI, *Time, Creation, and the Continuum: Theories in Antiquity and the Early Middle Ages* (1983). JAMES A. COULTER, *The Literary Microcosm: Theories of Interpretation of the Later Neoplatonists* (1976), is a study of Neoplatonic literary theory. A collection of articles on pagan and early Christian Neoplatonism may be found in H.J. BLUMENTHAL and R.A. MARKUS (eds.), *Neoplatonism and Early Christian Thought* (1981); a similar collection, extending to modern times, is DOMINIC J. O'MEARA (ed.), *Neoplatonism and Christian Thought* (1982). For the earlier Judeo-Christian tradition, see ERWIN R. GOODENOUGH, *An Introduction to Philo Judaeus*, 2nd ed. rev. (1963); and HARRY CHADWICK, *Early Christian Thought and the Classical Tradition: Studies in Justin, Clement, and Origen* (1966, reprinted 1984). An excellent short summary of the thought of St. Augustine, with due attention to the Platonist elements, is Chadwick's *Augustine* (1986), and his *Boethius: The Consolations of Music, Logic, Theology, and Philosophy* (1981), gives an account of the further development of Western Neoplatonism and includes a study of the development of Neoplatonic logic. For medieval Platonism, see FRIEDRICH UEBERWEG, *Grundriss der Geschichte der Philosophie*, vol. 2, *Die patristische und scholastische Philosophie*, ed. by BERNHARD GEYER, 12th ed. (1951); ÉTIENNE GILSON, *History of Christian Philosophy in the Middle Ages* (1955, reissued 1980), with valuable bibliographical material; DAVID KNOWLES, *The Evolution of Mediaeval Thought* (1962); GORDON LEFF, *Mediaeval Thought: St. Augustine to Ockham* (1958, reprinted 1983); and WERNER BEIERWALTES (ed.), *Platonismus in der Philosophie des Mittelalters* (1969), a collection of important articles. All these works to some extent cover the later medieval period. On Islamic philosophy see the brief account in W. MONTGOMERY

WATT, *Islamic Philosophy and Theology: An Extended Survey*, 2nd ed. (1985). There is no satisfactory longer treatment in English, but for Avicenna, see SOHEIL M. AFNAN, *Avicenna: His Life and Works* (1953, reprinted 1980). A sample of the Platonist contribution to Islamic thought may be seen in FRANZ ROSENTHAL, *The Classical Heritage in Islam* (1975; originally published in German, 1965). The best survey of Platonism in medieval Jewish philosophy is GEORGES VAJDA, "Le Néoplatonisme dans la pensée juive du moyen âge," in G.E. WEIL (ed.), *Mélanges Georges Vajda* (1982), pp. 407-422. For Neoplatonic movements in Jewish Hellenistic and medieval philosophy, see JULIUS GUTTMANN, *Philosophies of Judaism: The History of Jewish Philosophy from Biblical Times to Franz Rosenzweig*, trans. from Hebrew (1964, reissued 1973). D.P. WALKER, *The Ancient Theology: Studies in Christian Platonism from the Fifteenth to the Eighteenth Century* (1972), reviews the Christian apologetic tradition of the Renaissance.

On Byzantine Platonism, see J.M. HUSSEY, *Church & Learning in the Byzantine Empire, 867-1185* (1937, reissued 1963); and BASILE TATAKIS, *La Philosophie byzantine*, 2nd ed. (1959). A good short general account of Renaissance Platonism in English is that by FREDERICK C. COPLESTON, *History of Philosophy*, vol. 3, ch. 12 and 15 (1953); see also the essays in PAUL OSKAR KRISTELLER, *Renaissance Thought: The Classic, Scholastic, and Humanistic Strains* (1961, reprinted 1980). A good short introduction to Renaissance Platonism in England is ERNST CASSIRER, *The Platonic Renaissance in England* (1953, reissued 1970; originally published in German, 1932). GERALD R. CRAGG (ed.), *The Cambridge Platonists* (1968, reprinted 1985), is an excellent anthology, with good introductions and notes; see also C.A. PATRIDES (ed.), *The Cambridge Platonists* (1969, reissued 1980). On English Christian Platonism, see WILLIAM RALPH INGE, *The*

*Platonic Tradition in English Religious Thought* (1926, reprinted 1977). On the influence of Thomas Taylor, see *Thomas Taylor, the Platonist: Selected Writings*, ed. by KATHLEEN RAINE and GEORGE MILLS HARPER (1969); and F.A.C. WILSON, *W.B. Yeats and Tradition* (1958). RICHARD D. McKIRAHAN, JR., *Plato and Socrates: A Comprehensive Bibliography, 1958-1973* (1978), contains 4,600 unannotated entries.

*Positivism and Logical Empiricism:*

Literature on Classical Positivism includes J. WATSON, *Comte, Mill and Spencer* (1895); W.M. SIMON, *European Positivism in the Nineteenth Century* (1963); JOHN STUART MILL, *Auguste Comte and Positivism* (1865); AUGUSTE COMTE, *Cours de philosophie positive*, 6 vol. (1830-42; Eng. trans. and cond. by H. MARTINEAU, *The Positive Philosophy of Auguste Comte*, 2 vol., 1853). For further references to the ethical views of the classical Positivists, see the bibliography of Utilitarianism in the *Encyclopedia of Philosophy*.

Many of the original classics of Logical Positivism and Logical Empiricism, both books and articles, are listed in the ample bibliography of A.J. AYER (ed.), *Logical Positivism* (1959), an anthology that contains, among other important essays, RUDOLF CARNAP'S "Psychology in Physical Language." The early history of Viennese Positivism is well told in VICTOR KRAFT, *Der Wiener Kreis: Der Ursprung des Neopositivismus* (1950, 2nd ed. 1968; Eng. trans., *The Vienna Circle*, 1953, reprinted 1969). Another important source is J. JOERGENSEN, *The Development of Logical Empiricism*, vol. 2, no. 9 of the *International Encyclopedia of Unified Science* (1951). For a brief account of the European movement of Logical Positivism and its migration and impact in the United States, see H. FEIGL, "The Wiener

Kreis in America,” in D. FLEMING and B. BAYLIN (eds.), *The Intellectual Migration: Europe and America 1930-1960* (1969). Books, mainly in the foundations of the sciences, but also in philosophy of language and epistemology, many by the leading Logical Empiricists, are listed in the ample *Bibliography and Index*, in HERBERT FEIGL and CHARLES MORRIS (eds.), *International Encyclopedia of Unified Science*, vol. 2, no. 10 (1969). Of direct relevance are the major works of R. Carnap, O. Neurath, M. Schlick, P. Frank, H. Reichenbach, E. Nagel, C.G. Hempel, R. von Mises, and Charles Morris. For criticisms, those of KARL R. POPPER may be used; and the intellectual autobiography of Carnap, the 26 descriptive and critical essays, and his replies, in P.A. SCHILPP (ed.), *The Philosophy of Rudolf Carnap* (1963). For more recent evaluations and reactions, see P. ACHINSTEIN and S.F. BARKER (eds.), *The Legacy of Logical Positivism: Studies in the Philosophy of Science* (1969); and *Minnesota Studies in the Philosophy of Science*, vol. 1-5 (1956-70).

*Pragmatism:*

Classic works include CHARLES SANDERS PEIRCE, “The Fixation of Belief,” “How to Make Our Ideas Clear,” and “What Pragmatism Is,” in *Collected Papers*, vol. 5, ed. by C. HARTSHORNE and P. WEISS (1934); WILLIAM JAMES, *Principles of Psychology*, 2 vol. (1890), *The Will to Believe and Other Essays in Popular Philosophy* (1897), *Pragmatism: A New Name for Some Old Ways of Thinking* (1907), and *The Meaning of Truth* (1909); JOHN DEWEY, *How We Think* (1910), *The Influence of Darwin on Philosophy* (1910), *Democracy and Education* (1916), *Essays in Experimental Logic* (1916), *Reconstruction in Philosophy* (1920, 1948), *Human Nature and Conduct* (1922), *Logic: The Theory of Inquiry* (1938), *Theory of Valuation* (1939), and *Problems of Men* (1946). On F.C.S. Schiller see R. ABEL, *The*



*Pragmatic Humanism of F.C.S. Schiller* (1955), with a bibliography of Schiller's writings; on French and Italian pragmatists, H.S. THAYER, *Meaning and Action: A Critical History of Pragmatism*, part 3 (1968), with further bibliographical references.

For surveys of the movement, see H.S. THAYER, *Meaning and Action: A Critical History of Pragmatism* (1968), with bibliography; "Pragmatism," in D.J. O'CONNOR (ed.), *A Critical History of Western Philosophy*, pp. 437-462 (1964); and H.S. THAYER (ed.), *Pragmatism: The Classic Writings* (1970), the basic writings in the Pragmatism of Peirce, James, Dewey, Mead, and Lewis, and further bibliographical references; John Dewey, "The Development of American Pragmatism," in *Philosophy and Civilization*, pp. 13-35 (1931); and CHARLES W. MORRIS, *The Pragmatic Movement in American Philosophy* (1970). JACQUES BARZUN, *A Stroll with William James* (1983), is an excellent discussion of his ideas.

#### *Rationalism:*

The classic Ancient Greek work is PLATO, *Meno*; essential modern works are DESCARTES, *Meditationes de Prima Philosophia...* (*Meditations on First Philosophy*); SPINOZA, *Ethics*; LEIBNIZ, *Monadologie* (*Monadology and Other Philosophical Writings*); KANT, *Kritik der reinen Vernunft* (*Critique of Pure Reason*); 19th century. Rationalism is epitomized in HEGEL, *Phänomenologie des Geistes* (*Phenomenology of Mind*); FRANCIS HERBERT BRADLEY, *Appearance and Reality*.

For Rationalism in the theory of knowledge, see BRAND BLANSHARD, *Reason and Analysis* (1962); GEORGE BOAS, *Rationalism in Greek Philosophy* (1961); ERNST CASSIRER, *Die Philosophie der*

*Aufklärung* (1932; Eng. trans., *Philosophy of the Enlightenment*, 1951); M.R. COHEN, *Reason and Nature: An Essay on the Meaning of Scientific Method*, 2nd ed. (1953); A.C. EWING, *Idealism: A Critical Survey* (1934); H.H. JOACHIM, *The Nature of Truth* (1906); A.E. MURPHY, *The Uses of Reason* (1943); H.J. PATON, *In Defence of Reason* (1951); BERTRAND RUSSELL, *Problems of Philosophy* (1912); W.H. WALSH, *Reason and Experience* (1947).

For Rationalism in metaphysics, see the classics listed above. For two outstanding examples from the present century, see J.M.E. McTAGGART, *The Nature of Existence*, 2 vol. (1921-27), together with the commentary of C.D. BROAD, *Examination of McTaggart's Philosophy*, 2 vol. (1933-38); and ALFRED NORTH WHITEHEAD, *Process and Reality* (1929). For Rationalism in ethics, see WILLIAM WOLLASTON, *The Religion of Nature Delineated* (1722); and KANT, *Die Metaphysik der Sitten* (1785; Eng. trans., *The Metaphysics of Morals*, 1799). For early forms of the appeal to self-evident rules, see RICHARD PRICE, *A Review of the Principal Questions in Morals* (1758). For later types of Rationalism, see G.E. MOORE, *Principia Ethica* (1903); W.D. ROSS, *The Right and the Good* (1930), and *Foundations of Ethics* (1939); BRIAN ELLIS, *Rational Belief System* (1979).

For Rationalism in religion, excellent standard works are: W.E.H. LECKY, *History of the Rise and Influence of the Spirit of Rationalism in Europe*, 2 vol. (1865); A.D. WHITE, *History of the Warfare of Science with Theology in Christendom*, 2 vol. (1910); J.M. ROBERTSON, *A Short History of Freethought, Ancient and Modern*, 2nd ed., 2 vol. (1906); A.W. BENN, *History of English Rationalism in the Nineteenth Century*, 2 vol. (1906); J.B. BURY, *A History of Freedom of Thought* (1913). SIGMUND FREUD, *Die*

*Zukunft einer Illusion* (1927; Eng. trans., *The Future of an Illusion*, 1928), offers a psychoanalytic study of religious belief.

*Utilitarianism:*

The classical texts are JEREMY BENTHAM, *An Introduction to the Principles of Morals and Legislation* (1789; 2nd ed., 1823); JOHN STUART MILL, *Utilitarianism* (1861; 4th ed., 1871); HENRY SIDGWICK, *The Methods of Ethics* (1874; 7th ed., 1907); G.E. MOORE, *Principia Ethica* (1903) and *Ethics* (1912); D.D. RAPHAEL (ed.), *British Moralists: 1650-1800*, 2 vol. (1969), containing selected readings.

Useful anthologies include MARY PETER MACK (ed.), *A Bentham Reader* (1969); J.B. SCHNEEWIND (ed.), *Mill's Ethical Writings* (1965); SAMUEL GOROVITZ (ed.), *Utilitarianism: John Stuart Mill with Critical Essays* (1971).

Secondary, historical, and contemporary studies include DAVID LYONS, *Jeremy Bentham* (1972) ERNEST ALBEE, *A History of English Utilitarianism* (1902, reprinted 1957); LESLIE STEPHEN, *The English Utilitarians*, 3 vol. (1900, reprinted 1968); ELIE HALEVY, *La Formation du radicalisme philosophique*, 3 vol. (1901-04; Eng. trans., *The Growth of Philosophical Radicalism*, 1928); J.P. PLAMENATZ, *The English Utilitarians* (1949); J.B. SCHNEEWIND (ed.), *Mill: A Collection of Critical Essays* (1968); STEPHEN TOULMIN, *An Examination of the Place of Reason in Ethics* (1950); P.H. NOWELL-SMITH, *Ethics*, ch. 16 (1954); RICHARD BRANDT, *Ethical Theory*, ch. 12-15 (1959); DAVID LYONS, *Forms and Limits of Utilitarianism* (1965); JAN NARVESON, *Morality and Utility* (1967); MICHAEL D. BAYLES (ed.), *Contemporary Utilitarianism*

(1968); J.J.C. SMART, *An Outline of a System of Utilitarian Ethics* (1961).  
DONALD REGAN, *Utilitarianism and Cooperation* (1980), a presentation of  
a new utilitarian theory with a good survey of disputes among utilitarians.

## Part III

# Philosophical Anthropology

## Introduction

The word anthropology was first used in the philosophical faculties of German universities at the end of the 16th century to refer to the systematic study of man as a physical and moral being. Philosophical anthropology is thus, literally, the systematic study of man conducted within philosophy or by the reflective methods characteristic of philosophy; it might in particular be thought of as being concerned with questions of the status of man in the universe, of the purpose or meaning of human life, and, indeed, with the issues of whether there is any such meaning and of whether man can be made an object of systematic study. What actually falls under the term philosophical anthropology, however, varies with conceptions of the nature and scope of philosophy. The fact that such disciplines as physics, chemistry, and biology – which are now classified as natural sciences – were until the 19th century all branches of natural philosophy serves as a reminder that conceptions of philosophy have changed.

Twentieth-century readings of philosophical anthropology are much narrower than those of previous centuries. Four possible meanings are now accepted: (1) the account of man that is contained in any comprehensive philosophy; (2) a particular philosophical orientation known as humanism, in which the study of man provides the foundation for all else – a position that has been prominent since the Renaissance; (3) a distinctive, 20th-century form of humanism that on occasion has claimed the label of “philosophical anthropology” for itself and that has taken the human condition, the personal being-in-the-world, as its starting point; and (4) any study of man that is regarded as unscientific. Philosophical anthropology has been used in the last sense by 20th-century antihumanists for whom it has become a term of abuse; antihumanists have insisted that if anthropology is to be possible at all it is

possible only on the condition that it rejects the concept of the individual human subject. Humanism, in their eyes, yields only a prescientific, and hence a philosophical (or ideological), nonscientific anthropology.

By tracing the development of the philosophy of man, it will thus be possible to deal, in turn, with the four meanings of philosophical anthropology. First, however, it is necessary to discuss the concept of human nature, which is central to any anthropology and to philosophical debates about the sense in which and the extent to which man can be made an object of systematic, scientific study.

### The Concept of Human Nature

The concept of human nature is a common part of everyday thought. The ordinary person feels that he comes to know human nature through the character and conduct of the people he meets. Behind what they do he recognizes qualities that often do not surprise him: he forms expectations as to the sort of qualities possessed by other human beings and about the ways they differ from, for example, dogs or horses. People are proud, sensitive, eager for recognition or admiration, often ambitious, hopeful or despondent, and selfish or capable of self-sacrifice. They take satisfaction in their achievements, have within them something called a conscience, and are loyal or disloyal. Experience in dealing with and observing people gives rise to a conception of a predictable range of conduct; conduct falling outside the range that is considered not to be worthy of a human is frequently regarded as inhuman or bestial whereas that which is exceptional – in that it lives up to standards

which most people recognize but few achieve – is regarded as superhuman or saintly.

The common conception of human nature thus implicitly locates man on a scale of perfection, placing him somewhere above most animals but below saints, prophets, or angels. This idea was embodied in the theme, Hellenic in origin, of the Great Chain of Being – a hierarchical order ascending from the most simple and inert to the most complex and active: mineral, vegetable, animal, man, and finally divine beings superior to man. In the Middle Ages these divine beings constituted the various orders of angels, with God as the single, supremely perfect and omnipotent, ever-active being. There was a tendency in this theory to take for granted the commonality among all human beings, something by virtue of which they could be classified as fully human, which differentiates them from all other animals, and which gives them their place in the order of things. Yet, as with many notions that are habitually employed, the request for a precise definition of “human nature” proves highly problematic.

The Greeks – most notably Plato and Aristotle – introduced the notion of form, nature, or essence as an explanatory, metaphysical concept. Variations on this concept were central to Western thought until the 17th century. Observation of the natural world raised the question of why creatures reproduced after their kind and could not be interbred at will and of why, for example, acorns grew into oaks and not into roses. To explain such phenomena it was postulated that the seeds, whether plant or animal, must each already contain within them the form, nature, or essence of the species from which they were derived and into which they would subsequently develop. This pattern of explanation is preserved in the modern biological concept of a genetic code that is embodied in the DNA molecular structure of



each cell. There are important differences, however, between the modern concept of a genetic code and the older, Greek-derived concept of form or essence.

First, biologists are now able to locate, isolate, experimentally analyze, and manipulate DNA molecules in what has become known as genetic engineering. Being the structures responsible for physical development, DNA molecules represent the terms by which man can be biologically characterized. Forms or essences, on the other hand, were not observable; if they were granted any independent existence, it was as immaterial entities. The form, nature, or essence of man or of any other kind of being was posited as a principle present in the thing, determining its kind by producing in it an innate tendency to strive to develop into a perfect example of itself – to fulfill its nature and to realize its full potential as a thing of a given kind. This gave rise to a teleological, or purposive, view of the natural world in which developments were explained by reference to the goal toward which each natural thing, by its nature, strives; i.e., by reference to the ideal form it seeks to realize. By contrast, the genetic structure present in each cell is now invoked to explain the subsequent development of an organism in a “mechanistic” and nonpurposive way, in which development is shown to be dependent upon and determined by preexisting structures and conditions.

Second, genetic mutability forms an essential part of modern evolutionary biology. Not only are there genetic differences between individuals of a given species to account for differences between them in features, such as coloration, but random genetic mutation in the presence of changing environmental conditions may result in alterations to the genetic constitution of the species as a whole. Thus, in evolutionary biological theory

species are not stable; natural kinds do not have the fixed, immutable forms or essences characteristic of biology before the advent of evolutionary theory.

Within either framework, if human nature is understood simply as man's special form of that which is biologically inherited in all species, there remains the delicate problem of discovering, in any given case, exactly what role environment plays in determining the actual characteristics of mature members of the species. Even in the case of purely physiological characteristics this may be far from straightforward: for example, the extent to which diet, exercise, and conditions of work determine such things as susceptibility to heart disease and cancer remains the subject of intensive scientific investigation. In the case of behavioral and psychological characteristics, such as intelligence, the problems are multiplied to the point where they are no longer problems that can be answered by purely empirical investigation. There is room for much conceptual debate about what is meant by intelligence and over what tests, if any, can be supposed to yield a direct measure of this capacity, and thus provide evidence that an individual's level of intelligence is determined at birth (by nature) rather than by subsequent exposure to the environment (nurture) that conditions the development of all his capacities.

This debate – whether the variation in intelligence levels is a product of the conditions into which people all having the same initial potential are born, or whether it is a reflection of variations in the capacities with which they are born – is very closely related to the question of whether there is such a thing as human nature common to all human beings, or whether there are intrinsic differences among those whom we recognize as belonging to the biological species *Homo sapiens*. This is because, as the name *Homo sapiens* suggests, man is traditionally thought to be distinguished from and privileged above

other animals by virtue of his possession of reason, or intellect. When the intellect is positively valued as that which is distinctively human and which confers superiority on man, the thought that different races of people differ by nature in their intellectual capacities has been used as a justification for a variety of racist attitudes and policies. Those of another race, of supposedly lesser intellectual development, are classified as less than fully human and therefore as needing to be accorded less than full human rights. Similarly, the thought that women are by nature intellectually inferior to men has been used as a justification for their domination by men, for refusing them education, and even for according them the legal status of property owned by men. On the other hand, if differences in adult intellectual capacity are regarded as a product of the circumstances in which potentially similar people are brought up, the attitude is to consider all as equally human but some as having been more privileged when growing up than others.

More radically, the evidence for variations in intelligence levels may be questioned by challenging the objectivity of the standards relative to which these levels are assessed. It may be argued that conceptions of what constitutes a rational or intelligent response to a situation or to a problem are themselves culturally conditioned, a product of the way in which the members of the group devising the tests and making the judgments have themselves been taught to think. Such an argument has the effect of undermining claims by any one human group to intellectual superiority over others, whether these others be their contemporaries or their own forebears. Hence, they may also be used to discredit any idea of a progressive development of human intellectual capacities.

These debates about intelligence and rationality provide an example of the complexity of the impact of evolutionary biology on conceptions of

human nature, for the dominant traditions in Western thought about human nature have tended to concentrate attention more on what distinguishes man from other animals than on the strictly biological constitution that he largely shares with them. Possession of reason or intellect is far from being the only candidate considered for such a distinguishing characteristic. Man has been characterized as essentially a tool user, or fabricator (*Homo faber*), as essentially social, as essentially a language user, and so on. These represent differing views concerning the fundamental feature that gives rise to all the other qualities regarded as distinctively human and which serve to mark man off from other animals. These characteristics all center on mental, intellectual, psychological – i.e., nonphysiological – characteristics and thus leave scope for debate about the relation between mind and body. So long as this question remains open, and so long as mental or intellectual constitution remains the central consideration in discussions of human nature, the question of changes in – and of the possible evolution of – human nature will remain relatively independent of those devoted to physiological change and hence of strictly biological evolution.

Until the 15th century the standard assumption was that man had a fixed nature, one that determined both his place in the universe and his destiny. The Renaissance humanists, however, proclaimed that what distinguishes man from all other creatures is that he has no nature. This was a way of asserting that man's actions are not bound by laws of nature in the way that those of other creatures are. Man is capable of taking responsibility for his own actions because he has the freedom to exercise his will. This view received two subsequent interpretations.

First, the human character is indefinitely plastic; each individual is given determinate form by the environment in which he is born, brought up, and

lives. In this case, changes or developments in human beings will be regarded as the product of social or cultural changes, changes that themselves are often more rapid than biological evolution. It is thus to disciplines such as history, politics, and sociology, rather than to biology, that one should look for an understanding of these processes. But if disciplines such as these must constitute the primary study of man, then the question of the extent to which this can be a strictly scientific study arises. The methods of history are not, and cannot be, those of the natural sciences. And the legitimacy of the claims of the so-called social or human sciences to genuine scientific status has frequently been called into question and remains a focus for debate.

Second, each individual is autonomous and must “make” himself. Assertion of the autonomy of man involves rejection of the possibility of discovering laws of human behavior or of the course of history, for freedom is precisely not being bound by law, by nature. In this case, the study of man can never be parallel to the natural sciences with their theoretical structures based on the discovery of laws of nature.

#### Ancient Greece

From late antiquity onward differing views of man were worked out within a framework that was laid down and given initial development by Plato and later by Aristotle. Plato and Aristotle concurred in according to metaphysics the status of first philosophy. Their differing views of man were a consequence of their differing metaphysical views.

Plato’s metaphysics was dualistic: the everyday physical world of changeable things, which man comes to know by the use of his senses, is not

the primary reality but is a world of appearances, or phenomenal manifestations, of an underlying timeless and unchanging reality, an immaterial realm of Forms that is knowable only by use of the intellect. This is the view expressed in the *Republic* in his celebrated metaphor of the cave, where the changeable physical world is likened to shadows cast on the wall of a cave by graven images. To know the real world the occupants of the cave must first turn around and face the graven images in the light that casts the shadows (i.e., use their judgment instead of mere fantasy) and, second, must leave the cave to study the originals of the graven images in the light of day (stop treating their senses as the primary source of knowledge and start using their intellects). Similarly, human bodily existence is merely an appearance of the true reality of human being. The identity of a human being does not derive from the body but from the character of his or her soul, which is an immaterial (and therefore nonsexual) entity, capable of being reincarnated in different human bodies. There is thus a divorce between the rational/spiritual and the material aspects of human existence, one in which the material is devalued.

Aristotle, however, rejected Plato's dualism. He insisted that the physical, changeable world made up of concrete individual substances (people, horses, plants, stones, etc.) is the primary reality. Each individual substance may be considered to be a composite of matter and form, but these components are not separable, for the forms of changeable things have no independent existence. They exist only when materially instantiated. This general metaphysical view, then, undercut Plato's body-soul dualism. Aristotle dismissed the question of whether soul and body are one and the same as being as meaningless as the question of whether a piece of wax and the shape given to it by a seal are one. The soul is the form of the body, giving life and structure to the specific matter of a human being. According to

Aristotle, all human beings are the same in respect to form (that which constitutes them as human), and their individual differences are to be accounted for by reference to the matter in which this common form is variously instantiated (just as the different properties of golf and squash balls are derived from the materials of which they are made, while their common geometrical properties are related to their similar size and shape). This being so, it is impossible for an individual human soul to have any existence separate from the body. Reincarnation is thus ruled out as a metaphysical impossibility. Further, the physical differences between men and women become philosophically significant, the sex of a person becoming a crucial part of his or her identity.

Although Plato and Aristotle gave a different metaphysical status to forms, their role in promoting and giving point to investigations of human nature was very similar. They both agreed that it is necessary to have knowledge of human nature in order to determine when and how human life flourishes. It is through knowledge of shared human nature that we become aware of the ideals at which we should aim, achieved by learning what constitutes fulfillment of our distinctively human potential and the conditions under which this becomes possible. These ideals are objectively determined by our nature. But we are privileged in being endowed with the intellectual capacities that make it possible for us to have knowledge of this nature. Development of our intellectual capacities is thus a necessary part and precondition of a fulfilled human existence.

## Medieval Period

Western medieval culture was dominated by the Christian Church. This influence was naturally reflected in the philosophy of the period. Theology, rather than metaphysics, tended to be given primacy, even though many of the structures of Greek philosophy, including its metaphysics, were preserved. The metaphysics of form and matter was readily assimilable into Christian thought, where forms became ideas in the mind of God, the patterns according to which he created and continues to sustain the universe. Christian theology, however, modified the positions, requiring some sort of compromise between Platonic and Aristotelian views. The creation story in the book of Genesis made man a creature among other creatures, but not a creature like other creatures; man was the product of the final act of divine initiative, was given responsibility for the Garden of Eden, and had the benefit of a direct relationship with his creator. The Fall and redemption, the categories of sin and grace, thus concern only the descendants of Adam, who were given a nature radically different from that of the animals and plants over which they were given dominion. Man alone can, after a life in this world, hope to participate in an eternal life that is far more important than the temporal life that he will leave. Thus, belief in a life after death makes it impossible to regard man as wholly a natural being and entails that the physical world now inhabited by man is not the sole, or even the primary, reality. Yet, the characteristically Christian doctrine of the resurrection of the body also entails that the human body cannot be regarded as being of significance only in the mortal, physical world.

Against the background of these constraints, Christian philosophy first, through the writings of St. Augustine, gave prominence to Platonic views. But this emphasis was superseded in the 12th century by the Aristotelianism of St.



Thomas Aquinas. Augustine's God is a wholly immaterial, supremely rational, transcendent creator of the universe. The twofold task of the Christian philosopher, a lover of wisdom, is to seek knowledge of the nature of God and of his own soul, the human self. For Augustine the soul is not the entire man but his better part. There remains a Platonic tendency to regard the body as a prison for the soul and a mark of man's fallen state. One of the important consequences of Augustine's own pursuit of these two endeavors was the emphasis he came to place on the significance of free will. He argued that since the seat of the will was reason, when people exercise their will, they are acting in the image of God, the supreme rational being. Thomas Aquinas, while placing less emphasis on the will, also regarded man as acting in the image of God to the extent that he exercises and seeks to fulfill his intelligent nature. But he rejected the Platonic tendency to devalue the body, insisting that it is part of the concept of man that he have flesh and bone, as well as a soul.

But whatever the exact balance struck in the relation between the mind and body, the view of man was first and foremost as a creature of God; man was privileged by having been created in the image of God and given the gift of reason in virtue of which he also has free will and must take the burden of moral responsibility for his own actions. In order to fulfill his distinctively human nature man must thus order his thoughts and actions in such a way as to reflect the supremacy of religious values.

In popular medieval culture there was also, however, a strong undercurrent of thoroughly fatalistic thought. This was reflected in the popularity of astrology and alchemy, both of which appealed to the idea that events on Earth are governed by the influence of the heavenly bodies.

## Renaissance

It was in the cultural context of the Renaissance, and in particular with the Italian humanists and their imitators, that the center of gravity of reflective thought descended from heaven to earth, with man, his nature, and his capacities and limitations becoming a primary focus of philosophical attention. This gave rise to the humanism that constitutes philosophical anthropology in the second sense. Man did not thereby cease to view himself within the context of the world, nor did he deny the existence of God; he did, however, disengage himself sufficiently from the bonds of cosmic determination and divine authority to become a center of interest in his own eyes. In ancient literature the educated people of the West rediscovered a clear conscience instead of the guilty conscience of Christianity; at the same time, the great inventions and discoveries suggested that man could take pride in his accomplishments and regard himself with admiration. The themes of the dignity and excellence of man were prominent in Italian humanist thought and can be found clearly expressed in Giovanni Pico della Mirandola's influential *De hominis dignitate oratio* (Oration on the Dignity of Man), written in 1486. In this work Pico expresses a view of man that breaks radically with Greek and Christian tradition: what distinguishes man from the rest of creation is that he has been created without form and with the ability to make of himself what he will. Being without form or nature he is not constrained, fated, or determined to any particular destiny. Thus, he must choose what he will become. (In the words of the 20th-century existentialists, man is distinguished by the fact that for him existence precedes essence.) In this way man's distinctive characteristic becomes his freedom; he is free to make himself in the image of God or in the image of beasts.

This essentially optimistic view of man was a product of the revival of Neoplatonist thought. Its optimism is based on a view of man as at least potentially a nonnatural, godlike being. But this status is now one that must be earned; man must win his right to dominion over nature and in so doing earn his place beside God in the life hereafter. He must learn both about himself and about the natural world in order to be able to achieve this. This was, however, only one of two streams of humanist thought. The other (more Aristotelian) was essentially more pessimistic and sceptical, stressing the limitations on man's intellectual capacities. There is an insistence on the need to be reconciled to the fact of man's humanity rather than to persist in taking seriously his superhuman pretensions and aspirations. These two differently motivated movements to focus attention on man himself, on his nature, his abilities, his earthly condition, and his relation to his material environment became more clearly articulated in the 16th and 17th centuries in the opposition between the rationalist and empiricist approaches to philosophy.

## The 16th and 17th Centuries: The Rise of Scientific Thought

### Rationalism versus Scepticism

The thought of Michel de Montaigne, the 16th-century French sceptical author of the *Essais* (1580-95; *Essays*), represented one of the first attempts at anthropological reflection (i.e., reflection centred on man, which explores his different aspects in a spirit of empirical investigation that is freed from all ties to dogma). Scepticism, the adoption of an empirical approach, and liberation from dogmatic authority are linked themes stemming from the more pessimistic views of man's capacity for knowledge. The emphasis on man's

humanity – on the limited nature of his capacities – leads to a denial that he can, even by the use of reason, transcend the realm of appearances; the only form of knowledge available to him is experimental knowledge, gained in the first instance by the use of the senses. The effect of this sceptical move was twofold. The first effect was a liberation from the dogmatic authority of claims to knowledge of a reality behind appearances and of moral codes based on them; sceptical arguments were to the effect that human beings are so constituted that such knowledge must always be unavailable to them. The second effect was a renewal of attention to and interest in the everyday world of appearances, which now becomes the only possible object of human knowledge and concern. The project of seeking knowledge of a reality behind appearances must be abandoned because it is beyond the scope of human understanding. And this applies as much to man himself as to the rest of the natural world; he can be known only experientially, as he appears to himself.

The anthropology of Montaigne began with a turning in upon himself; it gave priority to that reality which was within. Montaigne, however, was also witness to a renewal of knowledge brought about by numerous discoveries that made the horizons of the traditional universe expand greatly. For him, self-awareness already reflected an awareness of the surrounding world; it wondered about the “savages” of America and about the cannibals that were so different from him and yet so near; it compared the intelligence of man with that of beasts and accepted the idea of a relationship between animal existence and human existence. The idea that moral codes are the work of man, rather than reflective of an objective order, opened up the possibility of recognizing the legitimate existence of a plurality of codes and thus of the empirical study – rather than an immediate condemnation and rejection – of the customs of others.

## Work of Descartes

By contrast, the work of the 17th-century French philosopher René Descartes represented a continuation of the theme of optimism about man's capacities for knowledge. Descartes explicitly set out, in his *Meditations* (first published in 1641), to beat the Sceptics at their own game. He used their methods and arguments in order to vindicate claims to be able to have nonexperimental knowledge of a reality behind appearances. The *Meditations* thus also begins with a turning in of Descartes upon himself but with the aim of finding there something that would lead beyond the confines of his own mind.

Cartesianism occupies a key position in the history of modern Western philosophy; Descartes is treated as a founding father by most of its now diverse traditions. His work is characteristic of the philosophical effort of the 17th century, which was engaged in a struggle to achieve a synthesis between old established orders and the newly proclaimed freedoms that were based on a sceptical rejection of the older orders. There are undeniable tensions in the philosophy of this period that are the product of various unsuccessful attempts to reconcile two very different views of man in relation to God and the world.

The first, the authoritarian view, was that inherited from medieval philosophy and from Thomist theology. It derived its ideal of human freedom from the Stoic conception of the wise man, who, in the 17th century was called a man of *honestas* (the French concept of *honnêteté*). The man of *honestas* seeks freedom in the discovery of and obedience to the order and law on which the world is grounded. He believes that there is such a law, that he has a "place" in the scheme of things, and that he is bound to his fellow human beings by that nature through which he participates in this higher

order. He tends to look to the authorities – whether these be church, state, or classical texts – for knowledge of this order, for it is not to be found at the level of experience; it is a “higher” order. His worldview is derived from a mixture of Platonic and Aristotelian (realist) metaphysics.

The second, the libertarian view, was that of the sceptical humanists – individualists and freethinkers, sceptical of any preestablished order, or at least of man’s ability to know what it is or might be. The sceptical humanist is therefore untrammelled by it. He deploys sceptical arguments to release the individual from the constraints and demands of outer authorities. He is free to do what he wills or desires and to make his own destiny, for there can be no knowledge of objective norms. Human knowledge is limited to experience, to what is sensed, and people must therefore make their own order within experience. His view is descended from the *via moderna* of the medieval philosopher William of Ockham and the nominalists.

The synthesis sought was a position that would incorporate recognition of the individual and of his freedom under universal principles of order, a reconciliation of will with reason. This was sought via a nonauthoritarian conception of objective knowledge, which was the same conception that gave rise to modern science. This required, on the one hand, arguments to combat those of the sceptical freethinkers – arguments that demonstrated that there was an objective order external to human thought and that humans have the capacity not merely to know of its existence but also to discover something of its nature. On the other hand, it was necessary to establish, against the authorities, that each individual, insofar as he is rational, has the capacity to acquire knowledge for himself, by the proper use of his reason. It is this second requirement that produced numerous treatises on the scope and limits of human understanding and on the method of acquiring knowledge. The

focus was now firmly fixed on the nature of human thought and on the procedures available to it.

Descartes utilized the skeptic's own arguments to urge a meditative turning inward. This inward journey was designed to show that each human being can come to knowledge of his intellectual self and that as he does so he will find within himself the idea of God, the mark of his creator, the mark that assures him of the existence of an objective order and of the objective validity of his rational faculties. The foundation and starting point of Cartesian knowledge is, for each individual, within himself, in his experience of the certainty that he must have of his own existence and in the idea of a perfect, infinite being, in other words, an idea that he finds within himself, of a being whose essence entails God's existence, and of whose existence man can thus be assured on the basis of his idea of God.

Descartes thus preserved and built on Montaigne's emphasis on self-consciousness, and this is what marks the changed orientation in philosophy that constitutes philosophical anthropology in the stricter, second sense. As the French scientist and religious philosopher Blaise Pascal realized, the question had now become one of whether man finds within himself the basis of loyalty to a universal order of reason and law with which his own thought and will is continuous, or whether he finds, by inner examination, that order, at least insofar as it can be known, is relative to his feeling, desire, and will.

The attempt to regain an objective order by looking inward apparently fails with the failure of Descartes's proofs of the existence of God, proofs that his contemporaries (even those who, like Gottfried Wilhelm Leibniz, were sympathetic to many aspects of the project) were quick to criticize. Reaction to this failure was twofold. In the work of rationalist philosophers, such as

Spinoza, Leibniz, and Malebranche, there is a return to the classical Greek approach to philosophy through metaphysics. Empiricists, such as Locke, Condillac, and Hume, on the other hand, retain the Cartesian, introspective basis seeking what Hume calls a mitigated scepticism. This is a position that recognizes essential limitations placed on human cognitive capacities by assuming that experience is the only source of knowledge, but that affirms the value of the knowledge so gained and seeks to define the project of natural science as a quest for objective order within this domain.

#### Work of Locke

John Locke, for instance, argued that while man cannot prove that the material world exists, his senses give him evidence affording all the certainty that he needs. Locke's position is, however, essentially dualist: mind and body remain distinct even though pretensions to intellectual transcendence are given up. Moreover, Locke regarded it as in principle impossible for humans to have any understanding of the relation between mind and body. All perceptions of one's own body, as of the rest of the material world, are ideas in one's mind. It is impossible to adopt any vantage point outside oneself from which to observe the correlation between a condition of one's body and one's perception of this condition. Where other people are concerned, their bodies and behavior can be observed but an observer can have no direct perception of what is going on in their minds. There is thus a bifurcation in the study of man. The mind and its contents are known to each person by introspection; it is presumed that the minds of all people work in basically the same way so that introspection provides evidence for human psychology. Other people, their bodies, and their behavior are known by observation in exactly the same



way that knowledge of any other natural object is obtained. One infers from their behavior that they have minds like one's own and on this basis attributes psychological states to them.

In keeping with this bifurcation Locke distinguished between the terms "man" and "person," reserving "man" for the animal species, an object of study for natural historians. "Person" is used to denote the moral subject, the being who can be held responsible for his actions and thus praised, blamed, or punished. According to Locke, what constitutes a person is a characteristic continuity of consciousness, which is not merely rational thought but the full range of mental states accessible to introspection. Just as a tree is a characteristic organization of life functions sustained by exchanges of matter, so a person is a characteristic organization of mental functions continuing through changes in ideas (the matter of thought). A person can be held responsible for an action only if he acknowledges that action as one which he performed; i.e., one of which he is conscious and remembers having performed.

The empiricist position thus opens up the possibility of empirical studies both of man as a natural and as a moral being and puts these studies on a par with the natural sciences. But it does so in such a way that the resulting picture lacks any integral unity, for man is an incomprehensible union of body and mind.

## Development of Anthropological Studies

A renewed study of the natural history of man was stimulated by European encounters with the great anthropoid apes of Africa (Angola) and Asia (the Sunda Islands) at the beginning of the 16th century. Until then Europe had known only the smaller monkeys, which were too far removed from the human species to present any confusion. The discovery of the chimpanzee and the orangutan (meaning “man of the woods” in Malay) raised such questions as whether the anthropoid, who resembles man, is an animal or a man, and why it should be considered an ape and not a man. In the climate of opinion – typified by Locke and fostered by the Royal Society of London, with its enthusiasm for empirical observation – these questions prompted the detailed observational studies of a leading member of the society, Edward Tyson.

## Work of Tyson

Tyson had the opportunity to study the remains of a young chimpanzee (named Pygmie) from Angola that had died in London several months after its arrival. His research was published by the Royal Society in 1699 under the title *Orang-Outang, sive Homo Sylvestris: or, The Anatomy of a Pygmie Compared with That of a Monkey, an Ape, and a Man*. This treatise, a landmark in anthropology and comparative anatomy, is remarkable for the empirical approach used in the investigation. Tyson’s precise measurements, his complete exploration of the external and internal structures of the animal, and his minutely detailed sketches permitted him to pose what is perhaps the central problem of physical anthropology: whether it is possible to find among

the anatomical or physiological characteristics of the ape the justification for asserting a radical difference between ape and man, notwithstanding all their similarities. He analyzed in great detail the similarities and dissimilarities between a chimpanzee and a man. He emphasized the fact that the ape is a quadrumane (having four hands) rather than a quadruped (having four feet); unlike the human foot, its foot has an opposable, and thus thumblike, big toe. The arrangement of the internal organs allows the erect posture that makes the ape similar to man. But on an analysis of the form and mass of the brain and speech apparatus, Tyson concluded that he was unable to determine, from a strictly anatomical point of view, why the ape is incapable of thinking and speaking.

Integral to the empiricism that forms the philosophical background to Tyson's work was a rejection of the whole notion of forms or essences as objectively determining fixed and strict demarcations within the natural world. Classification was the work of man imposed upon a natural continuum, which replaced the older ladderlike conception of the Chain of Being. This encouraged a quest for "missing links," examples of intermediary forms between those already recognized. For example, zoophytes (invertebrate animals resembling plants, such as sponges) were said to form the link between the vegetable order and the animal order. For Tyson, the chimpanzee was the missing link between animal and man.

### Emergence of Cultural Anthropology

If physical anthropology was born out of Western man's encounter with the anthropoid apes, cultural anthropology was made necessary by his encounter with people in the rest of the world during the great voyages of discovery begun in the 15th century. Cultural anthropology became the product of the confrontation between the classical values of the West and the opposing values and customs of newly discovered civilizations.

The "savage" appeared to manifest a style of humanity that was a contradiction of the certainties that had sustained Europeans for centuries. The shock was such that the naked Indian and the cannibal were at first assumed not to belong to the human race; this approach enabled Europeans to avoid the problem. This solution was, however, rejected by Pope Paul III in 1537 in his bull, or decree, *Sublimus Deus* ("The Transcendent God"), according to which Indian savages were human beings; they had souls and, as such, could be initiated into the Christian religion. This left the problem of how to reconcile the increasingly manifest human diversity with the theological requirement of human unity. One solution was to account for diversity in terms of environment, including cultural environment, and to regard the "savage" as a "primitive," as a "man of nature," who remained close to an initial state from which a privileged part of humanity had been able to remove itself by a continued effort at community and individual advancement. A study of the history of man endeavored to bring to light the successive stages through which the human species had passed along the way to the present civilized societies. The themes of "civilization" and "progress" were among the principal preoccupations of the Enlightenment.

## The 18th-Century Enlightenment

What has come to be known as the Enlightenment is characterized by an optimistic faith in the ability of man to develop progressively by using reason. By coming to know both himself and the natural world better he is able to develop morally and materially, increasingly dominating both his own animal instincts and the natural world that forms his environment. However, the divergence between rationalist and empiricist traditions continues, giving rise to rather different interpretations of this theme.

## The Natural History of Man

The writings of the Scottish philosopher David Hume give a clear statement of the implications of empiricist epistemology for the study of man. Hume argued first that scientific knowledge of the natural world can consist only of conjectures as to the laws, or regularities, to be found in the sequence of natural phenomena. Not only must the causes of the phenomenal regularities remain unknown but the whole idea of a reality behind and productive of experience must be discounted as making no sense, for experience can afford nothing on the basis of which to understand such talk. Given that this is so, and given that man also observes regularities in human behavior, the sciences of man are possible and can be put on exactly the same footing as the natural sciences. The observed regularities of human conduct can be systematically recorded and classified, and this is all that any science can or should aim to achieve. Explanation of these regularities (by reference to the essence of man) is not required in the sciences of man any more than explanation of regularities is required in the natural sciences.

Man thus becomes an object of study by natural history in the widest possible sense. All observations – whether of physiology, behavior, or culture – contribute to the empirical knowledge of man. There is no need, beyond one of convenience, to compartmentalize these observations, since the method of study is the same whether marital customs or skin color is the topic of investigation; the aim is to record observations in a systematic fashion making generalizations where possible. Such investigations into the natural history of man were undertaken by Linnaeus, Buffon, and Blumenbach, among others.

In his *Systema Naturae* (1735), the Swedish naturalist Carolus Linnaeus (Carl von Linné) gave a very precise description of man, placing him among the mammals in the order of primates, alongside the apes and the bat. But the distinguishing characteristic of man remains his use of reason; something that is not dependent on any physiological characteristics. Moreover, the variations that are to be found within the genus *Homo sapiens* are the product of culture and climate. In later editions of *Systema Naturae*, Linnaeus presented a summary of the diverse varieties of the human species. The Asian, for example, is “yellowish, melancholy, endowed with black hair and brown eyes,” and has a character that is “severe, conceited, and stingy. He puts on loose clothing. He is governed by opinion.” The African is recognizable by the color of his skin, by his kinky hair, and by the structure of his face. “He is sly, lazy, and neglectful. He rubs his body with oil or grease. He is governed by the arbitrary will of his masters.” As for the white European, “he is changeable, clever, and inventive. He puts on tight clothing. He is governed by laws.” Here mentality, clothes, political order, and physiology are all taken into account.

The French naturalist Georges Leclerc, comte de Buffon, devoted two of the 44 volumes of his *Histoire naturelle, général et particulière* (1749-1804)

to man as a zoological species. Buffon criticized Linnaeus' system and all other systems of classification that depended only on external characteristics; to force individual objects into a rational set of categories was to impose an artificial construct on nature. He was echoing arguments that Locke had used, arguments based on the conception of the Great Chain of Being as a continuum, not as a sequence of discrete steps. An artificial taxonomy came from the mind, not from nature, and achieved precision at the expense of verisimilitude. Buffon's answer was to determine species not by characteristics but by their reproductive history. Two individual animals or plants are of the same species if they can produce fertile offspring. Species as so defined necessarily have a temporal dimension: a species is known only through the history of its propagation. This means that it is absurd to use the same principles for classifying living and nonliving things. Rocks do not mate and have offspring, so the taxonomy of the mineral kingdom cannot be based on the same principles as that of the animal and vegetable kingdom. Similarly, according to Buffon, there is "an infinite distance" between animal and man, for "man is a being with reason, and the animal is one without reason." Thus, "the most stupid of men can command the most intelligent of animals... because he has a reasoned plan, an order of actions, and a series of means by which he can force the animal to obey him." The ape, even if in its external characteristics it is similar to man, is deprived of thought and all that is distinctive of man. Ape and man differ in temperament, in gestation period, in the rearing and growth of the body, in length of life, and in all the habits that Buffon regarded as constituting the nature of a particular being. Most important, apes and other animals lack the ability to speak. This is significant in that Buffon saw the rise of human intelligence as a product of development of an articulated language. But this linguistic ability is the primary manifestation of the presence of reason and is not merely dependent on

physiology. Animals lack speech not because they cannot produce articulated sound sequences, but because, lacking minds, they have no ideas to give meaning to these sounds.

The German scholar Johann Friedrich Blumenbach is recognized as the father of physical anthropology for his work *De Generis Humani Varietate Nativa* (“On the Natural Variety of Mankind”), published in 1775 or 1776. He also regarded language as an important distinguishing characteristic of man, but added that it is only man who is capable of laughing and crying. Perhaps most important is the suggestion, also made by the American statesman Benjamin Franklin, that it is only man who has hands that make him capable of fashioning tools. This was a suggestion that broke new ground in that it opened up the possibility of speculating on a physiological origin for the development of intellectual capacities.

### Man the Rational Subject

The great German philosopher Immanuel Kant credited Hume with having wakened him from his dogmatic slumbers. But while Kant concurred with Hume in rejecting the possibility of taking metaphysics as a philosophical starting point (dogmatic metaphysics), he did not follow him in dismissing the need for metaphysics altogether. Instead he returned to the Cartesian project of seeking to find in the structure of consciousness itself something that would point beyond it.

Thus, Kant started from the same point as the empiricists, but with Cartesian consciousness – the experience of the individual considered as a sequence of mental states. But instead of asking the empiricists’ question of



how it is that man acquires such concepts as number, space, or color, he enquired into the conditions under which the conscious awareness of mental states – as states of mind and as classifiable states distinguished by what they purport to represent – is possible. The empiricist simply takes the character of the human mind – consciousness and self-consciousness – for granted as a given of human nature and then proceeds to ask questions concerning how experience, presumed to come in the form of sense perceptions, gives rise to all of man's various ideas and ways of thinking. The methods proposed for this investigation are observational, and thus the study is continuous with natural history. The enterprise overlaps with what would now be called cognitive psychology but includes introspection regarded simply as self-observation. But this clearly begs a number of questions, in particular, how the empiricist can claim knowledge of the human mind and of the character of the experience that is the supposed origin of all ideas.

Even Hume was forced to admit that self-observation, or introspection, given the supposed model of experience as a sequence of ideas and impressions, can yield nothing more than an impression of current or immediately preceding mental states. Experiential self-knowledge, on this model, is impossible. The knowing subject, by his effort to know himself, is already changing himself so that he can only know what he was, not what he is. Thus, any empirical study, whether it be of man or of the natural world, must be based on foundations that can only be provided by a nonempirical, philosophical investigation into the conditions of the possibility of the form of knowledge sought. Without this foundation an empirical study cannot achieve any unified conception of its object and never will be able to attain that systematic, theoretically organized character that is demanded of science.

The method of such philosophical investigation is that of critical reflection – employing reason critically – not that of introspection or inner observation. It is here that the origin of what has come to be regarded as philosophical anthropology in the stricter, third sense (i.e., 20th-century humanism) can be identified, since there is an insistence that studies of the knowing and moral subject must be founded in a philosophical study. But there remain questions about the humanity of Kant's subject. Kant's position was still firmly dualist; the conscious subject constitutes itself through the opposition between experience of itself as free and active (in inner sense) and of the thoroughly deterministic, mechanistic, and material world (in the passive receptivity of outer sense). The subject with which philosophy is thus concerned is finite and rational, limited by the constraint that the content of its knowledge is given in the form of sense experience rather than pure intellectual intuition. This is not a differentiated individual subject but a form of which individual minds are instantiations. The ideals regulating this subject are purely rational ideals. This tendency is even more marked in the philosophies of Fichte, Schelling, and Hegel.

Humanist thought is anthropocentric in that it places man at the center and treats him as the point of origin. There are different ways of doing this, however, two of which are illustrated in the works of Locke and Kant, respectively. The first, realist, position assumes at the outset a contrast between an external, independently existing world and the conscious human subject. In this view man is presented as standing "outside" of the physical world that he observes. This conception endorses an instrumental view of the relation between man and the nonhuman, natural world and is therefore most frequently found to be implicit in the thought of those enthusiastic about modern technological science. Nature, from this viewpoint, exists for man,

who by making increasingly accurate conjectures as to the laws governing the regular succession of natural events is able to increase his ability to predict them and so to control his environment.

The second, idealist position, argues that the world exists only in being an object of human thought; it exists only by virtue of man's conceptualization of it. In the form in which Kant expressed this position the thought that constitutes the material, physical world, is that of a transcendent mind, of which the actual minds of humans are merely vehicles.

There is also a third, dialectical, form of anthropocentrism, which, although it did not emerge fully until the 19th century, was prefigured in the works of Vico and Herder. From this standpoint the relation between man and nature is regarded as an integral part to the dynamic whole of which it is a part. The world is what it is as a result of being lived in and transformed by human beings, while people, in turn, acquire their character from their existence in a particular situation within the world. Any thought about the world is concerned with a world as lived through a subject, who is also part of the world about which he thinks. There is no possibility of transcendence in thought to some external, non-worldly standpoint. Such a position wants both to grant the independent existence of the world and to stress the active and creative role of human beings within it. It is within this relatively late form of humanism – which arose from a synthesis of elements of the Kantian position, with the insights of the Italian Giambattista Vico and the German Johann Gottfried von Herder – that philosophical anthropology in the third sense can be located.

Vico's *Scienza nuova* (1725; *The New Science of Giambattista Vico*) announced not so much a new science as the need to recognize a new form of

scientific knowledge. He argued (against empiricists) that the study of man must differ in its method and goals from that of the natural world. This is because the nature of man is not static and unalterable; a person's own efforts to understand the world and adapt it to his needs, physical and spiritual, continuously transform that world and himself. Each individual is both the product and the support of a collective consciousness that defines a particular moment in the history of the human spirit. Each epoch interprets the sum of its traditions, norms, and values in such a way as to impose a model for behavior on daily life as well as on the more specialized domains of morals and religion and art. Given that those who make or create something can understand it in a way in which mere observers of it cannot, it follows that if, in some sense, people make their own history, they can understand history in a way in which they cannot understand the natural world, which is only observed by them. The natural world must remain unintelligible to man; only God, as its creator, fully understands it. History, however, being concerned with human actions, is intelligible to humans. This means, moreover, that the succession of phases in the culture of a given society or people cannot be regarded as governed by mechanistic, causal laws. To be intelligible these successions must be explicable solely in terms of human, goal-directed activity. Such understanding is the product neither of sense perception nor of rational deduction but of imaginative reconstruction. Here Vico asserted that, even though a person's style of thought is a product of the phase of culture in which he participates, it is nonetheless possible for him to understand another culture and the transitions between cultural phases. He assumed that there is some underlying commonality of the needs, goals, and requirements for social organization that makes this possible.

Herder denied the existence of any such absolute and universally recognized goals. This denial carried the disturbing implication that the specific values and goals pursued by various human cultures may not only differ but also may not all be mutually compatible. Hence, not only may cultural transitions not all be intelligible, but conflict may not be an attribute of the human condition that can be eliminated. If this is so, then the notion of a single code of precepts for the harmonious, ideal way of life, which underlies mainstream Western thought and to which – whether they know it or not – all human beings aspire, could not be sustained. There will be many ways of living, thinking, and feeling, each self-validating but not mutually compatible or comparable nor capable of being integrated into a harmonious pluralistic society.

### The 19th Century

The 19th century was a time of greatly increased activity in the sciences of man. There was a correspondingly rapid development of various disciplines, but this was accompanied by increasing specialization within disciplines. Perhaps the most significant theme, common to all branches of science, was the declining influence of religion. The philosophers of the Enlightenment had concurred in thinking that the transcendence of God doomed to failure any attempt to encompass him within the framework of human discourse. Theological discourse was thus only human discourse. Herder had stated, “It is necessary to read the Bible in a human manner, for it is a book written by men for men.” Even so, he insisted, “The fact that religion is integrally human is a profound sign in recognition of its truth.” But with human truth the only available truth, such a line was hard to maintain,

and by the late 19th century the German philosopher Friedrich Nietzsche had announced that God was dead.

But the death of God also meant that the essence of God in every man was dead – that which was common to all and that in virtue of which the individual transcended the natural, material world and his purely biological nature. Also dead was the part of a person that recognized universal God-given ideals of reason and truth, goodness and beauty. There thus emerged views of man that, while integrating him more thoroughly with the natural world – treating his incarnation as an essential aspect of his condition – had to come to terms with the consequences for science, morality, and the study of man himself of the removal of a transcendent support for belief in absolute standards or ideals.

The presumption of a fixed human nature was undercut at the level of natural history by the emergence and eventual acceptance of evolutionary biology. This added a historical, developmental dimension to the natural history of man, which complimented developmental views of culture and of man as a culturally constituted being. But more importantly, evolutionary biology made man a direct descendant of nonhuman primates and suggested that the gift of reason, which so many had seen as establishing a gulf between man and animal, might too have developed gradually and might indeed have a physiological basis.

Even though Buffon had tied classification to the ability to reproduce, and had thus introduced a temporal dimension into the characterization of species, he had retained the idea of stable species. But a static classification could not explain the dynamic relations between isolated species. A primitive time line of natural history thus developed. The relationship of families led to

the idea of filiation between them according to an order of succession. The interpretation of fossils aroused impassioned debates. From them have arisen concepts of mutation (the process by which the genetic material of a cell is altered), transformism (the theory that one species is changed into another), and evolution. These concepts, already being formulated in the 18th century, were clarified in the work of Lamarck and Darwin.

The evolutionary theory of Charles Darwin's *Origin of Species* (1859) differed from that of Jean-Baptiste de Lamarck in that it proposed a mechanistic, nonpurposive account of evolution as the product of the natural selection of randomly produced genetic mutations (survival of the fittest). Advantageous characteristics acquired by an individual were not, as Lamarck had thought, inherited and therefore could not play a role in evolutionary development.

The theme of continuity with the rest of the natural world was one that was also to be found in the very different, antiscientific thought of Romanticism, which was one of the reactions to the rise of the doctrine of mechanism and to the Industrial Revolution for which it was held responsible. The experience of the Industrial Revolution was crucial to most 19th-century thought about man. Reactions to this experience can be put into three broad categories. There were those who saw in industrialization the progressive triumph of reason over nature, making possible the march of civilization and the moral triumph of reason over animal instinct. This was a view that continued the spirit of the Enlightenment, with its confidence in reason and the ability to advance through science. Into this category can be put the English philosopher John Stuart Mill, a stout defender of liberal individualism. Mill's philosophy was in many respects a continuation of that of Hume but with the addition of Jeremy Bentham's utilitarian view that the

foundation of all morality is the principle that one should always act so as to produce the greatest happiness of the greatest number. This ethical principle gives a prominent place to the sciences of man (which are conceived as being parallel in method to the natural sciences), their study deemed necessary for an empirical determination of the social and material conditions that produce the greatest general happiness. This is a non-dialectical, naturalistic humanism, which gives primacy to the individual and stresses the importance of his freedom. For Mill, all social phenomena, and therefore ultimately all social changes, are products of the actions of individuals.

The humanist opponents of capitalist industrialization fall into two groups, both presuming some form of dialectical humanism: those who, like Marx, retained a faith in the scientific application of reason and those who, like Goethe and Schiller, fundamentally questioned the humanity of mechanistic science and the technology it spawned.

The Romantics questioned the instrumental conception of the relation between man and nature, which is fundamental to the thinking behind much technological science. They insisted on an organic relation between man and the rest of nature. It is not man's place outside of nature that is emphasized but his situation within it. Equally central to this view was a recognition of the historicity of human culture and a rejection of any conception of a fixed, determined human nature on which a science of man parallel in structure to the natural sciences (i.e., a science with laws, whether empirical or rational, that determine the actions and the historical development of mankind) could be based. There was a continued commitment to the perspective of the individual, and his creative relation with the world, an orientation that was carried over into the philosophical anthropology of 20th-century



phenomenologists and existentialists, with their critiques of modern industrial science.

The Marxist opposition to capitalist industrialization is not to industrialization as such but to capitalist forms of it. This opposition is founded on socialism, which stresses the role of social structures; it is at the level of society – its structures and its economic base of production – that the course of history can be understood. Marx emphasized the importance of labour and work in man's relation both to the natural and to the social worlds in which he finds himself and which condition his ability to realize himself through these relationships. He deplored the loss of humanity associated with capitalist industrialization, which was manifest in the alienating conditions under which members of the working class were treated as objects and thus deprived of their full status as human subjects by their industrial masters. Nonetheless, he retained a faith in scientific knowledge and in the possibility of a scientific understanding of history by integrating its economic, social, and political aspects. Marx argued, however, that it was not reason but revolution that would cause the overthrow of the capitalist system.

Common to all of these reactions is that whether they privileged reason or not they did not seek to validate the claims of reason – and hence the claims of science – by reference to a rational God. But with this transcendent guarantor removed, the question of the objectivity of rational standards and of the commonality of human thought structures became pressing. The Cartesian starting point focused attention on thought as a sequence of ideas, knowable only to the individual concerned. Animals, even if capable of uttering structured sound sequences, were denied linguistic abilities on the ground that these sound sequences could not be the expressions of thoughts and could not have meaning; lacking minds, animals also lack ideas, the thoughts that give

words their meaning. According to this view, words are simply conventionally established vehicles for the communication of thoughts that exist prior to, and independent of, their linguistic expression. However, if it is not assumed that human minds are all instantiations of a single transcendent mind, or that although individual they were created from a common pattern, this account of linguistic communication must appear inadequate. Since according to Cartesianism introspection is the only route to awareness of ideas, each person can only ever be aware of his own ideas, never of those of another. He could never know that his attempts to communicate succeed in calling up in another person's mind ideas similar to those in his own. Some new way of looking at linguistic communication was required, and this could be nothing short of a new starting point, a new way of thinking about thought itself.

#### The 20th Century: Emergence of Philosophical Anthropology

The mood of the late 19th century, which has also dominated 20th-century philosophy, can be characterized as anti-psychologistic – a rejection of introspective, idea-oriented ways of thinking about thought, which presume that thought is prior to language. This fundamental reorientation had implications for every other aspect of the study of man. The writers of the late 19th and early 20th centuries who most influenced subsequent philosophical thought about man were Gottlob Frege, Edmund Husserl, Ferdinand de Saussure, and Sigmund Freud. Each helped to transform one of the three reactions to the Industrial Revolution outlined above, to bring it into accord with the new, anti-psychologistic orientation: Frege influenced the empiricist, scientific reaction; Husserl the Romantic; and Saussure and Freud the scientific Socialist.

## Frege and Empiricist Anthropology

Frege argued that if language is to be a vehicle for the expression of objective, scientific knowledge of the world, then the meaning (cognitive content) of a linguistic expression must be the same for all users of the language to which it belongs and must be determined independently of the psychological states of any individual. A word may call up a variety of ideas in the mind of an individual user, but these are not part of its meaning. Such associations may be important to the poet but are irrelevant to the scientist. The function of language in the expression of scientific knowledge is to represent an independently existing world. The meanings of linguistic expressions must thus derive from their relation to the world, not from their relation to the minds of language users. Similarly, logic – embodying the principles of reasoning and the standards of rationality – must be concerned not with laws of human thought, but with laws of truth. The principles of correct reasoning must be justified by reference to the function of language in representing the world correctly or incorrectly rather than by reference to human psychology.

It is for his work on formal logic, which stemmed from these ideas, that Frege is renowned, because it opened the way for the mechanical reproduction of reasoning processes, which was crucial to the development of information processing by computers and for devices capable of artificial intelligence. Frege argued that the principles of deductive reasoning are purely formal principles, which means that their correct application does not depend on an ability to understand the sentences involved, so long as they have been put into the correct logical form. To give an account of the meaning of a sentence requires that it be analyzed so as to reveal its logical form. The logical analysis of everyday and scientific language thus becomes a primary focus of

philosophical activity, hence the name “analytic philosophy” for the tradition, predominating in Great Britain, North America, and Australasia that can be regarded as post-Fregean philosophy. In this tradition the focus is on the analysis of rational, human thought, where it is presumed that the only correct way to do this is to analyze the logical structure of language.

Thus language has replaced God as the locus of rationality and of principles of reason; and the language-world relation has taken over many of the roles previously played by the God-world relation. The individual participates in a rationality that is independent of him to the extent that he is a language user. The position assumes that standards of rationality are absolute, since they are seen as necessarily governing the meaning structures of all languages. The linguist Noam Chomsky proposed a thesis that was regarded as being complimentary to this philosophical position, namely that of a universal grammar – a formal structure that underlies all languages, no matter how diverse their grammatical forms seem on the surface. Moreover, he suggested that all humans have the same innate capacity to learn language, which explains why it is that they all structure their languages, and hence their thought, in the same way.

A further assumption (christened the “principle of charity” by the American philosopher Donald Davidson) is that all humans are rational and that the majority of human behavior is to be explained as rational, given the beliefs and desires of the person concerned. This, together with the view that language is the locus of rationality and the embodiment of thought, leads to the view that the primary objective of the sciences of man is to interpret the language of a community under study so as to attribute beliefs and desires to its members on the basis of what they say, and so give some explanation of their behavior. The interpretation is deemed incorrect if the attributed beliefs

and desires result in too much behavior being portrayed as irrational. There will then be a mutual adjustment between language interpretation and the explanation of behavior in which there can be no final separation of the two and no such thing as a uniquely correct interpretation. There is thus no hope of finding laws linking psychological states of belief or desire to physiological states, even though, by maintaining that each mental event is just a physical event under a different description, a dualism of mind and body is denied. What remains is an irreducible dualism between physiological and psychosocial studies of man. The situation is frequently explained by utilizing a computer analogy (for the computer is, in this view, man creating a machine in his own image). The relation between the structures of thought and the body is likened to the relation between computer software and hardware; the same hardware may be used to run different software, and the same software may be run on different hardware. The two descriptions of computer functioning are thus relatively independent.

In this account the consciousness of the individual plays little explicit role, but a model of man is nevertheless implicit in the whole approach. It is still basically the model employed by Hume, with experience consisting of sensory stimuli. Experience of other people is thus limited to observation of their physical and behavioral characteristics. It is on the basis of such observations that we have to make conjectures about their mental states. What has changed is the method of making such attributions. It is not sufficient to argue by analogy from introspection; any attribute of rational or mental faculties must go via an analytic interpretation of the language spoken. But with the assumption that all languages must share a common logical structure in virtue of their function in representing the world, there is also an inbuilt presumption of a uniformity in the rational structure of all human thought.

## Husserl and Philosophical Anthropology

Husserl is regarded as the founder of phenomenology. He, like Frege, wished to avoid the so-called psychologism of idea-based discussions of thought and rejected naturalistic approaches to the study of the mind and of what passes for rational thought. He, too, believed that laws of reasoning needed to be validated by reference to the objects of thought, but he did not agree that logic could be made purely formal and independent of the particular subject matter in hand, nor did he agree that the primary focus should be on language. Indeed, he rejected the position from which Frege started, namely, the assumption that there is a clear separation between the knowing subject and an independently existing reality that is the object of his knowledge. This assumption, Husserl argued, reveals a blindness to the conditions, or presuppositions, involved in all knowledge and already analyzed in part by Kant. Husserl adopted Kant's strategy but in a more radical form that was designed to restore the in-the-worldness of the human subject.

The program of phenomenology aimed at rigorous understanding of the life-world. Kant had explored the conditions of the possibility of experience, and in so doing he had presumed that this experience was always that of an "I," a subject. Husserl also asked after the conditions for the possibility of a consciousness that is always potentially self-conscious. He claimed that all consciousness is intentional; i.e., is consciousness of something. The method pursued was a phenomenal investigation of the "contents of consciousness." This required the investigator to "bracket off" all theories, presuppositions, and evidence of existence, including his own existence. There could be no dogmas. The implication was still that the individual can, in principle, abstract from every influence of culture and environment by abstracting also from that element of consciousness that involves awareness of self. It was presumed that

consciousness as such had structures that would then be revealed. It is only self-conscious thought that is culturally constituted; for Husserl, each human individual is by necessity socially and historically conditioned by his environment. But even so it has to be doubted whether the required abstraction from self is possible in the sort of consciousness – i.e., reflective rational thought – that is required of a rigorous phenomenological analysis.

Descartes and his successors had taken the self, the individual subject, for granted and in the process inevitably had assigned to the knowing subject a position outside, beyond, or transcending the world of which he sought knowledge. Husserl, by putting the individual subject into the field of philosophical investigation, paved the way for investigations of the human condition that start with the concrete, with man's being-in-the world. In this respect he can also be regarded as the founder of philosophical anthropology in the narrowest sense of the term: the personal unity of the human being becomes both the point of departure and the goal of philosophical reflection. The use of philosophical anthropology to characterize this approach emerged in the first half of the 20th century with the tendency both in Germany and in France to treat the problems of anthropology as the center of all philosophical studies. Its emergence at this time may be seen as a reaction to the totalitarian systems of the 20th century: Italian Fascism, Soviet Communism under Stalin, and German Nazism were powerful ideologies calling for the annihilation of the individual character of the person. The philosophical protests of the German phenomenologist Max Scheler, of the Russian existentialist Nikolay Berdyayev, of the Jewish philosophical theologian Martin Buber, and of the French personalist Emmanuel Mounier offered answers to this challenge; the philosophies of the person and of existence present to each individual the means to center himself upon himself.

## Work of Heidegger

Husserl's work not only gave rise to phenomenology but also to the existentialist ideas of Martin Heidegger and Jean-Paul Sartre. Heidegger adopted the method of phenomenology but rejected Husserl's refusal to allow existence to feature in the phenomenological starting point. Heidegger argued for a philosophy in which man's being-in-the-world is registered, and where this being (existence) precedes any determination of what man is (his essence).

In his *Brief über den "Humanismus"* (1947; *Brief Letter on Humanism*), Heidegger wrote:

Are we really on the right track toward the essence of man as long as we set him off as one living creature among others in contrast to plants, beasts and God?... when we do this we abandon man to the essential realm of *animalitas* but attribute a specific difference to him. In principle we are still thinking of *homo animalitas* – even when *anima* (soul) is posited as *animus sive mens*, and this in turn is later posited as subject, person, or spirit (*geist*). Such positing is in the manner of metaphysics.

Naturalistic definitions of man fail, because like all traditional metaphysical definitions they naively assume that we know what we mean when we say of something that it is; i.e., when we ascribe being to it.

Humanity and the world form a whole in which neither is privileged. The focus shifts from intentional objects of consciousness to the world itself, a world of objects that appear (and hence exist as individualized objects) only insofar as they have meaning and significance for human beings, by virtue of the way in which they relate to human projects. A fallen tree branch is noticed as firewood only by one who is in search of fuel. Similarly, events are noticed and recorded and so become historical events but only in the light of the



meaning that they have for the historian. This means that neither history nor the study of man can be objective and purely factual history. History is always a story about the past from someone who has a specific vantage point within history.

#### Work of Sartre and Other Existentialists

Sartre, in *L'Être et le néant* (1943; *Being and Nothingness*), tried to tread a middle line between Husserl and Heidegger, retaining the concrete in-the-worldness of Heidegger while restoring a place for intentional consciousness. He hoped to provide an account of, as he put it, intentional-consciousness-in-the-world-as-it-is-lived. Sartre's driving belief was in human freedom, the ability to choose not only a course of action but also what one would become. Neither Husserl, with his already structured and regulated consciousness, nor Heidegger, with his world that is already given meaning, left enough room for freedom.

Sartre insisted on the dualism of being (thingness) and consciousness (no-thingness) and of the individual in itself and for itself. The disjunction between these is absolute: no state of the world can determine human action, even to the extent of providing a motive, or reason, for action. If man is truly free, the world, whether material or social, can place no constraints on him, not even to the extent of determining what would or would not be good reasons for following a given course of action. He must create his own values and his own morality and take responsibility for his choices. Sartre's critics pointed out, however, that this total freedom dissolves into arbitrariness and randomness. An action that is selected at whim, chosen without (or beyond)

reason, and that recognizes no rational constraints, is more an abandonment to fate than an assertion of freedom; where there is no basis for decision there is simply the necessity to choose.

In his later writings, and in particular the *Critique de la raison dialectique* (1960; *Critique of Dialectical Reason*), which attempts a reconciliation between existentialism and Marxism, Sartre came to recognize that there are constraints on the exercise of human freedom. He first acknowledged that man is a creature with biological needs, who must eat, drink, shelter, and clothe himself as a condition of being able to engage in other kinds of activity; and, second, he saw the struggle against need as conditioned by the fact that it takes place in conditions of scarcity. This means that there is competition for resources and thus the ever-present likelihood that the realization of an individual's freedom will limit that of another. Each individual in these conditions experiences others as possible threats to his own freedom (i.e., he experiences alienation).

Individuals whose freedom is in this way conditioned, not just by naturally occurring material conditions but by the materiality of human practice, are (as Marx had said) both "subjects" and "objects" of history. But Sartre insisted that history is only intelligible because it records a process brought into being by human action. This rules out an understanding of history based on a "dialectic of nature," adopted by some Marxists whom Sartre criticized as being dogmatists. Sartre thus rejected the idea that there could be any naturalistic science of humanity – a science that proceeds by discovering laws without reference to the consciousness of individuals. History is neither a mere process (without a subject) nor the product of some form of social, collective "subject." But this does not mean that individuals can be treated as wholly independent units that can be understood without

taking into account the formative and conditioning role of their material and social situation. It is in this work that Sartre was still facing up to, and grappling with, the problem of the reconciliation of the demands of freedom and reason, but in an altogether more practical and concrete way than was done by his 17th-century predecessors.

Sartre's abandonment of the radical freedom of *Being and Nothingness* owed much to the French phenomenologist Maurice Merleau-Ponty's criticism of it – in *Sens et non-sens* (1948; *Sense and Non-Sense*) – as being still a dualist philosophy of consciousness and for failing to put man truly in the world. In *Sense and Non-Sense* he also expressed his view of the relation between existentialism and Marxism:

Marx gives us an objective definition of class in terms of the effective position of individuals in the production cycle, but he tells us elsewhere that class cannot become a decisive historical force and revolutionary factor unless individuals become aware of it, adding that this awareness itself has social motives, and so on. As a historical factor, class is therefore neither a simple objective fact, nor is it, on the other hand, a simple value arbitrarily chosen by solitary consciousnesses.

In Merleau-Ponty's writing there is also a clear statement of the human presupposition that forms the basis of philosophical anthropology in this third sense:

I am not the result or the intersection of multiple causalities that determine my body or my “psychism”; I cannot conceive of myself as nothing but a part of the world, as the simple object of biology, psychology, and sociology, nor close over myself the universe of science. Everything that I know of the world, even through science, I know from a viewpoint that is my own....

One effect of the insistence that it is concrete, lived experience that must form the starting point of philosophical anthropology is that not only must class and its experience enter into such accounts, but so too must sex and gender. Once the human subject, as a focus of philosophical attention, is no longer a mind whose relation to a body is at best obscure, is no longer a pure consciousness, but is essentially embodied and immersed in human culture, the biological differences between the sexes and the socially constituted role differentiation between male and female must play a part in the account of humanity.

In Simone de Beauvoir’s *Deuxième Sexe* (1949; *The Second Sex*), she used the categories provided by Sartre to argue that to be a woman – as distinct from a man – is to be robbed of one’s subjectivity, to be treated as an object by men, and to have one’s conception of oneself as female defined by men. To assert her subjectivity a woman must thus negate her femininity, to reject the status of object for men that constitutes the feminine. A woman is thus placed in a condition of self-alienation, with which a man does not have to contend. In this way de Beauvoir revealed the need for a philosophy of “man” that is also a philosophy of “woman,” a viewpoint that generally has been acknowledged only by female writers.

### Philosophical Anthropology and Theology

Just as class and gender determine the way in which one lives in the world and is related to the world, so too may religion. Even for those not brought up in any religion, Western culture is still one in which religion is significant. Philosophical anthropology must thus take the phenomenon of religious experience seriously, in a way that empiricist anthropology does not. But its starting point is with the constitution of a religious consciousness, and with the conditions of the possibility of the forms of religion encountered; it does not start with theology. There is room once again for dispute over the possibility of any kind of transcendence. The 19th-century Danish philosopher Søren Kierkegaard thought that man's existence has meaning only in the experience of grace, which inexplicably raises man up from his worthlessness. The anguish and loneliness of mortal existence, the "wretchedness of man without God," is only overcome by a form of experience that confers faith in the existence of God and hence the ultimate possibility of human transcendence.

Philosophical anthropology in its narrowest (third) sense is founded on an insistence that the only knowledge available to man is knowledge from his human perspective, conditioned, as he himself is, by his situation in the world. God cannot be invoked as a source of absolute standards of truth or of absolute values nor to give content to the supposition that there are any. If God exists, then the thought that there are such standards and values, even if we cannot know of them, remains possible. This possibility was denied with Nietzsche's proclamation of the death of God; the attempt to come to terms with this view defines the scope of most philosophical anthropology. The view of religion that reflects the inversion which takes place was expressed by Ludwig Feuerbach in *Das Wesen des Christentums* (1841; *The Essence of*

*Christianity*), when he declared that “man is not a shadow of God; it is God who is the shadow of man, an illusory phantasm that man nourishes out of his own substance.”

### Saussure, Freud, and Antihumanism

There were also those, however, who saw the death of God as heralding the death of man as the focus and starting point for philosophy. Saussure, in his *Cours de linguistique général* (1915; *Course in General Linguistics*), held, like Frege, that the meaning of a linguistic sign, that which gives it a value for the purposes of communication, could not be an idea in the mind of an individual. But unlike Frege he did not concentrate on the relation between language and an external world. Rather, he argued that the meaning of any one linguistic sign is dependent on its relation to other signs in the language to which it belongs; thus, the meaning of one sign is determined by its place in the overall structure that constitutes a language. A consequence of this view is that language becomes a closed, autonomous system. Linguistic signs do not depend for their meaning on anything external to language. Moreover, Saussure argued that the present meaning of a word could not be revealed by tracing its etymology. It is only by reference to present language structures that current meanings are determined. The language structures that become the focus of attention are thus to be treated as autonomous from their history (i.e., as if they had no history).

With this focus on structures and the method of studying them, Saussure can be considered to be one of the founding figures of structuralism. This view of meaning came to be extended from linguistic signs to all kinds of

human actions to which a conventional meaning, or significance, is attributed. It has been used as the framework for anthropological investigations of cultures, their customs, etc., as, for example, in the work of Claude Lévi-Strauss or in the interpretation of dreams and the structures of the unconscious in the works of Jacques Lacan.

It is significant that, again, meaning is studied without reference to the consciousness of individual language speakers. Man is treated as essentially not just a language speaker but as a user and interpreter of signs, and the significance of these signs is determined without reference to any relation to the individual. A language, or sign-system, takes over the role of providing the framework of reason in which significance is given, but this framework transcends the individual. Such systems of codification regulate all human experience and activity and yet lie beyond the control of either individual or social groups. Indeed, since there is no meaning or understanding outside of a given sign-system, it is only from the meaning of the signs he “uses” that the individual comes to learn what it is that he means by his action, and hence what he thinks. This is why such views of language can readily be grafted onto Freud’s theory of the unconscious.

Freud treated the realm of the mind as one that is as law-governed as is the natural world; nothing that a person does or says is haphazard or accidental, for everything can in principle be traced to causes that are somehow in the person’s mind, although many of these are not accessible to consciousness. Freud’s view of the human mind is thus very different from Descartes’s. For Freud, the part of the mind that is accessible to consciousness is but the tip of a large iceberg; the hidden remainder, which influences the conscious, is the unconscious. Thus, for instance, there are unconscious desires that can cause someone to do things that he cannot explain rationally

to others, or even to himself. In this there is a parallel between Freud and Marx, for both hold views on which human consciousness, far from being perfectly free and rational, is really determined by causes of which man is not aware; but whereas Marx says that these causes are social and economic in nature, Freud claims that they are individual and mental. In both cases the implications for the study of man are anti-psychologicistic in that they turn attention away from the individual consciousness. On both views a scientific understanding of man is only to be gained by examining the factors that determine consciousness rather than the level of the individual subject of consciousness.

In his later expositions (those given in the 1920s) Freud assigned to the mind a tripartite structure: the id, which contains all the instinctual drives seeking immediate satisfaction; the ego, which deals with the world outside the person, mediating between it and the id; and the superego, a special part of the ego that contains the conscience, the social norms acquired in childhood. Whatever can become conscious is in the ego, although even in it there may be things that remain unconscious, whereas everything in the id is permanently unconscious. The instincts or drives contained in the id are the motivating forces in the mental apparatus, and all of the energy of the mind comes from them. Freud included a sexual instinct as one of the basic instincts and thus gave sexuality a much wider scope in psychology and in the study of man than had previously been the case. Freud's account of individual human character is also developmental. He held that particular "traumatic" experiences, although apparently forgotten, could continue to exercise a harmful influence on a person's mental health. The fully fledged theory of psychoanalysis generalizes from this and asserts the crucial importance, for the adult character, of the experiences of infancy and early childhood. Freud



also held that the first five or so years of life are the time in which the basis of an individual's personality is laid down; one cannot fully understand a person, therefore, until he comes to know the psychologically crucial facts about that person's early childhood. Freud produced detailed theories of the stages of development that are concerned specifically with the development of sexuality, in which this concept is widened to include any kind of pleasure obtained from parts of the body. Freud's view was that individual well-being, or mental health, depends on a harmonious relationship between the various parts of the mind and between the person and the real world in which he must live. Neurosis results from the frustration of basic instincts, either because of external obstacles or because of internal mental imbalance. The work of the analyst is to interpret the behavior and speech of a patient in such a way as to give insight into the unconscious, to be able to explain what is inexplicable at the conscious level, and in this way to try to give the patient an understanding of himself. Here there is a need for a theory of signs and of interpretation in which its notion of meaning, or significance, does not rest on either reference to the physical world or on ideas in an individual consciousness; structuralist theories provide one such possibility.

From the point of view of either Freudian theory or of the non-existentialist reading of Marx, any attempt to provide a study of man – of human behavior and history – that starts from the individual consciousness must seem misguided. This will include the empiricist approaches, which assume that all human behavior is to be explained in terms of the conscious mental states (i.e., beliefs and desires) of individuals. Such approaches seem to fail to acknowledge that the causes of human actions include factors of which they are not consciously aware. A scientific account, one that is concerned with providing causal explanations, must not be confined to the

subjectivity of the individual consciousness but must adopt an objective standpoint, a standpoint from which these factors can be recognized and studied. Equally as important, however, the sort of arguments used by phenomenologists and existentialists to query the availability of objective viewpoints can be reapplied here. Thus, structuralism gives place to the post-structuralism of Derrida and Deleuze, according to which neither a scientific nor a philosophical anthropology is possible.

## Humanism

### Introduction

The word *humanism* has been freely applied to a variety of beliefs, methods, and philosophies that place central emphasis on the human realm. Most frequently, however, the term is used with reference to a system of education and mode of inquiry that developed in northern Italy during the 14th century and later spread through Europe and England. Alternately known as “Renaissance humanism,” this program was so broadly and profoundly influential that it is one of the chief reasons why the Renaissance is viewed as a distinct historical period. Indeed, though the word *Renaissance* is of more recent coinage, the fundamental idea of that period as one of renewal and reawakening is humanistic in origin. But humanism sought its own philosophical bases in far earlier times and, moreover, continued to exert some of its power long after the end of the Renaissance.

## Origin and Meaning of the Term Humanism

### The Ideal of Humanitas

The history of the term *humanism* is complex but enlightening. It was first employed (as *humanismus*) by 19th-century German scholars to designate the Renaissance emphasis on classical studies in education. These studies were pursued and endorsed by educators known, as early as the late 15th century, as *umanisti*: that is, professors or students of classical literature. The word *umanisti* derives from the *studia humanitatis*, a course of classical studies that, in the early 15th century, consisted of grammar, poetry, rhetoric, history, and moral philosophy. The *studia humanitatis* were held to be the equivalent of the Greek *paideia*. Their name was itself based on the Latin *humanitas*, an educational and political ideal that was the intellectual basis of the entire movement. Renaissance humanism in all its forms defined itself in its straining toward this ideal. No discussion, therefore, of humanism can have validity without an understanding of *humanitas*.

*Humanitas* meant the development of human virtue, in all its forms, to its fullest extent. The term thus implied not only such qualities as are associated with the modern word *humanity* – understanding, benevolence, compassion, mercy – but also such more aggressive characteristics as fortitude, judgment, prudence, eloquence, and even love of honour. Consequently the possessor of *humanitas* could not be merely a sedentary and isolated philosopher or man of letters but was of necessity a participant in active life. Just as action without insight was held to be aimless and barbaric, insight without action was rejected as barren and imperfect. *Humanitas* called for a fine balance of action and contemplation, a balance born not of compromise but of complementarity. The goal of such fulfilled and balanced

virtue was political in the broadest sense of the word. The purview of Renaissance humanism included not only the education of the young but also the guidance of adults (including rulers) via philosophical poetry and strategic rhetoric. It included not only realistic social criticism but also utopian hypotheses, not only painstaking reassessments of history but also bold reshaping of the future. In short, humanism called for the comprehensive reform of culture, the transfiguration of what humanists termed the passive and ignorant society of the “dark” ages into a new order that would reflect and encourage the grandest human potentialities. Humanism had an evangelical dimension. It sought to project *humanitas* from the individual into the state at large.

The wellspring of *humanitas* was classical literature. Greek and Roman thought, available in a flood of rediscovered or newly translated manuscripts, provided humanism with much of its basic structure and method. For Renaissance humanists, there was nothing dated or outworn about the writings of Plato, Cicero, or Livy. Compared with the typical productions of medieval Christianity, these pagan works had a fresh, radical, almost avant-garde tonality. Indeed, recovering the classics was to humanism tantamount to recovering reality. Classical philosophy, rhetoric, and history were seen as models of proper method – efforts to come to terms, systematically and without preconceptions of any kind, with perceived experience. Moreover, classical thought considered ethics qua ethics, politics qua politics: it lacked the inhibiting dualism occasioned in medieval thought by the often conflicting demands of secularism and Christian spirituality. Classical virtue, in examples of which the literature abounded, was not an abstract essence but a quality that could be tested in the forum or on the battlefield. Finally, classical literature was rich in eloquence. In particular (since humanists were normally better at

Latin than they were at Greek) Cicero was considered to be the pattern of refined and copious discourse. In eloquence humanists found far more than an exclusively aesthetic quality. As an effective means of moving leaders or fellow citizens toward one political course or another, eloquence was akin to pure power. Humanists cultivated rhetoric, consequently, as the medium through which all other virtues could be communicated and fulfilled.

Humanism, then, may be accurately defined as that Renaissance movement which had as its central focus the ideal of *humanitas*. The narrower definition of the Italian term *umanisti* notwithstanding, all the Renaissance writers who cultivated *humanitas*, and all their direct “descendants,” may be correctly termed humanists.

#### Other Uses

It is small wonder that a term as broadly allusive as *humanism* should be subject to a wide variety of applications. Of these (excepting the historical movement described above) there are three basic types: humanism as classicism, humanism as referring to the modern concept of the humanities, and humanism as human-centredness.

Accepting the notion that Renaissance humanism was simply a return to the classics, some historians and philologists have reasoned that classical revivals occurring anywhere in history should be called humanistic. St. Augustine, Alcuin, and the scholars of 12th-century Chartres have thus been referred to as humanists. In this sense the term can also be used self-consciously, as in the New Humanism movement in literary criticism led by Irving Babbitt and Paul Elmer More in the early 20th century.

The word *humanities*, which like the word *umanisti* derived from the Latin *studia humanitatis*, is often used to designate the nonscientific scholarly disciplines: language, literature, rhetoric, philosophy, art history, and so forth. Thus it is customary to refer to scholars in these fields as humanists and to their activities as humanistic.

Humanism and related terms are frequently applied to modern doctrines and techniques that are based on the centrality of human experience. In the 20th century the pragmatic humanism of Ferdinand C.S. Schiller, the Christian humanism of Jacques Maritain, and the movement known as secular humanism, though differing from each other significantly in content, all show this anthropocentric emphasis.

Not only is such a large assortment of definitions confusing, but the definitions themselves are often redundant or impertinent. There is no reason to call all classical revivals humanistic when the word classical suffices. To say that professors in the many disciplines known as the humanities are humanists is to compound vagueness with vagueness, for these disciplines have long since ceased to have or even aspire to a common rationale. The definition of humanism as anthropocentricity or human-centredness has a firmer claim to correctness. For obvious reasons, however, it is confusing to apply this word to classical literature.

### Basic Principles and Attitudes

Underlying the early expressions of humanism were principles and attitudes that gave the movement a unique character and would shape its future development.

## Classicism

Early humanists returned to the classics less with nostalgia or awe than with a sense of deep familiarity, an impression of having been brought newly into contact with expressions of an intrinsic and permanent human reality. Petrarch, the acknowledged founder of the humanistic movement, dramatized his feeling of intimacy with the classics by writing “letters” to Cicero and Livy. Coluccio Salutati remarked with pleasure that possession of a copy of Cicero’s letters would make it possible for him to talk with Cicero. Niccolò Machiavelli would later immortalize this experience in a letter that described his own reading habits in ritualistic terms:

Evenings I return home and enter my study; and at its entrance I take off my everyday clothes, full of mud and dust, and don royal and courtly garments; decorously reattired, I enter into the ancient sessions of ancient men. Received amicably by them, I partake of such food as is mine only and for which I was born. There, without shame, I speak with them and ask them about the reason for their actions; and they in their humanity respond to me.

Machiavelli’s term *umanità* (“humanity”) means more than kindness; it is a direct translation of the Latin *humanitas*. Machiavelli implies that he shared with the ancients a sovereign wisdom of human affairs. He also describes that theory of reading as an active and even aggressive pursuit that was common among humanists. Possessing a text and understanding its words were not enough; analytic ability and a questioning attitude were necessary before a reader could truly enter the councils of the great. These councils, moreover, were not merely serious and ennobling; they held secrets available only to the astute, secrets the knowledge of which could transform life from a chaotic miscellany into a crucially heroic experience. Classical thought

offered insight into the heart of things. In addition, the classics suggested methods by which, once known, human reality could be transformed from an accident of history into an artifact of will. Antiquity was rich in examples, actual or poetic, of epic action, victorious eloquence, and applied understanding. Carefully studied and well employed, classical rhetoric could implement enlightened policy, while classical poetics could carry enlightenment into the very souls of men. In a manner that might seem paradoxical to more modern minds, humanists associated classicism with the future.

### Realism

Early humanists shared in large part a realism that rejected traditional assumptions and aimed instead at the objective analysis of perceived experience. To humanism is owed the rise of modern social science, which emerged not as an academic discipline but rather as a practical instrument of social self-inquiry. Humanists avidly read history, taught it to their young, and, perhaps most importantly, wrote it themselves. They were confident that proper historical method, by extending across time their grasp of human reality, would enhance their active role in the present. For Machiavelli, who avowed to treat of men as they were and not as they ought to be, history would become the basis of a new political science. Similarly, direct experience took precedence over traditional wisdom. Leon Battista Alberti's dictum that an essential form of wisdom could be found only "at the public marketplace, in the theatre, and in people's homes" would be echoed by Francesco Guicciardini:



I, for my part, know no greater pleasure than listening to an old man of uncommon prudence speaking of public and political matters that he has not learnt from books of philosophers but from experience and action; for the latter are the only genuine methods of learning anything.

Renaissance realism also involved the unblinking examination of human uncertainty, folly, and immorality. Petrarch's honest investigation of his own doubts and mixed motives is born of the same impulse that led Giovanni Boccaccio in the *Decameron* to conduct an encyclopaedic survey of human vices and disorders. Similarly critical treatments of society from a humanistic perspective would be produced later by Erasmus, More, Castiglione, Rabelais, and Montaigne. But it was typical of humanism that this moral criticism did not, conversely, postulate an ideal of absolute purity. Humanists asserted the dignity of normal earthly activities and even endorsed the pursuit of fame and the acquisition of wealth. The emphasis on a mature and healthy balance between mind and body, first implicit in Boccaccio, is evident in the work of Giannozzo Manetti, Francesco Filelfo, and Paracelsus; it is embodied eloquently in Montaigne's final essay, "Of Experience." Humanistic tradition, rather than revolutionary inspiration, would lead Francis Bacon to assert in the early 17th century that the passions should become objects of systematic investigation. The realism of the humanists was, finally, brought to bear on the Roman Catholic Church, which they called into question not as a theological structure but as a political institution. Here as elsewhere, however, the intention was neither radical nor destructive. Humanism did not aim to remake humanity but rather to reform social order through an understanding of what was basically and inalienably human.

### Critical Scrutiny and Concern with Detail

Humanistic realism bespoke a comprehensively critical attitude. Indeed, the productions of early humanism constituted a manifesto of independence, at least in the secular world, from all preconceptions and all inherited programs. The same critical self-reliance shown by Coluccio Salutati in his textual emendations and Boccaccio in his interpretations of myth was evident in almost the whole range of humanistic endeavor. It was cognate with a new specificity, a profound concern with the precise details of perceived phenomena, which took hold across the arts and the literary and historical disciplines and would have profound effects on the rise of modern science. The increasing prominence of mathematics as an artistic principle and academic discipline was a testament to this development.

### The Emergence of the Individual and the Idea of the Dignity of Man

These attitudes took shape in concord with a sense of personal autonomy that first was evident in Petrarch and later came to characterize humanism as a whole. An intelligence capable of critical scrutiny and self-inquiry was by definition a free intelligence; the intellectual virtue that could analyze experience was an integral part of that more extensive virtue that could, according to many humanists, go far in conquering fortune. The emergence of Renaissance individualism was not without its darker aspects. Petrarch and Alberti were alert to the sense of estrangement that accompanies intellectual and moral autonomy, while Machiavelli would depict, in *The Prince*, a grim world in which the individual must exploit the weakness of the crowd or fall victim to its indignities. But happy or sad, the experience of the individual had

taken on a heroic tone. Parallel with individualism arose, as a favorite humanistic theme, the idea of the dignity of man. Backed by medieval sources but more sweeping and insistent in their approach, spokesmen such as Petrarch, Manetti, Valla, and Ficino asserted man's earthly preeminence and unique potentialities. In his noted *De hominis dignitate oratio* ("Oration on the Dignity of Man"), Giovanni Pico della Mirandola conveyed this notion with unprecedented vigour. Humanity, Pico asserted, had been assigned no fixed character or limit by God but instead was free to seek its own level and create its own future. No dignity, not even divinity itself, was forbidden to human aspiration. Pico's radical affirmation of human capacity shows the influence of Ficino's recent translations of the Hermetic writings. Together with the even bolder 16th-century formulations of this position by Paracelsus and Giordano Bruno, the *Oratio* betrays a rejection of the early humanists' emphasis on balance and moderation; it suggests the straining toward absolutes that would characterize major elements of later humanism.

#### Active Virtue

The emphasis on virtuous action as the goal of learning was a founding principle of humanism and (though sometimes sharply challenged) continued to exert a strong influence throughout the course of the movement. Salutati, the learned chancellor of Florence whose words could batter cities, represented in word and deed the humanistic ideal of an armed wisdom: that combination of philosophical understanding and powerful rhetoric which alone could effect virtuous policy and reconcile the rival claims of action and contemplation. In *De ingenuis moribus et liberalibus studiis* ("On the Manners of a Gentleman and Liberal Studies"), a treatise that influenced

Guarino Veronese and Vittorino da Feltre, Pietro Paolo Vergerio maintained that just and beneficent action was the purpose of humanistic education; his words were echoed by Alberti in *Della famiglia* (“On the Family”):

As I have said, happiness cannot be gained without good works and just and righteous deeds.... The best works are those that benefit many people. Those are most virtuous, perhaps, that cannot be pursued without strength and nobility. We must give ourselves to manly effort, then, and follow the noblest pursuits.

Matteo Palmieri wrote that the true merit of virtue lies in effective action, and effective action is impossible without the faculties that are necessary for it. He who has nothing to give cannot be generous. And he who loves solitude can be neither just, nor strong, nor experienced in those things that are of importance in government and in the affairs of the majority.

Palmieri’s philosophical poem, *La città di vita* (“The City of Life”), developed the idea that the world was divinely ordained to test human virtue in action. Later humanism would broaden and diversify the theme of active virtue. Machiavelli saw action not only as the goal of virtue but also (via historical understanding of great deeds of the past) as the basis for wisdom. Baldassare Castiglione, in his highly influential *Libro del cortegiano* (*Book of the Courtier*), developed in his ideal courtier a psychological model for active virtue, stressing moral awareness as a key element in just action. François Rabelais used the idea of active virtue as the basis for anticlerical satire. In his profusely humanistic *Gargantua*, he has the active hero Friar John save a monastery from enemy attack, while the monks sit uselessly in the church choir, chanting meaningless Latin syllables. John later asserts that, had he been present, he would have used his manly strength to save Jesus from

crucifixion, and he castigates the Apostles for betraying Christ “after a good meal.” Endorsements of active virtue, as will be shown, would also characterize the work of English humanists from Sir Thomas Elyot to John Milton. They typify the sense of social responsibility, the instinctive association of learning with politics and morality that stood at the heart of the movement. As Salutati put it, “One must stand in the line of battle; engage in close combat, struggle for justice, for truth, for honour.”

### Early History

The influence of Petrarch (Francesco Petrarca, 1304-74) was profound and many-sided. As the most prominent man of letters of the 14th century, he promoted the recovery and transcription of classical texts, providing the impetus for the important classical researches of Boccaccio and Salutati. He threw himself into controversies in which he defined a new humanism in contradistinction to what he considered to be the barbaric influence of medieval tradition. He carried on an energetic correspondence that established him as a cultural focal point and would provide, if all his other works were lost, an accurate index of his views and their development. As a theologian (he was an ordained priest) he advanced the view, held by many humanists to follow, that classical learning and Christian spirituality were not only compatible but also mutually fulfilling. As a political apologist, he gave hearty support to Cola di Rienzo’s brief revival of the Roman Republic (1347). As a poet, he was the first Renaissance writer to produce a Latin epic (*Africa*), but he was even more important for his compositions in the vernacular. His *Canzoniere* provided the model on which the Renaissance lyric was to take shape and the standard by which future productions would be

judged. His work established secular poetry as a serious and noble pursuit. His eloquent and forceful presence made him a personal symbol of his own ideas. Crowned with laurel, favored by rulers, legates, and scholars, he became the human focus for the new interest in classical revival and literary artistry.

It was, however, as a philosophical spokesman that Petrarch exerted his greatest influence on the history of humanism. In his prose works and letters he established many of the positions that would be central to the movement and broached many of the issues that would be its favorite subjects for debate. His idea of the poet as a philosophical teacher and thus as a champion of culture would inspire humanists from Boccaccio to Sidney. His endorsement of the study of rhetoric and his underlying notion of language as an informing principle of the individual and society would become crucial subjects of humanistic discussion and debate. His view of classical culture, not as an undifferentiated element of the past but as an authentic alternative to his own medieval society, was of equal historical importance. Petrarch broke with the past and helped to reestablish the Socratic tradition in Europe by specifying self-knowledge as a primary goal of philosophy. This attitude and his unflinching insistence on moral autonomy were early and important signs of the individualism that would become a Renaissance hallmark. He emphasized human virtue as opposed to fortune, thus setting the stage for numerous famous treatments of this theme. He struggled repeatedly with the dilemma of action versus contemplation, establishing it as a favorite topic for humanistic debate. Petrarch did not invent these subjects, nor does he usually treat them with overwhelming power. His preeminence lies in the fact that he was the first writer since antiquity to assert that they and other human matters were valid issues for philosophical inquiry in and of themselves, and in the energy and eloquence with which he made his work their forum.

Petrarch's influence was immediately apparent in the work of two major Florentine humanists, Giovanni Boccaccio and Coluccio Salutati. A close friend and devoted supporter of Petrarch, Boccaccio (1313-75) not only enlarged upon his preceptor's ideas but also made important humanistic contributions of his own. His *Teseide* was the first classical epic to have been written in the vernacular and influenced the more famous Italian epics of Ariosto and Tasso. His *De genealogia deorum gentilium* ("On the Genealogy of the Gods of the Gentiles"), a scholarly interpretive compendium of classical myth, was the first in a long line of Renaissance mythographies; it includes a celebrated defense of poetry as a medium of hidden truth, a stimulant to virtue, and a source of mental health. His most memorable contribution to humanism, however, was probably the famous *Decameron*. Ostensibly this work is no more than a collection of 100 tales about love. But subjected to the interpretive scrutiny that Boccaccio himself recommends in *De genealogia deorum gentilium*, the *Decameron* takes on a far more serious tone. The opening phrase "*Umana cosa è*" ("It is a human thing") is deeply thematic, reminding us that the author structured his work on Dante's spiritual epic, *La divina commedia*. A close reading of the *Decameron* suggests that in it Boccaccio is trying to establish for the human realm the same sort of comprehensive understanding that Dante established for the life of the spirit. Through moral fable and direct address to the reader, he undertakes a reinterpretation of human experience based not on traditional doctrine but rather on perceived reality. Appealing repeatedly to reason and nature, and constantly implying the superiority of awareness to innocence (which he equates with ignorance), he calls for a moral order built fairly and solidly on the potentialities of human nature. His 10 storytellers, who leave the plague-ravaged and chaotic city of Florence and reestablish themselves at a delightfully landscaped villa, suggest the remaking of culture through

disentanglement with the past, unprejudiced analysis, and enlightened imagination. Rightly considered to be the wellspring of Western realism, the *Decameron* is also a monument to humanism. Though it makes little mention of classical thought, Boccaccio's great work rings with a tone that was even more basic to the humanistic movement: an emphasis on the human capacity for self-knowledge and willed renewal.

Other humanistic elements implicit in Petrarch's thought were developed in the life and work of Coluccio Salutati (1331-1406). Like Petrarch, Salutati collected manuscripts, wrote on morality and politics, and carried on a voluminous correspondence. He was an aggressive and scientific philologist, instrumental in establishing principles of textual criticism that would become key elements of the humanistic method. He was a forceful apologist for the active life, and his theories bore fruit in his own career as chancellor of the Florentine republic. His use of classical eloquence in the service of his state was an early documentation of the humanistic faith in the political power of rhetoric; it led a bitter enemy, Gian Galeazzo Visconti of Milan, to say that a thousand Florentine horsemen had hurt him less than the letters of Coluccio. Salutati was succeeded in the Florentine chancellorship by two scholar-statesmen who reflected his influence, first Leonardo Bruni (1369-1444) and then Gian Francesco Poggio Braccioloni (1380-1459). Bruni was a pioneer in the advocacy of humanistic education, holding that the *studia humanitatis* shape the perfected man and that the goal of this perfected virtue is political action. His theory of education stressed the importance of practical experience (implicit in the work of Boccaccio) and put heavy emphasis on historical studies. His history of Florence is considered to be the first work of modern historiography; and, under the influence of Emmanuel Chrysoloras (1368-1415), a Byzantine teacher who had lectured at Florence and Pavia, he



produced Latin translations of Plato and Aristotle that broke with medieval tradition by reproducing the sense of the Greek prose rather than following it word by word. Poggio, the foremost recoverer of classical texts, was also a moralist, a historian, a brilliant correspondent, and an early scholar of architectural antiquities. His long career, which included service to both church and state and friendships with Salutati, Bruni, Niccolò Niccoli, Guarino, Nicholas of Cusa, Donatello, and Cosimo de' Medici, exemplifies the scope and vitality of Italian humanism. Together these Florentine chancellors, whose active lives spanned almost a century, strengthened and consolidated the humanistic program. Moreover, their leadership strongly influenced the cultural developments that would make 15th-century Florence the most active intellectual and artistic center in Europe.

As one proceeds with the history of humanism, the following major points about its development in the 14th century ought to be kept in mind. Humanism received its crucial imprint from the work of a single man and thence developed among men who maintained close touch with each other and acknowledged a shared mission. Humanism was not originally an academic movement but rather a program defined and promoted by statesmen and men of letters. Its proclaimed goal was widespread cultural renewal; therefore, it chose its subjects for consideration from the phenomena of human life as lived and adopted the Ciceronian model of philosopher as citizen in preference to the contemplative ideal. The heavy emphasis on civic action is connected with the fact that humanism developed in a republic rather than a monarchy.

By the turn of the 15th century, all of the key elements that came to define humanism were in place except for two: its detailed educational system and what might be called its Greek dimension. The founders of the first humanistic schools were Vittorino da Feltre (1373-1446) and Guarino

Veronese (Guarino da Verona, 1374-1460). Vittorino and Guarino were fellow students at the University of Padua at the turn of the century; they are said later to have tutored each other (Guarino as an expert in Greek, Vittorino in Latin) after Guarino had opened the first humanistic school (Venice, c. 1414). Vittorino taught in both Padua (where he was briefly professor of rhetoric) and Venice during the early 1420s. In 1423 he accepted the invitation of Gianfrancesco Gonzaga, marquis of Mantua, to become tutor to the ruling family. At this post Vittorino spent the remaining 22 years of his life. His school, held in a delightful palace that he renamed “La Giocosa,” had as its students not only the Gonzaga children (among them the future marquis, Ludovico) but also an increasing number of others, including sons of Poggio, Guarino, and Filelfo. The eminent humanist Lorenzo Valla studied there, as did Federico da Montefeltro, who later promoted humanistic institutions as duke of Urbino. Vittorino’s school in Mantua was the first to focus the full power of the humanistic program, together with its implications in other arts and sciences, upon the education of the young. Latin literature, Latin composition, and Greek literature were required subjects of study. Heavy emphasis was placed on Roman history as an educational treasury of great men and memorable deeds. Rhetoric (as taught by Quintilian) was a central topic, not as an end in itself but as an effective means of channeling moral virtue into political action. Vittorino summed up the essentially political thrust of humanistic education as follows:

Not everyone is called to be a physician, a lawyer, a philosopher, to live in the public eye, nor has everyone outstanding gifts of natural capacity, but all of us are created for the life of social duty, all are responsible for the personal influence that goes forth from us.

Other studies at Mantua included music, drawing, astronomy, and mathematics. The meadows around La Giocosa were turned into playing fields. Vittorino's educational policy spoke at once to mind and body, to aesthetic enjoyment and moral virtue. His work embodied a more comprehensive appeal to human perfectibility than had been attempted since antiquity. Humanists were not unaware of the originality and ambitiousness of this project. With reference to a similar program of his own, Guarino's son Battista remarked that "no branch of knowledge embraces so wide a range of subjects as that learning that I have now attempted to describe."

Guarino had learned his Greek in Constantinople under the influence of Chrysoloras, whose dynamic presence had done much to foster Greek studies in Italy. During the course of the 15th century, which saw the famous council of Eastern and Western churches (Ferrara-Florence, 1438-45) and later the fall of Constantinople to the Turks (1453), Italy received as welcome immigrants a number of other eminent Byzantine scholars. George Gemistus Plethon (1355-1450) was a major force in Cosimo de' Medici's foundation of the Platonic Academy of Florence. George of Trebizond (Georgius Trapezuntius, 1395-1484), a student of Vittorino, was a formidable bilingual stylist who wrote important handbooks on logic and rhetoric. Theodore Gaza (c. 1400-75) and Johannes Argyropoulos (1410-90) contributed major translations of Aristotle. John (originally Basil) Bessarion (1403-72), who became a cardinal in 1439, explored theology from a Platonic perspective and sought to resolve apparent conflicts between Platonic and Aristotelian philosophy; his large collection of Greek manuscripts, donated to the Venetian senate, became the core of the notable library of St. Mark. This infusion of Byzantine scholarship had a profound effect on Italian humanism. By making Greek texts and commentaries available to Western students, and by acquainting them with

Byzantine methods of criticism and interpretation, the teachers from Constantinople enabled Italian humanists to explore the bases of classical thought and to appreciate its greatest monuments, either in the original or in accurate new Latin translations.

### The 15th Century

As Italian humanism grew in influence during the 15th century, it developed ramifications that connected it with every major field of intellectual and artistic activity. Moreover, the advent of printing at mid-century and the contemporaneous upsurge of publication in the vernacular brought new sectors of society under humanistic influence. These and other cultural impetuses hastened the export of humanistic ideas to the Low Countries, France, England, and Spain, where significant humanistic programs would be in place by the early 16th century. Even as these things were happening, however, other changes were deeply and permanently affecting the character of the movement. The concerns of many major humanists were narrowed by inevitable historical processes of specialization, to the extent that, in a large number of cases, humanism lost its comprehensive thrust and became a predominantly academic or literary pursuit. The political élan of humanism was weakened by the decline of republican institutions in Florence. Ambiguities and paradoxes implicit in the original program developed into open conflicts, dividing the movement into camps and depleting much of its original integrity. But before considering these developments, one might do well to appreciate three 15th-century examples of humanism at its height: the career of Leon Battista Alberti and the humanistic courts at Florence and Urbino.

## Leon Battista Alberti

The achievement of Leon Battista Alberti (1404-72) testifies to the formative power and exhaustive scope of earlier Italian humanism. He owed his boyhood education to Gasparino da Barzizza (1359-1431), the noted teacher who, with Vergerio, was influential in the development of humanism at Padua. Alberti attended the University of Bologna from 1421 until 1428, by which time he was expert in law and mathematics and so adept at humanistic literary skills that his comedy *Philodoxeos* was accepted as the newly discovered work of an ancient author. In 1428 he became secretary to Cardinal Albergati, bishop of Bologna, and in 1432 he accepted a similar position in the papal chancery at Rome. His service to the church soon brought him incomes that permanently secured his livelihood, and he spent the remainder of his life at a variety of literary, philosophical, and artistic pursuits so dazzling as to challenge belief. He was a poet, essayist, and biographer. His moral and philosophical works, especially *Della famiglia*, *De iciarchia* (“On the Man of Excellence and Ruler of His Family”), and *Momus*, are humanistic statements that nonetheless bear the mark of a unique individual. He wrote a rhetorical handbook and a grammatical treatise, the *Regule lingue Florentine*, which bespeaks his strong influence on the rise of literary expression in the vernacular. He contributed an important text on cartography and was instrumental in the development of ciphers. A prominent architect (e.g., the Tempio Malatestiano in Rimini and the facade of Sta. Maria Novella in Florence), he was also an eminent student of all artistic ideas and practices. His three studies – *De pictura* (*On Painting*), *De statua* (*On Sculpture*), and *De re aedificatoria* (*Ten Books on Architecture*) – were landmarks in art theory, powerful in developing the theory of perspective and the idea of “human” space. His theoretical and practical reliance on mathematics (which

he considered to be the basic, unifying element of all science) is rightly seen as an important step in the early development of modern method.

Behind these achievements was a man of startling physical prowess and inexhaustible sanguinity. He said outright that an individual could encompass whatever project he truly willed, and his own life bore witness to this radical thesis. In the 19th century Jacob Burckhardt would write of him as a “universal man” of the Renaissance, while his own contemporary Politian described him with wonderment: “It is better to be silent about him than not to say enough.” Alberti’s theory and practice bore an undeniably humanistic stamp. His passion for mathematics was in all likelihood an outgrowth of the educational program at Padua (Vittorino, himself an avid mathematician, was also a student of Barzizza). His omnivorous pursuit of knowledge recalls Barzizza’s conviction that *humanitas* was the unifying principle of many arts. An advocate of classical erudition in art and architecture as well as in literary activity, he extended into his artistic studies the same sense of precision and specificity that earlier humanists had applied to philology. His sense of human dignity, evident in all his productions, was supported and indeed justified by a strenuous realism. His advocacy of the vernacular disturbed a number of more doctrinaire humanists, who favored total Latinity. But this predisposition, rather than a divergence from humanistic principle, was a direct outgrowth of its evangelistic thrust. In short, Alberti uniquely fulfilled the humanistic aspiration for a learning that would comprehend all experience and a philosophical heroism that would renew society.

## The Medici and Federico da Montefeltro

The 15th century saw the rise of the Platonic Academy of Florence and the great humanistic courts. Close ties between Poggio and the Medici helped make that ruling family of Florence the new custodians of the humanistic heritage. Cosimo de' Medici (Cosimo the Elder, 1389-1464), who had personally lured the great council of churches from Ferrara to Florence in 1439, became so enamoured of Greek learning that, at the suggestion of Gemistus Plethon, he decided to found a Platonic academy of his own. He amassed a great collection of books, which would form the nucleus of the Laurentian Library. He generously supported the work of scholars, in particular encouraging the brilliant Marsilio Ficino (1433-99) to undertake a complete Latin translation of Plato. Other notable members of the academy were Politian, Cristoforo Landino (1424-1504), and Ficino's own student, Giovanni Pico della Mirandola (1463-94). The Medici family was equally notable in its patronage of the arts, supporting projects by a list of masters that included Brunelleschi, Michelangelo, and Cellini. Cosimo's famous grandson Lorenzo (Lorenzo the Magnificent, 1449-92) was of a thoroughly humanistic disposition. Lorenzo's versatile and energetic nature lent itself equally to politics and philosophy, to martial arts and music. He wrote poetry and literary commentary and formed close ties with Ficino, Pico, and other leading scholars of the academy. He continued his grandfather's lavish patronage of art and learning and was said to have spent half of his city's revenues on the purchase of books alone. Active in many fields, he nonetheless acknowledged the preeminence of the life of the mind. When chided by a friend for sleeping late and not going out to work, Lorenzo replied, "What I have dreamed in one hour is worth more than what you have done in four."

The influence of humanism was evident in many 15th-century Italian courts, including Rome itself, which boasted, in Pius II (Enea Silvio Piccolomini, also known as Aeneas Sylvius Piccolomini, 1405-64), a humanist pope. It manifested itself strikingly at Urbino, where Federico da Montefeltro (1422-82) turned an isolated hill town into a treasury of Renaissance culture. Schooled by Vittorino in Mantua, Federico chose warfare as his calling. As a mercenary he gained a reputation for winning his battles and keeping his word, and the fortune he accumulated in fees and prizes became the medium for his city's renewal. He brought architects, artists, and scholars to Urbino and built a great palace whose unadorned exterior concealed magnificent chambers, a graceful courtyard, and a secret garden. Federico was enthusiastically devoted to the collection and preservation of books. His library, described by Vespasiano Bisticci as being even more complete than that of the Medici, contained an army of 30 to 40 scribes who were constantly at work. His own virtues were so notable and diverse as to mark him as a possible model for Rabelais's humanistic giant, Gargantua. Mighty at arms, he was also conscientious in religious observances; supremely powerful, he was nonetheless a modest and courteous companion. Beneath the ivied tranquility of his secret garden stretched an indoor equestrian arena. He commissioned paintings by Piero della Francesca and was the object of humanistic dedications by Poggio, Landino, and Ficino. He kept two organists at court and maintained five men to read the classics aloud at meals. Federico's intellectual accomplishments were impressive. His skill at mathematics shows the influence of Vittorino. He was a good Latinist and as a student of classical history was able to hold his own in conversation with the erudite Pius II. At philosophy Federico was even more astute. Vespasiano wrote that



he began to study logic with the keenest understanding, and he argued with the most nimble wit that was ever seen. After he had heard (Aristotle's) *Ethics* many times, comprehending it so thoroughly that his teachers found him hard to cope with in disputation, he studied the *Politics* assiduously.... Indeed, it may be said of him that he was the first of the Signori who took up philosophy and had knowledge of the same. He was ever careful to keep intellect and virtue to the front, and to learn some new thing every day.

Federico's balance and versatility made him, even more than Lorenzo, an example of the humanistic program in action. Baldassare Castiglione, perhaps the most thoughtful of the later Italian humanists, would speak of him as "the light of Italy; there is no lack of living witnesses to his prudence, humanity (*umanità*), justice, intrepid spirit, (and) military discipline." Castiglione described Federico's residence as seeming to be less a palace than "a city in the form of a palace"; one might say as well that this structure, with its elegant accommodation for every creative human activity, was an architectural image of the humanistic mind.

#### Later Italian Humanism

The achievement of Alberti, Federico, and the Medici up to Lorenzo may be seen as the effective culmination of Italian humanism, the ultimate realization of its motives and principles. At the same time as these goals were being achieved, however, the movement was beginning to suffer bifurcation and dilution. Even the enthusiastic Platonism of the Florentine academy was, in its idealism and emphasis on contemplation, a significant digression from the crucial humanistic doctrine of active virtue, and Pico della Mirandola

himself was politely admonished by a friend to forsake the ivory tower and accept his civic responsibilities. The conflicting extremes to which sincere humanistic inquiry could drive scholars are nowhere more apparent than in the fact that the arch-idealist Pico and the arch-realist Machiavelli lived in the same town and at the same time. Castiglione, who had belonged to the court of Federico's son Guidobaldo, would be saddened by its decline and shocked when another of his patrons, the "model" Renaissance prince Charles V, ordered the sack of Rome. To a large extent, the cause of these and other vicissitudes lay in the nature of the movement itself, for that boundless diversity which nourished its strength was also a well of potential conflict. Humanists' undifferentiated acceptance of the classical heritage was also in effect an appropriation of the profound controversy implicit in that heritage. Rifts between Platonists, monarchists, and republicans; positivists and Sceptics; idealists and cynics; and historians and poets came to be more and more characteristic of humanistic discourse. Some of these tensions had been clear from the start, Petrarch having been ambiguous in his sentiments regarding action versus contemplation, and Salutati having been not wholly clear about whether he preferred republics to monarchies. But the 15th century, bringing with it the irreconcilable heterogeneity of Greek thought, vastly multiplied and deepened these divisions. Of these schisms, the two that perhaps most deeply influenced the course of humanism were the so-called *res-verbum* ("thing-word") controversy and the split between Platonic idealism and historical realism.

## Things and Words

Simply put, the *res-verbum* controversy was an extended argument between humanists who believed that language constituted the ultimate human reality and those who believed that language, though an important subject for study, was the medium for understanding an even more basic reality that lay beyond it. The origin of the controversy lay in the debate in the 5th-4th century BCE between the Socratic school, which held that language was an important means of understanding deeper truths, and the Sophistic-rhetorical school, which held that “truth” was itself a fiction dependent on varying human beliefs and therefore that language had to be considered the ultimate arbiter. Petrarch, who had no direct contact with the works of Plato and little detailed knowledge of his ideas, drew on Cicero and St. Augustine in his development of a Christian-rhetorical position, holding that “it is more satisfying (*satius*) to will the good than to know the truth” and espousing rhetoric as the effective means of convincing people “to will the good.”

This assertion would critically shape the character of humanism through the Renaissance and beyond. It was never effectively challenged by Renaissance Platonists because, for reasons discussed below, Renaissance Platonists, though strong in Platonic idealism, were weak in Platonic analytical method. The enthronement of language as both subject and object of humanistic inquiry is evident in the important work of Lorenzo Valla (1407-57) and Politian (Angelo Poliziano, 1454-94). Valla spoke of language as a “sacrament” and urged that it be studied scientifically and historically as the synthesis of all human thought. For Valla, the study of language was, in effect, the study of humanity. Similarly, Politian held that there were in fact two dialectics: one of ideas and one of words. Rejecting the dialectic of ideas as being too difficult and abstruse, he espoused the dialectic of words (i.e.,

philology and rhetoric) as the proper human study. This project would bear fruit in the intensive linguistic-philosophical researches of Mario Nizolio (1498-1575). Though anticipated by Petrarch, the radical emphasis on the primacy of the word constituted a break with the teaching of other early humanists, such as Bruni and Vittorino, who had strongly maintained that the word was of value only through its relationship to perceived reality. Nor did the old viewpoint lack later adherents. In an epistolary debate with Ermolao Barbaro (1454-93), Pico asserted the preeminence of things over words and hence of philosophy over rhetoric: "But if the rightness of names depends on the nature of things, is it the rhetorician we ought to consult about this rightness, or is it the philosopher who alone contemplates and explores the nature of everything?" Appeals of this sort, however, were not to win the day. Philosophical humanism declined because, though rich in conviction, it had failed to establish a systematic relationship between philosophy and rhetoric, between words and things. By the 16th century, Italian humanism was primarily a literary pursuit, and philosophy was left to develop on its own. Despite significant challenges, the division between philosophical and literary studies would solidify in the development of Western culture.

#### Idealism and the Platonic Academy of Florence

The idealism so prominent in the Florentine academy is called Platonic because of its debt to Plato's theory of Ideas and to the epistemological doctrine established in his *Symposium* and *Republic*. It did not, however, constitute a complete appreciation or reassertion of Plato's thought. Conspicuously absent from the Florentine agenda was the analytic method (dialectic), which was Socrates' greatest contribution to philosophy. This

major omission cannot be explained philologically, at least after Ficino's work had made the complete Platonic corpus available in clear Latin prose. The explanation lies rather in a specific cast of mind and in a dramatically successful forgery. The major Platonists of the mid-15th century, Plethon, Bessarion, and Nicholas of Cusa (Nicholaus Cusanus, 1401-64), had all concentrated their attention on the religious implications of Platonic thought; and, following them, Marsilio Ficino (1433-99) sought to reconcile Plato with Christ in a *pia philosophia* ("pious philosophy"). The transcendental goals of these philosophers left little room for the painstaking dialectical method that sifted through the details of perception and language, even though Plato himself had repeatedly alleged that transcendence itself was impossible without this method. Along with Plato, moreover, Ficino had translated into Latin the works of the so-called Hermes Trismegistos. These books, which also emphasized transcendence at the expense of method, laid claim to divine authority and to an antiquity far greater than Plato's. They were, in fact, forgeries from a much later period, and are in many ways typical of the idealized and diluted versions of Plato that are called Neoplatonic. But the academy, and for that matter all the other Platonists of the 15th century, bought them wholesale. The result of these factors was a Platonism sans Platonic method, a philosophy that, straining for absolutes, had little interest in establishing its own basis in reality. Near the end of *The Book of the Courtier*, Castiglione puts a speech typical of Florentine Platonism in the mouth of his friend, the Platonist Pietro Bembo (1470-1547). As Bembo finishes his oration, a female companion tugs at the hem of his robe and says, "Take care, Master Pietro, that with such thoughts your soul does not forsake your body."

### Machiavelli's Realism

Niccolò Machiavelli (1469-1527), whose work derived from sources as authentically humanistic as those of Ficino, proceeded along a wholly opposite course. A throwback to the chancellor-humanists Salutati, Bruni, and Poggio, he served Florence in a similar capacity and with equal fidelity, using his erudition and eloquence in a civic cause. Like Vittorino and other early humanists, he believed in the centrality of historical studies, and he performed a signally humanistic function by creating, in *La Mandragola*, the first vernacular imitation of Roman comedy. His characteristic reminders of human weakness suggest the influence of Boccaccio; and like Boccaccio he used these reminders less as satire than as practical gauges of human nature. In one way at least, Machiavelli is more humanistic (i.e., closer to the classics) than the other humanists, for while Vittorino and his school ransacked history for examples of virtue, Machiavelli (true to the spirit of Polybius, Livy, Plutarch, and Tacitus) embraced all of history, good, evil, and indifferent, as his school of reality. Like Salutati, though perhaps with greater self-awareness, Machiavelli was ambiguous as to the relative merits of republics and monarchies. In both public and private writings (especially the *Discorsi sopra la prima deca di Tito Livio* ["Discourses on the First Ten Books of Livy"]) he showed a marked preference for republican government, while in *The Prince* he developed, with apparent approval, a model of radical autocracy. For this reason, his goals have remained unclear.

His methods, on the other hand, were coherent throughout and remain a major contribution to social science and the history of ideas. Like earlier humanists, Machiavelli saw history as a source of power, but, unlike them (and here perhaps influenced by Sophistic and Averroistic thought), he saw neither history nor power itself within a moral context. Rather he sought to

examine history and power in an amoral and hence (to him) wholly scientific manner. He examined human events in the same way that Alberti, Galileo, and the new science examined physical events: as discrete phenomena that had to be measured and described before they could be explained and evaluated. To this extent his work, though original in its specific design, was firmly based in the humanistic tradition. At the same time, however, Machiavelli's achievement significantly eroded humanism. By laying the foundations of modern social science, he created a discipline that, though true to humanistic methodology, had not the slightest regard for humanistic morality. In so doing, he brought to the surface a contradiction that had been implicit in humanism all along: the dichotomy between critical objectivity and moral evangelism.

#### The Achievement of Castiglione

Though Italian humanism was being torn apart by the natural development of its own basic motives, it did not thereby lose its native attractions. The humanistic experience, in both its positive and negative effects, would be reenacted abroad. Baldassare Castiglione (1478-1529), whose *Book of the Courtier* affectionately summed up humanistic thought, was one of its most powerful ambassadors. Alert to the major contradictions of the program, yet intensely appreciative of its brilliance and energy, Castiglione wove its various strains together in a long dialogue that aimed at an equipoise between various humanistic extremes. Ostensibly a treatise on the model courtier, *The Book of the Courtier* is more seriously a philosophically organized pattern of conflicting viewpoints in which various positions – Platonist and Aristotelian, idealist and cynic, monarchist and

republican, traditional and revolutionary – are given eloquent expression. Unlike most of his humanistic forebears, Castiglione is neither missionary nor polemical. His work is not an effort at systematic knowledge but rather an essay in higher discretion, a powerful reminder that every virtue (moral or intellectual) suggests a concomitant weakness and that extreme postures tend to generate their own opposites. The structure of the dialogue, in which Bembo's Platonic ecstasy is balanced by Bibbiena's assortment of earthy jests, is a testament to this intention. While Castiglione's professed subject matter would epidemically inspire European letters and manners of the 16th century, his more profound contribution would be echoed in the work of Montaigne and Shakespeare. His work suggests a redefined humanism, a virtue matured in irony and directed less toward knowledge than toward wisdom.

#### Tasso's Aristotelianism

In 16th-century Italy, humanistic methods and attitudes provided the medium for a kaleidoscopic variety of literary and philosophical productions. Of these, the work that perhaps most truly reflected the original spirit of humanism was the *Gerusalemme liberata* of Torquato Tasso (1544-95). New humanistic translations of Aristotle during the 15th century had inspired an Aristotelian Renaissance, and the attention of literary scholars focused particularly on the *Poetics*. In constructing his epic poem, Tasso was strongly influenced by Aristotle's views regarding the philosophical dimension of poetry; loosely paraphrasing Aristotle, he held (in his *Apologia*) that poetry, by incorporating both particulars and universals, was capable of seeking truth in its perfect wholeness. As a vehicle for philosophical truth, poetry



consequently could provide moral education, specifically in such virtues (reinterpreted from a Christian perspective) as Aristotle had described in the *Nichomachean Ethics*. The Aristotelian Renaissance thus facilitated the revival of one of the chief articles in the original humanistic constitution: the belief in the poet's role as renewer of culture.

### Northern Humanism

Though humanism in northern Europe and England sprang largely from Italian sources, it did not emerge exclusively as an outgrowth of later Italian humanism. Non-Italian scholars and poets found inspiration in the full sweep of the Italian tradition, choosing their sources from Petrarch to Castiglione and beyond.

### Desiderius Erasmus

Erasmus (c. 1466-1536) was the only other humanist whose international fame in his own time compared with Petrarch's. While lacking Petrarch's polemical zeal and spirit of self-inquiry, he shared the Italian's intense love of language, his dislike for the complexities and pretenses of medieval institutions both secular and religious, and his commanding personal presence. More specifically, however, his ideas and overall direction betray the influence of Lorenzo Valla, whose works he treasured. Like Valla, who had attacked biblical textual criticism with a vengeance and proved the so-called Donation of Constantine to be a forgery, Erasmus contributed importantly to Christian philology. Also like Valla, he philosophically

espoused a kind of Christian hedonism, justifying earthly pleasure from a religious perspective. But he was most like Valla (and indeed the entire rhetorical “arm” of Italian humanism) in giving philology prominence over philosophy. He described himself as a poet and orator rather than an inquirer after truth. His one major philosophical effort, a Christian defense of free will, was thunderously answered by Luther. Though his writings are a well of good sense, they are seldom profound and are predominantly derivative. In Latin eloquence, on the other hand, he was preeminent, both as stylist and theorist. His graceful and abundant Ciceronian prose (whose principles he set down in *De copia verborum et rerum*) helped shape the character of European style. Perhaps his most original work is *Moriae encomium* (*The Praise of Folly*), an elegant combination of satire and poetic insight whose influence was soon apparent in the work of More (to whom it was dedicated) and Rabelais.

### The French Humanists

Erasmus’ associates in France included the influential humanists Robert Gaguin (1433-1501), Jacques Lefèvre d’Étaples (c. 1455-1536), and Guillaume Budé; (Guglielmus Budaëus, 1467-1540). Of these three, Budé was most central to the development of French humanism, not only in his historical and philological studies but also in his use of his national influence to establish the Collège de France and the library at Fontainebleau. The influence of Francis I (1494-1547) and his learned sister Margaret of Angoulême (1492-1549) was important in fostering the new learning. The diversity and energy of French humanism is apparent in the activities of the Estienne family of publishers; the poetry of Pierre de Ronsard (1524-85), Joachim du Bellay (c. 1522-60), and Guillaume du Bartas (1544-90); the

political philosophy of Jean Bodin (1530-96); the philosophical methodology of Petrus Ramus (Pierre de la Ramée, 1515-72); and the dynamic relationship between humanistic scholarship and church reform. Hampered by religious repression and compressed more severely in time, the French movement lacked the intellectual fecundity and the programmatic unity of its Italian counterpart. In François Rabelais and Michel de Montaigne, however, the development of humanistic methods and themes resulted in unique and memorable achievement.

François Rabelais (c. 1490-1533)

Rabelais ranks with Boccaccio as a founding father of Western realism. As a satirist and stylist (in his hands French prose became a free, poetic form), he influenced writers as important as Jonathan Swift, Laurence Sterne, and James Joyce and may be seen as a major precursor of modernism. His five books concerning the deeds of the giant princes Gargantua and Pantagruel constitute a treasury of social criticism, an articulate statement of humanistic values, and a forceful, if often outrageous, manifesto of human rights. Rabelaisian satire took aim at every social institution and (especially in Book III) every intellectual discipline. Broadly learned and unflaggingly alert to jargon and sham, he repeatedly focused on dogmas that fetter creativity, institutional structures that reward hypocrisy, educational traditions that inspire laziness, and philosophical methodologies that obscure elemental reality. His heroes, Gargantua and his son and heir Pantagruel, are figures whose colossal size and appetites (Rabelais's etymology for *Pantagruel* is "all-thirsty") symbolize the nobility and omnivorous curiosity that typified the humanistic scheme. The multifarious educational program detailed in

*Gargantua* is reminiscent of Vittorino, Alberti, and the Montefeltro court; and the utopian Abbey of Thélème, whose gate bears the motto “Do as you please,” is a tribute to enlightened will and pleasure in the manner of Valla, Erasmus, and More. Characteristically overstated and never wholly free of irony, Rabelais’s work is a far cry from the earnest moral and educational programs of the early humanists. Rather than rebuild society, he seeks to amuse, edify, and refine it. His qualified endorsement of human dignity is based on the healthy balance of mind and body, the sanctity of all true learning, and the authenticity of direct experience.

Michel de Montaigne (1533-92)

Montaigne’s famous *Essays* are not only a compendious restatement and reevaluation of humanistic motives but also a milestone in the humanistic project of self-inquiry that had been originally endorsed by Petrarch. Scholar, traveler, soldier, and statesman, Montaigne was, like Machiavelli, alert to both theory and practice; but while Machiavelli saw practice as forming the basis for sound theory, Montaigne perceived in human events a multiplicity so overwhelming as to deny theoretical analysis. Montaigne’s use of typical humanistic modalities – interpretation of the classics, appeals to direct experience, exclusive emphasis on the human realm, and universal curiosity – led him, in other words, to the refutation of a typical humanistic premise: that knowledge of the intellectual arts could teach one a sovereign art of life. In an effort to make his inquiry more inclusive and unsparing, Montaigne made himself the subject of his book, demonstrating through hundreds of personal anecdotes and admissions the ineluctable diversity of a single human spirit. His essays, which seem to move freely from one subject or viewpoint to

another, are often in fact carefully organized dialectical structures that draw the reader, through thesis and antithesis, stated subject and relevant association, toward a multidimensional understanding of morality and history. The final essay, grandly titled “Of Experience,” counsels a mature acceptance of life in all its contradictions. Human dignity, he implies, is indeed possible, but it lies less in heroic achievement than in painfully won self-knowledge. In this sense Montaigne’s attitude toward the humanistic tradition is generally similar to that suggested in the work of Castiglione and Rabelais. While effectively taking issue with a number of the more extreme humanistic contentions, he retained and indeed justified the basic attitudes that gave the movement its form.

### The English Humanists

English humanism flourished in two stages: the first a basically academic movement that had its roots in the 15th century and culminated in the work of Sir Thomas More, Sir Thomas Elyot, and Roger Ascham, the second a poetic revolution led by Sir Philip Sidney and William Shakespeare.

Though continental humanists had held court positions since the days of Humphrey of Gloucester, English humanism as a distinct phenomenon did not emerge until late in the 15th century. At Oxford William Grocyn (c. 1446-1519) and his student Thomas Linacre (c. 1460-1524) gave impetus to a tradition of classical studies that would permanently influence English culture. Grocyn and Linacre attended Politian’s lectures at the Platonic Academy of Florence. Returning to Oxford, they became central figures in a group that included such younger scholars as John Colet (1466/67-1519) and William

Lily (1468?-1522). The humanistic contributions of the Oxford group were philological and institutional rather than philosophical or literary. Grocyn lectured on Greek and theology; Linacre produced several works on Latin grammar and translated Galen into Latin. To Linacre is owed the foundation of the Royal College of Physicians; to Colet, the foundation of St. Paul's School, London. Colet collaborated with Lily (the first headmaster of St. Paul's) and Erasmus in writing the school's constitution, and together the three scholars produced a Latin grammar (known alternately as "Lily's Grammar" and the "Eton Grammar") that would be central to English education for decades to come.

In Sir Thomas More (1478-1535), Sir Thomas Elyot (c. 1490-1546), and Roger Ascham (1515-68), English humanism bore fruit in major literary achievement. Educated at Oxford (where he read Greek with Linacre), More was also influenced by Erasmus, who wrote *The Praise of Folly* (Latin *Moriae encomium*) at More's house and named the book punningly after his English friend. More's famous *Utopia*, a kind of companion piece to *The Praise of Folly*, is similarly satirical of traditional institutions (Book I) but offers, as an imaginary alternative, a model society based on reason and nature (Book II). Reminiscent of Erasmus and Valla, More's Utopians eschew the rigorous cultivation of virtue and enjoy moderate pleasures, believing that "Nature herself prescribes a life of joy (that is, pleasure)" and seeing no contradiction between earthly enjoyment and religious piety. Significantly indebted both to classical thought and European humanism, the *Utopia* is also humanistic in its implied thesis that politics begins and ends with humanity: that politics is based exclusively on human nature and aimed exclusively at human happiness. Sir Thomas Elyot chose a narrower subject but developed it in more detail. His great work, *The Book Named The Governor*, is a lengthy

treatise on the virtues to be cultivated by statesmen. Born of the same tradition that produced *The Prince* and *The Courtier*, *The Governor* is typical of English humanism in its emphasis on the accommodation of both classical and Christian virtues within a single moral view. Elyot's other contributions to English humanism include philosophical dialogues, moral essays, translations of ancient and contemporary writers (including Isocrates and Pico), an important Latin-English dictionary, and a highly popular health manual. He served his country as ambassador to the court of Charles V. Finally, the humanistic educational program set up at the turn of the century was vigorously supported by Sir John Cheke (1514-57) and codified by his student Roger Ascham. Ascham's famous pedagogical manual, *The Schoolmaster*, offers not only a complete program of humanistic education but also an evocation of the ideals toward which that education was directed.

Ascham had been tutor to the young princess Elizabeth, whose personal education was a model of humanistic pedagogy and whose writings and patronage bespoke great love of learning. Elizabeth I's reign (1558-1603) saw the last concerted expression of humanistic ideas. Elizabethan humanism, which added a unique element to the history of the movement, was the product not of pedagogues and philologists but of poets and playwrights.

### Sidney and Spenser

Sir Philip Sidney (1554-86) was, like Alberti and Federico da Montefeltro, a living pattern of the humanistic ideal. Splendidly educated in the Latin classics at Shrewsbury and Oxford, Sidney continued his studies under the direction of the prominent French scholar Hubert Languet and was

tutored in science by the learned John Dee. His brief career as writer, statesman, and soldier was of such acknowledged brilliance as to make him, after his tragic death in battle, the subject of an Elizabethan heroic cult. Sidney's major works, *Astrophel and Stella*, the *Defence of Poesie*, and the two versions of the *Arcadia*, are medleys of humanistic themes. In the sonnet sequence *Astrophel and Stella*, he surpassed earlier imitators of Petrarch by emulating not only the Italian humanist's subject and style but also his philosophical bent and habit of self-scrutiny. *The Defence of Poesie*, composed (like Erasmus' *Praise of Folly*) in the form of a classical oration, reasserts the theory of poetry as moral doctrine that had been articulated by Petrarch and Boccaccio and revived by the Italian Aristotelians of the 16th century. The later or "new" *Arcadia* is an epic novel whose theoretical concerns include the dualities of contemplation and action, reason and passion, and theory and practice. In this ambitious and unfinished work, Sidney attempts a characteristically humanistic synthesis of classical philosophy, Christian doctrine, psychological realism, and practical politics. Seen as a whole, moreover, Sidney's life and work form a significant contribution to a debate that had been smoldering since the decline of political liberty in Florence in the 15th century. How, it was asked, could humanism be politically active or "civic" in a Europe that was almost exclusively monarchic in structure? Many humanists had counseled retirement from active life, while Castiglione had seen his learned courtier rather as an advisor than as a leader. Sidney and his friend Edmund Spenser (1552/53-1599) sought to resolve this dilemma by creating a form of chivalric humanism. The image (taken on personally by Sidney and elaborated upon by Spenser in *The Faerie Queene*) of the hero as questing knight suggests that the humanist, even if not empowered politically, can achieve a valid form of activism by refining, upholding, and representing the values of a just and noble court. Spenser's



poetic development of this humanistic program was even more specific than Sidney's. In his famous letter to Raleigh, he asserts that his purpose in *The Faerie Queene* is "to fashion a gentleman or noble person in virtuous and gentle discipline" and describes a project (never to be completed) of presenting his idea of the Aristotelian virtues in twelve poetic books. As with Sidney, however, this moral didacticism is neither self-righteous nor pedantic. The prescriptive content of *The Faerie Queene* is qualified by a strong emphasis on moral autonomy and a mature sense of the ambiguity of experience.

#### Chapman, Jonson, and Shakespeare

The poetry and drama of Shakespeare's time were a concourse of themes, ancient and modern, continental, and English. Prominent among these motives were the characteristic topics of humanism. George Chapman (1559?-1634), the translator of Homer, was a forthright exponent of the theory of poetry as moral wisdom, holding that it surpassed all other intellectual pursuits. Ben Jonson (1572-1637) described his own humanistic mission when he wrote that a good poet was able "to inform young men to all good disciplines, inflame grown men to all great virtues, keep old men in their best and supreme state, or, as they decline to childhood, recover them to their first strength" and that the poet was "the interpreter and arbiter of nature, a teacher of things divine no less than human, a master in manners." Jonson, who sought this moral goal both in his tragedies and in his comedies, paid tribute to the humanistic tradition in *Catiline*, a tragedy in which Cicero's civic eloquence is portrayed in heroic terms.

Less overtly humanistic, though in fact more profoundly so, was William Shakespeare (1564-1616). Thoroughly versed (probably at his grammar school) in classical poetic and rhetorical practice, Shakespeare early in his career produced strikingly effective imitations of Ovid and Plautus (*Venus and Adonis* and *The Comedy of Errors*, respectively) and drew on Ovid and Livy for his poem *The Rape of Lucrece*. In *Julius Caesar*, *Antony and Cleopatra*, and *Coriolanus* he developed Plutarchan biography into drama that, though Elizabethan in structure, is sharply classical in tone. Shakespeare clearly did not accept all the precepts of English humanism at face value. He grappled repeatedly with the problem of reconciling Christian doctrine with effective political action, and for a while (e.g., in *Henry V*) seemed inclined toward the Machiavellian alternative. In *Troilus and Cressida*, moreover, he broadly satirized Chapman's Homeric revival and, more generally, the humanistic habit of idolizing classical heroism. Finally, he eschewed the moralism, rationalism, and self-conscious erudition of the humanists and was lacking as well in their fraternalism and their theoretical bent. Yet on a deeper level he must be acknowledged the direct and natural heir of Petrarch, Boccaccio, Castiglione, and Montaigne. Like them he delighted more in presenting issues than in espousing systems and held critical awareness, as opposed to doctrinal rectitude, to be the highest possible good. His plays reflect an inquiry into human character entirely in accord with the humanistic emphasis on the dignity of the emotions, and indeed it may be said that his unprecedented use of language as a means of psychological revelation gave striking support to the humanistic contention that language was the heart of culture and the index of the soul. Similarly, Shakespeare's unparalleled realism may be seen as the ultimate embodiment, in poetic terms, of the intense concern for specificity – be it in description, measurement, or imitation – endorsed across the board by humanists from Boccaccio and

Salutati on. Shakespearean drama is a treasury of the disputes that frustrated and delighted humanism, including (among many others) action versus contemplation, theory versus practice, *res* versus *verbum*, monarchy versus republic, human dignity versus human depravity, and individualism versus communality. In treating of these polarities, he generally proceeds in the manner of Castiglione and Montaigne, presenting structures of balanced contraries rather than syllogistic endorsements of one side or another. In so doing, he achieves a higher realism, transcending the mere imitation of experience and creating, in all its conflict and fertility, a mirror of mind itself. Since the achievement of such psychological and cultural self-awareness was the primary goal of humanistic inquiry, and since humanists agreed that poetry was an uncommonly effective medium for this achievement, Shakespeare must be acknowledged as a preeminent humanist.

One cannot leave Shakespeare and the phenomenon of English humanism without reference to a highly important aspect of his later drama. Throughout his career, Shakespeare had shown a keen interest in the concept of art, not only as a general idea but also with specific reference to his own identity as dramatist. In two of his final plays, *The Winter's Tale* and *The Tempest*, he developed this concept into dramatic and thematic structures that had strongly doctrinal implications. Major characters in both plays practice a moral artistry – a kind of *humanitas* compounded of awareness, experience, imagination, compassion, and craft – that enables them to beguile and dominate other characters and to achieve enduring justice. This special skill, which is cognate with Shakespeare's own dramatic art, suggests a hypothetical solution to many of the dilemmas posed in his earlier work. It implies that problems unavailable to political or religious remedy may be solved by creative innovation and that the art by which things are known and

expressed may constitute, in and of itself, a valid field of inquiry and an instrument for cultural renewal. In developing this idea of the sovereignty of art, Shakespeare made the final major contribution to a humanistic tradition that will be discussed in the two sections that follow.

### Humanism and the Visual Arts

Humanistic themes and techniques were woven deeply into the development of Italian Renaissance art; conversely, the general theme of “art” was prominent in humanistic discourse. The mutually enriching character of the two disciplines is evident in a variety of areas.

### Realism

Humanists paid conscious tribute to realistic techniques in art that had developed independently of humanism. Giotto di Bondone (c. 1266-1337), the Florentine painter responsible for the movement away from the Byzantine style and toward ancient Roman technique, was praised by Vasari as “the pupil of Nature.” Giotto’s own contemporary Boccaccio said of him in the *Decameron* that there was nothing in Nature – the mother and ruling force of all created things with her constant revolution of the heavens – that he could not paint with his stylus, pen, or brush or make so similar to its original in Nature that it did not appear to be the original rather than a reproduction. Many times, in fact, in observing things painted by this man, the visual sense of men would err, taking what was painted to be the very thing itself.

Boccaccio, himself a naturalist and a realist, here subtly adopts the painter's achievement as a justification for his own literary style. So Shakespeare, at the end of the Renaissance, praises Giulio Romano (and himself), "who, had he himself eternity and could put breath into his work, would beguile Nature of her custom, so perfectly he is her ape" (*The Winter's Tale*). It should be noted that Vasari, Boccaccio, or Shakespeare endorses realistic style as a *summum bonum*: realism is rather the means for regaining touch with the sovereign creative principle of Nature.

### Classicism

Like the humanists, Italian artists of the 15th century saw a profound correlation between classical forms and realistic technique. Classical sculpture and Roman painting were emulated because of their ability to simulate perceived phenomena, while, more abstractly, classical myth offered a unique model for the artistic idealization of human beauty. Alberti, himself a close friend of Donatello and Brunelleschi, codified this humanistic theory of art, using the fundamental principle of mathematics as a link between perceived reality and the ideal. He developed a classically based theory of proportionality between architectural and human form, believing that the ancients sought "to discover the laws by which Nature produced her works so as to transfer them to the works of architecture."

### Anthropocentricity and Individualism

Humanism and Italian art were similar in giving paramount attention to human experience, both in its everyday immediacy and in its positive or negative extremes. The religious themes that dominated Renaissance art (partly because of generous church patronage) were frequently developed into images of such human richness that, as one contemporary observer noted, the Christian message was submerged. The human-centredness of Renaissance art, moreover, was not just a generalized endorsement of earthly experience. Like the humanists, Italian artists stressed the autonomy and dignity of the individual. High Renaissance art boasted a style of portraiture that was at once humanely appreciative and unsparing of detail. Heroes of culture such as Federico da Montefeltro and Lorenzo de' Medici, neither of whom was a conventionally handsome man, were portrayed realistically, as though a compromise with strict imitation would be an affront to their dignity as individuals. Similarly, artists of the Italian Renaissance were, characteristically, unabashed individualists. The biographies of Giotto, Brunelleschi, Leonardo, and Michelangelo by Giorgio Vasari (1511-74) not only describe artists who were well aware of their unique positions in society and history but also attest to a cultural climate in which, for the first time, the role of art achieved heroic stature. The autobiographical writings of the humanist Alberti, the scientist Gerolamo Cardano (1501-76), and the artist Benvenuto Cellini (1500-71) further attest to the individualism developing both in letters and in the arts; and Montaigne dramatized the analogy between visual mimesis and autobiographical realism when he said, in the preface to his *Essays*, that given the freedom he would have painted himself "*tout entier, et tout nu*" ("totally complete, and totally nude").

## Art as Philosophy

Italian Renaissance painting, especially in its secular forms, is alive with visually coded expressions of humanistic philosophy. Symbol, structure, posture, and even color were used to convey silent messages about humanity and nature. Renaissance style was so articulate, and the Renaissance sense of the unity of experience so deeply ingrained, that even architectural structures could be eloquently philosophical. Two features of Federico's palace at Urbino exemplify the profound interrelationship between humanistic principle and Renaissance art. The first feature is architectural. On the ground floor of the palace two private chapels, of roughly the same dimensions, stand side by side. The chapel at the left is a place of Christian worship, while that at the right is dedicated to the pagan Muses. Directly above these chapels is a study, the walls of which are covered with representations (in intarsia) of assorted humanistic heroes: Homer, Plato, Aristotle, Cicero, Virgil, Seneca, Boethius, St. Augustine, Dante, Petrarch, Bessarion, and Federico's revered teacher Vittorino, among others. The message conveyed by the positioning of the three rooms is hard to ignore. Devotion to the opposed principles of Christianity and earthly (pagan) beauty is rendered possible by a humanistic learning (represented by the study) so generous and appreciative as to comprehend both extremes.

The second feature is iconographic – a portrait of Federico and his son Guidobaldo (probably by Pedro Berruguete) that occupies a central position on the wall of the study. It depicts the Duke, his full coat of armour partly covered by a courtly robe, sitting and reading. The son stands beside his father's chair, gazing out of the picture toward the viewer's left. An abbot's mitre rests on a shelf in the upper left, while the Duke's helmet sits on the floor in the lower right. Here also a typically humanistic message is evident.

The Duke's scholarly attitude and curious attire suggest his triple role as warrior, ruler, and humanist. The two main axes of the picture – the line between mitre and helmet and the line between father and son – converge at the book, symbolizing the central role of humanistic learning in reconciling the concerns of church and state and in conveying humanistic virtue from generation to generation. The boy's outward gaze implies the characteristic direction of humanistic learning: into the world of action. The scope and organic wholeness of Federico's humanistic iconography are so striking as to rival great expressions of religious faith. The private heart of his palace concealed, like a genetic code, the principle that had given shape to the edifice and informed the state.

#### Humanism, Art, and Science

It is impossible to speak knowledgeably about Renaissance science without first understanding the Renaissance concept of art. The Latin *ars* (inflected as *artis*) was applied indiscriminately to the verbal disciplines, mathematics, music, and science (the “liberal arts”), as well as to painting, sculpture, and architecture; it also could refer to technological expertise, to magic, and to alchemy. Any discipline involving the cultivation of skill and excellence was de facto an art. To the Renaissance, moreover, all arts were “liberal” arts in their capacity to “free” their practitioners to function effectively in specific areas. The art of rhetoric empowered the rhetorician to convince; the art of perspective empowered the painter to create visual illusion; the art of physics empowered the scientist to predict the force and motion of objects. “Art,” in effect, was no more or less than articulate power, the technical or intellectual analogy to the political power of the monarch and



the divine power of the god. The historical importance of this equation cannot be overestimated. If one concept may be said to have integrated all the varied manifestations of Renaissance culture and given organic unity to the period, it was this definition of art as power. With this definition in mind, one may understand why Renaissance humanists and painters assigned themselves such self-consciously heroic roles: in their artistic ability to delight, to captivate, to convince, they saw themselves as enfranchised directors and remakers of culture. One may also understand why a humanist-artist-scientist like Alberti would have seen no real distinction between the various disciplines he practiced. As profoundly interconnected means of understanding nature and humanity, and as media for effective reform and renewal, these disciplines were all components of an encompassing art. A similar point may be made about Machiavelli, who wrote a book about the “art” of warfare and who used history and logic to develop an art of government, or about the brilliant polymath Paracelsus, who spent his whole career perfecting an art that would comprehend all matter and all spirit. With the equation of art and power in mind, finally, one may understand why a revolutionary scientist like Galileo (1564-1642) put classical and medieval science through a winnowing fan, keeping only such components as allowed for physically reproducible results. Since every Renaissance art aimed for a dominion or conquest, it was completely appropriate that science should leave its previously contemplative role and focus upon the conquest of nature.

Humanism benefited the development of science in a number of more specific ways. Alberti’s technological applications of mathematics, and his influential statement that mathematics was the key to all sciences, grew out of his humanistic education at Padua. Vittorino, another student at Padua, went on to make mathematics a central feature of his educational program.

Gerolamo Cardano, a scholar of renowned humanistic skills, made major contributions to the development of algebra. In short, the importance of mathematics in humanistic pedagogy and the fact that major humanists like Vittorino and Alberti were also mathematicians may be seen as contributing to the critical role mathematics would play in the rise of modern science. Humanistic philology, moreover, supplied scientists with clean texts and clear Latin translations of the classical works – Plato, Aristotle, Euclid, Archimedes, and even Ptolemy – that furthered their studies. The richness of the classical heritage in science is often underestimated. Galileo, who considered Archimedes his mentor, also prized the dialogues of Plato, in particular the *Meno*. The German philosopher Ernst Cassirer has demonstrated the likelihood that Galileo was fond of the *Meno* because it contained the first statement of the “hypothetical” method, a *modus operandi* that characterized Galileo’s own scientific practice and that would come to be known as one of the chief principles of the New Science. Humanism may also be seen as offering, of itself, methods and attitudes suitable for application in nonhumanistic fields. It might be argued, for example, that the revolutionary social science of Machiavelli and Juan Luis Vives (1492-1540) was due in large measure to their application of humanistic techniques to fields that lay outside the normal purview of humanism. But most of all it was the general spirit of humanism – critical, questing, ebullient, precise, focused on the physical world, and passionate in its quest for results – that fostered the development of the scientific spirit in social studies and natural philosophy.

## Humanism and Christianity

Though much humanistic activity was specifically Christian in intention, and though the majority of humanists made firm avowals of faith, the relationship between Christianity and humanism is complex and not wholly untroubled. First, humanists from Petrarch onward recognized that the classical (pagan) direction of humanism necessarily constituted, if not a challenge to Christianity, at least a breach in the previous totality of Christian devotion. The Christian truth that had been acknowledged as comprehending all phenomena, earthly or heavenly, now had to coexist with a classical attitude that was overwhelmingly directed toward earthly life. Humanistic efforts to resolve the contradictions implied by these two attitudes were, if one may judge by their variety, never wholly successful. In particular, the extent to which humanistic inquiry led scholars toward the secular realm, and the extent to which humanistic pedagogy concentrated on secular subjects, suggest erosions of the domain of faith. Coluccio Salutati, who urged the young Poggio not to let humanistic enthusiasm take precedence over Christian piety, thereby acknowledged a dualism implicit in the humanistic program and never wholly absent from its historical development.

Second, the humanistic philology that meticulously compared ancient sources and “cleaned up” the texts of important Christian writings was a serious challenge to the authority of the church. With new authorities or refined texts in hand, humanists found fault with established commentaries and questioned traditional interpretations. Valla’s arraignment of the Donation of Constantine and Bessarion’s discovery that the supposed Dionysius the Areopagite (later called Pseudo-Dionysius) had borrowed some of his material from Plato exemplify the uneasy relationship between humanism and Catholic dogma. Third, the independent and broadly critical attitude innate to

humanism could not but threaten the unanimity of Christian belief. Intellectual individualism, which has never been popular in any church, put particular stress on a religion that encouraged simple faith and alleged universal authority. Finally, humanism repeatedly fostered the impulse of religious reform. The humanistic emphasis on total authenticity and direct contact with sources had, as its religious correlative, a desire to obliterate the medieval accretions and procedural complexities that stood between the worshiper and his god. The reform-mindedness of such humanists as Petrarch, Boccaccio, Erasmus, and Rabelais was balanced on the religious side by reformers such as Calvin and Melancthon, who employed humanistic techniques in their own cause. And the reform movement, while it may have modernized and thus preserved Christianity, rang the death knell for a medieval culture whose essential characteristic had been participation in a universal church.

#### Later Fortunes of Humanism

Shakespeare may be seen as the last major interpreter of the humanistic program. Sir Francis Bacon and John Milton, though formidably adept at humanistic techniques, diverged in their major work from the central current of humanism, Bacon toward natural science, Milton toward theology. If Bacon's rationalism may be seen as a link between humanism and the Enlightenment, his strong emphasis on nature (rather than humanity) as subject matter presaged the permanent separation of the sciences from the humanities. In Milton's theocentricity, on the other hand, lay the Christian distrust (going back, perhaps, to Luther) of humanistic secularism. These epochal divergences, moreover, were complemented by a series of rifts and ramifications within the humanistic movement. The split between philosophy

and letters was, over future generations, to be compounded by the development of countless discrete specialties within both fields. Philosophers came more and more to define themselves within narrow boundaries. Creative writers and “critics” took up distinct positions and assumed adversarial relationships. The profound loss of coherence in humane letters was furthered by the gradual decline of Latin as the lingua franca of European intellectuals and the consequent separation of national traditions.

By the 19th century, humanism was such a lost art as to have to be reassembled, like a disjointed fossil, by careful historians. Of course there were exceptions. Jonathan Swift (1667-1745) reasserted humanistic values in a broad-based attack on contemporary institutions, and in Gottfried Wilhelm Leibniz (1646-1716) can be found the serious intention and multifarious curiosity that characterized humanism at its best. Strong humanistic motives may be found in Germany at the turn of the 19th century, particularly in the work of Gotthold Ephraim Lessing (1729-81), Friedrich von Schiller (1759-1805), and Georg Wilhelm Friedrich Hegel (1770-1831); while Johann Wolfgang von Goethe (1749-1832) was perhaps the last individual whose breadth of achievement and sense of the unity of experience lived up to the ideal established by Alberti.

More recently, the mode of inquiry and interpretation developed by the political philosopher Leo Strauss (1899-1973) showed strong signs of the humanistic spirit. But in general the traces of the original program have been scattered. To the modern mind, a “humanist” is a university scholar, walled off from the interdisciplinary scope of the original humanistic program and immune to the active experience that was its basis and its goal. This decline is easy enough to explain. Had there been nothing else, one external factor would have made the cultivation of *humanitas*, as originally practiced, more

and more difficult from the beginning of the 16th century on. The proliferation of published work in all fields, and the creation of many new fields, made increasingly impracticable the development of the comprehensive learning and awareness that were central to the original program. In 1500 the major texts constituting a humanistic education, though numerous, could still be counted; by 1900 they were legion, and people had long ceased agreeing about exactly which ones they were. But problems implicit in the movement were equally responsible for its demise. The characteristic emphases on rhetoric and philology, which gave the humanistic movement vitality and made it available to countless students of moderate gifts, also betokened its impermanence. Weak in dialectic or any other comprehensively analytic method, the movement had no instrument for self-examination, no medium for self-renewal. By the same token, neither had humanism any valid means of defense against the attackers – scientists, fundamentalists, materialists, and others – who camped in ever larger numbers on its borders. Lacking an integral method, finally, humanism in effect lacked a center and became prey to an endless series of ramifications. While eloquent humanists rambled through Europe and spread the word about the classics, the method that might have unified their efforts lay, available but unheeded, in texts of Plato and Aristotle. Given this core of rigorous analysis, humanism might (all other challenges notwithstanding) have retained its basic character for centuries. But ironically it might also have failed to attract followers.

## Conclusion

Though lacking permanence itself, humanism in large measure established the climate and provided the medium for the rise of modern thought. An impressive variety of major developments in literature, philosophy, art, religion, social science, and even natural science had their basis in humanism or were significantly nourished by it. Important spokesmen in all fields regularly made use of humanistic eloquence to further their causes. More generally, the so-called modern awareness – that sense of alienation and freedom applied both to the individual and to the race – derives ultimately, for better or worse, from humanistic sources. But with humanism, as with every other historical subject, one should beware lest valid concern about changes, crises, sources, and influences obscure the even more important issues of human continuity and human value. Whatever its weaknesses and inner conflicts, the humanistic movement was heroic in its breadth and energy, remarkable in its aspirations. For human development in all fields, it created a context of seldom-equaled fertility. Its characteristic modalities of thought, speech, and image lent themselves to the promptings of genius and became the media for enduring achievement. Its moral program formed the basis for lives that are remembered with admiration.

## Marxism

The term Marxism is used in a number of different ways. In its most essential meaning it refers to the thought of Karl Marx but is usually extended to include that of his friend and collaborator Friedrich Engels. There is also Marxism as it has been understood and practiced by the various socialist movements, particularly before 1914. Then there is Soviet Marxism as worked out by Lenin and modified by Stalin, which under the name of Marxism-Leninism became the doctrine of the communist parties set up after the Russian Revolution. Offshoots of this include Marxism as interpreted by the anti-Stalinist Leon Trotsky and his followers, Mao Zedong's (Mao Tse-tung's) Chinese variant of Marxism-Leninism, and various Third World Marxisms. There are also the post-World War II nondogmatic Marxisms that have modified Marx's thought with borrowings from modern philosophies, principally from those of Edmund Husserl and Martin Heidegger but also from Sigmund Freud and others.

## The Thought of Karl Marx

The written work of Marx cannot be reduced to a philosophy, much less to a philosophical system. The whole of his work is a radical critique of philosophy, especially of Hegel's idealist system and of the philosophies of the left and right post-Hegelians. It is not, however, a mere denial of those philosophies. Marx declared that philosophy must become reality. One could no longer be content with interpreting the world; one must be concerned with transforming it, which meant transforming both the world itself and men's consciousness of it. This, in turn, required a critique of experience together



with a critique of ideas. In fact, Marx believed that all knowledge involved a critique of ideas. He was not an empiricist. Rather, his work teems with concepts (appropriation, alienation, praxis, creative labour, value, etc.) that he had inherited from earlier philosophers and economists, including Hegel, Johann Fichte, Kant, Adam Smith, David Ricardo, and John Stuart Mill. What uniquely characterizes the thought of Marx is that, instead of making abstract affirmations about a whole group of problems such as man, knowledge, matter, and nature, he examines each problem in its dynamic relation to the others and, above all, tries to relate them to historical, social, political, and economic realities.

#### Historical Materialism

In 1859, in the preface to his *Contribution to the Critique of Political Economy*, Marx wrote that the hypothesis that had served him as the basis for his analysis of society could be briefly formulated as follows:

In the social production that men carry on, they enter into definite relations that are indispensable and independent of their will, relations of production which correspond to a definite stage of development of their material forces of production. The sum total of these relations of production constitutes the economic structure of society, the real foundation, on which rises a legal and political superstructure, and to which correspond definite forms of social consciousness. The mode of production in material life determines the general character of the social, political, and intellectual processes of life. It is not the consciousness of men which determines their

existence; it is on the contrary their social existence which determines their consciousness.

Raised to the level of historical law, this hypothesis was subsequently called historical materialism. Marx applied it to capitalist society, both in *The Communist Manifesto* and *Das Kapital* and in other writings. Although Marx reflected upon his working hypothesis for many years, he did not formulate it in a very exact manner: different expressions served him for identical realities. If one takes the text literally, social reality is structured in the following way:

1. Underlying everything as the real basis of society is the economic structure (what in late 20th-century language is sometimes called the infrastructure). This structure includes (a) the “material forces of production,” that is, the labour and means of production, and (b) the overall “relations of production,” or the social and political arrangements that regulate production and distribution. Although Marx stated that there is a correspondence between the “material forces” of production and the indispensable “relations” of production, he never made himself clear on the nature of the correspondence, a fact that was to be the source of differing interpretations among his later followers.

2. Above the economic structure rises the superstructure consisting of legal and political “forms of social consciousness” that correspond to the economic structure. Marx says nothing about the nature of this correspondence between ideological forms and economic structure, except that through the ideological forms men become conscious of the conflict within the economic structure between the material forces of production and the existing relations of production expressed in the legal property relations. In other words, “The sum total of the forces of production accessible to men

determines the condition of society” and is at the base of society. “The social structure and the state issue continually from the life processes of definite individuals... as they are *in reality*, that is acting and materially producing.” The political relations that men establish among themselves are dependent on material production, as are the legal relations. This foundation of the social on the economic is not an incidental point: it colors Marx’s whole analysis. It is found in *Das Kapital* as well as in *The German Ideology* and the *Economic and Philosophic Manuscripts of 1844*.

#### Analysis of Society

To go directly to the heart of the work of Marx, one must focus on his concrete program for man. This is just as important for an understanding of Marx as are *The Communist Manifesto* and *Das Kapital*. Marx’s interpretation of man begins with human need. “Man,” he wrote in the *Economic and Philosophic Manuscripts of 1844*, is first of all a *natural being*. As a natural being and a living natural being, he is endowed on the one hand with *natural powers, vital powers...* ; these powers exist in him as aptitudes, instincts. On the other hand, as an objective, natural, physical, sensitive being, he is a *suffering, dependent and limited being...* , that is, the *objects* of his instincts exist outside him, independent of him, but are the objects of his *need*, indispensable and essential for the realization and confirmation of his substantial powers.

The point of departure of human history is therefore living man, who seeks to satisfy certain primary needs. “The first historical fact is the production of the means to satisfy these needs.” This satisfaction, in turn,

opens the way for new needs. Human activity is thus essentially a struggle with nature that must furnish man with the means of satisfying his needs: drink, food, clothing, the development of his powers and then of his intellectual and artistic abilities. In this undertaking, man discovers himself as a productive being who humanizes himself by his labour. Furthermore, man humanizes nature while he naturalizes himself. By his creative activity, by his labour, he realizes his identity with the nature that he masters, while at the same time he achieves free consciousness. Born of nature man becomes fully human by opposing it. Becoming aware in his struggle against nature of what separates him from it, man finds the conditions of his fulfillment, of the realization of his true stature. The dawning of consciousness is inseparable from struggle. By appropriating all the creative energies, he discovers that “all that is called history is nothing else than the process of creating man through human labour, the becoming of nature for man. Man has thus evident and irrefutable proof of his own creation by himself.” Understood in its universal dimension, human activity reveals that “for man, man is the supreme being.” It is thus vain to speak of God, creation, and metaphysical problems. Fully naturalized, man is sufficient unto himself: he has recaptured the fullness of man in his full liberty.

Living in a capitalist society, however, man is not truly free. He is an alienated being; he is not at home in his world. The idea of alienation, which Marx takes from Hegel and Feuerbach, plays a fundamental role in the whole of his written work, starting with the writings of his youth and continuing through *Das Kapital*. In the *Economic and Philosophic Manuscripts* the alienation of labour is seen to spring from the fact that the more the worker produces the less he has to consume, and the more values he creates the more he devalues himself, because his product and his labour are estranged from

him. The life of the worker depends on things that he has created but that are not his, so that, instead of finding his rightful existence through his labour, he loses it in this world of things that are external to him: no work, no pay. Under these conditions, labour denies the fullness of concrete man. “The generic being (*Gattungswesen*) of man, nature as well as his intellectual faculties, is transformed into a being which is alien to him, into a *means of his individual existence*.” Nature, his body, his spiritual essence become alien to him. “Man is made alien to man.” When carried to its highest stage of development, private property becomes “the product of alienated labour... the *means* by which labour alienates itself (and) the realization of this alienation.” It is also at the same time “the tangible material expression of *alienated human life*.”

Although there is no evidence that Marx ever disclaimed this anthropological analysis of alienated labour, starting with *The German Ideology*, the historical, social, and economic causes of the alienation of labour are given increasing emphasis, especially in *Das Kapital*. Alienated labour is seen as the consequence of market production, the division of labour, and the division of society into antagonistic classes. As producers in society, men create goods only by their labour. These goods are exchangeable. Their value is the average amount of social labour spent to produce them. The alienation of the worker takes on its full dimension in that system of market production in which part of the value of the goods produced by the worker is taken away from him and transformed into surplus value, which the capitalist privately appropriates. Market production also intensifies the alienation of labour by encouraging specialization, piecework, and the setting up of large enterprises. Thus the labour power of the worker is used along with that of others in a combination whose significance he is ignorant of, both individually and socially. In thus losing their quality as human products, the products of

labour become fetishes, that is, alien and oppressive realities to which both the man who possesses them privately and the man who is deprived of them submit themselves. In the market economy, this submission to things is obscured by the fact that the exchange of goods is expressed in money.

This fundamental economic alienation is accompanied by secondary political and ideological alienations, which offer a distorted representation of and an illusory justification of a world in which the relations of men with one another are also distorted. The ideas that men form are closely bound up with their material activity and their material relations: “The act of making representations, of thinking, the spiritual intercourse of men, seem to be the direct emanation of their material relations.” This is true of all human activity: political, intellectual, or spiritual. “Men produce their representations and their ideas, but it is as living men, men acting as they are determined by a definite development of their powers of production.” Law, morality, metaphysics, and religion do not have a history of their own. “Men developing their material production modify together with their real existence their ways of thinking and the products of their ways of thinking.” In other words, “It is not consciousness which determines existence; it is existence which determines consciousness.”

In bourgeois, capitalist society man is divided into political citizen and economic man. This duality represents man’s political alienation, which is further intensified by the functioning of the bourgeois state. From this study of society at the beginning of the 19th century, Marx came to see the state as the instrument through which the propertied class dominated other classes.

Ideological alienation, for Marx, takes different forms, appearing in economic, philosophical, and legal theories. Marx undertook a lengthy

critique of the first in *Das Kapital* and of the second in *The German Ideology*. But ideological alienation expresses itself supremely in religion. Taking up the ideas about religion that were current in left post-Hegelian circles, together with the thought of Feuerbach, Marx considered religion to be a product of man's consciousness. It is a reflection of the situation of a man who "either has not conquered himself or has already lost himself again" (man in the world of private property). It is "an opium for the people." Unlike Feuerbach, Marx believed that religion would disappear only with changes in society.

#### Analysis of the Economy

Marx analyzed the market economy system in *Das Kapital*. In this work he borrows most of the categories of the classical English economists Smith and Ricardo but adapts them and introduces new concepts such as that of surplus value. One of the distinguishing marks of *Das Kapital* is that in it Marx studies the economy as a whole and not in one or another of its aspects. His analysis is based on the idea that man is a productive being and that all economic value comes from human labour. The system he analyzes is principally that of mid-19th-century England. It is a system of private enterprise and competition that arose in the 16th century from the development of sea routes, international trade, and colonialism. Its rise had been facilitated by changes in the forces of production (the division of labour and the concentration of workshops), the adoption of mechanization, and technical progress. The wealth of the societies that brought this economy into play had been acquired through an "enormous accumulation of commodities." Marx therefore begins with the study of this accumulation, analyzing the unequal exchanges that take place in the market.

According to Marx, if the capitalist advances funds to buy cotton yarn with which to produce fabrics and sells the product for a larger sum than he paid, he is able to invest the difference in additional production. “Not only is the value advance kept in circulation, but it changes in its magnitude, adds a plus to itself, makes itself worth more, and it is this movement that transforms it into capital.” The transformation, to Marx, is possible only because the capitalist has appropriated the means of production, including the labour power of the worker. Now labour power produces more than it is worth. The value of labour power is determined by the amount of labour necessary for its reproduction or, in other words, by the amount needed for the worker to subsist and beget children. But in the hands of the capitalist the labour power employed in the course of a day produces more than the value of the sustenance required by the worker and his family. The difference between the two values is appropriated by the capitalist, and it corresponds exactly to the surplus value realized by capitalists in the market. Marx is not concerned with whether in capitalist society there are sources of surplus value other than the exploitation of human labour – a fact pointed out by Joseph Schumpeter (*Capitalism, Socialism, and Democracy*). He remains content with emphasizing this primary source:

Surplus value is produced by the employment of labour power. Capital buys the labour power and pays the wages for it. By means of his work the labourer creates new value which does not belong to him, but to the capitalist. He must work a certain time merely in order to reproduce the equivalent value of his wages. But when this equivalent value has been returned, he does not cease work, but continues to do so for some further hours. The new value which he produces during this extra time, and which exceeds in consequence the amount of his wage, constitutes surplus value.



Throughout his analysis, Marx argues that the development of capitalism is accompanied by increasing contradictions. For example, the introduction of machinery is profitable to the individual capitalist because it enables him to produce more goods at a lower cost, but new techniques are soon taken up by his competitors. The outlay for machinery grows faster than the outlay for wages. Since only labour can produce the surplus value from which profit is derived, this means that the capitalist's rate of profit on his total outlay tends to decline. Along with the declining rate of profit goes an increase in unemployment. Thus, the equilibrium of the system is precarious, subject as it is to the internal pressures resulting from its own development. Crises shake it at regular intervals, preludes to the general crisis that will sweep it away. This instability is increased by the formation of a reserve army of workers, both factory workers and peasants, whose pauperization keeps increasing. "Capitalist production develops the technique and the combination of the process of social production only by exhausting at the same time the two sources from which all wealth springs: the earth and the worker." According to the Marxist dialectic, these fundamental contradictions can only be resolved by a change from capitalism to a new system.

### Class Struggle

Marx inherited the ideas of class and class struggle from Utopian socialism and the theories of Saint-Simon. These had been given substance by the writings of French historians such as Adolphe Thiers and François Guizot on the French Revolution of 1789. But unlike the French historians, Marx made class struggle the central fact of social evolution. "The history of all hitherto existing human society is the history of class struggles."

In Marx's view, the dialectical nature of history is expressed in class struggle. With the development of capitalism, the class struggle takes an acute form. Two basic classes, around which other less important classes are grouped, oppose each other in the capitalist system: the owners of the means of production, or bourgeoisie, and the workers, or proletariat. "The bourgeoisie produces its own grave-diggers. The fall of the bourgeoisie and the victory of the proletariat are equally inevitable" (*The Communist Manifesto*) because

the bourgeois relations of production are the last contradictory form of the process of social production, contradictory not in the sense of an individual contradiction, but of a contradiction that is born of the conditions of social existence of individuals; however, the forces of production which develop in the midst of bourgeois society create at the same time the material conditions for resolving this contradiction. With this social development the prehistory of human society ends.

When man has become aware of his loss, of his alienation, as a universal nonhuman situation, it will be possible for him to proceed to a radical transformation of his situation by a revolution. This revolution will be the prelude to the establishment of communism and the reign of liberty reconquered. "In the place of the old bourgeois society with its classes and its class antagonisms, there will be an association in which the free development of each is the condition for the free development of all."

But for Marx there are two views of revolution. One is that of a final conflagration, "a *violent* suppression of the old conditions of production," which occurs when the opposition between bourgeoisie and proletariat has been carried to its extreme point. This conception is set forth in a manner

inspired by the Hegelian dialectic of the master and the slave, in *The Holy Family*. The other conception is that of a permanent revolution involving a provisional coalition between the proletariat and the petty bourgeoisie rebelling against a capitalism that is only superficially united. Once a majority has been won to the coalition, an unofficial proletarian authority constitutes itself alongside the revolutionary bourgeois authority. Its mission is the political and revolutionary education of the proletariat, gradually assuring the transfer of legal power from the revolutionary bourgeoisie to the revolutionary proletariat.

If one reads *The Communist Manifesto* carefully one discovers inconsistencies that indicate that Marx had not reconciled the concepts of catastrophic and of permanent revolution. Moreover, Marx never analyzed classes as specific groups of men opposing other groups of men. Depending on the writings and the periods, the number of classes varies; and unfortunately the pen fell from Marx's hand at the moment when, in *Das Kapital* (vol. 3), he was about to take up the question. Reading *Das Kapital*, one is furthermore left with an ambiguous impression with regard to the destruction of capitalism: will it be the result of the "general crisis" that Marx expects, or of the action of the conscious proletariat, or of both at once?

### The Contributions of Engels

Engels became a communist in 1842 and discovered the proletariat of England when he took over the management of the Manchester factory belonging to his father's cotton firm. In 1844, the year he began his close association and friendship with Marx, Engels was finishing his "Umrisse zu

einer Kritik der Nationalökonomie” (“Outline of a Critique of Political Economy”) – a critique of Smith, Ricardo, Mill, and J.B. Say. This remarkable study contained in seminal form the critique that Marx was to make of bourgeois political economy in *Das Kapital*. During the first years of his stay in Manchester, Engels observed carefully the life of the workers of that great industrial center and described it in *Die Lage der arbeitenden Klassen in England (The Condition of the Working Class in England)*, published in 1845 in Leipzig. This work was an analysis of the evolution of industrial capitalism and its social consequences. He collaborated with Marx in the writing of *The Holy Family*, *The German Ideology*, and *The Communist Manifesto*. The correspondence between them is of fundamental importance for the student of *Das Kapital*, for it shows how Engels contributed by furnishing Marx with a great amount of technical and economic data and by criticizing the successive drafts. This collaboration lasted until Marx’s death and was carried on posthumously with the publication of the manuscripts left by Marx, which Engels edited, forming volumes 2 and 3 of *Das Kapital*. He also wrote various articles on Marx’s work.

In response to criticism of Marx’s ideas by a socialist named Eugen Dühring, Engels published several articles that were collected under the title *Herr Eugen Dührings Umwälzung der Wissenschaft*, which appeared in 1878 (*Herr Eugen Dühring’s Revolution in Science [Anti-Dühring]*), and an unfinished work, *Dialektik und Natur* (1927; *Dialectics of Nature*), which he had begun around 1875-76. The importance of these writings to the subsequent development of Marxism can be seen from Lenin’s observation that Engels “developed, in a clear and often polemical style, the most general scientific questions, and the different phenomena of the past and present according to the materialist understanding of history and the economic theory

of Karl Marx.” But Engels was driven to simplify problems with a view to being pedagogical; he tended to schematize and systematize things as if the fundamental questions were settled. The connections that he thus established between some of Marx’s governing ideas and some of the scientific ideas of his age gave rise to the notion that there is a complete Marxist philosophy. The idea was to play a significant role in the transition of Marxism from a “critique of daily life” to an integrated doctrine in which philosophy, history, and the sciences are fused.

*Anti-Dühring* is of fundamental importance for it constitutes the link between Marx and certain forms of modern Marxism. It contains three parts: Philosophy, Political Economy, and Socialism. In the first, Engels attempts to establish that the natural sciences and even mathematics are dialectical, in the sense that observable reality is dialectical: the dialectical method of analysis and thought is imposed on men by the material forces with which they deal. It is thus rightly applied to the study of history and human society. “Motion, in effect, is the mode of existence of matter,” Engels writes. In using materialistic dialectic to make a critique of Dühring’s thesis, according to which political forces prevail over all the rest in the molding of history, Engels provides a good illustration of the materialistic idea of history, which puts the stress on the prime role of economic factors as driving forces in history. The other chapters of the section Political Economy form a very readable introduction to the principal economic ideas of Marx: value (simple and complex), labour, capital, and surplus value. The section Socialism starts by formulating anew the critique of the capitalist system as it was made in *Das Kapital*. At the end of the chapters devoted to production, distribution, the state, the family, and education, Engels outlines what the socialist society will be like, a society in which the notion of value has no longer anything to

do with the distribution of the goods produced because all labour “becomes at once and directly social labour,” and the amount of social labour that every product contains no longer needs to be ascertained by “a detour.” A production plan will coordinate the economy. The division of labour and the separation of town and country will disappear with the “suppression of the capitalist character of modern industry.” Thanks to the plan, industry will be located throughout the country in the collective interest, and thus the opposition between town and country will disappear – to the profit of both industry and agriculture. Finally, after the liberation of man from the condition of servitude in which the capitalist mode of production holds him, the state will also be abolished and religion will disappear by “natural death.”

One of the most remarkable features of *Anti-Dühring* is the insistence with which Engels refuses to base socialism on absolute values. He admits only relative values, linked to historical, economic, and social conditions. Socialism cannot possibly be based on ethical principles: each epoch can only successfully carry out that of which it is capable. Marx had written this in his preface of 1859.

#### German Marxism After Engels

#### The Work of Kautsky and Bernstein

The theoretical leadership after Engels was taken by Karl Kautsky, editor of the official organ of the German Social Democratic Party, *Die Neue Zeit*. He wrote *Karl Marx' ökonomische Lehren* (1887; *The Economic Doctrines of Karl Marx*), in which the work of Marx is presented as essentially an economic theory. Kautsky reduced the ideas of Marx and

Marxist historical dialectic to a kind of evolutionism. He laid stress on the increasing pauperization of the working class and on the increasing degree of capitalist concentration. While opposing all compromise with the bourgeois state, he accepted the contention that the socialist movement should support laws benefiting the workers provided that they did not reinforce the power of the state. Rejecting the idea of an alliance between the working class and the peasantry, he believed that the overthrow of the capitalist state and the acquisition of political power by the working class could be realized in a peaceful way, without upsetting the existing structures. As an internationalist he supported peace, rejecting war and violence. For him, war was a product of capitalism. Such were the main features of “orthodox” German Marxism at the time when the “revisionist” theories of Eduard Bernstein appeared.

Bernstein created a great controversy with articles that he wrote in 1896 for *Die Neue Zeit*, arguing that Marxism needed to be revised. His divergence widened with the publication in 1899 of *Die Voraussetzungen des Sozialismus und die Aufgaben der Sozialdemokratie* (*Evolutionary Socialism*), to which rejoinders were made by Kautsky in *Bernstein und das Sozialdemokratische Programm: Eine Antikritik* (1899; “Bernstein and the Social Democratic Program”) and the Polish-born Marxist Rosa Luxemburg in *Sozialreform oder Revolution* (*Reform or Revolution*), both in 1899. Bernstein focused first of all upon the labour theory of value. Along with the economists of his time he considered it outdated, both in the form expounded by British classical economists and as set forth in *Das Kapital*. He argued, moreover, that class struggle was becoming less rather than more intense, for concentration was not accelerating in industry as Marx had forecast, and in agriculture it was not increasing at all. Bernstein demonstrated this on the basis of German, Dutch, and English statistical data. He also argued that cartels and business

syndicates were smoothing the evolution of capitalism, a fact that cast doubt on the validity of Marx's theory of capitalistic crises. Arguing that quite a few of Marx's theories were not scientifically based, Bernstein blamed the Hegelian and Ricardian structure of Marx's work for his failure to take sufficient account of observable reality.

To this, Kautsky replied that, with the development of capitalism, agriculture was becoming a sector more and more dependent on industry, and that in addition an industrialization of agriculture was taking place. Luxemburg took the position that the contradictions of capitalism did not cease to grow with the progress of finance capitalism and the exploitation of the colonies, and that these contradictions were leading to a war that would give the proletariat its opportunity to assume power by revolutionary means.

### The Radicals

One of the most divisive questions was that of war and peace. This was brought to the fore at the outbreak of World War I, when Social Democratic deputies in the German Reichstag voted for the financing of the war. Among German Marxists who opposed the war were Karl Liebknecht and Luxemburg. Liebknecht was imprisoned in 1916 for agitating against the war. On his release in 1918 he took the leadership of the Spartacist movement, which was later to become the Communist Party of Germany. Luxemburg had also been arrested for her antimilitary activities. In addition to her articles, signed Junius, in which she debated with Lenin on the subject of World War I and the attitude of the Marxists toward it (published in 1916 as *Die Krise der Sozialdemokratie* [*The Crisis in the German Social-Democracy*]), she is



known for her book *Die Akkumulation des Kapitals* (1913; *The Accumulation of Capital*). In this work she returned to Marx's economic analysis of capitalism, in particular the accumulation of capital as expounded in volume 2 of *Das Kapital*. There she found a contradiction that had until then been unnoticed: Marx's scheme seems to imply that the development of capitalism can be indefinite, though elsewhere he sees the contradictions of the system as bringing about increasingly violent economic crises that will inevitably sweep capitalism away. Luxemburg concluded that Marx's scheme is oversimplified and assumes a universe made up entirely of capitalists and workers. If increases in productivity are taken into account, she asserted, balance between the two sectors becomes impossible; in order to keep expanding, capitalists must find new markets in noncapitalist spheres, either among peasants and artisans or in colonies and underdeveloped countries. Capitalism will collapse only when exploitation of the world outside it (the peasantry, colonies, etc.) has reached a limit. This conclusion has been the subject of passionate controversies.

### The Austrians

The Austrian school came into being when Austrian socialists started publishing their works independently of the Germans; it can be dated from either 1904 (beginning of the *Marx-Studien* collection) or 1907 (publication of the magazine *Der Kampf*). The most important members of the school were Max Adler, Karl Renner, Rudolf Hilferding, Gustav Eckstein, Friedrich Adler, and Otto Bauer. The most eminent was Bauer, a brilliant theoretician whose *Die Nationalitätenfrage und die Sozialdemokratie* (1906; "The Nationalities Question and the Social Democracy") was critically reviewed by Lenin. In

this work he dealt with the problem of nationalities in the light of the experience of the Austro-Hungarian Empire. He favored the self-determination of peoples and emphasized the cultural elements in the concept of nationhood. Hilferding was finance minister of the German Republic after World War I in the Cabinets of the Social Democrats Gustav Stresemann (1923) and Hermann Müller (1928). He is known especially for his work *Das Finanzkapital* (1910), in which he maintained that capitalism had come under the control of banks and industrial monopolies. The growth of national competition and tariff barriers, he believed, had led to economic warfare abroad. Hilferding's ideas strongly influenced Lenin, who analyzed them in *Imperialism, the Highest Stage of Capitalism* (1916).

#### Russian and Soviet Marxism

*Das Kapital* was translated into Russian in 1872. Marx kept up more or less steady relations with the Russian socialists and took an interest in the economic and social conditions of the tsarist empire. The man who originally introduced Marxism into Russia was Georgi Plekhanov, but the man who adapted Marxism to Russian conditions was Lenin.

#### Lenin

Vladimir Ilich Ulyanov, or Lenin, was born in 1870 at Simbirsk (now Ulyanovsk). He entered the University of Kazan to study law but was expelled the same year for participating in student agitation. In 1893 he settled in St. Petersburg and became actively involved with the revolutionary workers.

With his pamphlet *What Is To Be Done?* (1902), he specified the theoretical principles and organization of a Marxist party as he thought it should be constituted. He took part in the second Congress of the Russian Social-Democratic Workers' Party, which was held in Brussels and London (1903), and induced the majority of the Congress members to adopt his views. Two factions formed at the Congress: the Bolshevik (from the Russian word for "larger") with Lenin as the leader and the Menshevik (from the Russian word for "smaller") with Julius Martov at the head. The former wanted a restricted party of militants and advocated the dictatorship of the proletariat. The latter wanted a wide-open proletarian party, collaboration with the liberals, and a democratic constitution for Russia. In his pamphlet *One Step Forward, Two Steps Back* (1904), Lenin compared the organizational principles of the Bolsheviks to those of the Mensheviks. After the failure of the 1905 Russian revolution, he drew positive lessons for the future in *Two Tactics of Social Democracy in the Democratic Revolution*. He fiercely attacked the influence of Kantian philosophy on German and Russian Marxism in *Materialism and Empirio-criticism* (1908). In 1912 at the Prague Conference the Bolsheviks constituted themselves as an independent party. During World War I Lenin resided in Switzerland, where he studied Hegel's *Science of Logic* and the development of capitalism and carried on debates with Marxists like Rosa Luxemburg on the meaning of the war and the right of nations to self-determination. In 1915 at Zimmerwald, and in 1916 at Kiental, he organized two international socialist conferences to fight against the war. Immediately after the February 1917 revolution he returned to Russia, and in October the Bolshevik coup brought him to power.

The situation of Russia and the Russian revolutionary movement at the end of the 19th century and the beginning of the 20th led Lenin to diverge, in

the course of his development and his analyses, from the positions both of “orthodox Marxism” and of “revisionism.” He rediscovered the original thought of Marx by a careful study of his works, in particular *Das Kapital* and *The Holy Family*. He saw Marxism as a practical affair and tried to go beyond the accepted formulas to plan political action that would come to grips with the surrounding world.

As early as 1894, in his populist study *The Friends of the People*, Lenin took up Marx’s distinction between the “material social relations” of men and their “ideological social relations.” In Lenin’s eyes the importance of *Das Kapital* was that “while *explaining* the structure and the development of the social formation seen *exclusively* in terms of its relations of production, (Marx) has nevertheless everywhere and always analyzed the superstructure which corresponds to these relations of production.” In *The Development of Russian Capitalism* (1897-99) Lenin sought to apply Marx’s analysis by showing the growing role of capital, in particular commercial capital, in the exploitation of the workers in the factories and the large-scale expropriation of the peasants. It was thus possible to apply to Russia the models developed by Marx for Western Europe. At the same time Lenin did not lose sight of the importance of the peasant in Russian society. Although a disciple of Marx, he did not believe that he had only to repeat Marx’s conclusions. He wrote:

We do not consider the theory of Marx to be a complete, immutable whole. We think on the contrary that this theory has only laid the cornerstone of the science, a science which socialists must further develop in all directions if they do not want to let themselves be overtaken by life. We think that, for the Russian socialists, an independent elaboration of the theory is particularly necessary.

Lenin laid great stress upon the dialectical method. In his early writings he defined the dialectic as “nothing more nor less than the method of sociology, which sees society as a living organism, in perpetual development (and not as something mechanically assembled and thus allowing all sorts of arbitrary combinations of the various social elements)... “ (*The Friends of the People*, 1894). After having studied Hegel toward the end of 1914, he took a more activist view. Dialectic is not only evolution; it is praxis, leading from activity to reflection and from reflection to action.

#### The Dictatorship of the Proletariat

Lenin also put much emphasis on the leading role of the party. As early as 1902 he was concerned with the need for a cohesive party with a correct doctrine, adapted to the exigencies of the period, which would be a motive force among the masses, helping to bring them to an awareness of their real situation. In *What Is To Be Done?* he called for a party of professional revolutionaries, disciplined and directed, capable of defeating the police; its aim should be to establish the dictatorship of the proletariat. In order to do this, he wrote in *Two Tactics of Social-Democracy in the Democratic Revolution*, it was necessary “to subject the insurrection of the proletarian and *non-proletarian* masses to our influence, to our direction, to use it in our best interests.” But this was not possible without a doctrine: “Without revolutionary theory, no revolutionary movement.” On the eve of the revolution of October 1917, in *The State and Revolution* he set forth the conditions for the dictatorship of the proletariat and the suppression of the capitalist state.

Lenin assigned major importance to the peasantry in formulating his program. It would be a serious error, he held, for the Russian revolutionary workers' movement to neglect the peasants. Even though it was clear that the industrial proletariat constituted the vanguard of the revolution, the discontent of the peasantry could be oriented in a direction favorable to the revolution by placing among the goals of the party the seizure of privately owned land. As early as 1903, at the third congress of the party, he secured a resolution to this effect. Thereafter, the dictatorship of the proletariat became the dictatorship of the proletariat and the peasantry. In 1917 he encouraged the peasants to seize land long before the approval of agrarian reform by the Constituent Assembly.

Among Lenin's legacies to Soviet Marxism was one that proved to be injurious to the party. This was the decision taken at his behest by the 10th congress of the party in the spring of 1921, while the sailors were rebelling at Kronstadt and the peasants were growing restless in the countryside, to forbid all factions, all factional activity, and all opposition political platforms within the party. This decision had grave consequences in later years when Stalin used it against his opponents.

## Stalin

It is Joseph Stalin who codified the body of ideas that, under the name of Marxism-Leninism, has constituted the official doctrine of the Soviet and eastern European communist parties. Stalin was a man of action in a slightly different sense than was Lenin. Gradually taking over power after Lenin's death in 1924, he pursued the development of the Soviet Union with great vigour. By practicing Marxism, he assimilated it, at the same time simplifying

it. Stalin's Marxism-Leninism rests on the dialectic of Hegel, as set forth in *A Short History of the Communist Party of the Soviet Union* (1938), and on a materialism that can be considered roughly identical to that of Feuerbach. His work *Problems of Leninism*, which appeared in 11 editions during his lifetime, sets forth an ideology of power and activism that rides roughshod over the more nuanced approach of Lenin.

Soviet dialectical materialism can be reduced to four laws: (1) History is a dialectical development. It proceeds by successive phases that supersede one another. These phases are not separate, any more than birth, growth, and death are separate. Though it is true that phase B necessarily negates phase A, it remains that phase B was already contained in phase A and was initiated by it. The dialectic does not regard nature as an accidental accumulation of objects, of isolated and independent phenomena, but as a unified, coherent whole. Furthermore, nature is perpetually in movement, in a state of unceasing renewal and development, in which there is always something being born and developing and something disintegrating and disappearing. (2) Evolution takes place in leaps, not gradually. (3) Contradictions must be made manifest. All phenomena contain in themselves contradictory elements. "Dialectic starts from the point of view that objects and natural phenomena imply internal contradictions, because they all have a positive and a negative side." These contradictory elements are in perpetual struggle: it is this struggle that is the "internal content of the process of development," according to Stalin. (4) The law of this development is economic. All other contradictions are rooted in the basic economic relationship. A given epoch is entirely determined by the relations of production existing among men. They are social relations; relations of collaboration or mutual aid, relations of domination or submission; and finally, transitory relations that characterize a period of

passage from one system to another. “The history of the development of society is, above all, the history of the development of production, the history of the modes of production which succeed one another through the centuries.”

From these principles may be drawn the following inferences, essential for penetrating the workings of Marxist-Leninist thought and its application. No natural phenomenon, no historical or social situation, no political fact, can be considered independently of the other facts or phenomena that surround it; it is set within a whole. Since movement is the essential fact, one must distinguish between what is beginning to decay and what is being born and developing. Since the process of development takes place by leaps, one passes suddenly from a succession of slow quantitative changes to a radical qualitative change. In the social or political realm, these sudden qualitative changes are revolutions, carried out by the oppressed classes. One must follow a frankly proletarian-class policy that exposes the contradictions of the capitalist system. A reformist policy makes no sense. Consequently (1) nothing can be judged from the point of view of “eternal justice” or any other preconceived notion and (2) no social system is immutable. To be effective, one must not base one’s action on social strata that are no longer developing, even if they represent for the moment the dominant force, but on those that are developing.

Stalin’s materialist and historical dialectic differs sharply from the perspective of Karl Marx. In *The Communist Manifesto* Marx applied the materialist dialectic to the social and political life of his time. In the chapter entitled “Bourgeois and Proletarians,” he studied the process of the growth of the revolutionary bourgeoisie within feudal society, then the genesis and the growth of the proletariat within capitalism, placing the emphasis on the struggle between antagonistic classes. To be sure, he connected social



evolution with the development of the forces of production. What counted for him, however, was not only the struggle but also the birth of consciousness among the proletariat. “As to the final victory of the propositions put forth in the *Manifesto*, Marx expected it to come primarily from the intellectual development of the working class, necessarily the result of common action and discussion” (Engels, preface to the republication of *The Communist Manifesto*, May 1, 1890).

The result of Stalin’s dialectic, however, was what he called revolution from above, a dictatorial policy to increase industrialization and collectivize agriculture based upon ruthless repression and a strong centralization of power. For Stalin what counted was the immediate goal, the practical result. The move was from a dialectic that emphasized both the objective and the subjective to one purely objective, or more exactly, objectivist. Human actions are to be judged not by taking account of the intentions of the actor and their place in a given historical web but only in terms of what they signify objectively at the end of the period considered.

### Trotskyism

Alongside Marxism-Leninism as expounded in the former Soviet Union, there arose another point of view expressed by Stalin’s opponent Leon Trotsky and his followers. Trotsky played a leading role in both the Russian Revolution of 1905 and that of 1917. After Lenin’s death he fell out with Stalin. Their conflict turned largely upon questions of policy, both domestic and foreign. In the realm of ideas, Trotsky held that a revolution in a backward, rural country could be carried out only by the proletariat. Once in

power the proletariat must carry out agrarian reform and undertake the accelerated development of the economy. The revolution must be a socialist one, involving the abolition of the private ownership of the means of production, or else it will fail. But the revolution cannot be carried out in isolation, as Stalin maintained it could. The capitalist countries will try to destroy it; moreover, to succeed the revolution must be able to draw upon the industrial techniques of the developed countries. For these reasons the revolution must be worldwide and permanent, directed against the liberal and nationalist bourgeoisie of all countries and using local victories to advance the international struggle.

Tactically, Trotsky emphasized the necessity of finding or creating a revolutionary situation, of educating the working class in order to revolutionize it, of seeing that the party remained open to the various revolutionary tendencies and avoided becoming bureaucratized, and finally, when the time for insurrection comes, of organizing it according to a detailed plan.

## Variants of Marxism

### Maoism

When the Chinese Communists took power in 1948, they brought with them a new kind of Marxism that came to be called Maoism after their leader Mao Zedong. The thought of Mao must always be seen against the changing revolutionary reality of China from 1930 onward. His thought was complex, a Marxist type of analysis combined with the permanent fundamentals of Chinese thought and culture.

One of its central elements has to do with the nature and role of contradictions in socialist society. For Mao, every society, including socialist (communist) society, contained “two different types of contradictions”: (1) antagonistic contradictions – contradictions between us (the people) and our enemies (the Chinese bourgeoisie faithful), between the imperialist camp and the socialist camp, and so forth – which are resolved by revolution, and (2) nonantagonistic contradictions – between the government and the people under a socialist regime, between two groups within the Communist Party, between one section of the people and another under a communist regime, and so forth – which are resolved by vigorous fraternal criticism and self-criticism.

The notion of contradiction is specific to Mao’s thought in that it differs from the conceptions of Marx or Lenin. For Mao, in effect, contradictions were at the same time universal and particular. In their universality, one must seek and discover what constitutes their particularity: every contradiction displays a particular character, depending on the nature of things and phenomena. Contradictions have alternating aspects – sometimes strongly marked, sometimes blurred. Some of these aspects are primary, others secondary. It is important to define them well, for if one fails to do so, the analysis of the social reality and the actions that follow from it will be mistaken. This is quite far from Stalinism and dogmatic Marxism-Leninism.

Another essential element of Mao’s thought, which must be seen in the context of revolutionary China, is the notion of permanent revolution. It is an old idea advocated in different contexts by Marx, Lenin, and Trotsky but lacking, in Mao’s formulation, the international dimension espoused by his predecessors. For Mao it followed from his ideas about the struggle of man against nature (held from 1938, at least); the campaigns for the rectification of thought (1942, 1951, 1952); and the necessity of struggling against

bureaucracy, wastage, and corruption in a country of 600,000,000 to 700,000,000 inhabitants, where very old civilizations and cultures still permeated both the bourgeois classes and the peasantry, where bureaucracy was thoroughly entrenched, and where the previous society was extremely corrupt. It arose from Mao's conviction that the rhythm of the revolution must be accelerated. This conviction appeared in 1957 in his speeches and became manifest in 1958 in the "Great Leap Forward," followed in 1966 by the Cultural Revolution.

Mao's concept of permanent revolution rests upon the existence of nonantagonistic contradictions in the China of today and of tomorrow. Men must be mobilized into a permanent movement in order to carry forward the revolution and to prevent the ruling group from turning bourgeois (as he perceived it had in the Soviet Union). It is necessary to shape among the masses a new vision of the world by tearing them from their passivity and their century-old habits. This is the background of the Cultural Revolution that began in 1966, following previous campaigns but differing from them in its magnitude and, it would seem, in the mobilization of youth against the cadres of the party. In these campaigns Mao drew upon his past as a revolutionary Marxist peasant leader, from his life in the red military and peasant bases and among the Red Guards of Yen-an, seeking in his past experience ways to mobilize the whole Chinese population against the dangers – internal and external – that confronted it in the present.

The distinguishing characteristic of Maoism is that it represents a peasant type of Marxism, with a principally rural and military outlook. While basing himself on Marxism-Leninism, adapted to Chinese requirements, Mao was rooted in the peasant life from which he himself came, in the revolts against the warlords and the bureaucrats that have filled the history of China.

By integrating this experience into a universal vision of history, Mao gave it a significance that flows beyond the provincial limits of China.

In his effort to remain close to the Chinese peasant masses, Mao drew upon an idea of nature and a symbolism found in popular Chinese Taoism, though transformed by his Marxism. It can be seen in his many poems, which were written in the classical Chinese style. This idea of nature is accompanied in his written political works by the Promethean idea of man struggling in a war against nature, a conception in his thought that goes back at least to 1938 and became more important after 1955 as the rhythm of the revolution accelerated.

#### Marxism in Cuba

The Marxism of Fidel Castro expresses itself as a rejection of injustice in any form – political, economic, or social. In this sense it is related to the liberal democracy and Pan-Americanism of Simón Bolívar in Latin America during the 19th century. In its liberalism, Castro's early socialism resembled the various French socialisms of the first half of the 19th century. Only gradually did Castroism come to identify itself with Marxism-Leninism, although from the very beginning of the Cuban revolution Castro revealed his attachment to certain of Marx's ideas. Castro's Marxism rejects some of the tenets and practices of official Marxism-Leninism: it is outspoken against dogmatism, bureaucracy, and sectarianism. In one sense, Castroism is a Marxist-Leninist "heresy." It exalts the ethos of guerrilla revolution over party politics. At the same time it aims to apply a purer Marxism to the conditions of Cuba: alleged American imperialism, a single-crop economy, a low initial

level of political and economic development. One may call it an attempt to realize a synthesis of Marxist ideas and the ideas of Bolívar.

In the ideological and political conflicts that divide the communist world, Castroism takes a more or less unengaged position. Castro is above all a nationalist and only after that a Marxist.

### Marxism in the Third World

The development of Marxist variants in the Third World has been primarily influenced by the undeveloped industrial state and the former colonial status of the nations in question. In the traditional Marxist view the growth of capitalism is seen as a step necessary for the breakup of precapitalist peasant society and for the rise of the revolutionary proletariat class. Some theorists believe, however, that capitalism introduced by imperialist rather than indigenous powers sustains rather than destroys the feudal structure of peasant society and promotes underdevelopment because resources and surplus are usurped by the colonial powers. Furthermore, the revolutionary socialist movement becomes subordinate to that of national liberation, which violates Marx's theory of class struggle by uniting all indigenous classes in the common cause of anti-imperialism. For these reasons, many Third World countries have chosen to follow the Maoist model, with its emphasis on agrarian revolution against feudalism and imperialism, rather than the old Soviet one. Another alternative, one specific to the Third World, also exists. This policy bypasses capitalism and depends upon the established strength of other communist countries for support against imperialism.

## Marxism in the West

There are two main forms of Marxism in the West: that of the traditional communist parties and the more diffuse “New Left” form, which has come to be known as “Western Marxism.” In general, the success of Western European communist parties had been hindered by their perceived allegiance to the old Soviet authority rather than their own countries; the secretive, bureaucratic form of organization they inherited from Lenin; the ease with which they became integrated into capitalist society; and their consequent fear of compromising their principles by sharing power with bourgeois parties. The Western parties basically adhered to the policies of Soviet Marxism until the 1970s, when they began to advocate Eurocommunism, a moderate version of communism that they felt would broaden their base of appeal beyond the working class and thus improve their chances for political success. As described by Enrico Berlinguer, Georges Marchais, and Santiago Carrillo, the leaders of the Italian, French, and Spanish communist parties, respectively, Eurocommunism favored a peaceful, democratic approach to achieving socialism, encouraged making alliances with other political parties, guaranteed civil liberties, and renounced the central authority of the Soviet party. By the 1980s Eurocommunism had largely been abandoned as unsuccessful, and communist parties in advanced capitalist nations returned to orthodox Marxism-Leninism despite the concomitant problems.

Western Marxism, however, can be seen as a repudiation of Marxism-Leninism, although, when it was first formulated in the 1920s, its proponents believed they were loyal to the dominant Soviet Communist Party. Prominent figures in the evolution of Western Marxism include the central Europeans

György Lukács, Karl Korsch, and Lucien Goldmann; Antonio Gramsci of Italy; the German theorists who constituted the Frankfurt school, especially Max Horkheimer, Theodor Adorno, Herbert Marcuse, and Jürgen Habermas; and Henri Lefebvre, Jean-Paul Sartre, and Maurice Merleau-Ponty of France.

Western Marxism has been shaped primarily by the failure of the socialist revolution in the Western world. Western Marxists were concerned less with the actual political or economic practice of Marxism than with its philosophical interpretation, especially in relation to cultural and historical studies. In order to explain the inarguable success of capitalist society, they felt they needed to explore and understand non-Marxist approaches and all aspects of bourgeois culture. Eventually, they came to believe that traditional Marxism was not relevant to the reality of modern Western society.

Marx had predicted that revolution would succeed in Europe first, but, in fact, the Third World has proved more responsive. Orthodox Marxism also championed the technological achievements associated with capitalism, viewing them as essential to the progress of socialism. Experience showed the Western Marxists, however, that technology did not necessarily produce the crises Marx described and did not lead inevitably to revolution. In particular they disagreed with the idea, originally emphasized by Engels, that Marxism is an integrated, scientific doctrine that can be applied universally to nature; they viewed it as a critique of human life, not an objective, general science. Disillusioned by the terrorism of the Stalin era and the bureaucracy of the Communist Party system, they advocated the idea of government by workers' councils, which they believed would eliminate professional politicians and would more truly represent the interests of the working class. Later, when the working class appeared to them to be too well integrated into the capitalist system, the Western Marxists supported more anarchistic tactics. In general,



their views are more in accord with those found in Marx's early, humanist writings rather than with his later, dogmatic interpretations.

Western Marxism has found support primarily among intellectuals rather than the working class, and orthodox Marxists have judged it impractical. Nevertheless, the Western Marxists' emphasis on Marx's social theory and their critical assessment of Marxist methodology and ideas have colored the way even non-Marxists view the world.

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## Part IV

# Branches of Philosophy

## Aesthetics

### Introduction

Aesthetics may be vaguely defined as the philosophical study of beauty and taste. To define its subject matter more precisely is, however, immensely difficult. Indeed, it could be said that self-definition has been the major task of modern aesthetics. We are acquainted with an interesting and puzzling realm of experience: the realm of the beautiful, the ugly, the sublime, and the elegant; of taste, criticism, and fine art; and of contemplation, sensuous enjoyment, and charm. In all these phenomena we believe that similar principles are operative and that similar interests are engaged. If we are mistaken in this impression, we will have to dismiss such ideas as beauty and taste as having only peripheral philosophical interest. Alternatively, if our impression is correct and philosophy corroborates it, we will have discovered the basis for a philosophical aesthetics.

This article seeks to clarify the nature of modern aesthetics and to delineate its underlying principles and concerns. Although the article focusses on Western aesthetic thought and its development, it surveys some of the seminal features of Marxist and Eastern aesthetics.

### The Nature and Scope of Aesthetics

Aesthetics is broader in scope than the philosophy of art, which comprises one of its branches. It deals not only with the nature and value of the arts but also with those responses to natural objects that find expression in the language of the beautiful and the ugly. A problem is encountered at the



outset, however, for terms such as beautiful and ugly seem too vague in their application and too subjective in their meaning to divide the world successfully into those things that do, and those that do not, exemplify them. Almost anything might be seen as beautiful by someone or from some point of view; and different people apply the word to quite disparate objects for reasons that often seem to have little or nothing in common. It may be that there is some single underlying belief that motivates all of their judgments. It may also be, however, that the term beautiful has no sense except as the expression of an attitude, which is in turn attached by different people to quite different states of affairs.

Moreover, in spite of the emphasis laid by philosophers on the terms beautiful and ugly, it is far from evident that they are the most important or most useful either in the discussion and criticism of art or in the description of that which appeals to us in nature. To convey what is significant in a poem we might use such terms as ironical, moving, expressive, balanced, and harmonious. Likewise, in describing a favorite stretch of countryside, we may find more use for peaceful, soft, atmospheric, harsh, and evocative, than for beautiful. The least that should be said is that beautiful belongs to a class of terms from which it has been chosen as much for convenience' sake as for any sense that it captures what is distinctive of the class.

At the same time, there seems to be no clear way of delimiting the class in question – not at least in advance of theory. Aesthetics must therefore cast its net more widely than the study either of beauty or of other aesthetic concepts if it is to discover the principles whereby it is to be defined. We are at once returned, therefore, to the vexing question of our subject matter: What should a philosopher study in order to understand such ideas as beauty and taste?

### Three Approaches to Aesthetics

Three broad approaches have been proposed in answer to that question, each intuitively reasonable:

1. The study of the aesthetic concepts, or, more specifically, the analysis of the “language of criticism,” in which particular judgments are singled out and their logic and justification displayed. In his famous treatise *On the Sublime and Beautiful* (1757), Edmund Burke attempted to draw a distinction between two aesthetic concepts, and, by studying the qualities that they denoted, to analyze the separate human attitudes that are directed toward them. Burke’s distinction between the sublime and the beautiful was extremely influential, reflecting as it did the prevailing style of contemporary criticism. In more recent times, philosophers have tended to concentrate on the concepts of modern literary theory – namely, those such as representation, expression, form, style, and sentimentality. The study invariably has a dual purpose: to show how (if at all) these descriptions might be justified, and to show what is distinctive in the human experiences that are expressed in them.

2. A philosophical study of certain states of mind – responses, attitudes, emotions – that are held to be involved in aesthetic experience. Thus, in the seminal work of modern aesthetics *Kritik der Urteilskraft* (1790; *The Critique of Judgment*), Immanuel Kant located the distinctive features of the aesthetic in the faculty of “judgment,” whereby we take up a certain stance toward objects, separating them from our scientific interests and our practical concerns. The key to the aesthetic realm lies therefore in a certain “disinterested” attitude, which we may assume toward any object and which can be expressed in many contrasting ways.

More recently, philosophers – distrustful of Kant’s theory of the faculties – have tried to express the notions of an “aesthetic attitude” and “aesthetic experience” in other ways, relying upon developments in philosophical psychology that owe much to G.W.F. Hegel, the Phenomenologists, and Ludwig Wittgenstein (more precisely, the Wittgenstein of the *Philosophical Investigations* [1953]). In considering these theories a crucial distinction must be borne in mind: that between philosophy of mind and empirical psychology. Philosophy is not a science, because it does not investigate the causes of phenomena. It is an a priori or conceptual investigation, the underlying concern of which is to identify rather than to explain. In effect, the aim of the philosopher is to give the broadest possible description of the things themselves, so as to show how we must understand them and how we ought to value them. The two most prominent current philosophical methods – Phenomenology and conceptual analysis – tend to regard this aim as distinct from, and (at least in part) prior to, the aim of science. For how can we begin to explain what we have yet to identify? While there have been empirical studies of aesthetic experience (exercises in the psychology of beauty), these form no part of aesthetics as considered in this article. Indeed, the remarkable paucity of their conclusions may reasonably be attributed to their attempt to provide a theory of phenomena that have yet to be properly defined.

3. The philosophical study of the aesthetic object. This approach reflects the view that the problems of aesthetics exist primarily because the world contains a special class of objects toward which we react selectively and which we describe in aesthetic terms. In effect, the existence of such objects constitutes the prime phenomenon; aesthetic experience should thus be described according to them and the meaning of aesthetic concepts be

determined by them. The usual class singled out as prime aesthetic objects is that comprising works of art. All other aesthetic objects (landscapes, faces, *objets trouvés*, and the like) tend to be included in this class only because, and to the extent that, they can be seen as art (or so it is claimed).

If we adopt such an approach, then there ceases to be a real distinction between aesthetics and the philosophy of art; and aesthetic concepts and aesthetic experience deserve their names through being, respectively, the concepts required in understanding works of art and the experience provoked by confronting them. Thus Hegel, perhaps the major philosophical influence on modern aesthetics, considered the main task of aesthetics to reside in the study of the various forms of art and of the spiritual content peculiar to each. Much of recent aesthetics has been similarly focused on artistic problems, and it could be said that it is now orthodox to consider aesthetics entirely through the study of art.

The third approach to aesthetics does not require this concentration upon art. Even someone who considered art to be no more than one manifestation of aesthetic value – perhaps even a comparatively insignificant manifestation – may believe that the first concern of aesthetics is to study the objects of aesthetic experience and description and to find in them the true distinguishing features of the aesthetic realm. Unless we restrict the domain of aesthetic objects, however, it becomes extremely difficult to maintain that they have anything significant in common beyond the fact of inspiring a similar interest. This means that we should be compelled to adopt the second approach to aesthetics after all. And there seems no more plausible way of restricting the domain of aesthetic objects than through the concept of art.

The three approaches may lead to incompatible results. Alternatively, they may be in harmony. Once again, it can only be at the end point of our philosophy that we shall be able to decide. Initially, it must be assumed that the three approaches may differ substantially, or merely in emphasis, and thus that each question in aesthetics has a tripartite form.

### The Aesthetic Recipient

Whichever approach we take, however, there is an all-important question upon the answer to which the course of aesthetics depends: the question of the recipient. Only beings of a certain kind have aesthetic interests and aesthetic experience, produce and appreciate art, employ such concepts as those of beauty, expression, and form. What is it that gives these beings access to this realm? The question is at least as old as Plato but received its most important modern exposition in the philosophy of Kant, who argued, first, that it is only rational beings who can exercise judgment – the faculty of aesthetic interest – and, second, that until exercised in aesthetic judgment rationality is incomplete. It is worth pausing to examine these two claims.

Rational beings are those, like us, whose thought and conduct are guided by reason; who deliberate about what to believe and what to do; and who affect each other's beliefs and actions through argument and persuasion. Kant argued that reason has both a theoretical and a practical employment, and that a rational being finds both his conduct and his thought inspired and limited by reason. The guiding law of rational conduct is that of morality, enshrined in the categorical imperative, which enjoins us to act only on that maxim which we can at the same time will as a universal law.

By virtue of practical reason, the rational being sees himself and others of his kind as subject to an order that is not that of nature: he lives responsive to the law of reason and sees himself as a potential member of a “kingdom of ends” wherein the demands of reason are satisfied. Moreover, he looks on every rational being – himself included – as made sacrosanct by reason and by the morality that stems from it. The rational being, he recognizes, must be treated always as an end in himself, as something of intrinsic value, and never as a mere object to be disposed of according to purposes that are not its own.

The capacity to see things as intrinsically valuable, irreplaceable, or ends in themselves is one of the important gifts of reason. But it is not exercised only practically or only in our dealings with other reasoning beings. It may also be exercised contemplatively toward nature as a whole. In this case, practical considerations are held in abeyance, and we stand back from nature and look on it with a disinterested concern. Such an attitude is not only peculiar to rational beings but also necessary to them. Without it, they have only an impoverished grasp of their own significance and of their relation to the world in which they are situated through their thoughts and actions. This disinterested contemplation and the experiences that arise from it acquaint us, according to Kant, with the ultimate harmony that exists between the world and our faculties. They therefore provide the ultimate guarantee, both of practical reasoning and of the understanding, by intimating to us directly that the world answers to our purposes and corresponds to our beliefs.

Disinterested contemplation forms, for Kant, the core of aesthetic experience and the ultimate ground of the judgment of beauty. He thus concludes (1) that only rational beings have aesthetic experience; (2) that every rational being needs aesthetic experience and is significantly incomplete

without it; and (3) that aesthetic experience stands in fundamental proximity to moral judgment and is integral to our nature as moral beings.

Modern philosophers have sometimes followed Kant, sometimes ignored him. Rarely, however, have they set out to show that aesthetic experience is more widely distributed than the human race. For what could it mean to say of a cow, for example, that in staring at a landscape it is moved by the sentiment of beauty? What in a cow's behavior or mental composition could manifest such a feeling? While a cow may be uninterested, it cannot surely be disinterested, in the manner of a rational being for whom disinterest is the most passionate form of interest. It is in pondering such considerations that one comes to realize just how deeply embedded in human nature is the aesthetic impulse, and how impossible it is to separate this impulse from the complex mental life that distinguishes human beings from beasts. This condition must be borne in mind by any philosopher seeking to confront the all-important question of the relation between the aesthetic and the moral.

### The Aesthetic Object

The third approach to aesthetics begins with a class of aesthetic objects and attempts thereafter to show the significance of that class to those who selectively respond to it. The term aesthetic object, however, is ambiguous, and, depending on its interpretation, may suggest two separate programs of philosophical aesthetics. The expression may denote either the "intentional" or the "material" object of aesthetic experience. This distinction, a legacy of the Scholastic philosophers of the Middle Ages, has played a major role in recent Phenomenology. It may be briefly characterized as follows: When someone

responds to object *O*, his response depends upon a conception of *O* that may, in fact, be erroneous. *O* is then the material object of his response, while his conception defines the intentional object. (The term intentional comes from the Latin *intendere*, “to aim.”) To cite an example: A person is frightened by a white cloth flapping in a darkened hall, taking it for a ghost. Here, the material object of the fear is the cloth, while the intentional object is a ghost. A philosophical discussion of fear may be presented as a discussion of things feared, but if so, the phrase denotes the class of intentional objects of fear and not the (infinitely varied and infinitely disordered) class of material objects. In an important sense, the intentional object is part of a state of mind, whereas the material object always has independent (and objective) existence. If the expression “aesthetic object” is, therefore, taken in its intentional construction, the study of the aesthetic object becomes the study, not of an independently existing class of things, but of the aesthetic experience itself. It is in this sense that the term occurs in the writings of Phenomenologists (e.g., Mikel Dufrenne, *La Phénoménologie de l'expérience esthétique* [1953; *The Phenomenology of Aesthetic Experience*] and Roman Ingarden, *Das literarische Kunstwerk* [1931; *The Literary Work of Art*]), whose studies of the aesthetic object exemplify not the third, but the second, of the approaches considered above.

Which of those two approaches should be adopted? We can already see one reason for adopting the approach that puts the aesthetic experience first and examines the aesthetic object primarily as the intentional object of that experience. It is, after all, to experience that we must turn if we are to understand the value of the aesthetic realm – our reason for engaging with it, studying it, and adding to it. Until we understand that value, we will not know



why we ought to construct such a concept as the aesthetic, still less why we should erect a whole branch of philosophy devoted to its analysis.

A further reason also suggests itself for rejecting the approach to aesthetics that sees it merely as the philosophy of art, because art, and the institutions that sustain it, are mutable and perhaps inessential features of the human condition. While we classify together such separate art forms as poetry, the novel, music, drama, painting, sculpture, and architecture, our disposition to do so is as much the consequence of philosophical theory as its premise. Would other people at other times and in other conditions have countenanced such a classification or seen its point? And if so, would they have been motivated by similar purposes, similar observations, and similar beliefs? We might reasonably be sceptical, for while there have been many attempts to find something in common – if only a “family resemblance” – between the various currently accepted art forms, they have all been both contentious in themselves and of little aesthetic interest. Considered materially (i.e., without reference to the experiences that we direct to them), the arts seem to have little in common except for those properties that are either too uninteresting to deserve philosophical scrutiny (the property, for example, of being artifacts) or else too vast and vague to be independently intelligible.

Consider the theory of Clive Bell (*Art*, 1914) that art is distinguished by its character as “significant form.” Initially attractive, the suggestion crumbles at once before the skeptic. When is form “significant”? The only answer to be extracted from Bell is this: “when it is art.” In effect, the theory reduces to a tautology. In any normal understanding of the words, a traffic warden is a significant form, at least to the motorist who sees himself about to receive a ticket. Thus, to explain Bell’s meaning, it is necessary to restrict the term significant to the significance (whatever that is) of art.

Moreover, it is of the greatest philosophical importance to attend not only to the resemblances between the art forms but also to their differences. It is true that almost anything can be seen from some point of view as beautiful. At the same time, however, our experience of beauty crucially depends upon a knowledge of the object in which beauty is seen. It is absurd to suppose that I could present you with an object that might be a stone, a sculpture, a box, a fruit, or an animal, and expect you to tell me whether it is beautiful before knowing what it is. In general we may say – in opposition to a certain tradition in aesthetics that finds expression in Kant’s theory – that our sense of beauty is always dependent upon a conception of the object in the way that our sense of the beauty of the human figure is dependent upon a conception of that figure. Features that we should regard as beautiful in a horse – developed haunches, curved back, and so on – we should regard as ugly in a man, and those aesthetic judgments would be determined by our conception of what men and horses generally are, how they move, and what they achieve through their movements. In a similar way, features that are beautiful in a sculpture may not be beautiful in a work of architecture, where an idea of function seems to govern our perceptions. In every case, our perception of the beauty of a work of art requires us to be aware of the distinctive character of each art form and to put out of mind, as largely irrelevant to our concerns, the overarching category of art to which all supposedly belong. But if that is so, it is difficult to see how we could cast light upon the realm of aesthetic interest by studying the concept of art.

Whether or not that concept is a recent invention, it is certainly a recent obsession. Medieval and Renaissance philosophers who approached the problems of beauty and taste – e.g., St. Thomas Aquinas, Peter Abelard, and even Leon Battista Alberti – often wrote of beauty without reference to art,

taking as their principal example the human face and body. The distinctively modern approach to aesthetics began to take shape during the 18th century, with the writings on art of Jean-Jacques Rousseau, Charles Batteux, and Johann Winckelmann and the theories of taste proposed by the 3rd Earl of Shaftesbury, Francis Hutcheson, Lord Kames (Henry Home), and Archibald Alison. This approach materialized not only because of a growing interest in fine art as a uniquely human phenomenon but also because of the awakening of feelings toward nature, which marked the dawn of the Romantic movement. In Kant's aesthetics, indeed, nature has pride of place as offering the only examples of what he calls "free beauty" – i.e., beauty that can be appreciated without the intermediary of any polluting concept. Art, for Kant, was not merely one among many objects of aesthetic interest; it was also fatally flawed in its dependence upon intellectual understanding.

Even without taking that extreme position, it is difficult to accept that the fragile and historically determined concept of art can bear the weight of a full aesthetic theory. Leaving aside the case of natural beauty, we must still recognize the existence of a host of human activities (dress, decoration, manners, ornament) in which taste is of the essence and yet which seems totally removed from the world of fine art. It has been common, following the lead of Batteux, to make a distinction between the fine and the useful arts, and to accommodate the activities just referred to under the latter description; but it is clear that this is no more than a gesture and that the points of similarity between the art of the dressmaker and that of the composer are of significance only because of a similarity in the interests that these arts are meant to satisfy.

## The Aesthetic Experience

Such considerations point toward the aforementioned approach that begins with the aesthetic experience as the most likely to capture the full range of aesthetic phenomena without begging the important philosophical questions about their nature. Can we then single out a faculty, an attitude, a mode of judgment, or a form of experience that is distinctively aesthetic? And if so, can we attribute to it the significance that would make this philosophical enterprise both important in itself and relevant to the many questions posed by beauty, criticism, and art?

Taking their cue from Kant, many philosophers have defended the idea of an aesthetic attitude as one divorced from practical concerns, a kind of “distancing,” or standing back, as it were, from ordinary involvement. The classic statement of this position is Edward Bullough’s “‘Psychical Distance’ as a Factor in Art and an Aesthetic Principle,” an essay published in the *British Journal of Psychology* in 1912. While there is certainly something of interest to be said along those lines, it cannot be the whole story. Just what kind of distance is envisaged? Is the lover distanced from his beloved? If not, by what right does he call her beautiful? Does distance imply a lack of practical involvement? If such is the case, how can we ever take up an aesthetic attitude to those things that have a purpose for us – things such as a dress, building, or decoration? But if these are not aesthetic, have we not paid a rather high price for our definition of this word – the price of detaching it from the phenomena that it was designed to identify?

Kant’s own formulation was more satisfactory. He described the recipient of aesthetic experience not as distanced but as disinterested, meaning that the recipient does not treat the object of enjoyment either as a vehicle for

curiosity or as a means to an end. He contemplates the object as it is in itself and “apart from all interest.” In a similar spirit, Arthur Schopenhauer argued that a person could regard anything aesthetically so long as he regarded it in independence of his will – that is, irrespective of any use to which he might put it. Regarding it thus, a person could come to see the Idea that the object expressed, and in this knowledge consists aesthetic appreciation (*Die Welt als Wille und Vorstellung* [1819; *The World as Will and Idea*]).

Of a piece with such a view is the popular theory of art as a kind of “play” activity, in which creation and appreciation are divorced from the normal urgencies of existence and surrendered to leisure. “With the agreeable, the good, the perfect,” wrote Friedrich Schiller, “man is merely in earnest, but with beauty he plays” (*Briefe über die ästhetische Erziehung des Menschen* [1794-95; *Letters on the Aesthetic Education of Man*]).

Such thoughts have already been encountered. The problem is to give them philosophical precision. They have recurred in modern philosophy in a variety of forms – for example, in the theory that the aesthetic object is always considered for its own sake, or as a unique individual rather than a member of a class. Those particular formulations have caused some philosophers to treat aesthetic objects as though they were endowed with a peculiar metaphysical status. Alternatively, it is sometimes argued that the aesthetic experience has an intuitive character, as opposed to the conceptual character of scientific thought or the instrumental character of practical understanding.

The simplest way of summarizing this approach to aesthetics is in terms of two fundamental propositions:

1. The aesthetic object is an object of sensory experience and enjoyed as such: it is heard, seen, or (in the limiting case) imagined in sensory form.
2. The aesthetic object is at the same time contemplated: its appearance is a matter of intrinsic interest and studied not merely as an object of sensory pleasure but also as the repository of significance and value.

The first of these propositions explains the word aesthetic, which was initially used in this connection by the Leibnizian philosopher Alexander Baumgarten in *Meditationes Philosophicae de Nonnullis ad Poema Pertinentibus* (1735; *Reflections on Poetry*). Baumgarten borrowed the Greek term for sensory perception (*aisthesis*) in order to denote a realm of concrete knowledge (the realm, as he saw it, of poetry), in which a content is communicated in sensory form. The second proposition is, in essence, the foundation of taste. It describes the motive of our attempt to discriminate rationally between those objects that are worthy of contemplative attention and those that are not.

Almost all of the aesthetic theories of post-Kantian Idealism depend upon those two propositions and try to explain the peculiarities of aesthetic experience and aesthetic judgment in terms of the synthesis of the sensory and the intellectual that they imply – the synthesis summarized in Hegel’s theory of art as “the sensuous embodiment of the Idea.” Neither proposition is particularly clear. Throughout the discussions of Kant and his immediate following, the “sensory” is assimilated to the “concrete,” the “individual,” the “particular,” and the “determinate,” while the “intellectual” is assimilated to the “abstract,” the “universal,” the “general,” and the “indeterminate” – assimilations that would nowadays be regarded with extreme suspicion.

Nevertheless, subsequent theories have repeatedly returned to the idea that aesthetic experience involves a special synthesis of intellectual and sensory components, and that both its peculiarities and its value are to be derived from such a synthesis.

The idea at once gives rise to paradoxes. The most important was noticed by Kant, who called it the antinomy of taste. As an exercise of reason, he argued, aesthetic experience must inevitably tend toward a reasoned choice and therefore must formulate itself as a judgment. Aesthetic judgment, however, seems to be in conflict with itself. It cannot be at the same time aesthetic (an expression of sensory enjoyment) and also a judgment (claiming universal assent). Yet all rational beings, by virtue of their rationality, seem disposed to make these judgments. On the one hand, they feel pleasure in some object, and this pleasure is immediate, not based, according to Kant, in any conceptualization or in any inquiry into cause, purpose, or constitution. On the other hand, they express their pleasure in the form of a judgment, speaking “as if beauty were a quality of the object,” and so representing their pleasure as objectively valid. But how can this be so? The pleasure is immediate, based in no reasoning or analysis. So what permits this demand for universal agreement?

However we approach the idea of beauty, we find this paradox emerging. Our ideas, feelings, and judgments are called aesthetic precisely because of their direct relation to sensory enjoyment. Hence, no one can judge the beauty of an object that he has never encountered. Scientific judgments, like practical principles, can be received “second hand.” I can, for example, take you as my authority for the truths of physics or for the utility of railways. But I cannot take you as my authority for the merits of Leonardo or Mozart if I have not seen or heard works by either artist. It would seem to follow from

this that there can be no rules or principles of aesthetic judgment, since I must feel the pleasure immediately in the perception of the object and cannot be talked into it by any grounds of proof. It is always experience, and never conceptual thought, that gives the right to aesthetic judgment, so that anything that alters the experience of an object alters its aesthetic significance as well. As Kant put it, aesthetic judgment is “free from concepts,” and beauty itself is not a concept.

Such a conclusion, however, seems to be inconsistent with the fact that aesthetic judgment is a form of judgment. When I describe something as beautiful, I do not mean merely that it pleases me: I am speaking about it, not about myself, and, if challenged, I try to find reasons for my view. I do not explain my feeling but give grounds for it by pointing to features of its object. Any search for reasons has the “universalizing” character of rationality: I am in effect saying that others, insofar as they are rational, ought to feel exactly the same delight as I feel. Being disinterested, I have put aside my interests, and with them everything that makes my judgment relative to me. But, if that is so, then “the judgment of taste is based on concepts, for otherwise there could be no room even for contention in the matter, or for the claim to the necessary agreement of others.”

In short, the expression aesthetic judgment seems to be a contradiction in terms, denying in the first term precisely that reference to rational considerations that it affirms in the second. This paradox, which we have expressed in Kant’s language, is not peculiar to the philosophy of Kant. On the contrary, it is encountered in one form or another by every philosopher or critic who takes aesthetic experience seriously, and who therefore recognizes the tension between the sensory and the intellectual constraints upon it. On the one hand, aesthetic experience is rooted in the immediate sensory enjoyment



of its object through an act of perception. On the other, it seems to reach beyond enjoyment toward a meaning that is addressed to our reasoning powers and that seeks judgment from them. Thus criticism, the reasoned justification of aesthetic judgment, is an inevitable upshot of aesthetic experience. Yet, critical reasons can never be merely intellectual; they always contain a reference to the way in which an object is perceived.

#### Relationship Between Form and Content

Two related paradoxes also emerge from the same basic conception of the aesthetic experience. The first was given extended consideration by Hegel, who argued, in his *Vorlesungen über die Aesthetik* (1832; “Lectures on Aesthetics”; Eng. trans., *Philosophy of Fine Art*), roughly as follows: Our sensuous appreciation of art concentrates upon the given “appearance” – the “form.” It is this that holds our attention and that gives to the work of art its peculiar individuality. Because it addresses itself to our sensory appreciation, the work of art is essentially concrete, to be understood by an act of perception rather than by a process of discursive thought. At the same time, our understanding of the work of art is in part intellectual; we seek in it a conceptual content, which it presents to us in the form of an idea. One purpose of critical interpretation is to expound this idea in discursive form – to give the equivalent of the content of the work of art in another, nonsensuous idiom. But criticism can never succeed in this task, for, by separating the content from the particular form, it abolishes its individuality. The content presented then ceases to be the exact content of that work of art. In losing its individuality, the content loses its aesthetic reality; it thus ceases to be a reason for attending to the particular work of art that first attracted our critical

attention. It cannot be this that we saw in the original work and that explained its power over us. For this content, displayed in the discursive idiom of the critical intellect, is no more than a husk, a discarded relic of a meaning that eluded us in the act of seizing it. If the content is to be the true object of aesthetic interest, it must remain wedded to its individuality: it cannot be detached from its “sensuous embodiment” without being detached from itself. Content is, therefore, inseparable from form and form in turn inseparable from content. (It is the form that it is only by virtue of the content that it embodies.)

Hegel’s argument is the archetype of many, all aimed at showing that it is both necessary to distinguish form from content and also impossible to do so. This paradox may be resolved by rejecting either of its premises, but, as with Kant’s antinomy, neither premise seems dispensable. To suppose that content and form are inseparable is, in effect, to dismiss both ideas as illusory, since no two works of art can then share either a content or a form – the form being definitive of each work’s individuality. In this case, no one could ever justify his interest in a work of art by reference to its meaning. The intensity of aesthetic interest becomes a puzzling, and ultimately inexplicable, feature of our mental life. If, on the other hand, we insist that content and form are separable, we shall never be able to find, through a study of content, the reason for attending to the particular work of art that intrigues us. Every work of art stands proxy for its paraphrase. An impassable gap then opens between aesthetic experience and its ground, and the claim that aesthetic experience is intrinsically valuable is thrown in doubt.

A related paradox is sometimes referred to as the “heresy of paraphrase,” the words being those of the U.S. literary critic Cleanth Brooks (*The Well Wrought Urn*, 1949). The heresy is that of assuming that the meaning of a work of art (particularly of poetry) can be paraphrased.

According to Brooks, who here followed an argument of Benedetto Croce, the meaning of a poem consists precisely in what is not translatable. Poetic meaning is bound up with the particular disposition of the words – their sound, rhythm, and arrangement – in short, with the “sensory embodiment” provided by the poem itself. To alter that embodiment is to produce either another poem (and therefore another meaning) or something that is not a work of art at all, and which therefore lacks completely the kind of meaning for which works of art are valued. Hence no poetry is translatable, and no critic can do better than to point to the objective features of the poem that most seem to him to be worthy of attention. Yet, that result too is paradoxical. For what does the critic see in those objective features and how is his recommendation to be supported? Why should we attend to poetry at all if nothing can be said about its virtues save only “look!”? Why look at a poem rather than an advertisement, a mirror, or a blade of grass? Everything becomes equally worthy of attention, since nothing can be said that will justify attention to anything.

### The Role of Imagination

Such paradoxes suggest the need for a more extensive theory of the mind than has been so far assumed. We have referred somewhat loosely to the sensory and intellectual components of human experience but have said little about the possible relations and dependencies that exist between them. Perhaps, therefore, the paradoxes result only from our impoverished description of the human mind and are not intrinsic to the subject matter of aesthetic interest.

Many modern philosophers have at this point felt the need to invoke imagination, either as a distinct mental “faculty” (Kant) or as a distinctive mental operation by virtue of which thought and experience may be united. For Empiricist philosophers (such as David Hume, Joseph Addison, Archibald Alison, and Lord Kames), imagination involves a kind of “associative” process, whereby experiences evoke ideas, and so become united with them. For Kant and Hegel, imagination is not associative but constitutive – part of the nature of the experience that expresses it.

Once again it is useful to begin from Kant, who distinguished two uses of the imagination: the first in ordinary thought and perception, the second in aesthetic experience. When I look before me and see a book, my experience, according to Kant, embodies a “synthesis.” It contains two elements: the “intuition” presented to the senses and the “concept” (“book”), contributed by the understanding. The two elements are synthesized by an act of the imagination that constitutes them as a single experience – the experience of seeing a book. Here imagination remains bound by the concepts of the understanding, which is to say that how I see the world depends upon my disposition to form determinate beliefs about it – in this case, the belief that there is a book before me. In aesthetic experience, however, imagination is free from concepts and engages in a kind of free play. This free play of the imagination enables me to bring concepts to bear on an experience that is, in itself, free from concepts. Thus there are two separate ways in which the content of experience is provided: one in ordinary perception, the other in aesthetic experience. In both cases the operative factor, in holding thought and sensation together, is the imagination.

Whether such theories can cast light on the mysterious unity between the intellectual and the sensory that we observe in aesthetic experience remains

doubtful. The argument for saying that there is a single process of imagination involved in all perception, imagery, and remembering seems to consist only in the premise (undoubtedly true) that in these mental processes thought and experience are often inseparable. But to suppose therefore that there is some one “faculty” involved in forging the connection between them is to fail to take seriously the fact that they are inseparable.

Nevertheless, even if we find this general invocation of imagination, as the “synthesizing force” within perception, vacuous or unilluminating, we may yet feel that the imagination has some special role to play in aesthetic experience and that the reference to imagination has some special value in explaining the precise way in which a content and an experience become “fused” (to use George Santayana’s term). Whether or not Kant was right to refer to a free play of imagination in aesthetic experience, there certainly seems to be a peculiarly creative imagination that human beings may exercise and upon which aesthetic experience calls. It is an exercise of creative imagination to see a face in a picture, since that involves seeing in defiance of judgment – seeing what one knows not to be there. It is not in the same sense an imaginative act to see a face in something that one also judges to *be* a face. This creative capacity is what Jean-Paul Sartre is referring to in *L’Imaginaire: Psychologie phénoménologique de l’ima-gination* (1940; “The Imaginary: The Phenomenological Psychology of the Imagination”; Eng. trans., *The Psychology of Imagination*) when he describes imagining as “the positing of an object as a nothingness” – as not being. In memory and perception we take our experience “for real.” In imagination we contribute a content that has no reality beyond our disposition to “see” it, and it is clear that this added content is frequently summoned by art when, for example, we see the face in a picture or hear the emotion in a piece of music.

Recent work in aesthetics, to some extent inspired by the seminal writings of Sartre and Wittgenstein, has devoted considerable attention to the study of creative imagination. The hope has been to provide the extra ingredient in aesthetic experience that bridges the gap between the sensory and the intellectual and at the same time shows the relation between aesthetic experience and the experience of everyday life – an enterprise that is in turn of the first importance for any study that seeks to describe the moral significance of beauty.

Consider, for example, the spectator at Shakespeare's *King Lear*. He sees before him an actor who, by speaking certain lines and making certain gestures, earns his bread. But that is not all that he sees. He also sees a hoary king, cast down by age, pride, and weakness, who rages against the depravity of man. Yet the spectator knows that, in a crucial sense, there is no such king before him. It is intellectual understanding, not psychical distance, that prevents him from stepping onto the stage to offer his assistance. He knows that the scene he enjoys is one that he contributes, albeit under the overwhelming compulsion induced by the actor and his lines. The spectator is being shown something that is outside the normal commerce of theoretical and practical understanding, and he is responding to a scene that bears no spatial, temporal, or causal relation to his own experience. His response is quintessentially aesthetic. For what interest could he have in this scene other than an interest in it for its own sake, for what it is in itself? At the same time, what it is in itself involves what it shows in general. In imaginatively conjuring this scene the spectator draws upon a wealth of experience, which is brought to mind and, as it were, condensed for him into the imaginative perception of the play. (Hence, Aristotle believed poetry is more general than history, since its concreteness is not that of real events, but rather of imaginary

episodes constructed so as to typify human destiny in exemplary representations.)

Such an exercise of the imagination clearly has much to tell us about the nature of aesthetic experience. Whether or not it could found a theory of the “missing link” between sensory enjoyment and intellectual understanding, it at least provides a paradigm of the relation between aesthetic experience and the experience of everyday life. The former is an imaginative reconstruction of the latter, which becomes interesting for its own sake precisely because – however realistic – it is not real.

#### Emotion, Response, and Enjoyment

It is natural to suppose that a spectator’s response to *King Lear* is at least in part emotional, and that emotion plays a crucial role both in the enjoyment of art and in establishing the value of art. Moreover, it is not only art that stirs our emotions in the act of aesthetic attention: the same is or may be true of natural beauty whether that of a face or of a landscape. These things hold our attention partly because they address themselves to our feelings and call forth a response which we value both for itself and for the consolation that we may attain through it. Thus we find an important philosophical tradition according to which the distinctive character of aesthetic experience is to be found in distinctively “aesthetic” emotions.

This tradition has ancient origins. Plato banished the poets from his ideal republic partly because of their capacity to arouse futile and destructive emotions, and in his answer to Plato, Aristotle argued that poetry, in particular tragic poetry, was valuable precisely because of its emotional effect. This idea

enabled Aristotle to pose one of the most puzzling problems in aesthetics – the problem of tragedy – and to offer a solution. How can I willingly offer myself to witness scenes of terror and destruction? And how can I be said to enjoy the result, set store by it, or accord to it a positive value? Aristotle’s answer is brief. He explains that by evoking pity and fear a tragedy also “purges” those emotions, and that is what we enjoy and value:

Tragedy, then, is an imitation of an action that is serious, complete, and of a certain magnitude; in language embellished with each kind of artistic ornament, the several kinds being found in separate parts of the play; in the form of action, not of narrative; through pity and fear effecting the proper purgation of these emotions.

Aristotle implies that this purgation (*katharsis*) is not unpleasant to us precisely because the fictional and formalized nature of the action sets it at a distance from us. We can allow ourselves to feel what we normally shun to feel precisely because no one is really threatened (or at least no one real is threatened).

Attractive though that explanation may seem, it immediately encounters a serious philosophical problem. It is a plausible tenet of philosophical psychology that emotions are founded on beliefs: fear on the belief that one is threatened, pity on the belief that someone is miserable, jealousy on the belief that one has a rival, and so forth. In the nature of things, however, these beliefs do not exist in the theatre. Confronted by fiction, I am relieved precisely of the pressure of belief, and it is this condition that permits the



Aristotelian *katharsis*. How, then, can I be said to experience pity and fear when the beliefs requisite to those very emotions are not present? More generally, how can my responses to the fictions presented by works of art share the structure of my everyday emotions, and how can they impart to those emotions a new meaning, force, or resolution?

Various answers have been proposed to that question. Samuel Taylor Coleridge, for example, argued that our response to drama is characterized by a “willing suspension of disbelief,” and thus involves the very same ingredient of belief that is essential to everyday emotion (*Biographia Literaria*, 1817). Coleridge’s phrase, however, is consciously paradoxical. Belief is characterized precisely by the fact that it lies outside the will: I can command you to imagine something but not to believe it. For this reason, a suspension of disbelief that is achieved “willingly” is at best a highly dubious example of belief. In fact, the description seems to imply, not belief, but rather imagination, thus returning us to our problem of the relation between emotions directed to reality and those directed to merely imaginary scenes.

This is part of a much larger problem – namely, that of the relation between aesthetic and everyday experience. Two extreme positions serve to illustrate this problem. According to one, art and nature appeal primarily to our emotions: they awaken within us feelings of sympathy, or emotional associations, which are both pleasant in themselves and also instructive. We are made familiar with emotional possibilities, and, through this imaginative exercise, our responses to the world become illuminated and refined. This view, which provides an immediate and satisfying theory of the value of aesthetic experience, has been espoused in some form or other by many of the classical British Empiricists (Shaftesbury, Hume, Addison, Lord Kames, Alison, and Burke, to cite only a few). It is also related to the critical theories

of writers such as Coleridge, Matthew Arnold, and F.R. Leavis, whose criticism would make little or no sense without the supposition that works of art have the power to correct and corrupt our emotions.

According to the opposite view, aesthetic interest, because it focusses on an object for its own sake, can involve no interest in “affect.” To be interested in a work of art for the sake of emotion is to be interested in it as a means and, therefore, not aesthetically. In other words, true aesthetic interest is autonomous, standing outside the current of ordinary human feeling – an attitude of pure contemplation or pure “intuition” that isolates its object from the stream of common events and perceives it in its uniqueness, detached, unexplained, and inexplicable. This position has been taken in modern times by Benedetto Croce and, following him, by R.G. Collingwood, whose resolute defense of the autonomy of aesthetic experience was also associated with a theory of the autonomy of art. Art is not only seen as an end in itself but it is an end in itself, in a profound and significant sense that distinguishes art from all its false substitutes (and, in particular, from craft, which for Collingwood is not an end but merely a means).

Between those two poles, a variety of intermediate positions might be adopted. It is clear, in any case, that many questions have been begged by both sides. The aesthetic of sympathy, as Croce called it, has enormous difficulties in describing the emotions that are awakened in aesthetic experience, particularly the emotions that we are supposed to feel in response to such abstract arts as music. With what am I sympathizing when I listen to a string quartet or a symphony? What emotion do I feel? Moreover, the position encounters all the difficulties already noted in forging a link between the imaginary and the real.

The aesthetic of autonomy, as we may call it, encounters complementary difficulties and, in particular, the difficulty of showing why we should value either aesthetic experience itself or the art that is its characteristic object. Moreover, it assumes that whenever I take an emotional interest in something, I am interested in it for the sake of emotion, a false inference that would imply equally that the lover is interested only in his love or the angry man only in his anger. Collingwood thus dismisses “amusement art,” on the spurious ground that to be interested in a work of art for the sake of amusement is to be interested not in the work but only in the amusement that it inspires. That is to say, it is to treat the work as a means to feeling rather than as an end in itself. Such a conclusion is entirely unwarranted. Amusement is, in fact, a species of interest in something for its own sake: I laugh not for the sake of laughter, but for the sake of the joke. While I may be interested in an object for the sake of the emotion that it arouses, the case is peculiar – the case, in fact, of sentimentality, often dismissed by moralists as a spiritual corruption and equally by critics as a corruption of the aims of art.

The difficulties for both views are brought out by a fundamental aesthetic category: that of enjoyment. Whatever the ultimate value of aesthetic experience, we pursue it in the first instance for enjoyment’s sake. Aesthetic experience includes, as its central instance, a certain kind of pleasure. But what kind of pleasure? While our emotions and sympathies are sometimes pleasurable, this is by no means their essential feature; they may equally be painful or neutral. How then does the aesthetic of sympathy explain the pleasure that we take, and must take, in the object of aesthetic experience? And how does the aesthetic of autonomy avoid the conclusion that all such pleasure is a violation of its strict requirement that we should be interested in the aesthetic object for its own sake alone? Neither theory seems to be

equipped, as it stands, either to describe this pleasure or to show its place in the appreciation of art.

### The Work of Art

As the above discussion illustrates, it is impossible to advance far into the theory of aesthetic experience without encountering the specific problems posed by the experience of art. Whether or not we think of art as the central or defining example of the aesthetic object, there is no doubt that it provides the most distinctive illustration both of the elusive nature and the importance of aesthetic interest. With the increasing attention paid to art in a corrupted world where little else is commonly held to be spiritually significant, it is not surprising that the philosophy of art has increasingly begun to displace the philosophy of natural beauty from the central position accorded to the latter by the philosophers and critics of the 18th century. Nor is this shift in emphasis to be regretted; for the existence of art as a major human institution reminds us of the need for a theory that will attribute more to aesthetic experience than enjoyment and that will explain the profundity of the impressions that we receive from beauty – impressions that may provide both meaning and solace to those who experience them. It is thus worth reviewing some of the special problems in the philosophy of art that have most influenced contemporary aesthetics.

## Understanding Art

The use of the concept of understanding in describing the appreciation of art marks out an interesting distinction between art and natural beauty. A person may understand or fail to understand T.S. Eliot's *Four Quartets*, Michelangelo's "David," or Beethoven's *Ninth Symphony*, but he cannot understand or fail to understand the Highlands of Scotland, even when he finds them beautiful or ugly. Understanding seems to be a prerequisite to the full experience of art, and this has suggested to many critics and philosophers that art is not so much an object of sensory experience as an instrument of knowledge. In particular, art seems to have the power both to represent reality and to express emotion, and some argue that it is through appreciating the properties of representation and expression that we recognize the meaning of art. At least, it might be supposed that, if we speak of understanding art, it is because we think of art as having content, something that must be understood by the appropriate audience.

The most popular approach to this concept of understanding is through a theory of art as a form of symbolism. But what is meant by this? Is such symbolism one thing or many? Is it a matter of evocation or convention, of personal response or linguistic rule? And what does art symbolize – ideas, feelings, objects, or states of affairs?

## Representation and Expression in Art

Various theories have been proposed in answer to these questions, the most popular being that the forms of art are similar to language and are to be understood as language is understood, in terms of conventions and semantic

rules. A few examples of contemporary theories that have described art in this way include Ernst Cassirer's philosophy of symbolic forms, Susanne K. Langer's theory of presentational symbols, and the works on semiology and semiotics, largely inspired by the writings of Roland Barthes, that have been fashionable in continental Europe. It seems important to review some of the arguments that have been employed both for and against the overall conception of art that such theories share.

In favor of the view, it is undeniable that many works of art are about the world in somewhat the way that language may be about the world. This is evident in the case of literature (which is itself an instance of natural language). It is no less evident in the case of painting. A portrait stands to its sitter in a relation that is not unlike that which obtains between a description and the thing described. Even if the majority of pictures are of, or about, entirely imaginary people, scenes, and episodes, this is no different from the case of literature, in which language is used to describe purely imaginary subjects. This relation between a work of art and its subject, captured in the word "about," is sometimes called representation – a term that owes its currency in aesthetics to Croce and Collingwood, who used it to draw the familiar contrast between representation and expression.

The concept of expression is variously analyzed. Its principal function in modern aesthetics, however, is to describe those aspects and dimensions of artistic meaning that seem not to fall within the bounds of representation, either because they involve no clear reference to an independent subject matter or because the connection between the subject and the artistic form is too close and inextricable to admit description in the terms appropriate to representation. Therefore, it is widely recognized that abstract art forms – music, abstract painting, architecture – may yet contain meaningful utterances,

and most frequently philosophers and critics use terms such as expression in order to describe these elusive meanings. Music, in particular, is often said to be an expression of emotion and to gain much of its significance from that. Expression in such a case is unlike representation, according to many philosophers, in that it involves no descriptive component. An expression of grief does not describe grief but rather presents it, as it might be presented by a face or a gesture.

Expression must be distinguished from evocation. To say that a piece of music expresses melancholy is not to say that it evokes (arouses) melancholy. To describe a piece of music as expressive of melancholy is to give a reason for listening to it; to describe it as arousing melancholy is to give a reason for avoiding it. (Music that is utterly blank expresses nothing, but it may arouse melancholy.) Expression, where it exists, is integral to the aesthetic character and merit of whatever possesses it. For similar reasons, expression must not be confused with association, in spite of the reliance on the confusion by many 18th-century Empiricists.

The distinction between representation and expression is one of the most important conceptual devices in contemporary philosophy of art. Croce, who introduced it, sought to dismiss representation as aesthetically irrelevant and to elevate expression into the single, true aesthetic function. The first, he argued, is descriptive, or conceptual, concerned with classifying objects according to their common properties, and so done to satisfy our curiosity. The second, by contrast, is intuitive, concerned with presenting its subject matter (an “intuition”) in its immediate concrete reality, so that we see it as it is in itself. In understanding expression, our attitude passes from mere curiosity to that immediate awareness of the concrete particular that is the core of aesthetic experience.

## Symbolism in Art

Later philosophers have been content merely to distinguish representation and expression as different modes of artistic meaning, characterized perhaps by different formal or semantic properties. Nelson Goodman of the United States is one such philosopher. His *Languages of Art* (1968) was the first work of analytical philosophy to produce a distinct and systematic theory of art. Goodman's theory has attracted considerable attention, the more so in that it is an extension of a general philosophical perspective, expounded in works of great rigour and finesse, that embraces the entire realm of logic, metaphysics, and the philosophy of science.

Goodman, like many others, seeks the nature of art in symbolism and the nature of symbolism in a general theory of signs. (This second part of Goodman's aim is what Ferdinand de Saussure called semiology, the general science of signs [*Cours de linguistique générale*, 1916; *Course of General Linguistics*]). The theory derives from the uncompromising Nominalism expounded in Goodman's earlier works, a Nominalism developed under the influence of two other U.S. philosophers, Rudolf Carnap and W.V. Quine, but also showing certain affinities with the later philosophy of Wittgenstein. According to Goodman's general theory of signs, the relation between signs and the world can be described, like any relation, in terms of its formal structure, the objects related, and its genealogy. But, apart from that formal and factual analysis, there is nothing to be said. Words are labels that we attach to things, but the attempt to justify that practice merely repeats it: in using words, it presupposes precisely the justification that it aims to provide.

A corollary of this view is that relations of identical logical structure and identical genealogy between relevantly similar terms are really one and the



same relation. Thus, if we assume that paintings, like words, are signs, then portraits stand to their subjects in the same relation as proper names to the objects denoted by them. (This is the substance of Goodman's proof that representation is a species of denotation.) We should not worry if that leads us to no new understanding of the relation (e.g., if it leads to no procedure for decoding the painted sign), for Goodman believes the search for such procedure is incoherent. The meaning of a sign is simply given, along with the artistic practice that creates it.

Goodman proceeds to generalize his theory of symbolism, using the word reference to express the relation between word and thing. (We might well characterize this relation as labelling.) Denotation is the special case of reference exemplified by proper names and portraits – a case in which a symbol labels one individual. When a single label picks out many things, then we have not a name but a predicate.

Sometimes the process of labelling goes both ways. A color sample is a sign for the color it possesses – say, the color red. It therefore refers to the label red, which in turn refers back to the sample. In this case, the predicate red and the sample mutually label each other. Goodman calls this relation exemplification, and analyzes expression as a special case of it – namely, the case where the exemplification of a predicate proceeds by metaphor. For example, a piece of music may refer to sadness; it may also be metaphorically sad. In this case, Goodman argues, we may speak of the music as expressing sadness.

The economy and elegance of Goodman's theory are matched by its extreme inscrutability. On the surface it seems to provide direct and intelligible answers to all the major problems of art. What is art? A system of

symbols. What is representation? Denotation. What is expression? A kind of reference. What is the value of art? It symbolizes (displays) reality. What is the distinction between art and science? A distinction between symbol systems but not between the matters they display. Yet, at each point we feel at a loss to know what we are learning about art in being told that it is essentially symbolic.

In this respect, Goodman's theory is similar to many semantic theories of art: it proves that expression, for example, describes a symbolic relation only by giving a theory of symbolism that is so general as to include almost every human artifact. It becomes impossible to extract from the result a procedure of interpretation – a way of understanding a work of art in terms of its alleged symbolic function. In particular, we cannot extend to the discussion of art those theories that show how we understand language in terms of its peculiar syntactic and semantic structure, for such theories always seem to rely precisely on what is peculiar to language and what distinguishes language from, say, music, painting, and architecture.

A similar result can be found in an earlier theory upon which Goodman's is to some extent modelled – the one proposed by Langer in her *Philosophy in a New Key* (1942) and *Feeling and Form* (1953). She argues that works of art symbolize states of mind (“feelings”), but that the relation is not to be explained in terms of any rule of reference such as operates in language. Works of art are, Langer says, “presentational symbols” whose relation to their objects is purely morphological. The symbol and its object are related by virtue of the fact that they possess the same “logical form.” It follows that what the symbol expresses cannot be restated in words; words do not present the “logical form” of individuals but rather that of the properties and relations that characterize them. (Here again is the familiar view that art

presents the individuality of its subject matter and is therefore not conceptual or descriptive.) With such a view we can no longer explain why we say that a work of art expresses a feeling and not that the feeling expresses the work; for the relation of expression, explained in these morphological terms, is clearly symmetrical. Moreover, like other semantic theories, Langer's analysis provides no procedure for interpretation, nothing that would give application to the claim that in understanding a work of art we understand it as a symbol.

Notwithstanding these difficulties for semantic theories of art, most philosophers remain convinced that the three categories of representation, expression, and understanding are all-important in making sense of our experience of art. They have become increasingly persuaded, however, with Croce and Collingwood, that the differences between representation and expression are more important than the similarities. In particular, while representation may be secured by semantic rules (as in language itself), there cannot be rules for the production of artistic expression. To think otherwise is to imagine that the difference between a Mozart and a Salieri is merely a difference of skill. Expression occurs in art only where there is expressiveness, and expressiveness is a kind of success to be measured by the response of the audience rather than by the grammar of the work. This response crucially involves understanding, and no theory of expression that is not also a theory of how expression is understood can be persuasive.

## Form

Expression and representation form part of the content of a work of art. Nonetheless, it is not only content that is understood (or misunderstood) by the attentive recipient. There is also form, by which term we may denote all those features of a work of art that compose its unity and individuality as an object of sensory experience. Consider music. In most cases when a listener complains that he does not understand a work of music, he means, not that he has failed to grasp its expressive content, but that the work has failed to cohere for him as a single and satisfying object of experience. He may put the point (somewhat misleadingly) by saying that he has failed to grasp the language or logic of the composition he hears. What matters, however, is that the appreciation of music (as of the other arts) depends upon the perception of certain “unities” and upon feeling the inherent order and reasonableness in a sequence (in this case, a sequence of tones). It is this perception of order that is fundamental to understanding art, whether abstract or representational, and that to many philosophers and critics has seemed more basic than the understanding of content. When Clive Bell wrote of art as “significant form,” he really meant to defend the view, first, that form is the essence of art and, second, that form must be understood and therefore understandable (i.e., significant). Other philosophers have espoused one or another version of formalism, according to which the distinguishing feature of art – the one that determines our interest in it – is form. Part answers part, and each feature aims to bear some cogent relation to the whole. It is such facts as these that compel our aesthetic attention.

The study of form must involve the study of our perception of form. A considerable amount of work on this subject has been inspired by the theories of the Gestalt psychologists Max Wertheimer, Wolfgang Köhler, and Kurt

Koffka, whose semiempirical, semiphilosophical researches into the perception of form and pattern seem to make direct contact with many of the more puzzling features of our experience of art. The influence of the Gestalt psychologists is also apparent in works of visual aesthetics; e.g., Rudolf Arnheim's *Art and Visual Perception* (1954), which explores the significance of such well-known Gestalt phenomena as the figure-ground relationship and the perception of completed wholes for our understanding of pictures.

Fruitful though this emphasis on the "good Gestalt" has been, it cannot claim to have covered in its entirety the immensely complex subject of artistic form. For one thing, the theories and observations of the Gestalt psychologists, while evidently illuminating when applied to music and painting, can be applied to our experience of literature only artificially and inconclusively. Furthermore, it is impossible either to subsume all formal features of music and literature under the idea of a Gestalt or to demonstrate why, when so subsumed, the emotional effect and aesthetic value of form is made intelligible. Too much of aesthetic importance is left unconsidered by the study of the Gestalt, so that formalist critics and philosophers have begun to look elsewhere for an answer to the questions that concern them.

One recurring idea is that the operative feature determining our perception of form is "structure," the underlying, concealed formula according to which a work of art is constructed. This idea has had considerable influence in two areas, music theory and literary criticism, the former through the Austrian music theorist Heinrich Schenker and the latter through the Russian formalists and the structuralist linguists of Prague and Paris. Schenker argued in *Harmonielehre* (1906-35; *Harmony*) that musical form can be understood as generated out of musical "cells," units that are expanded, repeated, and built upon in ways that create a web of significant relationships, including a

background and a foreground of musical movement. Certain structuralist critics, notably Tzvetan Todorov and Roland Barthes, have tried to perceive the unity of works of literature in terms of a similar development of literary units, often described tendentiously as “codes,” but perhaps better understood as themes. These units are successively varied and transposed in ways that make the whole work into a logical derivation from its parts.

Against this approach it has been argued that in neither case does structural analysis succeed in making contact with the real source of artistic unity. This unity lies within the aesthetic experience itself and so cannot be understood as a structural feature of the work of art. Once again the temptation has been to enshrine in a body of rules what lies essentially beyond the reach of rules: a unity of experience that cannot be predicted but only achieved. Structuralist aesthetics has therefore come under increasing criticism, not only for its pedantry but also for its failure to make genuine contact with the works of art to which it is applied.

In general, the study of artistic form remains highly controversial and fraught with obstacles that have yet to be overcome. This area of the theory of art remains difficult and inaccessible equally to the critic and the philosopher, both of whom have therefore tended to turn their attention to less intractable problems.

### The Ontology of Art

One such problem is that of the ontological status of the work of art. Suppose that A has on the desk before him *David Copperfield*. Is *David Copperfield* therefore identical with this book that A can touch and see?

Certainly not, for another copy lies on B's desk, and a single work of art cannot be identical with two distinct physical things. The obvious conclusion is that *David Copperfield*, the novel, is identical with no physical thing. It is not a physical object, any more than is a piece of music, which is clearly distinct from all its performances. Perhaps the same is true of paintings. For could not paintings be, in principle at least, exactly reproduced? And does not that possibility show the painting to be distinct from any particular embodiment in this or that area of painted canvas? With a little stretching, the same thought experiment might be extended to architecture, though the conclusion inevitably becomes increasingly controversial.

The problem of the nature of the work of art is by no means new. Such an argument, however, gives it a pronounced contemporary flavor, so that both Phenomenologists and Analytical philosophers have been much exercised by it, often taking as their starting point the clearly untenable theory of Croce. According to Croce, the work of art does not consist in a physical event or object but rather in a mental "intuition," which is grasped by the audience in the act of aesthetic understanding. The unsatisfactory nature of this theory, sometimes called the "ideal" theory of art, becomes apparent as soon as we ask how we would identify the intuition with which any given work of art is supposedly identical. Clearly, we can identify it only in and through a performance, a book, a score, or a canvas. These objects give us the intuition that cannot exist independently of them. (Otherwise we should have to say that the world contains an uncountable number of great works of art whose only defect is that they have never been transcribed.)

Clearly then, the physical embodiment of the work – in sounds, language, scores, or other inscriptions – is more fundamentally a part of it (of its "essence") than the ideal theory represents it to be. What then is the work

of art, and what is its relation to the objects in which it is embodied? These questions have been discussed by Richard Wollheim in *Art and Its Objects* (1968), and again by Goodman in *Languages of Art*. Wollheim argues that works of art are “types” and their embodiments “tokens.” The distinction here derives from the U.S. philosopher and logician C.S. Peirce, who argued that the letter *a*, for example, is neither identical with any particular token of it (such as the one just written) nor distinct from the class of such tokens. Peirce therefore calls *a* a type (i.e., a formula for producing tokens).

Wollheim’s theory is open to various objections. For example, works of architecture are not, as things stand, tokens of types but physical objects, and to make them into types by endlessly reproducing them would be to destroy their aesthetic character. To identify an object in terms of a process that destroys its character is not in any evident sense to identify it. The theory, moreover, seems to be unable to distinguish a musical performance containing a wrong note from a performance of a new work of music containing precisely that note as part of its type.

Goodman’s theory is more technical and displaces the question of the nature of art in favor of that of the nature of an inscription: Just what is it for a particular set of marks to identify a work of art? Other philosophers have concentrated on the question of identity: What makes this work of art the same as that one? Some argue, for example, that works of art have a distinct criterion of identity, one that reflects the peculiar nature and demands of aesthetic interest. Others dismiss the search for a criterion of identity as both aesthetically insignificant and illusory in itself. Still others, notably the Phenomenologist Roman Ingarden, argue that the work of art exists on several levels, being identical not with physical appearance but with totality of



interpretations that secure the various formal and semantic levels that are contained in it.

Questions that so obviously lend themselves to the procedures of modern philosophy have naturally commanded considerable attention. But whether they are aesthetically significant is disputed, and some philosophers go so far as to dismiss all questions of ontology and identity of art as peripheral to the subject matter of aesthetics. The same could not be said, however, of the question of the value of art, which, while less discussed, is evidently of the first importance.

### The Value of Art

Theories of the value of art are of two kinds, which we may call extrinsic and intrinsic. The first regards art and the appreciation of art as means to some recognized moral good, while the second regards them as valuable not instrumentally but as objects unto themselves. It is characteristic of extrinsic theories to locate the value of art in its effects on the person who appreciates it. Art is held to be a form of education, perhaps an education of the emotions. In this case, it becomes an open question whether there might not be some more effective means to the same result. Alternatively, one may attribute a negative value to art, as Plato did in his *Republic*, arguing that art has a corrupting or diseducative effect on those exposed to it.

The extrinsic approach, adopted in modern times by Leo Tolstoy in *Chto takoye iskusstvo?* (1896; *What Is Art?*), has seldom seemed wholly satisfactory. Philosophers have constantly sought for a value in aesthetic experience that is unique to it and that, therefore, could not be obtained from

any other source. The extreme version of this intrinsic approach is that associated with Walter Pater, Oscar Wilde, and the French Symbolists, and summarized in the slogan “art for art’s sake.” Such thinkers and writers believe that art is not only an end in itself but also a sufficient justification of itself. They also hold that in order to understand art as it should be understood, it is necessary to put aside all interests other than an interest in the work itself.

Between those two extreme views there lies, once again, a host of intermediate positions. We believe, for example, that works of art must be appreciated for their own sake, but that, in the act of appreciation, we gain from them something that is of independent value. Thus a joke is laughed at for its own sake, even though there is an independent value in laughter, which lightens our lives by taking us momentarily outside ourselves. Why should not something similar be said of works of art, many of which aspire to be amusing in just the way that good jokes are?

The analogy with laughter – which, in some views, is itself a species of aesthetic interest – introduces a concept without which there can be no serious discussion of the value of art: the concept of taste. If I am amused it is for a reason, and this reason lies in the object of my amusement. We thus begin to think in terms of a distinction between good and bad reasons for laughter. Amusement at the wrong things may seem to us to show corruption of mind, cruelty, or bad taste; and when it does so, we speak of the object as not truly amusing, and feel that we have reason on our side.

Similarly, we regard some works of art as worthy of our attention and others as not. In articulating this judgment, we use all of the diverse and confusing vocabulary of moral appraisal; works of art, like people, are condemned for their sentimentality, coarseness, vulgarity, cruelty, or self-

indulgence, and equally praised for their warmth, compassion, nobility, sensitivity, and truthfulness. (The same may apply to the object of natural beauty.) Clearly, if aesthetic interest has a positive value, it is only when motivated by good taste; it is only interest in appropriate objects that can be said to be good for us. All discussion of the value of art tends, therefore, to turn from the outset in the direction of criticism: Can there be genuine critical evaluation of art, a genuine distinction between that which deserves our attention and that which does not? (And, once again, the question may be extended to objects of natural beauty.)

#### Taste, Criticism, and Judgment

All aesthetic experience, whether of art or nature, seems to be informed by and dependent upon an exercise of taste. We choose the object of aesthetic experience, and often do so carefully and deliberately. Moreover, we are judged by our choices, not only of works of art but also of color schemes, dresses, and garden ornaments, just as we are judged by our manners and our sense of humour. By his taste an individual betrays himself: not merely a small part of himself but the whole. Yet, the relation between taste and morality is by no means straightforward. There seems, in fact, to be a puzzling question as to the precise nature of the relation between aesthetic and moral values, and between the good taste that discerns the first and the good conduct that responds to the second. If there is no relation, the enormous amount of human energy that is invested in art and criticism may begin to seem rather pointless. If the relation is too close, however, the result is an intolerable moral elitism that makes refinement the sole standard of acceptable conduct, as for example, the elitism depicted by Villiers de L'Isle-Adam in *Axel*, by

J.K. Huysmans in *À Rebours*, and by Oscar Wilde in *The Picture of Dorian Gray*. The aesthete is one who puts aesthetic values above all others and who seeks for a morality that conforms to them. But like his opposite, the philistine, he fails to see that the relation between the aesthetic and the moral is not one of priority; each informs and is informed by the other, without taking precedence and without dictating the choice that belongs within the other's sphere.

Contemporary aesthetics has been less disposed to discuss the idea of taste than that of criticism. But clearly, the two ideas are so closely related that anything said about the one has a direct bearing on the other. In both cases, the approach has been the first of those outlined at the beginning of this article: the approach that starts with a study of the concepts and modes of argument employed in discussing beauty and tries to grasp the distinctive problems of aesthetics through a study of the logical and ideological puzzles that these concepts and arguments arouse.

Philosophers often distinguish between two kinds of critical discussion – the interpretative and the evaluative – and two classes of concepts corresponding to them. In describing an object of natural beauty or a work of art, we may use a host of so-called aesthetic terms, terms that seem to have a particular role when used in this context and that articulate the aesthetic impression which it is the first task of criticism to convey. Among such terms we may notice affective terms – moving, frightening, disturbing; terms denoting emotional qualities – sad, lively, mournful, wistful; terms denoting the expressive or representational content of a work of art, its formal features, and its overall artistic genre – comic, tragic, ironic. Some of these terms can be applied meaningfully only to works of art; others may be applied to the whole of nature in order to articulate an aesthetic experience. The examination

of their logic has had an increasingly important role in analytical aesthetics. Frank N. Sibley, for example, has argued that such terms are used in aesthetic judgment in a peculiar way, without conditions (i.e., without a reasoned basis), and in order to describe aesthetic properties that are discernible only by the exercise of taste. This sophisticated reminder of Kant's theory that aesthetic judgment is free from concepts has been criticized as creating too great a gap between the language of criticism and the language of everyday life. But it is of considerable interest in itself in attempting to revive a conception of taste that was highly influential in 18th-century aesthetics. As noted above, taste is, according to this conception, a faculty not of evaluation but of perception.

In aesthetics, however, evaluative judgments are inescapable. Theories avoiding the implication that taste is a form of discrimination, which naturally ranks its objects according to their merit, are peculiarly unsatisfying, not the least because they have so little bearing on the practice of criticism or the reasons that lead us to assign such overwhelming importance to art.

### Concepts Used in Aesthetic Evaluation

What then of the concepts employed in aesthetic evaluation? Burke introduced a famous distinction between two kinds of aesthetic judgment corresponding to two orders of aesthetic experience: the judgment of the beautiful and that of the sublime. The judgment of beauty has its origin in our social feelings, particularly in our feelings toward the other sex, and in our hope for a consolation through love and desire. The judgment of the sublime has its origin in our feelings toward nature, and in our intimation of our

ultimate solitude and fragility in a world that is not of our own devising and that remains resistant to our demands. In Burke's words,

Whatever is fitted in any sort to excite the ideas of pain, and danger, that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling.

Burke's distinction emerges as part of a natural philosophy of beauty: an attempt to give the origins of our sentiments rather than to explain the logic of the judgments that convey them. In Kant, the distinction is recast as a distinction between two categories of aesthetic experience and two separate values that attach to it. Sometimes when we sense the harmony between nature and our faculties, we are impressed by the purposiveness and intelligibility of everything that surrounds us. This is the sentiment of beauty. At other times, overcome by the infinite greatness of the world, we renounce the attempt to understand and control it. This is the sentiment of the sublime. In confronting the sublime, the mind is "incited to abandon sensibility" – to reach over to that transcendental view of things that shows to us the immanence of a supersensible realm and our destiny as subjects of a divine order. Thus, from the presentiment of the sublime, Kant extracts the ultimate ground of his faith in a Supreme Being, and this is for him the most important value that aesthetic experience can convey.

The distinction between the sublime and the beautiful is now less frequently made than at the time of Burke and Kant. Nevertheless, it is undeniable that aesthetic judgment exists in many contrasting forms, of both

praise and condemnation. A philosopher who sought to account for the idea of beauty without attending to those of the elegant, the refined, the great, the delicate, the intelligent, the profound, and the lovely would be unlikely to provide us with much understanding of the nature and function of criticism. There may be, however, something that these judgments have in common which might be used in order to cast light on all of them. Kant certainly would have thought so, since he argued that all such judgments share the distinctive features of taste revealed in his antinomy. In other words, they are all grounded in an immediate (“subjective”) experience, while at the same time being “universal” – i.e., held forth as valid for all rational beings irrespective of their particular interests and desires. Thus, the critic tries to justify his aesthetic judgments, seeking reasons that will persuade others to see what he sees as elegant or beautiful in a similar light.

Could there be a genuine critical procedure devoted to that enterprise of providing objective grounds for subjective preferences? This question is integrally connected to another that we have already discussed: the question of the value of aesthetic experience. If aesthetic experience is valueless, or if it has no more value than attaches to idle enjoyment, then it becomes far less plausible to insist on the existence of objective evaluation than if aesthetic experience has the kind of importance attributed to it by Kant.

Modern considerations of this exceedingly difficult question tend to concentrate on the criticism of art and on the role of the critic of art. What is a critic doing when he discusses a work of art, what does he look for, and with what purpose? It might be said that a critic should first of all study the artist’s intention, since this will show the real meaning of his work, the real content that he is trying to communicate. The U.S. critics W.K. Wimsatt and Monroe C. Beardsley, however, argue that there is a fallacy (the so-called intentional

fallacy) involved in this approach. What is to be interpreted is the work of art itself, not the intentions of the artist, which are hidden from us and no subject for our concern. If judgment is to be aesthetic, it must concern itself with the given object, and the meanings that we attribute to the object are those that we see in it, whatever the artist intended.

The existence of an intentional fallacy has been doubted. Some argue, for example, that Wimsatt and Beardsley make too sharp a distinction between an intention and the act that expresses it, assuming the intention to be a kind of private mental episode forever hidden from an observer rather than a revealed order in the work itself. But when a critic refers to the artistic intention, it is not clear whether he means anything more than the general purposiveness of the work of art, which can be interpreted by a critic without supposing there to be some intention beyond that of producing the precise work before him. (Indeed, in Kant's view, there can be purposiveness without purpose, and this phenomenon provides the central object of aesthetic interest whether in aesthetic interest whether in art or in nature.) The dispute here is tortuous and obscure. Nevertheless, the move away from intentionalism, as it is called, has been regarded as imperative by most modern critics, who tend to see the role of criticism in either one of two ways: (1) criticism is devoted to the study and interpretation of the aesthetic object rather than of the artist or the recipient; and (2) criticism is devoted to the articulation of a response to the work of art and to the justification of a particular way of seeing it.

Underlying both these conceptions is the fashionable preoccupation with art as the principal object of critical judgment. Nevertheless, in suggesting that the choice which lies before the critic is between the aesthetic object and the experience that it arouses, the two views ensure that the artist is kept hidden. As a consequence, it is not difficult to adapt them to a wider view of aesthetic



judgment and aesthetic experience – to a view that makes room for natural beauty and for the aesthetics of everyday life, as it is manifested in dress, manners, decoration, and the other useful arts.

It might be thought that only the first of the two conceptions can give rise to an objective critical procedure, since it alone requires that criticism focus on an object whose existence and nature is independent of the critic. The most important contemporary defense of an objective criticism, that of the British literary critic F.R. Leavis, has relied heavily on the second idea, however. In a celebrated controversy with his U.S. counterpart, René Wellek, Leavis argued that it is precisely because criticism is devoted to the individual response that it may achieve objectivity. Although there may be objectivity in the scientific explanation of the aesthetic object – i.e., in the classification and description of its typology, structure, and semiotic status – this is not, according to Leavis, the kind of objectivity that matters, for it will never lead to a value judgment and will therefore never amount to an objective criticism. Value judgments arise out of, and are validated by, the direct confrontation in experience between the critical intelligence and the aesthetic object, the first being informed by a moral awareness that provides the only possible ground for objective evaluation.

If criticism were confined to the study of nature, it would look very peculiar. It is only because of the development of artistic and decorative traditions that the habit of aesthetic judgment becomes established. Accordingly, contemporary attempts to provide a defense of aesthetic judgment concentrate almost exclusively on the criticism of art, and endeavor to find principles whereby the separate works of art may be ordered according to their merit, or at least characterized in evaluative terms. Leavis' "objective" criticism is expressly confined to the evaluation of literary works taken from a

single tradition. The reason for this narrowness can be put paradoxically as follows: Criticism can be objective only when it is based in subjectivity. Criticism is the justification of a response, and such justification requires a frame of reference that both the critic and his reader can readily recognize. The successful communication and justification of a response are possible only by reference to the canon of works accepted within a common culture. The canonical works – what Matthew Arnold called the touchstones of criticism – provide the context of relevant comparisons, without which no amount of detailed analysis could convey the quality of the individual work. Critical reasoning is an attempt to place works of art in relation to one another, so that the perceived greatness of the one will provide the standard of measurement for the other. At the same time, the individual quality of feeling in each work must be elicited and discussed exactly as we might discuss the quality of feeling in everyday life, praising it for its intensity, exactness, and generosity, and criticizing it for its sentimentality, obscurity, or lack of seriousness. All of the moral categories that we apply to human feeling and character we may therefore apply equally to art, and the basis of an objective criticism will be no different from the basis (whatever it might be) for an objective morality. The value of art, on this account, resides partly in the fact that it gives exemplary expression to human feeling and character, and so enables us to measure our own lives and aspirations against their imaginary counterparts.

These ideas are vague and have been frequently criticized for their moralistic overtones as well as for the seeming narrowness of their application. Even if they apply to the criticism of literature, what do we say about the criticism of music, of architecture, of dress and decor, of natural beauty? In the nonliterary arts much criticism is directed first to form, style,

and workmanship, and only secondly to the moral content of the works under consideration. There are exceptions to this rule, and once again the principal exception is English – namely, John Ruskin’s profoundly moralized criticism of architecture. Nevertheless, the extreme difficulty experienced in extending the Leavisite procedures of practical criticism (in which the reader’s response becomes the principal focus of critical attention) to the nonliterary arts has given sustenance to the view that this “moralized” criticism is really only one kind of criticism and not necessarily the most widely applicable or the most important. If such is the case, it cannot really claim to have discovered a basis for the objective exercise of taste.

#### The Development of Western Aesthetics

#### The Contributions of the Ancient Greeks

The two greatest Greek philosophers, Plato and Aristotle, shared a sense of the importance of aesthetics, and both regarded music, poetry, architecture, and drama as fundamental institutions within the body politic. Plato notoriously recommends the banning of poets and painters from his ideal republic and in the course of his argument provides an extended theory of imitation (*mimesis*), along with spurious reasons for thinking that imitation derogates both from the laws of morality and from the rational cognition of the world. Much of Aristotle’s extended and diverse reply to Plato is concerned with rehabilitating imitation as the foundation of moral education (*Ethica Nicomachea*), as the origin of a necessary *katharsis* (*Poetica*), and as the instrument – through music, dance, and poetry – of character formation (*Politica*).

Plato's more mystical writings, notably the *Timaeus*, contain hints of another approach to aesthetics, one based on the Pythagorean theory of the cosmos that exerted a decisive influence on the Neoplatonists. Through the writings of St. Augustine, Boethius, and Macrobius, the Pythagorean cosmology and its associated aesthetic of harmony were passed on to the thinkers of the Middle Ages. The Aristotelian theory of imitation and the concern with the expressive and emotionally educative aspect of aesthetic experience were not truly influential until the 17th century. At that time much attention was also paid to another classical work, the Hellenistic treatise on the sublime ascribed to Longinus, which is perhaps the most interesting and extended piece of antique literary criticism to have been passed on to the modern world.

### Medieval Aesthetics

St. Thomas Aquinas devoted certain passages of his *Summa Theologiae* (c. 1266-73) to the study of beauty. To his thinking, man's interest in beauty is of sensuous origin, but it is the prerogative of those senses that are capable of "contemplation" – namely, the eye and the ear. Aquinas defines beauty in Aristotelian terms as that which pleases solely in the contemplation of it and recognizes three prerequisites of beauty: perfection, appropriate proportion, and clarity. Aquinas' position typifies the approach to aesthetics adopted by the Scholastics. More widely diffused among medieval thinkers was the Neoplatonist theory, in which beauty is seen as a kind of divine order conforming to mathematical laws: the laws of number, which are also the laws of harmony. Music, poetry, and architecture all exhibit the same conformity to a cosmic order, and, in experiencing their beauty, we are really experiencing

the same order in ourselves and resonating to it as one string to another. This theory, expounded in treatises on music by St. Augustine and Boethius, is consciously invoked by Dante in his *Convivio* (c. 1304-07; *The Banquet*). In this piece, generally considered one of the first sustained works of literary criticism in the modern manner, the poet analyzes the four levels of meaning contained in his own poems.

The Neoplatonist emphasis on number and harmony dominated aesthetics during the early Renaissance as well and was reaffirmed by Leon Alberti in his great treatise on architecture, *De Re Aedificatoria* (1452; *Ten Books on Architecture*). Alberti also advanced a definition of beauty, which he called *concinntas*, taking his terminology from Cicero. Beauty is for Alberti such an order and arrangement of the parts of an object that nothing can be altered except for the worse. This kind of definition can hardly stand alone as a basis for aesthetics, for what does the word worse mean? The obvious answer, “less beautiful,” at once reduces the definition to circularity.

### The Origins of Modern Aesthetics

Francis Bacon wrote essays on beauty and deformity, but he confined his remarks to the human figure. René Descartes produced a treatise on music, although it contains little that would be recognized as aesthetics in the modern sense. During the first decades of modern philosophy, aesthetics flourished, not in the works of the great philosophers, but in the writings of such minor figures as Baltasar Gracián, Jean de La Bruyère (who began the study of taste that was to dominate aesthetics for a century), and Georges-Louis Leclerc, comte de Buffon.

It was not until the end of the 17th century that the distinctive concerns of modern aesthetics were established. At that time, taste, imagination, natural beauty, and imitation came to be recognized as the central topics in aesthetics. In Britain the principal influences were the 3rd Earl of Shaftesbury and his disciples Francis Hutcheson and Joseph Addison. Shaftesbury, a follower of the political and educational philosopher John Locke, did more than any of his contemporaries to establish ethics and aesthetics as central areas of philosophical inquiry. As a naturalist, he believed that the fundamental principles of morals and taste could be established by due attention to human nature, our sentiments being so ordered that certain things naturally please us and are naturally conducive to our good (*Characteristiks of Men, Manners, Opinions, Times*, 1711). Taste is a kind of balanced discernment, whereby a person recognizes that which is congenial to his sentiments and therefore an object of pleasurable contemplation. Following Locke, Shaftesbury laid much emphasis on the association of ideas as a fundamental component in aesthetic experience and the crucial bridge from the sphere of contemplation to the sphere of action. Addison adopted this position in a series of influential essays, “The Pleasures of the Imagination” in *The Spectator* (1712). He defended the theory that imaginative association is the fundamental component in our experience of art, architecture, and nature, and is the true explanation of their value to us.

Francis Hutcheson was perhaps the first to place the problem of aesthetic judgment among the central questions of epistemology: How can we know that something is beautiful? What guides our judgment and what validates it? His answer was decidedly Empiricist in tone: aesthetic judgments are perceptual and take their authority from a sense that is common to all who make them. In *An Inquiry into the Original of our Ideas of Beauty and Virtue*

(1725), Hutcheson explained: “The origin of our perceptions of beauty and harmony is justly called a ‘sense’ because it involves no intellectual element, no reflection on principles and causes.”

### The Significance of Baumgarten’s Work

Such a statement would have been vigorously repudiated by Hutcheson’s contemporary Alexander Baumgarten, who, in his aforementioned *Reflections on Poetry*, introduced the term aesthetic in its distinctively modern sense. Baumgarten was a pupil of Christian Wolff, the Rationalist philosopher who had created the orthodox philosophy of the German Enlightenment by building the metaphysical ideas of Gottfried Wilhelm Leibniz into a system. He was thus heir to a tradition that dismissed the senses and the imagination as incapable of providing a genuine cognition of their objects and standing always to be corrected (and replaced) by rational reflection. Baumgarten, however, argued that poetry is surely cognitive: it provides insight into the world of a kind that could be conveyed in no other way. At the same time, poetic insights are perceptual (“aesthetic”) and hence imbued with the distinctive character of sensory and imaginative experience. According to Baumgarten, the ideas conveyed by poetry are “clear and confused,” as opposed to the “clear and distinct” ideas of reason in the sense that they had been described by Descartes and the 17th-century Rationalists. Baumgarten held that the aesthetic value of a poem resides in the relative preponderance of clarity over confusion. Accordingly, his theory of the value of art was ultimately cognitive.

It was some decades before Baumgarten's coinage became philosophical currency. But there is no doubt that his treatise, for all its pedantry and outmoded philosophical method, deserves its reputation as the founding work of modern aesthetics.

### Major Concerns of 18th-Century Aesthetics

The development of aesthetics between the work of Baumgarten and that of Immanuel Kant, who had been influenced by Baumgarten's writings, was complex and diverse, drawing inspiration from virtually every realm of human inquiry. Yet, throughout this period certain topics repeatedly received focal attention in discussions pertaining to aesthetic questions.

One such topic was the faculty of taste, the analysis of which remained the common point among German, French, and English writers. Taste was seen either as a sense (Hutcheson), as a peculiar kind of emotionally inspired discrimination (Hume), or as a part of refined good manners (Voltaire). In an important essay entitled "Of the Standard of Taste" (in *Four Dissertations*, 1757), Hume, following Voltaire in the *Encyclopédie*, raised the question of the basis of aesthetic judgment and argued that "it is natural for us to seek a standard of taste; a rule by which the various sentiments of men may be reconciled; at least, a decision afforded, confirming one sentiment, and condemning another." But where is this standard of taste to be found? Hume recommends an ideal of the man of taste, whose discriminations are unclouded by an emotional distemper and informed by a "delicacy of imagination... requisite to convey a sensibility of... finer emotions." For, Hume argues, there is a great resemblance between "mental" and "bodily"



taste – between the taste exercised in aesthetic discrimination and that exercised in the appreciation of food and drink, which can equally be deformed by some abnormal condition of the subject. Hume proceeded to lay down various procedures for the education of taste and for the proper conduct of critical judgment. His discussion, notwithstanding its sceptical undercurrent, has proved lastingly influential on the English schools of criticism, as well as on the preferred Anglo-Saxon approach to the questions of aesthetics.

A second major concern of 18th-century writers was the role of imagination. Addison's essays were seminal, but discussion of imagination remained largely confined to the associative theories of Locke and his followers until Hume gave to the imagination a fundamental role in the generation of commonsense beliefs. Kant attempted to describe the imagination as a distinctive faculty, active in the generation of scientific judgment as well as aesthetic pleasure. Between them, Hume and Kant laid the ground for the Romantic writers on art: Johann Gottfried von Herder, Friedrich Schiller, Friedrich Schelling, and Novalis (pseudonym of Friedrich Leopold, Freiherr von Hardenberg) in Germany, and Samuel Taylor Coleridge and William Wordsworth in England. For such writers, imagination was to be the distinctive feature both of aesthetic activity and of all true insight into the human condition. Meanwhile, Lord Kames and Archibald Alison had each provided full accounts of the role of association in the formation and justification of critical judgment. Alison, in particular, recognized the inadequacies of the traditional Empiricist approach to imaginative association and provided a theory as to how the feelings aroused by a work of art or a scene of natural beauty may become part of its appearance – qualities of the

object as much as of the subject (*Essays on the Nature and Principles of Taste* [1790]).

The concept of imitation, introduced into the discussion of art by Plato and Aristotle, was fundamental to the 18th-century philosophy of art. Imitation is a vague term, frequently used to cover both representation and expression in the modern sense. The thesis that imitation is the common and distinguishing feature of the arts was put forward by James Harris in *Three Treatises* (1744) and subsequently made famous by Charles Batteux in a book entitled *Les Beaux Arts réduits à un même principe* (1746; “The Fine Arts Reduced to a Single Principle”). This diffuse and ill-argued work contains the first modern attempt to give a systematic theory of art and aesthetic judgment that will show the unity of the phenomena and their common importance. “The laws of taste,” Batteux argued, “have nothing but the imitation of beautiful nature as their object”; from which it follows that the arts, which are addressed to taste, must imitate nature. The distinction between the fine and useful arts (recast by Collingwood as the distinction between art and craft) stems from Batteux.

Still another characteristic of 18th-century aesthetics was the concern with the distinction between the sublime and the beautiful. Burke’s famous work, *On the Sublime and Beautiful*, has already been discussed. Its influence was felt throughout late 18th-century aesthetics. For example, it inspired one of Kant’s first publications, an essay on the sublime. Treatises on beauty were common, one of the most famous being *The Analysis of Beauty* (1753) by the painter William Hogarth, which introduces the theory that beauty is achieved through the “serpentine line.”

The view that art is expression emerged during the 1700s. Rousseau put forth the theory of the arts as forms of emotional expression in an essay dealing with the origin of languages. This theory, regarded as providing the best possible explanation of the power of music, was widely adopted. Treatises on musical expression proliferated during the late 18th century. One illustrative example of such writings is James Beattie's *Essay on Poetry and Music as They Affect the Mind* (1776), in which the author rejects the view of music as a representational (imitative) art form and argues that expression is the true source of musical excellence. Another example is provided by Denis Diderot in his didactic novel *Le Neveu de Rameau* (1761-74; *Rameau's Nephew and Other Works*). The theory of expression was inherited by the German Romantics, especially by Schelling, Schiller, and Herder. It was, furthermore, developed in a novel direction by the Italian philosopher Giambattista Vico in his *Scienza nuova* (1725-44; *New Science*). Vico integrated art into a comprehensive theory of the development and decline of civilization. According to him, the cyclical movement of culture is achieved partly by a process of successive expression, through language and art, of the "myths" that give insight into surrounding social conditions.

#### Kant, Schiller, and Hegel

As previously noted, Kant's *Kritik der Urteilskraft* introduced the first full account of aesthetic experience as a distinct exercise of rational mentality. The principal ingredients of Kant's work are the following: the antinomy of taste, the emphasis on the free play of the imagination, the theory of aesthetic experience as both free from concepts and disinterested, the view that the central object of aesthetic interest is not art but nature, and the description of

the moral and spiritual significance of aesthetic experience, which opens to us a transcendental point of view of the world of nature and enables us to see the world as purposive, but without purpose. In that perception, observes Kant, lies the deepest intimation of our nature and of our ultimate relation to a “supersensible” realm.

Schiller’s *Briefe über die ästhetische Erziehung des Menschen*, inspired by Kant, develops further the theory of the disinterested character of the aesthetic. Schiller argues that through this disinterested quality aesthetic experience becomes the true vehicle of moral and political education, providing man both with the self-identity that is his fulfillment and with the institutions that enable him to flourish: “What is man before beauty cajoles from him a delight in things for their own sake, or the serenity of form tempers the savagery of life? A monotonous round of ends, a constant vacillation of judgment; self-seeking, and yet without a self; lawless, yet without freedom; a slave, and yet to no rule.”

Schiller’s *Briefe* exerted a profound influence on Hegel’s philosophy in general and on his *Vorlesungen über die Aesthetik* in particular. In discussions of remarkable range and imaginative power, Hegel introduces the distinctively modern conception of art as a request for self-realization, an evolving discovery of forms that give sensuous embodiment to the spirit by articulating in concrete form its inner tensions and resolutions. For Hegel, the arts are arranged in both historical and intellectual sequence, from architecture (in which *Geist* [“spirit”] is only half articulate and given purely symbolic expression), through sculpture and painting, to music and thence to poetry, which is the true art of the Romantics. Finally, all art is destined to be superseded by philosophy, in which the spirit achieves final articulation as Idea. The stages of art were identified by Hegel with various stages of

historical development. In each art form a particular *Zeitgeist* (i.e., spirit of the time) finds expression, and the necessary transition from one art form to its successor is part of a larger historical transformation in which all civilization is engaged.

The incidental discussions of Hegel's *Vorlesungen* introduce most of the themes of contemporary philosophy of art, though in the peculiar language of Hegelian Idealism. Nineteenth-century Idealist aesthetics can reasonably be described as a series of footnotes to Hegel, who was, however, less original than he pretended. Many of the individual thoughts and theories in his lectures on aesthetics were taken from the contemporary literature of German Romanticism (in particular, the writings of Herder, Jean Paul [pseudonym of Johann Paul Friedrich Richter] and Novalis) and from the works of German critics and art historians (notably G.E. Lessing and Johann Winckelmann) who had forged the link between modern conceptions of art and the art of antiquity. The influence of Hegel was, therefore, the influence of German Romanticism as a whole, and it is not surprising that the few who escaped it lost their audience in doing so.

#### Post-Hegelian Aesthetics

Little of 19th-century aesthetics after Hegel has proved of lasting interest. Perhaps the most important exception is the controversial literature surrounding Richard Wagner, particularly the attack on the expressive theory of music launched by Wagner's critic Eduard Hanslick in his *Vom musikalisch-Schönen* (1854; *On the Beautiful in Music*). With this work modern musical aesthetics was born, and all the assumptions made by Batteux

and Hegel concerning the unity (or unity in diversity) of the arts were thrown in doubt.

The most impressive work on aesthetics of the late 1800s was George Santayana's *The Sense of Beauty* (1896), which shows a welcome move away from the 19th-century obsession with art toward more fundamental issues in the philosophy of mind. Santayana argues against Kant's theory of the disinterested and universal quality of aesthetic interest, and defends the view that pleasure is the central aesthetic category, beauty being "pleasure regarded as the quality of a thing." All human functions and experiences may contribute to the sense of beauty, which has two broad categories of object: form and expression. In his theory of expression Santayana again takes up the problem raised by the theory of the association of ideas, and argues that in aesthetic pleasure the associative process achieves a kind of fusion between the response aroused and the object which arouses it, and that this is the fundamental experience of expression.

### Expressionism

After Kant and Hegel, the most important influence on modern aesthetics has been Croce. His oft-cited *Estetica come scienza dell'espressione e linguistica generale* (1902; *Aesthetic as Science of Expression and General Linguistics*, or *Aesthetic*) presents, in a rather novel idiom, some of the important insights underlying the theories of his predecessors. In this work, Croce distinguishes concept from intuition: the latter is a kind of acquaintance with the individuality of an object, while the former is an instrument of classification. Art is to be understood first as expression and

second as intuition. The distinction between representation and expression is ultimately identical with that between concept and intuition. The peculiarities of aesthetic interest are really peculiarities of intuition: this is what explains the problem of form and content, and what gives the meaning of the idea that the object of aesthetic interest is interesting for its own sake and not as a means to an end.

Croce conceived his expressionism as providing the philosophical justification for the artistic revolutions of the 19th century and, in particular, for the Impressionist style of painting, in which representation gives way to the attempt to convey experience directly onto the canvas. His extreme view of the autonomy of art led him to dismiss all attempts to describe art as a form of representation or to establish direct connections between the content of art and the content of scientific theories. Croce's disciple R.G. Collingwood (*Principles of Art*, 1938) was similarly dismissive of representation and similarly concerned with presenting a theory of art that would justify the revolutionary practice of his contemporaries (in this case, the post-Symbolist poetry of T.S. Eliot's *The Waste Land*). As pointed out earlier, Collingwood distinguishes craft, which is a means to an end, from art, which is an end in itself. But since art is also, for Collingwood, expression, expression too must be an end in itself. It cannot be construed as the giving of form to independently identifiable states of mind. The feeling must reside in the form itself and be obtainable exclusively in that form. If it were otherwise, art would be simply another kind of craft – the craft of giving expression to preexisting and independently identifiable states of mind. Therefore, like Croce, Collingwood opposes expression in art to description: expression gives us the particularity and not the generality of states of mind.

Collingwood sets his aesthetics within the context of a theory of the imagination, in which he shows the influence of the British Empiricists as well as of the Idealist metaphysicians who had influenced Croce. A similar attempt to unite the theory of art with a philosophy of the imagination had been made by the French philosopher Alain in his *Système des beaux-arts* (1920, revised 1926; “System of the Fine Arts”), a work that is distinguished by its detailed attention to dress, fashion, manners, and the useful arts, and by its idea of the artist as *artisan d’abord*. Along with John Dewey’s *Art As Experience* (1934), in which aesthetic experience is presented as integral to the organic completion of human nature, these works provide the culminating expression of a now defunct view of the subject as central to the understanding not of art alone but of the human condition as well.

### Marxist Aesthetics

Many attempts have been made to develop a specifically Marxist aesthetics, one that would incorporate the Marxian theory of history and class consciousness and the critique of bourgeois ideology, so as to generate principles of analysis and evaluation and show the place of art in the theory and practice of revolution. William Morris in England and Georgy V. Plekhanov in Russia both attempted to unite Marx’s social criticism with a conception of the nature of artistic labour. Plekhanov’s *Iskusstvo i obshchestvennaya zhizn* (1912; *Art and Social Life*) is a kind of synthesis of early Marxist thought and attempts to recast the practices of art and criticism in a revolutionary mold. The ideology of “art for art’s sake,” Plekhanov argues, develops only in conditions of social decline when artist and recipient are in “hopeless disaccord with the social environment in which they live.”



Drawing on Kant and Schiller, Plekhanov presents a theory of the origins of art in play; play, however, must not be understood in isolation. It is indissolubly linked to labour, of which it is the complementary opposite. An art of play will be the “free” art of the revolution, of mankind returned to social harmony, but only because play and labour will then be reunited and transcended. In place of their opposition will be a harmonious whole in which art is continuous with labour.

The aesthetic theories of the Russian Revolution owe something to Plekhanov; something to the school of Formalist criticism, typified by the proto-Structuralist M. Bakhtin; and something to the anti-aesthetic propaganda of the Russian Constructivists, who believed in an art expressive of man’s dominion over raw materials – an art that would be destructive of all existing patterns of subordination. The official approach of the Soviets to art, however, was typified, first, by the persecution of all those who expressed adherence to those theories, and, second, by the adoption under Stalin of Socialist Realism (the view that art is dedicated to the “realistic” representation of proletarian values and proletarian life) as the sole legitimate basis for artistic practice.

Subsequent Marxist thinking about art was largely influenced by two major central European thinkers: Walter Benjamin and György Lukács. Both were exponents of Marxist humanism who saw the important contribution of Marxian theory to aesthetics in the analysis of the condition of labour and in the critique of the alienated and “reified” consciousness of man under capitalism. Benjamin’s collection of essays *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* (1936; *The Work of Art in the Age of Mechanical Reproduction*) attempts to describe the changed experience of art in the modern world and sees the rise of Fascism and mass society as the

culmination of a process of debasement, whereby art ceases to be a means of instruction and becomes instead a mere gratification, a matter of taste alone. “Communism responds by politicizing art” – that is, by making art into the instrument by which the false consciousness of the mass man is to be overthrown.

Lukács developed a multifaceted approach to literary criticism in which the historical condition of society and the reality of class consciousness are singled out as the ideological agenda of works of literature and the major source of their appeal. This position is set forth in such works as *Die Theorie des Romans* (1920; *The Theory of the Novel* ). Neither Lukács nor Benjamin produced a coherent aesthetics as defined in this article, although each was immensely influential on the practice of modern literary criticism whether Marxist or not in its ultimate inspiration.

## Eastern Aesthetics

### India

The disparagement of the sensory realm as mere illusion (“the veil of Maya”), characteristic of much Indian religion, went hand in hand with a philosophy of embodiment (karma), which gave a distinctive role to art both as an instrument of worship and as an earthly delight. The legends of the great god Krishna abound in exaggerated fantasies of erotic and physical power; the art of the temples testifies to a sensuality that belies the mystical gestures of renunciation which form the commonplaces of Hindu morality. In providing theories of such art and of the natural beauty that it celebrates, Indian philosophers have relied heavily on the concept of aesthetic flavor, or *rasa*, a

kind of contemplative abstraction in which the inwardness of human feelings irradiates the surrounding world of embodied forms.

The theory of *rasa* is attributed to Bharata, a sage-priest who may have lived about CE 500. It was developed by the rhetorician and philosopher Abhinavagupta (c. CE 1000), who applied it to all varieties of theatre and poetry. The principal human feelings, according to Bharata, are delight, laughter, sorrow, anger, fear, disgust, heroism, and astonishment, all of which may be recast in contemplative form as the various *rasas*: erotic, comic, pathetic, furious, terrible, odious, marvellous, and quietistic. These *rasas* comprise the components of aesthetic experience. The power to taste *rasa* is a reward for merit in some previous existence.

## China

Confucius (551-479 BCE) emphasized the role of aesthetic enjoyment in moral and political education, and, like his near contemporary Plato, was suspicious of the power of art to awaken frenzied and distracted feelings. Music must be stately and dignified, contributing to the inner harmony that is the foundation of good behavior, and all art is at its noblest when incorporated into the rituals and traditions that enforce the stability and order of social life.

Lao-tzu, the legendary founder of Taoism, was even more puritanical. He condemned all art as a blinding of the eye, a deafening of the ear, and a cloying of the palate. Later Taoists were more lenient, however, encouraging a freer, more intuitive approach both to works of art and to nature. The philosophy of beauty presented in their works and in the writings of the Ch'an

(Zen) Buddhists who succeeded them is seldom articulate, being confined to epigrams and short commentaries that remain opaque to the uninitiated.

The same epigrammatic style and the same fervent puritanism can be discerned in the writings of Mao Tse-tung, who initiated in the Cultural Revolution the most successful war against beauty that has been waged in modern history.

## Japan

The practice of literary commentary and aesthetic discussion was extensively developed in Japan and is exemplified at its most engaging in the great novel *Genji monogatari* (c. 1000; *Tale of Genji*), written by Murasaki Shikibu, lady-in-waiting to the Empress. Centuries of commentary on this novel, as well as on the court literature that it inspired, on the *no* and puppet plays, and on the lyrical verses of the haiku poets, led to the establishment of an aesthetics of supreme refinement. Many of the concepts of this form of aesthetics were drawn from the writings of Zeami Motokiyo (1363-1443), a playwright and actor-manager. Zeami argued that the value of art is to be found in *yugen* (“mystery and depth”) and that the artist must follow the rule of *soo* (“consonance”), according to which every object, gesture, and expression has to be appropriate to its context.

The domination of aesthetic scruples over Japanese life has, as its culminating instance, the tea ceremony – a marvel of constrained social ballet – to the study of which whole lives have been devoted. Associated with this triumph of manners is an art of mood and evocation, in which significance is found in the small, concentrated gesture, the sudden revelation of transcendent

meaning in what is most ordinary and unassuming. In the late 18th century Motoori Norinaga, a leading literary scholar, summed up the essence of Japanese art and literature as the expression of a touching intimation of transience, which he captured in the famous phrase *mono no aware*, meaning roughly “the sensitivity to the sadness of things.” Other aesthetic qualities emphasized by classical scholars and critics are *en* (“charming”), *okashi* (“amusing”), and *sabi* (having the beauty of old, faded, worn, or lovely things). In all such aesthetic categories, we can sense the resonance of the Taoist and Buddhist ideas of renunciation.

## Epistemology

### Introduction

Epistemology is one of the main branches of philosophy; its subject matter concerns the nature, origin, scope, and limits of human knowledge. The name is derived from the Greek terms *episteme* (knowledge) and *logos* (theory), and accordingly this branch of philosophy is also referred to as the theory of knowledge.

### Issues of Epistemology

#### Epistemology as a Discipline

Why should there be such a subject as epistemology? Aristotle provided the answer when he said that philosophy begins in wonder, in a kind of puzzlement about things. Nearly all human beings wish to comprehend the

world they live in, a world that includes the individual as well as other persons, and most people construct hypotheses of varying degrees of sophistication to help them make sense of that world. No conjectures would be necessary if the world were simple; but its features and events defy easy explanation. The ordinary person is likely to give up somewhere in the process of trying to develop a coherent account of things and to rest content with whatever degree of understanding he has managed to achieve.

Philosophers, in contrast, are struck by, even obsessed by, matters that are not immediately comprehensible. Philosophers are, of course, ordinary persons in all respects except perhaps one. They aim to construct theories about the world and its inhabitants that are consistent, synoptic, true to the facts and that possess explanatory power. They thus carry the process of inquiry further than people generally tend to do, and this is what is meant by saying that they have developed a philosophy about these matters. Epistemologists, in particular, are philosophers whose theories deal with puzzles about the nature, scope, and limits of human knowledge.

Like ordinary persons, epistemologists usually start from the assumption that they have plenty of knowledge about the world and its multifarious features. Yet, as they reflect upon what is presumably known, epistemologists begin to discover that commonly accepted convictions are less secure than originally assumed and that many of man's firmest beliefs are dubious or possibly even chimerical. Such doubts and hesitations are caused by anomalous features of the world that most people notice but tend to minimize or ignore. Epistemologists notice these things too, but, in wondering about them, they come to realize that they provide profound challenges to the knowledge claims that most individuals blithely and unreflectingly accept as true.

What then are these puzzling issues? While there is a vast array of such anomalies and perplexities, which will be discussed below in the section on the history of epistemology, two of these issues will be briefly described in order to illustrate why such difficulties call into question common claims to have knowledge about the world.

## Two Epistemological Problems

### *“Our Knowledge of the External World”*

Most people have noticed that vision can play tricks on them. A straight stick put in water looks bent to them, but they know it is not; railroad tracks are seen to be converging in the distance, yet one knows that they are not; the wheels of wagons on a movie screen appear to be going backward, but one knows that they are not; and the pages of English-language books reflected in mirrors cannot be read from left to right, yet one knows that they were printed to be read that way. Each of these phenomena is thus misleading in some way. If human beings were to accept the world as being exactly as it looks, they would be mistaken about how things really are. They would think the stick in water really to be bent, the railway tracks really to be convergent, and the writing on pages really to be reversed.

These are visual anomalies, and they produce the sorts of epistemological disquietudes referred to above. Though they may seem to the ordinary person to be simple problems, not worth serious notice, for those who ponder them they pose difficult questions. For instance, human beings claim to know that the stick is not really bent and the tracks not really convergent. But how do they know that these things are so?

Suppose one says that this is known because, when the stick is removed from the water, one can see that it is not bent. But does seeing a straight stick out of water provide a good reason for thinking that it is not bent when seen in water? How does one know that, when the stick is put into the water, it does not bend? Suppose one says that the tracks do not really converge because the train passes over them at that point. How does one know that the wheels on the train do not happen to converge at that point? What justifies opposing some beliefs to others, especially when all of them are based upon what is seen? One sees that the stick in water is bent and also that the stick out of the water is not bent. Why is the stick declared really to be straight; why in effect is priority given to one perception over another?

One possible response to these queries is that vision is not sufficient to give knowledge of how things are. One needs to correct vision in some other way in order to arrive at the judgment that the stick is really straight and not bent. Suppose a person asserts that his reason for believing the stick in water is not bent is that he can feel it with his hands to be straight when it is in the water. Feeling or touching is a mode of sense perception, although different from vision. What, however, justifies accepting one mode of perception as more accurate than another? After all, there are good reasons for believing that the tactile sense gives rise to misperception in just the way that vision does. If a person chills one hand and warms the other, for example, and inserts both into a tub of water having a uniform medium temperature, the same water will feel warm to the cold hand and cold to the warm hand. Thus, the tactile sense cannot be trusted either and surely cannot by itself be counted on to resolve these difficulties.

Another possible response is that no mode of perception is sufficient to guarantee that one can discover how things are. Thus, it might be affirmed



that one needs to correct all modes of perception by some other form of awareness in order to arrive at the judgment, say, that the stick is really straight. Perhaps that other way is the use of reason. But why should reason be accepted as infallible? It also suffers from various liabilities, such as forgetting, misestimating, or jumping to conclusions. And why should one trust reason if its conclusions run counter to those gained through perception, since it is obvious that much of what is known about the world derives from perception?

Clearly there is a network of difficulties here, and one will have to think hard in order to arrive at a clear and defensible explanation of the apparently simple claim that the stick is really straight. A person who accepts the challenge will, in effect, be developing a theory for grappling with the famous problem called “our knowledge of the external world.” That problem turns on two issues, namely, whether there is a reality that exists independently of the individual’s perception of it – in other words, if the evidence one has for the existence of anything is what one perceives, how can one know that anything exists unperceived? – and, second, how one can know what anything is really like, if the perceptual evidence one has is conflicting.

#### *The “Other-Minds Problem”*

The second problem also involves seeing but in a somewhat unusual way. It deals with that which one cannot see, namely the mind of another. Suppose a woman is scheduled to have an operation on her right knee and her surgeon tells her that when she wakes up she will feel a sharp pain in her knee. When she wakes up, she does feel the pain the surgeon alluded to. He

can hear her groaning and see certain contortions on her face. But he cannot feel what she is feeling. There is thus a sense in which he cannot know what she knows. What he claims to know, he knows because of what others who have undergone operations tell him they have experienced. But, unless he has had a similar operation, he cannot know what it is that she feels.

Indeed, the situation is still more complicated; for, even if the doctor has had such a surgical intervention, he cannot know that what he is feeling after his operation is exactly the same sensation that the woman is feeling. Because each person's sensation is private, the surgeon cannot really know that what the woman is describing as a pain and what he is describing as a pain are really the same thing. For all he knows, she could be referring to a sensation that is wholly different from the one to which he is alluding.

In short, though another person can perceive the physical manifestations the woman exhibits, such as facial grimaces and various sorts of behavior, it seems that only she can have knowledge of the contents of her mind. If this assessment of the situation is correct, it follows that it is impossible for one person to know what is going on in another person's mind. One can conjecture that a person is experiencing a certain sensation, but one cannot, in a strict sense of the term, know it to be the case.

If this analysis is correct, one can conclude that each human being is inevitably and even in principle cut off from having knowledge of the mind of another. Most people, conditioned by the great advances of modern technology, believe that in principle there is nothing in the world of fact about which science cannot obtain knowledge. But the "other-minds problem" suggests the contrary – namely, that there is a whole domain of private human experience that is resistant to any sort of external inquiry. Thus, one is faced

with a profound puzzle, one of whose implications is that there can never be a science of the human mind.

### Implications

These two problems resemble each other in certain ways and differ in others, but both have important implications for epistemology.

First, as the divergent perceptions about the stick indicate, things cannot just be as they appear to be. People believe that the stick which looks bent when it is in the water is really straight, and they also believe that the stick which looks straight when it is out of the water is really straight. But, if the belief that the stick in water is really straight is correct, then it follows that the perception human beings have when they see the stick in water cannot be correct. That particular perception is misleading with respect to the real shape of the stick. Hence, one has to conclude that things are not always as they appear to be.

It is possible to derive a similar conclusion with respect to the mind of another. A person can exhibit all the signs of being in pain, but he may not be. He may be pretending. On the basis of what can be observed, it cannot be known with certitude that he is or that he is not in pain. The way he appears to be may be misleading with respect to the way he actually is. Once again vision can be misleading.

Both problems thus force one to distinguish between the way things appear and the way they really are. This is the famous philosophical distinction between appearance and reality. But, once that distinction is

drawn, profound difficulties arise about how to distinguish reality from mere appearance. As will be shown, innumerable theories have been presented by philosophers attempting to answer this question since time immemorial.

Second, there is the question of what is meant by “knowledge.” People claim to know that the stick is really straight even when it is half-submerged in water. But, as indicated earlier, if this claim is correct, then knowledge cannot simply be identical with perception. For whatever theory about the nature of knowledge one develops, the theory cannot have as a consequence that knowing something to be the case can sometimes be mistaken or misleading.

Third, even if knowledge is not simply to be identified with perception, there nevertheless must be some important relationship between knowledge and perception. After all, how could one know that the stick is really straight unless under some conditions it looked straight? And sometimes a person who is in pain exhibits that pain by his behavior; thus there are conditions that genuinely involve the behavior of pain. But what are those conditions? It seems evident that the knowledge that a stick is straight or that one is in great pain must come from what is seen in certain circumstances: perception must somehow be a fundamental element in the knowledge human beings have. It is evident that one needs a theory to explain what the relationship is – and a theory of this sort, as the history of the subject all too well indicates, is extraordinarily difficult to develop.

The two problems also differ in certain respects. The problem of man’s knowledge of the external world raises a unique difficulty that some of the best philosophical minds of the 20th century (among them, Bertrand Russell, H.H. Price, C.D. Broad, and G.E. Moore) spent their careers trying to solve.

The perplexity arises with respect to the status of the entity one sees when one sees a bent stick in water. In such a case, there exists an entity – a bent stick in water – that one perceives and that appears to be exactly where the genuinely straight stick is. But clearly it cannot be; for the entity that exists exactly where the straight stick is is the stick itself, an entity that is not bent. Thus, the question arises as to what kind of a thing this bent-stick-in-water is and where it exists.

The responses to these questions have been innumerable, and nearly all of them raise further difficulties. Some theorists have denied that what one sees in such a case is an existent entity at all but have found it difficult to explain why one seems to see such an entity. Still others have suggested that the image seen in such a case is in one's mind and not really in space. But then what is it for something to be in one's mind, where in the mind is it, and why, if it is in the mind, does it appear to be "out there," in space where the stick is? And above all, how does one decide these questions? The various questions posed above only suggest the vast network of difficulties, and in order to straighten out its tangles it becomes indispensable to develop theories.

#### Relation of Epistemology to Other Branches of Philosophy

Philosophy viewed in the broadest possible terms divides into many branches: metaphysics, ethics, aesthetics, logic, philosophy of language, philosophy of mind, philosophy of science, and a gamut of others. Each of these disciplines has its special subject matter: for metaphysics it is the ultimate nature of the world; for ethics, the nature of the good life and how people ideally ought to comport themselves in their relations with others; and

for philosophy of science, the methodology and results of scientific activity. Each of these disciplines attempts to arrive at a systematic understanding of the issues that arise in its particular domain. The word systematic is important in this connection, referring, as explained earlier, to the construction of sets of principles or theories that are broad-ranging, consistent, and rationally defensible. In effect, such theories can be regarded as sets of complex claims about the various matters that are under consideration.

Epistemology stands in a close and special relationship to each of these disciplines. Though the various divisions of philosophy differ in their subject matter and often in the approaches taken by philosophers to their characteristic questions, they have one feature in common: the desire to arrive at the truth about that with which they are concerned – say, about the fundamental ingredients of the world or about the nature of the good life for man. If no such claims were asserted, there would be no need for epistemology. But, once theses have been advanced, positions staked out, and theories proposed, the characteristic questions of epistemology inexorably follow. How can one know that any such claim is true? What is the evidence in favor of (or against) it? Can the claim be proven? Virtually all of the branches of philosophy thus give rise to epistemological ponderings.

These ponderings may be described as first-order queries. They in turn inevitably generate others that are, as it were, second-order queries, and which are equally or more troubling. What is it to know something? What counts as evidence for or against a particular theory? What is meant by a proof? Or even, as the Greek Sceptics asked, is human knowledge possible at all, or is human access to the world such that no knowledge and no certitude about it is possible? The answers to these second-order questions also require the construction of theories, and in this respect epistemology is no different from

the other branches of philosophy. One can thus define or characterize epistemology as that branch of philosophy which is dedicated to the resolution of such first- and second-order queries.

### The Nature of Knowledge

As indicated above, one of the basic questions of epistemology concerns the nature of knowledge. Philosophers normally interpret this query as a conceptual question, i.e., as an issue about a certain conception or idea or notion called knowledge. The question raises a perplexing methodological issue, namely, how does one go about investigating such conceptual questions? It is frequently assumed, though the matter is controversial, that one can determine what knowledge is if one can understand what the word “knowledge” means, that is, what notion or concept the word “knowledge” expresses or embodies.

Philosophers who proceed in this way draw a distinction between a word and its meaning, and a meaning is generally considered to be the concept which that particular word has or expresses. It is usually further assumed that though concepts are not identical with words, that is, with linguistic expressions, language is the medium in which the meaning of such concepts is displayed or expressed.

The investigation into the nature of knowledge often begins in a similar fashion with the study of the use of the word “knowledge” and of certain cognate expressions and phrases found in everyday language. A survey of such locutions reveals important differences in their uses: one finds such expressions as “know him,” “know that,” “know how,” “know where,” “know

why,” or “know whether.” These differences have been explored in detail, especially in the 20th century. The expression “know  $x$ ,” where “ $x$ ” can be replaced by a proper name, as in “I know Jones” or “He knows Rome,” has been taken by some philosophers, notably Bertrand Russell (1872-1970), to be a case of knowledge by acquaintance. Russell thought its characteristic use was to express the kind of knowledge one has when one has first-hand familiarity with a certain object, person, or place. Thus, one could not properly say in the 20th century, “I know Julius Caesar,” since this would imply that one had met or was directly acquainted with a person who had died some 2,000 years ago. This sense or use of “know” becomes important in the theory of perception and in sense-data theory, since some philosophers, such as Russell and G.E. Moore (1873-1958), have held that one’s awareness of a sense-datum (a notion to be discussed later) is a case of direct acquaintance, whereas one’s acquaintance with a physical object, such as a human hand, is not.

The phrases “know that” and “know how” have also played fundamental roles in the theory of knowledge. The British philosopher Gilbert Ryle (1900-76), for instance, argued that “know how” is normally used to refer to a kind of skill that a person has, such as knowing how to swim. One could have such knowledge without being able to explain to another what it is that one knows in such a case, that is, without being able to convey to another the knowledge required for that person to develop the same skill. “Know that,” in contrast, does not seem to denote the possession of a skill or aptitude but rather the possession of specific pieces of information, and the person who has knowledge of this sort can generally convey it to others. To know that the Concordat of Worms was signed in the year 1122 would be an example of this sort of knowledge. Ryle has argued that, given these differences, some cases



of knowing how cannot be reduced to cases of knowing that and, accordingly, that the kinds of knowledge expressed by these phrases are independent of one another.

In general, the philosophical tradition from the Greeks to the present has focused on the kind of knowledge expressed when it is said that someone knows that such and such is the case, e.g., that A knows that snow is white. This sort of knowledge, called propositional knowledge, raises the classical epistemological questions about the truth or falsity of the asserted claim, the evidence for it, and a host of other problems. Among them is the much debated issue of what kind of thing is known when one knows that  $p$ , i.e., what counts as a substitution instance of  $p$ . The list of such candidates includes beliefs, propositions, statements, sentences, and utterances of sentences. Each has or has had its proponents, and the arguments pro and con are too subtle to be explored here. Two things should, however, be noted in this connection: first, that the issue is closely related to the problem of universals (i.e., whether what is known to be true is an abstract entity, such as a proposition, or whether it is a linguistic expression, such as a sentence or a sentence-token) and, second, that it is agreed by all sides that one cannot have knowledge, in this sense of “knowledge,” of that which is not true. One of the necessary conditions for saying that A knows that  $p$  is that  $p$  must be true, and this condition can therefore be regarded as one of the main elements in any accurate characterization of knowledge.

## Six Distinctions of Knowledge

Mental versus nonmental conceptions of knowledge. Philosophers have asked whether knowledge is a state of mind, i.e., a special kind of awareness of things. That it is has been argued by philosophers since at least the 5th century BCE. In *The Republic* Plato provided the first extensive account of such a view. He regarded knowing as a mental faculty, akin to but different from believing or opining. Contemporary versions of this sort of theory regard knowing as one member of a sequence of mental states that involve increasing certitude. This spectrum would begin with guessing or conjecturing at the lowest end of certitude, would include thinking, believing, and feeling sure as expressing stronger attitudes of conviction, and would end with knowledge as the highest of all these states of mind. Knowledge, in all views of this type, is a form of consciousness, the strongest degree of awareness humans possess, and accordingly it is common for proponents of such views to hold that, if A knows that  $p$ , A must be conscious of what he knows. This view is normally expressed by saying that, if A knows that  $p$ , A knows that he knows that  $p$ .

Many 20th-century philosophers have rejected the notion that knowledge is a mental state. In *On Certainty* (1969) Ludwig Wittgenstein says: “‘Knowledge’ and certainty belong to different *categories*. They are not two mental states like, say surmising and being sure.” But, if knowing is not a mental state, then what is it? These philosophers have accepted the challenge of trying to give a different characterization of what it means to say that a person knows something. They typically begin by pointing out that a person can know that  $p$  without knowing that he knows it (a good example is in fact to be found in Plato’s *Meno*, where Socrates gradually elicits from a slave boy geometrical knowledge that the boy was not aware he had). They then proceed to argue that it is a mistake to assimilate cases of knowing to cases of

doubting, feeling a pain, or having a certain opinion about something. All of these latter are mental states, and they are such that a person who has such a state is aware that he does.

These philosophers, moreover, typically deny that knowing can be described as being a single thing, such as a state of consciousness. Instead, they claim that one can ascribe knowledge to someone, or to oneself, when certain complex conditions are satisfied, among them certain behavioral conditions. For example, if a person can always give the right answers to questions under test conditions, one would be entitled to say that the person has knowledge of the issues under consideration. Knowing on this account seems tied to the capacity to perform in certain ways under certain standard conditions. Accordingly, though such performances may involve the exercise of intelligence or other mental factors, the attribution of knowledge to someone is not merely the attribution of a certain mental state or state of awareness to that person (as seen in the case of the slave boy in the *Meno*).

A well-known variant of such a view was advanced by J.L. Austin in his 1946 paper "Other Minds." Austin claimed that, when one says "I know," one is not describing anything, let alone one's psychology or a mental state. Instead, one is engaging in a social act, i.e., one is indicating that one is in the position (has the credentials and the reasons) to assert *p* in circumstances where it is necessary to resolve a doubt. When these conditions are satisfied, one can correctly be said to know.

### Occurrent versus Dispositional Conceptions of Knowledge

A distinction closely related to the previous one is that between occurrent and dispositional conceptions of knowledge. The difference between occurrences and dispositions can be illustrated with respect to sugar. A sugar cube will dissolve if put into water. One can thus say that, even if the cube is not now dissolving as it sits on the table, it will do so under certain conditions. This propensity to dissolve is what is meant by a disposition, and it is a feature sugar has at all times and in all conditions. It can be contrasted with sugar's actually dissolving when immersed in liquid, which is an occurrence, that is, an event happening at a specific place and at a specific time.

These terms also apply to mental events. One can say of Smith, who is working on a problem, that he has just seen the solution. According to this way of speaking, there is a certain answer that Smith is presently aware of and to which he is attending. In such a case Smith's knowledge is occurrent. But one can also ascribe a different sort of knowledge to Smith. Though Smith is perhaps not now thinking of his home address, he certainly knows it in the sense that, if he were asked, he could produce the correct answer. One can thus have knowledge that one is not aware of at a given moment. One can thus say, as with sugar, that knowledge may be either occurrent or dispositional in character, i.e., that one may or may not be in an immediate state of self-awareness with respect to  $p$ , but that in either case it can be said that the person knows that  $p$ .

It should be noted that the distinction between dispositional and occurrent knowledge thus applies to cases of "knowing that" as well as to cases of "knowing how" and thus is a powerful conceptual tool for analyzing

different sorts of epistemic notions. The concept of a disposition has itself been further analyzed, for example by Roderick M. Chisholm (b. 1916), in counterfactual terms, and it has been proposed by many philosophers that the knowledge expressed by causal laws (laws of nature) is counterfactual and thus dispositional in character.

### A Priori versus A Posteriori Knowledge

A sharp distinction has been drawn since at least the 17th century between two types of knowledge: a priori knowledge and a posteriori knowledge. The distinction plays an especially important role in the philosophies of David Hume (1711-76) and Immanuel Kant (1724-1804). It is also found in many contemporary, empirically oriented theories of knowledge, which typically hold that all knowledge about matters of fact derives from experience and is therefore a posteriori and that in consequence such knowledge is never certain but at most only probable.

The difference between these types of knowledge is easy to illustrate by means of examples. Consider the sentences “All husbands are married” and “All Model-T Fords are black” and assume that both statements are true. But how does one come to know that they are true? In the case of the first, the answer is that, if one thinks about the meaning of the various words in the sentence, one can see that the sentence is true. One can see that this is so because what is meant by “husband” is the same as what is meant by “married male.” Thus, by definition, every husband is a married male, and, accordingly, every husband is married. In calling such knowledge a priori, philosophers are pointing out that one does not have to engage in a factual or empirical inquiry

in order to determine whether the sentence is true or not. One can know this merely on the basis of reflection and thus prior to or before any investigation of the facts.

In contrast, the second statement can be determined to be true only after such an investigation. One may well know that the Model-T Ford was an automobile built prior to World War II and accordingly would understand what all the words in the sentence mean. Nonetheless, understanding alone would not be sufficient to allow one to determine whether the sentence is true or not. Instead, some kind of empirical investigation is required in order to arrive at such a judgment; the knowledge thus acquired is a posteriori, or knowledge after the fact.

There are sets of distinctions related to the one just developed and in terms of which the two propositions can also be differentiated. They are necessary versus contingent, analytic versus synthetic, tautological versus significant, and logical versus factual.

#### Necessary versus Contingent Propositions

A proposition is said to be necessary if it holds (is true) under all possible circumstances or conditions. “All husbands are married” is such a proposition. There are no possible or conceivable conditions under which this statement would not be true (on the assumption, of course, that the words “husband” and “married” are taken to mean what they ordinarily mean). In contrast, “All Model-T Fords are black” holds in some circumstances (those actually obtaining, and that is why the proposition is true), but it is easy to imagine circumstances in which it would not be true – for instance, if

somebody painted one of those cars a different color. To say, therefore, that a proposition is contingent is to say that it holds in some but not in all possible circumstances. Some necessary propositions, such as “All husbands are married” are a priori (though not all are) and most contingent propositions are a posteriori.

### Analytic versus Synthetic Propositions

A proposition is often said to be analytic if the meaning of the predicate term is contained in the meaning of the subject term. Thus, “All husbands are married” is analytic because the term “husband” includes as part of its meaning “being married.” A term is said to be synthetic if this is not so. Therefore, “All Model-T Fords are black” is synthetic since the term “black” is not included in the meaning of “Model-T Ford.” Some analytic propositions are a priori, and most synthetic propositions are a posteriori. These distinctions were used by Kant to ask one of the most important questions in the history of epistemology, namely, whether a priori synthetic judgments are possible

### Tautological versus Significant Propositions

A proposition is said to be tautological if its constituent terms repeat themselves or if they can be reduced to terms that do, so that the proposition is of the form “a = a.” In such a case the proposition is said to be trivial and empty of cognitive import. A proposition is said to be significant if its constituent terms are such that the proposition does provide new information

about the world. It is generally agreed that no significant propositions can be derived from tautologies. One of the objections to the ontological argument is that no existential (significant) proposition can be derived from the tautological definition of “God” with which the argument begins. Tautologies are generally known to be true a priori, are necessary, and are analytic; and significant statements are generally a posteriori, contingent, and synthetic.

In the ontological argument, for example, God is defined (roughly speaking) as the only perfect being. It is then argued that no being can be perfect unless it exists; therefore, God exists. But, as Hume and Kant pointed out, it is fallacious to derive a factual statement about the existence of God from the definition of God as a perfect being.

### Logical versus Factual Propositions

The term “logical” in this connection is used in a wide sense to include a proposition such as “All husbands are married.” By analyzing the meaning of its constituent terms one can reduce the proposition to a logical truth, e.g., to “A and B implies A.” In contrast, factual propositions, such as “All Model-T Fords are black,” have syntactical and semantic structures that differentiate them from any propositions belonging to logic, even in the broad sense mentioned above. The theorems of logic are often a priori (though not always), are always necessary, and are typically analytic. Factual propositions are generally a posteriori, contingent, and synthetic.

These various distinctions are widely appealed to in present-day philosophy. For instance, Saul Kripke (b. 1941) in “Naming and Necessity” (1972) has used these notions in an effort to solve a long-standing problem,



namely, how true identity statements can be nontrivial. The problem, first articulated by Gottlob Frege in “On Sense and Reference” (1893) and later independently addressed by Russell, begins with the assumption that the sentences “Scott is Scott” and “Scott is the author of *Waverley*” are both identity sentences and are true and that the former is trivial while the latter is not. The puzzle arises from the further assumption that any true identity sentence simply says of some object that it is identical with itself. Hence, all such sentences should be trivial. Clearly, however, “Scott is the author of *Waverley*” is not trivial. But, if it is not, how is this possible?

Kripke argues that all true identity sentences are necessary (i.e., that they hold in all possible worlds) and that some of these, such as “Scott is Scott,” are known a priori and accordingly are trivial; but, he argues, some true identity sentences are not known a priori but only a posteriori and are not trivial. In cases of the latter sort, their nontriviality is a function of their being known to be true only after some sort of inquiry or investigation. It is the investigation that provides new information.

A good example would be the following. At one time in human history, ancient peoples did not know that what they called “the evening star” was the same planet called “the morning star.” But eventually the Babylonians discovered through astronomical observation that the morning star is the planet Venus as it appears in the morning sky and that the evening star is the planet Venus as it appears in the evening sky. The discovery that these two appearances are appearances of the same object amounted to discovering more than that Venus is Venus. It provided new information, and that is why “the morning star is identical with the evening star” is significant in a way in which “Venus is Venus” is not, even though all of the descriptive terms in both sentences refer to exactly the same object. In similar fashion, the a posteriori

finding that it was Scott who wrote *Waverley* explains the nontriviality of “Scott is the author of *Waverley*.” But no such investigation was needed to determine that Scott is Scott.

### Knowledge by Acquaintance and Knowledge by Description

The distinction between knowledge by acquaintance and knowledge by description was introduced by Bertrand Russell in connection with his celebrated theory of descriptions. Here only the epistemological (as distinct from the logical) version of his theory will be considered. It was invented by Russell to lend support to the basic thesis of empiricism that all knowledge of matters of fact (i.e., all a posteriori knowledge) derives from experience. Russell’s program is both reductive and foundationalist. It tries to show that man’s system of knowledge is stratified: that some types of knowledge depend on others but that some do not and that the latter form the foundational units which give support to the whole epistemic system. He argued that, because these basic units rest upon direct experience, ultimately all factual knowledge is derivable from experience.

Russell’s argument begins with a distinction between two different types of knowledge: that which is and that which is not based on direct experience. Nearly all of man’s knowledge is of the latter type. For example, it is known that some 2,000 years ago there lived a Roman statesman named Augustus, that he was the successor to Julius Caesar, who had been assassinated, and that he was a friend of the historian Livy. But, since none of these pieces of information is presently known on the basis of personal experience, what justification is there for calling them instances of knowledge?

Russell argued that information based on direct experience is basic and needs no justification; he called it “knowledge by acquaintance.” Information not based on direct experience he called “knowledge by description.” One is justified in calling such information knowledge, if one can show that it can be traced back to and thus ultimately rests upon knowledge by acquaintance. To show how this is so in a particular case is to legitimate that particular piece of information as a specimen of knowing. Here is how this reductive process would work in the case of what is known about Augustus.

Whatever information people in the 20th century have about Augustus probably comes to them from literary works, such as Livy’s history of Rome. Such information thus comes secondhand, via descriptions in books about the life and activities of Augustus. But why call such descriptions knowledge? The answer is that through a historical process one can trace such information back to an original source like Livy, who was a contemporary of Augustus. One learns, via this process, that Livy in his history of Rome is reporting events that he had witnessed himself or that he had learned from other eyewitnesses. One can call what he tells about Augustus knowledge, because it is testimony that is based upon his or someone else’s direct experience. Thus, knowledge by description is a legitimate form of knowledge, even though it is ultimately dependent upon knowledge by acquaintance.

Russell’s reductive thesis then was that all legitimate specimens of knowledge are either based upon direct experience or can be shown to be dependent upon such direct experience via a chain of tight historical or causal links. His theory was therefore a form of empiricism, because it tried to show how all knowledge of matters of fact could be derived from experience.

But there is a further feature of the theory, stemming from the empirical tradition of John Locke (1632-1704) and David Hume, that gives a special twist to the notion of “knowledge by acquaintance.” According to this tradition, knowledge by acquaintance is always knowledge based upon what Hume called “impressions,” or upon what Russell called “sense-data.” These for Russell were mental entities that generally, but not always, reflected the characteristics actually possessed by physical objects. But, unlike physical objects, sense-data were the objects directly apprehended in an act of perception. What Russell meant by “direct apprehension” or “direct perception” was itself explicated in terms of the concepts of inference and non-inference. He held that direct perception, i.e., the perceptual awareness of a sense-datum, involves no inference and, accordingly, that knowledge by acquaintance is identical with the perception of sense-data.

The difference between inferential and noninferential perception can be illustrated by an example. Suppose one is working in a room and hears a sound that emanates from an outside source. (Russell considered hearing to be a form of perception.) In such a case the sound is a sense-datum. One need not infer that one is hearing a sound; there is a direct awareness of it. This would be a case of knowledge by acquaintance. On the basis of what one hears in this direct fashion, one might then infer (guess, conjecture, hypothesize) that what is causing the sound is a motorcycle located outside of the room, something that one who is in the room cannot see directly. If one is correct in this supposition, the information obtained in this way would be a case of indirect knowledge. In such a case, one’s knowledge that there is a motorcycle in the street is dependent on (and in Russell’s sense, reducible to) one’s direct awareness of a sound. The example illustrates how indirect knowledge, such as knowledge by description, is derived from direct knowledge, such as

knowledge by acquaintance, and in turn how this latter depends upon the direct awareness of sense-data.

It should be mentioned that the distinction between knowledge by acquaintance and knowledge by description can be defended as legitimate and useful independently of a commitment to sense-data theory. In Russell's work the objects of direct awareness are sense-data, but sense-data theory today has few proponents. A philosopher thus might hold that one at least sometimes directly perceives physical objects (which are not sense-data) while accepting that one's knowledge of past events and persons is indirect and is thus knowledge by description.

#### Description versus Justification

Epistemology during its long history has engaged in two different sorts of tasks. One of these is descriptive in character. It aims to depict accurately certain features of the world, including the contents of the human mind, and to determine whether these should count as specimens of knowledge. A philosophical system with this orientation is, for example, the phenomenology of Edmund Husserl (1859-1938). Husserl's aim was to give an exact description of the notion of intentionality, which he characterized as consisting of a certain kind of "directedness" toward an object. Suppose the object is an ambiguous drawing, such as the duck/rabbit sketch found in the *Philosophical Investigations* of Ludwig Wittgenstein. A person looking at the sketch is not sure whether it is a drawing of a duck or of a rabbit. Husserl claimed that the light rays reaching the eye from such an ambiguous drawing are identical whether one sees the image of a duck or of a rabbit and that the

difference in perception is due to the viewer's structuring of what he sees in the two cases. The theory tries to describe how such structuring takes place, and it ultimately becomes very complex in the account it gives.

In a famous passage in *Philosophical Investigations* (1953), Wittgenstein states that "explanation must be replaced by description," and much of his work was devoted to carrying out that task, as, for example, in his account of what it is to follow a rule. Another example of descriptive epistemology is found in the writings of such sense-data theorists as Moore, Price, and Russell. They begin with the question of whether there are basic apprehensions of the world, free from any form of inference, and in those cases where they have argued that the answer is yes, they have tried to describe what these are and why they should count as instances of knowledge. Russell's thesis that the whole edifice of knowledge is built up from a foundation composed of ingredients with which human beings are directly acquainted illustrates the close connection between the attempt to characterize various types of knowledge and this descriptive endeavor. The search by some logical positivists, such as Moritz Schlick (1882-1936), Otto Neurath (1882-1945), and A.J. Ayer (b. 1910) for protocol sentences, sentences that describe what is given in experience without inference, is a closely related example of this kind of descriptive practice.

Epistemology has a second function, which, in contrast to the descriptive one, is justificatory or normative. Philosophers concerned with this function start from the fact that all human beings have beliefs about the world, some of which are erroneous and some of which are not. The question to them is how one can justify (defend, support, or provide evidence for) certain sets of beliefs. The question has a normative import since it asks, in effect, what one ideally ought to believe. (In this respect epistemology has close parallels to

ethics, where normative questions about how one ought ideally to act are asked.) This approach quickly takes one into the central domains of epistemology. It raises such questions as: Is knowledge identical with justified true belief? Is the relationship between evidence for a belief and the belief itself a probability function? If not, what is it? What indeed is meant by “justification” and what sorts of conditions have to be satisfied before one is entitled to say that a belief or set of beliefs is justified? These two differing aspects of epistemology are not inconsistent and indeed are often found intertwined in the writings of contemporary philosophers.

### Knowledge and Certainty

The relationship between knowledge and certainty is complex, and there is considerable disagreement about the matter. Are these concepts the same? If not, how do they differ? Is it possible for someone to know that  $p$  without being certain that  $p$ ? Is it possible for someone to be certain that  $p$  without knowing that  $p$ ? These are the central issues around which the debate revolves. The various answers that have been proffered depend on how the concepts of knowledge and certainty are analyzed. If one holds, for instance, that knowing is not a psychological state but that certainty is, then one would deny that the concepts are identical. But if one holds that knowing represents the highest degree of assurance which humans can obtain with respect to the truth of  $p$ , and that such a maximal degree of assurance is a psychological state, one will interpret the concepts to be equivalent. There have been proponents on both sides of this issue.

Further complicating the discussion are subtle distinctions drawn by 20th-century philosophers. For instance, in “Certainty” (1941) G.E. Moore claimed that there are four main types of idioms in which the word “certain” is commonly used: “I feel certain that,” “I am certain that,” “I know for certain that,” and finally “It *is* certain that.” He points out that “I feel certain that *p*” may be true when *p* is not true but that there is at least one use of “I know for certain that *p*” and “It is certain that *p*” which is such that neither of these sentences can be true unless *p* is true. Moore argues that it would be self-contradictory to say “I knew for certain that he would come but he didn’t,” whereas it would not be self-contradictory to say “I felt certain he would come but he didn’t.” In the former case, the fact that he did not come proves that one did not know that he would come, but, in the latter, the fact that he did not come does not prove that one did not feel certain he would. “I am certain that” differs from “I know for certain that” in allowing the substitution of the word “sure” for the word “certain.” One can say “I feel sure (rather than certain)” without a change of meaning, whereas in “I know for certain” or “It is certain that” this substitution is not possible. On the basis of these sorts of considerations Moore contends that “a thing can’t be certain unless it is *known*.” He states that this is what distinguishes the word “certain” from the word “true.” A thing that nobody knows may well be true, but it cannot possibly be certain. He thus infers that a necessary condition for the truth of “It is certain that *p*” is that somebody should know that *p* is true. Moore is therefore one of the philosophers who answers in the negative the question of whether it is possible for *p* to be certain without being known.

Moore also argues that to say “Someone knows that *p* is true” cannot be a sufficient condition for “It is certain that *p*.” If it were, it would follow that, in any case in which at least someone did know that *p* was true, it would



always be false for anyone to say “It is not certain that  $p$ ”; but clearly this is not so. If one person says that it is not certain that Smith is still alive, he is not thereby committing himself to the statement that nobody knows that Smith is still alive: the speaker’s statement is consistent with Smith’s still being alive, and both he himself and other persons know this. Moore is thus among those philosophers who would answer in the negative the question of whether the concepts of knowledge and certainty are the same. Though it is widely accepted that to affirm that somebody knows that  $p$  implies that somebody is certain that  $p$ , the case of the slave boy in Plato’s *Meno* seems, at least at first glance, to be a counterinstance. Meno may know, in a dispositional sense, certain theorems of geometry without knowing that he knows, and, if he does not know that he knows, then it would seem that he cannot be certain that he does know. But it has also been argued that, once his disposition to know has been actualized and his knowledge has become occurrent, then, insofar as he does know in this occurrent sense, he is certain of what he knows.

The most radical position on these matters is to be found in Wittgenstein’s *On Certainty*, published posthumously in 1969. Wittgenstein holds that knowledge is radically different from certitude and that neither concept entails the other. It is thus possible to be in a state of knowledge without being certain and to be certain without having knowledge. As he writes: “Instead of ‘I know’... couldn’t Moore have said: ‘It stands fast for me that...’ ? and further: ‘It stands fast for me and many others....’” “Standing fast” is one of the terms Wittgenstein uses for certitude and is to be distinguished from knowing. For him certainty is to be identified with acting, not with seeing propositions to be true, the kind of seeing that issues in knowledge. As he says: “Giving grounds, justifying the evidence comes to an end – but the end is not certain propositions striking us immediately as true –

i.e., it is not a kind of *seeing* on our part; it is our *acting* which lies at the bottom of the language game.”

### Origins of Knowledge

Philosophers not only wish to know what knowledge is but also how it originates. This motivation is based, at least in part, on the supposition that an investigation into the provenance of knowledge can help cast light on its nature. From the time of the Greeks to the present, therefore, one of the major themes of epistemology has been a quest into the sources of knowledge.

Plato's *The Republic* contains one of the earliest systematic arguments to the effect that sense experience cannot be a source of knowledge. The argument begins with the assertion that ordinary persons have a clear grasp of certain concepts, that of equality, for instance. In other words, people know what it means to say that A and B are equal, no matter what A and B are. But where does such knowledge come from? One may wonder, for instance, whether it is provided by vision and consider the claim that two pieces of wood are of equal length. A close inspection of these pieces of wood, however, shows them to differ slightly, and the more detailed the inspection, via various degrees of magnification, the more disparity one notices. It follows that visual experience cannot be the fount of the concept of equality. Plato applies this result to the operations of all the five senses and concludes that sense experience in general cannot be the origin of such knowledge. It must therefore have another source, which he regards as prenatal (one such account is found in the myth of Er in Book X).

The mathematical example Plato selects to illustrate that the origin of knowledge is not in sense experience is highly significant; indeed it is one of the signs of his perspicacity that he should pick such an example. For, as the subsequent history of philosophy reveals, the strongest case for the notion that at least some knowledge does not derive from sense experience lies in mathematics. Mathematical entities are abstractions – perfect triangles, disembodied surfaces and edges, lines without thickness, and extensionless points – and none of these exists in the physical world, i.e., the world apprehended by the senses. It might be thought that, had Plato selected a different example, say, the color red, his argument would have been less convincing. But it is a further sign of his genius that he discusses colors as well as mathematical notions and provides good reasons for holding that seeing examples or specimens of red (or any other color) is not equivalent to knowing what that color is. Such knowledge must therefore have a different genesis than sense experience.

#### Innate versus Learned

The puzzle about origins of knowledge has led historically to two different kinds of issues. One of these is the question of whether knowledge (or at least certain kinds of knowledge) is innate, meaning that it is not acquired or learned through experience but in some important sense is present in the human psyche at birth. The matter is still a live issue today, not only in philosophy but also in linguistics and psychology. The linguist Noam Chomsky (b. 1928), for example, has asserted that the “projection phenomenon” – the ability of children to construct sentences that they have never heard before and that are grammatical – is proof of inherent conceptual

structures, whereas the experimental psychologist B.F. Skinner (b. 1904) has tried to show that all knowledge is the product of learning through environmental conditioning by means of the processes of reinforcement and reward.

In the extensive historical literature on this topic both the notion of “innateness” and that of “learning” have been given various interpretations. Sometimes, for instance, innateness carries only the sense of a disposition or propensity, but in stronger versions of the thesis, such as Plato’s, it is affirmed that humans possess actual pieces of prenatal knowledge. “Learning” also is given a variety of meanings, ranging from trial-and-error methods to inexplicit types of “absorption” of information. There are also a range of “compromise” theories. These typically claim that humans have some knowledge that is innate – the awareness of God, the principles of moral rightness and wrongness, and certain mathematical theorems being favored examples – whereas other kinds of knowledge – such as knowledge by acquaintance – are gained through experience.

#### Rationalism versus Empiricism

The second issue that emerges from considerations of the origins of knowledge focuses on the distinction between rationalism and empiricism. Though closely related to the issue of innateness versus learning, the question in this case concerns the nature of the source from which knowledge arises. The history of discussion of the issue indicates that two main sources have been identified and argued for: reason and experience.

Rationalism is the thesis that the ultimate source of knowledge is to be found in human reason. What reason is, in turn, is a difficult question. But, generally speaking, it is assumed that reason is a feature of the human mind that differs not just in degree but in kind from bodily sensations, feelings, and certain psychological attitudes, such as disgust or enthusiasm. For some writers, such as Plato, reason is a faculty, a special facility or structure of the mind. Many later philosophers reject any sort of faculty psychology, and some of them tend to interpret reason in dispositional or behavioral ways. But, whatever the interpretation, a rationalist must hold that reason has a special power for grasping reality. It is the exercise of reason that allows human beings to understand the world they live in. Such a thesis is double-sided: it holds, on the one hand, that reality is in principle knowable and, on the other hand, that there are human, distinctively mental, powers capable of apprehending it. One thus might define rationalism as the theory that there is an isomorphism (a mirroring relationship) between reason and reality which makes it possible for the former to apprehend the latter just as it is. Rationalists affirm that, if such a correspondence were lacking, the effort of human intelligence to understand the world would be impossible.

Empiricism is often defined as the doctrine that all knowledge comes from experience. Almost no philosopher, however, has ever literally held that all knowledge comes from experience. Locke, who is the empiricist par excellence, thought there is some knowledge human beings have – which he calls “trifling ideas” (or trivialities), such as  $a = a$  – that does not derive from experience; but he regarded such knowledge as empty of content. Hume held similar views.

Empiricism thus generally allows for a priori knowledge while denigrating its significance, and accordingly it is more accurate to define it as

the theory that all knowledge about matters of fact derives from experience. When defined in this way empiricism does represent a significant contrast to rationalism. Rationalists hold that human beings have knowledge about matters of fact which is anterior to experience and yet which does tell them something significant about the world and its various features. Empiricists would deny that this is possible.

The meaning of the term experience is generally limited to the impressions and sensations received by the senses. Thus, knowledge is the information apprehended by the five sense modalities – hearing, seeing, touching, tasting, and smelling. Such knowledge is always about matters of fact, about what one can see, touch, hear, taste, or smell. For strict empiricists this definition has the implication that the human mind is passive – a *tabula rasa*, in Locke's idiom; it is an organ that receives impressions and more or less records them as they are. This conception of the mind has seemed counterintuitive to many philosophers, especially those in the Kantian tradition. But it also poses serious challenges for empiricists. For example, it raises the question of how one can have knowledge of items, such as a dragon, that cannot be found in experience.

In response, the classical empiricists such as Locke and Hume have tried to show how the complex concept of a dragon can be reduced to simple concepts (such as wings, the body of a snake, the head of a horse), all of which derive from direct impressions of such items. On such a view the mind is still considered to be primarily passive, but it is conceded that it has some active functions, such as being able to combine simple impressions and ideas into complex ideas.

There are further difficulties: the empiricist must explain how abstract ideas, such as the concept of a perfect triangle, can be reduced to elements apprehended by the senses when no perfect triangles are actually found in nature, and he must also give an account of how general notions are possible. It is obvious that one does not experience “mankind,” but only particular individuals, through the senses; yet such general notions are meaningful, and propositions containing these concepts are known to be true. The same difficulty applies to color concepts. Some empiricists have argued that one arrives at the concept of red, for example, by abstracting from individual items that are red. But the difficulty with this suggestion is that one would not know what to count as an instance of red unless one already had such a concept in mind; and, if that is so, it would seem that experience cannot be the source of the concept. It is generally felt that, despite ingenious attempts by empiricists to deal with such issues, their solutions have not been wholly successful. Indeed, the history of epistemology has to a large extent been a dialectic between rationalism and empiricism in an effort to meet sceptical challenges that are designed to undermine both positions.

### Scepticism

Many philosophers past and present and many nonphilosophers who are studying philosophy for the first time have been struck by the seemingly indecisive nature of philosophical argumentation. For every argument, there seems to be a counterargument; and for every position, a counterposition. To a considerable extent scepticism is born of such reflection. Some of the ancient Sceptics contended, for example, that all arguments are equally bad and, accordingly, that nothing can be proved. The American philosopher Benson

Mates claims to be a modern representative of this tradition, except that he believes all philosophical arguments to be equally good. But he insists that, because they are, they invariably issue in conceptual deadlocks and resolve nothing.

Ironically, scepticism is itself a type of philosophy, and the question has been raised whether it manages to escape its own demurrers. Does it offer arguments, and if so, are they decisive? The answers to these questions depend on what is meant by scepticism. Historically, the term refers to a complex set of practices taking many different forms – from stating explicit theories to assuming negative attitudes without much propositional content. Thus, it is difficult to define. But, however it is understood, scepticism represents a set of challenges to the claim that human beings do possess or can acquire knowledge.

In giving even this minimal characterization, it is important to emphasize that both dogmatists and Sceptics accept a definition of knowledge that implies two things: that, if a person, A, knows that  $p$ , then  $p$  is true and that, if a person, A, knows that  $p$ , then A cannot be mistaken, meaning that it is logically impossible that A could be wrong. If a person says that he knows Smith will arrive at 9:00 AM, and Smith is not there at 9:00 AM, then that person would have to withdraw the claim to know. He might say instead that he thought he knew or that he felt sure. But he could not continue rationally to insist that he knew if what he claimed to know turned out to be false.

It should also be stressed that, given this definition of knowledge, the skeptic does not have to show that A is actually mistaken in claiming to know that  $p$ . All he has to show is that it is possible that A might be mistaken. Hence arises the skeptic's practice of searching for a possible counterexample



to a claim. If A states that he has had a certain experience, for instance, that of having personally spoken with Smith, who assured him he would keep his appointment at 9:00 AM, then the skeptic can point out that, although one could have such an experience, it is still possible that Smith might not show up; and, if so, A's claim to know is untenable. In effect, by emphasizing the notion of possibility, the skeptic is pointing out that there is a logical gap between the criteria that support the claim and the claim itself. The criteria might be satisfied, and yet the claim might be false; but, if such a possibility exists, the original assertion cannot be a specimen of knowing.

More generally, radical scepticism has tried to show that one might (i.e., could possibly) have all the experiences associated with normal perception or behavior and yet be wholly mistaken in thinking that these experiences correlate with anything in the external world. For example, a brain in a vat might be programmed by scientists to have the sensation of seeing a tree, even though it is not in fact seeing a tree. Thus, there is a gap between the experience the brain is having and external reality; accordingly, its claim to know on the basis of such a visual experience is mistaken. The skeptic's point is that the disparity between external reality and felt experience is always possible and, accordingly, that knowledge claims based upon such experience cannot be defended.

The ability to find counterexamples explains why Sceptics do not challenge but indeed accept the dogmatist's definition of knowledge. That they do so is important because it means that they are not arguing at cross-purposes with their opponents. What they challenge is not the meaning of knowledge but the contention that anybody actually has knowledge in that sense.

Nearly all of the major epistemological theories of philosophy have given rise to sceptical reactions. Many of the greatest thinkers in the Western tradition have assumed that by means of reason or sense experience one can come to have knowledge of reality. But scepticism has challenged the validity of both of these appeals. Sceptics have developed wholesale arguments to undermine the efforts to show that reason and sense experience, which seem to be the only possible candidates, are reliable sources of knowledge. Descartes, for example, considered the hypothesis that an evil genius may delude people into thinking that they are experiencing the real world when they are not. With regard to major epistemological problems, such as the “other-minds problem,” the problem of memory, the problem of induction, and the problem of self-knowledge, sceptical doubts have challenged the validity of reason and of sense experience and thus of claims to have knowledge of various aspects of reality. How some of these moves and countermoves actually take place are addressed below.

## The History of Epistemology

### Ancient Philosophy

#### Pre-Socratics

The central focus of ancient Greek philosophy was its attempt to solve the problem of motion. Many pre-Socratic philosophers thought that no logically coherent account of motion and change could be given. This problem was a concern of metaphysics, not epistemology, however, and in the present context it suffices merely to allude to the arguments of Parmenides and Zeno of Elea against the possibility that anything moves or changes. The

consequence of this position for epistemology was that all major Greek philosophers held that knowledge must not itself change or be changeable in any respect. This requirement motivated Parmenides, for example, to hold that thinking is identical with being (what exists or is unchanging) and that it is impossible to think of “nonbeing” or “becoming” (what changes) in any way.

## Plato

Plato (c. 427-347 BCE) accepted the Parmenidean constraint on any theory of knowledge that both knowledge and its objects must be unchanging. One consequence of this, as Plato pointed out in *Theaetetus*, is that knowledge cannot have physical reality as its object. In particular, since sensation and perception have various kinds of motions as their objects, knowledge cannot be the same as sensation or perception. The negative thesis of Plato’s epistemology consists, then, in the denial that sense experience can be a source of knowledge on the ground that the objects apprehended through the senses are subject to change. To the extent that humans have knowledge, they attain it by transcending the information provided by the senses in order to discover unchanging objects. But this can be done only by the exercise of reason, and in particular by the application of the dialectical method of inquiry inherited from Socrates.

The Platonic theory of knowledge is thus divided into two parts: a quest first to discover whether there are any unchanging objects and to identify and describe them and second to illustrate how they could be known by the use of reason, that is, via the dialectical method. Plato used various literary devices for illustrating his theory; the most famous of these is the allegory of the cave

in Book VII of *The Republic*. The allegory depicts ordinary people as living locked in a cave, which represents the world of sense-experience; in the cave people see only unreal objects, shadows, or images. But through a painful process, which involves the rejection and overcoming of the familiar sensible world, they begin an ascent out of the cave into reality; this process is the analogue of the application of the dialectical method, which allows one to apprehend unchanging objects and thus acquire knowledge. In the allegory, this upward process, which not everyone is competent to engage in, culminates in the direct vision of the sun, which represents the source of knowledge.

In searching for unchanging objects, Plato begins his quest by pointing out that every faculty in the human mind apprehends a set of unique objects: hearing apprehends sounds but not odours; the sense of smell apprehends odours but not visual images; and so forth. Knowing is also a mental faculty, and therefore there must be objects that it apprehends. These have to be unchanging, whatever they are. Plato's discovery is that there are such entities. Roughly, they are the items denoted by predicate terms in language: such words as "good," "white," or "triangle." To say "This is a triangle" is to attribute a certain property, that of being a triangle, to a certain spatiotemporal object, such as a particular figure drawn on a blackboard. Plato is here distinguishing between specific triangles that can be drawn, sketched, or painted and the common property they share, that of being triangular. Objects of the former kind he calls particulars. They are always located somewhere in the space-time order, that is, in the world of appearance. But such particular things are different from the common property they share. That is, if  $x$  is a triangle, and  $y$  is a triangle, and  $z$  is a triangle,  $x$ ,  $y$ , and  $z$  are particulars that share a common property, triangularity. That common property is what Plato

calls a “form” or “idea” (not using this latter term in any psychological sense). Unlike particulars, forms do not exist in the space-time order. Moreover, they do not change. They are thus the objects that one must apprehend in order to acquire knowledge.

Similar remarks apply, for example, to goodness, whiteness, or being to the right of. Particular things change; they come into and go out of existence. But whiteness never changes, and neither does triangularity; and, if they do not change, they are not subject to the ravages of time. In that sense, they are eternal.

The use of reason for discovering unchanging forms is exercised in the dialectical method. The method is one of question and answer, designed to elicit a real definition. By a “real definition” is meant a set of necessary and sufficient conditions that exactly delimit a concept. One may, for example, consider the concept of being the brother of Y. This can be explained in terms of the concepts of being male and of being a sibling of Y. These concepts together lay down necessary and sufficient conditions for anything’s being a brother. One who grasps these conditions understands precisely what it is to be a brother.

*The Republic* begins with the use of the dialectical method to discover what justice is. Cephalus proposes the thesis that “justice” means the same as “honesty in word and deed.” Socrates searches for and finds a counterexample to this proposal. It is just, he points out, under some conditions, not to tell the truth or to repay debts. If one had borrowed a weapon from an insane person, who then demanded it back in order to kill an innocent person, it would be just to lie to him, stating that one no longer had the weapon. Therefore, “justice” cannot mean the same as “honesty in word” (i.e., telling the truth). By this

technique of proposing one definition after another and subjecting each to possible counterexamples, Socrates attempts to find a definition that would be immune to counterexamples. To find such a definition would be to define the concept of justice, and in this way to discover the true nature of justice. In such a case one would be apprehending a form, the common feature that all just things share.

Plato's search for definitions and thereby the nature of forms is a search for knowledge. But how should knowledge in general be defined? In *Theaetetus* Plato argues that it involves true belief. No one can know what is false. A person may mistakenly believe that he knows something, which is in fact false, but this is only thinking that one knows, not knowing. Thus, a person may confidently assert, "I know that Columbus was the first European to land in North America" and be unaware that other Europeans, including Erik the Red, preceded Columbus. So knowledge is at least true belief, but it must also be something more. Suppose that someone believes there will be an earthquake in September because of a dream he had in April and that there in fact is an earthquake in September, although there is no connection between the dream and the earthquake. That person has a true belief about the earthquake but not knowledge. What the person lacks is a good reason supporting his true belief. In a word, the person lacks justification for it. Thus, in *Theaetetus*, Plato concludes that knowledge is justified true belief.

Although it is difficult to explain what justification is, most philosophers accepted the Platonic analysis of knowledge as fundamentally correct until 1963, when the American philosopher Edmund L. Gettier produced a counterexample that shook the foundations of epistemology: suppose that Kathy knows Oscar very well and that Oscar is behind her, out of sight, walking across the mall. Further, suppose that in front of her she sees walking

toward her someone who looks exactly like Oscar; unbeknownst to her, it is Oscar's twin brother. Kathy forms the belief that Oscar is walking across the mall. Her belief is true, because he is walking across the mall (though she does not see him doing it). And her true belief seems to be justified, because she formed it on the same basis she would have if she had actually seen Oscar walking across the mall. Nonetheless, Kathy does not know that Oscar is walking across the mall, because the justification for her true belief is not the right kind. What her true belief lacks is an appropriate causal connection to its object.

#### Aristotle

In *Posterior Analytics*, Aristotle (384-22 BCE) analyzes scientific knowledge in terms of necessary propositions that express causal relations. Such knowledge takes the form of categorical syllogisms, in which the middle term causally and necessarily connects the major and minor terms. For example, because all stars are distant and all distant objects twinkle, it follows that all stars twinkle. That is, the middle term, "distant objects," connects the minor term, "stars," to the major term, "twinkle," in order to yield the conclusion that all stars twinkle. Aristotle, however, recognizes that not all knowledge is provable. Thus, the premises of the most basic syllogisms are known but not provable. In contrast with scientific knowledge, there is opinion, which is not provable and is about what happens to be true but need not be.

Since the knowledge formulated in syllogisms resides in the mind, which is part of or one faculty of the soul, much of what Aristotle says about

knowledge is part of his doctrine about the nature of soul and, in particular, human soul. As he uses the term, every living thing, including plant life, has a soul (*psyche*), a soul being what makes a thing alive. Thus it is important not to equate soul with mind or intellect. The intellect (*nous*) might variously be described as a power, faculty, part, or aspect of the human soul. It should be stressed that for Aristotle the terms soul (*psyche*) and intellect (*nous*) and its constituents were understood to be scientific terms.

Knowledge is something that a person has. Thus it must be in him somewhere, and the location must be his mind or intellect. Yet there can be no knowledge if the knower and the thing known are wholly separate. What then is the relation between the knowledge in the person or his mind and the object of his knowledge? Aristotle's answer is one of his most enigmatic claims. He says, "Actual knowledge is identical with its object."

Here is one suggestion about what Aristotle means. When a person learns something, he acquires something. What he acquires must either be something different from the thing he knows or identical with it. If it is something different, then there is a discrepancy between what he has in mind and the intended object of his knowledge. But such a discrepancy seems to be incompatible with the existence of knowledge. For knowledge, which must be true and accurate, cannot deviate from its object in any way. One cannot know that blue is a color if the object of that knowledge is something other than that blue is a color. This idea that knowledge is identical with its object is dimly reflected in the repetition of the variable  $p$  in the standard formula about knowledge: S knows that  $p$  just in case it is true that  $p$ . Although the line of thinking being attributed to Aristotle is defective in several ways, something like it seems to have motivated Aristotle and many other thinkers over the centuries.



To assert that knowledge and its object must be identical raises a question: In what way is knowledge in a person? Suppose that Smith knows Fido. Then Fido is in Smith. Obviously, Fido is not there as he exists in the nonmental world of space and time. In what sense can it be true that a person who knows what a dog is has that object in his mind? Aristotle derives his answer from his general theory of reality. According to him, all (terrestrial) substances are composed of two principles: matter and form. If there are four dogs – Bowser, Fido, Spot, and Spuds – they are the same in some respect and different in some respect. They are the same in that each belongs to the same kind and each function similarly. Thus, Aristotle reasons, just as Plato had, that there must be something in virtue of which they are the same, and this he calls “form.” That is, Bowser, Fido, Spot, and Spuds each have the very same form of being a dog. They are different in that they are made out of different matter, different parcels of stuff. The form that a thing has is more important than its matter because it is the form that makes the thing what it is. If Fido were to lose the form of being a dog and acquire another, he would no longer be the same thing. The stuff out of which Fido is made is not similarly important, and in fact that stuff changes periodically, as body cells change through metabolic processes, without Fido ceasing to be Fido.

To return to the explanation of knowledge, what is in the knower when he knows what dogs are is the form of being a dog minus the matter. According to Aristotle, matter is literally unintelligible and not essential to what Fido or any other dog is; thus its absence is inconsequential for knowledge, though not for Fido.

In his sketchy account of the process of thinking in *De anima* (*On the Soul*), Aristotle says that the intellect, like everything else, must have two parts: something analogous to matter and something analogous to form. The

first of these is the passive intellect; the second is active intellect, of which Aristotle speaks tersely. “Intellect in this sense is separable, impassible, unmixed, since it is in its essential nature activity.... When intellect is set free from its present conditions it appears as just what it is and nothing more: it alone is immortal and eternal... and without it nothing thinks.”

This part of Aristotle’s views about knowledge is an extension of what he says about sensation. According to Aristotle, sensation occurs when the sense organ is stimulated by the sense object, typically through some medium, such as light for vision and air for hearing. This stimulation causes a “sensible species” to be generated in the sense organ itself. This “species” is some sort of representation of the object sensed. As Aristotle describes the process, the sense receives “the form of sensible objects without the matter, just as the wax receives the impression of the signet-ring without the iron or the gold.” But, since there are different species for each of the five external senses that Aristotle recognized – sight, hearing, touch, taste, and smell – “species” does not mean “image.”

### Ancient Scepticism

After the development of Aristotle’s psychology the next significant event for the theory of knowledge was the rise of Scepticism, of which there were at least two kinds. The first, Academic Scepticism, arose in the Academy after Plato’s death and was propounded by the Greek philosopher Arcesilaus (c. 315-c. 240 BCE), about whom the philosophers Cicero, Sextus Empiricus, and Diogenes Laërtius provide information. Academic Scepticism is also called “dogmatic Scepticism” when it is interpreted as arguing for the thesis

that nothing is known. The thesis was inspired by Socrates' avowal that the only thing he knew was that he knew nothing. Thus, it asserts that knowledge is impossible. This form of Scepticism seems to be susceptible to an objection raised by the Stoic Antipater (fl. c. 135 BCE) and others that the view is self-contradictory. To know that knowledge is impossible is to know something; hence, dogmatic Scepticism is false.

Carneades (c. 213-129 BCE), a member of the Academy, gave a subtle reply. Academic Scepticism, he claimed, should not be interpreted as a claim about how the world is in itself or about a correspondence between thought (or language) and the world, but as a judicial decision. Just as a defendant in a trial does not prove his innocence but relies upon its presumption and defends it against attack, so the sceptic does not try to prove that he knows nothing but presumes it and defends this presumption against attacks.

Carneades' construal of Academic Scepticism brings it close to the other kind, Pyrrhonism, named after Pyrrho of Elis (c. 365-275 BCE). None of his works survive, and scholars rely principally on the early 3rd-century-CE writings of Sextus Empiricus to understand Pyrrhonism. Pyrrhonists assert or deny nothing but lead people to give up making any claims to knowledge. The Pyrrhonist's strategy is to show that, for each proposition with some evidence for it, an opposed proposition has equally good evidence supporting it. These arguments for refuting each side of an issue are called "tropes." For example, the judgment that a tower is round when seen at a distance is contradicted by the judgment that the tower is square when seen up close. The judgment that Providence cares for all things, based upon the orderliness of the heavenly bodies, is opposed by the judgment that many good people suffer misery and many bad people enjoy happiness. The judgment that apples have many properties – shape, color, taste, and aroma – each of which affects a sense

organ, is opposed by the equally good possibility that apples have only one property that affects each sense organ differently.

Pyrrhonists diagnose dogmatism as the unjustifiable preference for one mode of existence over another. Dogmatists prefer wakefulness and sanity over sleep and insanity. But why should sleep and insanity not be the norm? If the dogmatist answers that it is because sleep and insanity involve some deficiency or abnormal physical states, the sceptic replies, "By what nonquestion-begging criterion are these things said to be deficient or abnormal? Why should insanity not be taken as the primary notion and sanity be defined as the lack of insanity? If it were, then it would not be difficult to see sanity as a deficiency or abnormality, just as insanity currently is. Or why should wakefulness not be seen as the deficient condition in which people do not dream?" The sceptic does not advocate insanity or sleep but merely argues that a preference for them is no less justified than a preference for sanity and wakefulness.

What is at stake in the preceding sceptical arguments is "the problem of the criterion," that is, the problem of deciding how one can determine a justifiable standard against which to measure judgments. Truth seems to need a criterion. But every criterion is either groundless or inconclusive. Suppose that something is proffered as a criterion. The sceptic will ask what proof there is for it. If no proof is offered, the criterion is groundless. If, on the other hand, a proof is produced, a vicious circle begins to close around the dogmatist: What judgment justifies belief in the proof? If there is no judgment, the proof is unsupported; and if there is a judgment, it requires a criterion, which is just what the dogmatist was supposed to have provided in the first place.

If the sceptic needed to make judgments in order to survive, he would be in trouble. In fact there is another method of survival that bypasses judgment. The sceptic can live quite nicely, according to Sextus, by following custom and the way things appear to him. In doing this, the sceptic does not judge the correctness of anything but merely accepts appearances for what they are.

Ancient Pyrrhonism is not strictly an epistemology since it has no theory of knowledge and is content to undermine the dogmatic epistemologies of others, especially of the Stoics and Epicureans. Pyrrho himself was said to have had moral and ethical motives for attacking dogmatists. Being reconciled to not knowing anything, Pyrrho thought, induced serenity (*ataraxia*).

#### St. Augustine

St. Augustine of Hippo (354-430) claimed that human knowledge would be impossible if God did not illumine the human mind and thereby allow it to see, grasp, or understand ideas. There are two components to his theory: ideas and illumination. Ideas as Augustine construed them are the same as Plato's; they are timeless, immutable, and accessible only to the mind, not to the senses. They are indeed in some mysterious way part of God and seen in God. Illumination, the other element of the theory, was for Augustine and his many followers, at least through the 14th century, a technical term, built upon a metaphor. Since the mind is immaterial, it cannot be literally lighted. Yet the entire theory of illumination rested upon the extended visual metaphor, inherited from Plotinus (205-270) and other Neoplatonic sources, of the human mind as an eye that can see when and only when God, the source of light, illumines it. Still, it is a powerful metaphor relied upon even in the 17th

century by René Descartes (*Discourse on Method*; 1637). Varying his metaphor, Augustine sometimes says that the human mind participates in God and even, as in *On the Teacher*, that Christ illumines the mind by dwelling in it. It is important to emphasize that Augustine's theory of illumination concerns all knowledge, and not specifically mystical or spiritual knowledge. In addition to its historical significance, his theory is interesting for showing how diverse epistemological theories have been.

Before he articulated this theory in his mature years and soon after his conversion to Christianity, Augustine was concerned to refute the Scepticism of the Academy. In *Against the Academicians* Augustine claims that, if nothing else, humans know such disjunctive tautologies as that either there is one world or there is not one world and that either the world is finite or it is infinite. Humans also know many propositions that begin with the phrase "It appears to me that," such as "It appears to me that what I perceive is made up of earth and sky, or what appears to be earth and sky." And they know logical (or what he calls "dialectical") propositions, for example, "If there are four elements in the world, there are not five; if there is one sun, there are not two; one and the same soul cannot die and still be immortal; and man cannot at the same time be happy and unhappy."

Many other refutations of Scepticism occur in later works, notably, in *On the Free Choice of the Will*, *On the Trinity*, and *The City of God*. In the latter work Augustine proposes other examples of things about which people are absolutely certain. Again in explicit refutation of the Sceptics of the Academy, Augustine argues that if a person is deceived, then it is certain that he exists. Like Descartes, Augustine puts the point in the first person, "If I am deceived, then I exist" (*Si fallor, sum*). A variation on this line of reasoning

occurs in *On the Trinity*, when he says that if he is deceived, he is at least certain that he is alive.

Augustine also points out that, since he knows, he knows that he knows; and he notes that this can be reiterated an infinite number of times: If I know that I know that I am alive, then I know that I know that I know that I am alive. This point was codified in 20th-century epistemic logic as the axiom “If X knows that *p*, then X knows that X knows that *p*.” In *The City of God* Augustine claims that he knows that he loves: “For neither am I deceived in this, that I love, since in those things which I love I am not deceived.” With Scepticism thus refuted, Augustine simply denies that he has ever been able to doubt what he had learned through his sensations or even the testimony of most people.

Scepticism did not recover from Augustine’s criticisms for a thousand years; but then it arose again like the phoenix in Egyptian mythology. Augustine’s Platonic epistemology dominated the Middle Ages until the mid-13th century, when St. Albertus Magnus (1200-80) and then his student St. Thomas Aquinas developed an alternative to Augustinian illuminationism.

## Medieval Philosophy

### St. Anselm of Canterbury

The phrase St. Anselm of Canterbury (c. 1033-1109) used to describe his own project, namely, “faith seeking reason” (*fides quaerens intellectum*), well characterizes medieval philosophy as a whole. All the great medieval philosophers, Christian, Jewish, and Islamic alike, were also theologians.

Virtually every object of interest was related to their belief in God, and virtually every solution to every problem, including the problem of knowledge, contained God as an essential part. Anselm himself said that, while true propositions are those that signify what is, ultimately truth is God. This presented Anselm with a problem, which he discusses at the beginning of *Proslogium* as a prelude to his famous ontological argument for the existence of God. There is a tension between the view that God is truth and intelligibility and the fact that humans have no perception of God. How can there be knowledge of God, he asks, when all knowledge comes through the senses and God, being immaterial, cannot be sensed? His solution is to distinguish between knowing something by being acquainted with it in sensation and knowing something by describing it. Knowledge by description is possible because of the concepts that one forms from sensation. All knowledge about God depends upon the description that he is “the thing than which a greater cannot be conceived.” From this premise Anselm argues that humans can know, for example, that God exists, is all-powerful, all-knowing, all-just, all-merciful, and immaterial. Eight hundred years later Bertrand Russell would use the same distinction between knowledge by acquaintance and knowledge by description to develop his influential philosophy, although he would have vigorously denied that the distinction could be employed as Anselm had, namely, to prove that God exists.

#### St. Thomas Aquinas

While a Platonic and Augustinian epistemology dominated the early Middle Ages, the translation of Aristotle’s *On the Soul* in the early 13th century had a dramatic effect. Following Aristotle, Thomas Aquinas (1225-



74) recognized that there are different kinds of knowledge. Sense knowledge is what results from sensing individual things: thus, one sees a tree, hears the song of an oriole, and tastes or smells a peach. Thomas considered sense knowledge to be low-grade because it has individual things as its object and is also shared with brute animals. Sensation itself does not involve the intellect and is not properly speaking knowledge (*scientia*).

It is characteristic of scientific knowledge to be universal; the more general in scope a piece of knowledge is, the better. This is not to diminish the importance of specificity. Scientific knowledge should also be rich in detail, and God's knowledge is the most detailed. The detail, however, must be essential to the thing being studied and not peculiar to just some instances of that kind. Although Thomas thought that the highest knowledge humans can possess is knowledge of God, knowledge of physical objects is more attuned to human capabilities, and only that kind of knowledge will be discussed here.

In his discussion of knowledge in *Summa theologiae*, Thomas Aquinas argues that human beings do not know material objects directly, nor are such things the principal object of knowledge. Knowledge aims at what is universal, while material things are individual and can be known only indirectly. Elaborating on the thought of Aristotle, Thomas claims that the process of thinking that accompanies knowledge consists of the active intellect (*intellectus agens*) abstracting (*abstrahens*) a concept from an image (*phantasma*) received from the senses.

In one of Thomas' accounts of the process, abstraction is the process of isolating the universal elements of an image of a particular object from those elements that are peculiar to the object. For example, from the image of a dog the intellect abstracts the ideas of being alive, being capable of reproduction,

movement, and whatever else might be essential to being a dog. All these ideas are common to all dogs because they are essential to them. These ideas can be contrasted with the ideas of being owned by Dion and weighing five pounds, namely, with properties that vary from dog to dog.

As stated earlier, Aristotle typically spoke of a form as being in the intellect of the knower, whereas the matter of an object is unintelligible and remains extramental. While it was necessary for Aristotle to say something like this in order to escape the absurdity of holding that a material object is in the mind in exactly the same way it is in the physical world, there is also something unsatisfying about it. Physical things contain matter as an essential element, and, if their matter is no part of what is known, then it seems that human knowledge is lacking. In order to counter this worry, Thomas revised Aristotle's theory. He said that not the form alone but the species of an object is also in the intellect. A species is a combination of form and "common matter" (*materia communis*), where common matter is contrasted with individuated matter (*materia signata vel individualis*), which actually gives bulk to a material object. Common matter is something like a general idea of matter. Since every animal must have a body, it is not enough to conceive of an animal merely as something that is alive. Having flesh and bones, that is, being material, is part of the essence of being an animal. Of course this materiality, which is common to every animal, is not the same as the actual flesh and bone that constitute Fido – hence the distinction between common and individuated matter.

This abstracted species resides in a part of the soul called "the passive intellect," where it is described as being illumined by the active intellect. What this process amounts to is the isolation of those features of the intelligible species that are universal and necessary to it. Thus, to know what a

human being is to have abstracted the ideas of being rational and being capable of sensation, movement, reproduction, and nutrition and to have excluded the ideas of living in a particular place or having a certain appearance, all of which are not essential to being human.

One objection that Thomas anticipated being raised against his theory is that it gives the impression that ideas, not things, are what are known. If knowledge is something that humans have and if what humans have in their intellect is a species of a thing, then it is the species that is known and not the thing. It might seem, then, that Thomas' view is a type of idealism.

Thomas had prepared for this kind of objection in several ways. His insistence that what the knower has in his intellect is a species, which includes matter, is supposed to make what is in the intellect seem more like the object of knowledge than an immaterial Aristotelian form. Also, scientific knowledge does not aim at knowing any individual object but at what is common to all things of a certain sort. In this, Thomas' views are similar to those of 20th-century science. The billiard ball that John Jones drops from his porch is of no direct concern to physics. Even though its laws apply to John Jones's ball, physics is interested in what happens to any object dropped from any height, just as what Thomas says about apples in general also applies to each individual apple.

As assuaging as these considerations might be, they do not blunt the main force of the objection. For this purpose Thomas Aquinas introduced the distinction between what is known and that by which it is known. To specify what is known, say, an individual dog, is to specify the object of knowledge; to specify that by which it is known, say, the phantasm or the species of a dog, is to specify the apparatus of knowledge. The species of something is that by

which the thing is known; but it is not itself the object of that knowledge, although it can become an object of knowledge by being reflected upon.

The philosophical optimism of the 13th century dissolved as a consequence of the secular and ecclesiastical condemnations in 1270 and 1277 of certain aspects of Aristotelian philosophy, and worries about sceptical consequences began to emerge. While the philosophy of Thomas Aquinas was one of the targets of these condemnations, John Duns Scotus was also worried about the sceptical consequences that could be elicited from the major competitor to Aristotelianism, the Augustinianism of Henry of Ghent (1217-93). According to Henry, God must “illumine” the human intellect on every occasion of its knowing. Not only could no good literal meaning be given to this sense of illumination, but the view also sounds as if all human knowledge were supernatural. Henry’s insistence that God’s illumination is a natural divine illumination did not persuade many people.

#### John Duns Scotus

While he accepted some aspects of Aristotelian abstractionism and also held that there need to be some a priori principles of perception, principles that he attributed to Augustine, John Duns Scotus (c. 1266-1308) did not rest the certainty of human knowledge on either of them. He distinguished four different classes of things that are certain: First, there are things that are knowable simply (*simpliciter*). These include both true identity statements such as “Cicero is Tully” and propositions, later to be called analytic, such as “Man is rational.” According to Duns Scotus, such truths coincide with what makes them true. A consequence of this is that the negation of a simple truth

is inconsistent even though it may not be explicitly contradictory. For example, the negation of “The whole is greater than any proper part” is not explicitly contradictory in the way that “Snow is white and snow is not white” is; nonetheless, “The whole is not greater than any proper part” cannot possibly be true and hence is contradictory.

The second class of certainly known propositions consists of things knowable through experience, where “experience” has the Aristotelian sense of something that is encountered numerous times. The knowledge afforded by experience is grounded in the a priori epistemic principle that “whatever occurs in a great many instances by a cause that is not free is the natural effect of that cause.” It is important to note that Duns Scotus’ pre-Humean confidence in induction did not survive the Middle Ages. The 14th-century philosopher Nicholas of Autrecourt, who has been called “the medieval Hume,” argued at length that there is no necessary connection between any two events and that there is no rational justification for the belief in causal relations.

The third class of certainly known propositions consists of things knowable that concern one’s own actions (*de actibus nostris*). Humans know when they are awake immediately and not through any inference; they know with certainty that they think (*me intelligere*) and that they hear and have other sense experiences. Even if a sense experience is caused by a defective sense organ, it remains true that one is aware of the sensuous content of the sensation: for example, one sees white even if one is mistaken in thinking that the seeing is caused by snow.

The fourth class of certainly known objects consists of things knowable through human senses (*per sensus*). Duns Scotus said that humans learn about

the heavens, the earth, the sea, and all that are in them. This last class of objects that are certainly known things seems to be posited without regard to the threat of Scepticism at all.

Duns Scotus' rendition of intuitive knowledge, however, has the purpose of forestalling the sceptical move of interposing something between the knower and the thing known that might enable belief to deviate from its object. Intuitive knowledge is indubitable knowledge that something exists. It is knowledge "precisely of a present object [known] as being present and of an existent object [known] as being existent." Further, the object of knowledge must be the cause of the knowledge. If a person sees Socrates before him, then, according to Duns Scotus, he has intuitive knowledge of the proposition that Socrates is white and that Socrates and his whiteness cause that knowledge. Intuitive knowledge contrasts with abstractive knowledge, such as knowledge of universals, for which the object need not be present or even existent. For example, for all one knows from contemplating the nature of dogs or unicorns, they are equally likely or unlikely to exist.

It may appear that intuitive knowledge is absolute; either one has it or one does not. But that is not Duns Scotus' doctrine. He held that there is imperfect intuitive knowledge of the past, which is more certain than abstractive knowledge but less certain than present intuitive knowledge. However plausible or implausible this may be, it is worth noting that Russell held the same view but expressed it by using the terms "knowledge by acquaintance" (intuitive cognition) and "knowledge by description" (abstractive cognition).

## William of Ockham

There are several places in Duns Scotus' account where sceptical challenges can gain a foothold, for example, when he endorses the certainty of sense knowledge and when he holds that intuitive cognition must be of an existent object. William of Ockham (c. 1285-1349?) took his stand against the sceptical challenge by radically revising Duns Scotus' idea of intuitive cognition. Unlike Duns Scotus, Ockham does not require intuitive knowledge to have an existent object, and the object of intuitive knowledge need not be its cause. To the question "What is the basis for the distinction between intuitive and abstractive knowledge?" given that it is not the existence of the object and not a causal relation between an object and the knower, Ockham answered that they are simply different. His answer notwithstanding, it is characteristic of intuitive knowledge that it is unmediated. There is no gap between the knower and the known that might undermine certainty: "I say that the thing itself is known immediately without any medium between itself and the act by which it is seen or apprehended."

According to Ockham, there are two kinds of intuitive knowledge: natural and supernatural. In natural intuitive knowledge, the object exists, the knower judges that the object exists, and the object causes the knowledge. In supernatural intuitive knowledge, the object does not exist, the knower judges that the object does not exist, and God is the cause of the knowledge. In neither case is knowledge a relation; it is something a person has, a property of the person.

Ockham recognized that God might cause a person to think that he has intuitive knowledge of an existent object when there in fact is no such object. But such a condition is not intuitive knowledge but a false belief.

Unfortunately, in acknowledging that a person has no way to distinguish between genuine intuitive cognitions and divine counterfeits of them, Ockham has in effect lost the argument to the Sceptics.

Later medieval philosophy followed a fairly straight path to Scepticism. John of Mirecourt was condemned in 1347 for holding among other things that there is no certainty of external reality because God could cause illusions to seem real. Nicholas of Autrecourt was also condemned in the same year for holding that only purely sensory reports of human experience are certain and that the only certain principle is that of contradiction, namely, that a thing cannot be and not be something at the same time. He denied that humans know that causal relations exist or that there are substances, two of many errors he credited to Aristotle, about whom he said, "In all his natural philosophy and metaphysics, Aristotle had hardly reached two evidently certain conclusions, perhaps not even a single one...." The link between Scepticism and criticism of Aristotle was fairly strong, and Petrarch, in *On My Ignorance and That of Many Others* (1367), cited Aristotle as "the most famous" of those who do not have knowledge.

#### From Scientific Theology to Secular Science

For most of the Middle Ages there was no split between theology and science (*scientia*). Science was knowledge that was deduced from self-evident principles, and theology received its principles from the source of all principles, God. In every way, theology was superior to the other sciences, according to Thomas Aquinas. By the 14th century the ideas of science and theology began to be separated. Roughly, theologians began to argue that



human knowledge was much more narrowly circumscribed than earlier believed. They often exploited the omnipotence of God in order to undercut the arrogance and pretension of human reason. Their motive was to enhance the dignity of God at the expense of human reason, and in place of rationalism in theology, they promoted a kind of fideism.

Gregory of Rimini (c. 1300-c. 1358) exemplified the growing split between natural reason and theology. According to Gregory, theology is not a science, and theological propositions are not scientific. In the new view of Gregory, who was inspired by Ockham, science deals only with what is accessible to humans through natural means, that is, through the ordinary operations of their senses and intelligence. Theology in contrast deals with what is accessible in some supernatural way. Thus, theology is not scientific. The role of theology is to explain the meaning of the Bible and the articles of faith and to deduce conclusions from them. Since the credibility of the Bible rests upon belief in divine revelation and revelation upon the authority of God, theology lacks a rational foundation. Further, since there is neither self-evident knowledge of God nor any natural experience of him, humans can have only an abstract understanding of what he is.

Ockham and Gregory did not at all intend their views to undermine theology. For them, natural science is built on probabilities, not certainties. Since humans are fallible, their natural science is fallible, unlike theology, which is built upon propositions that have the authority of God. Unfortunately for theology, the prestige of natural science rose in the 16th century and skyrocketed in the 17th and 18th centuries; modern thinkers preferred coming to their own conclusions based upon experience and reason, even if these were only probable, to trusting the authority of anyone, even God. (This attitude has been called “the Faustian ethos,” after Goethe’s character Faust.) As the

theologians tended to lose confidence in reason, other thinkers who had no or virtually no commitment to Aristotelian thought became the champions of reason and helped give birth to modern science.

## Modern Philosophy

### Faith and Reason

Modern philosophers as a group are usually thought to be purely secular thinkers. Nothing could be further from the truth. From the early 17th century until the middle of the 18th century, all of the great philosophers incorporated substantial religious elements into their work. Descartes, in his *Meditations* (1641), offered two different proofs for the existence of God, and he asserted that no one who does not believe in a cogent proof for the existence of God can have knowledge in the proper sense of the term. Benedict Spinoza began his *Ethics* (1677) with a proof for the existence of God, after which he expatiated on its implications for understanding all reality. And George Berkeley explained the stability of the sensible world by relying upon God's constant thought of it.

Among the reasons modern philosophers are mistakenly thought to be primarily secular thinkers is that many of their epistemological principles, including some that were intended to defend religion, were later interpreted as subverting the rationality of religious belief. The role of Thomas Hobbes (1588-1679) and John Locke might be briefly considered in this connection. In contrast with the standard view of the Middle Ages that propositions of faith are rational, Hobbes argued that propositions of faith belong not to the intellect but to the will. To profess religious propositions is a matter of

obeying the commands of a lawful authority. One need not even understand the meanings of the words professed: an obedient mouthing of the appropriate confession of faith is sufficient. In any case, the linguistic function of virtually every religious proposition is not cognitive in the sense of expressing something that is intended to represent a fact about the world but rather to give praise and honour to God. Further, in contrast to the medieval view, according to which theology is the highest science, theology is not a science at all since its propositions are not susceptible to rational dispute.

In *An Essay Concerning Human Understanding* (1689), Locke further eroded the intellectual status of religious propositions by making them subordinate to reason in several dimensions. First, reason can dictate what the possible content of a proposition allegedly revealed by God might be; in particular, no proposition of faith can be a contradiction. Consequently, if the proposition that Jesus is both fully God and fully man is contradictory, it cannot be revealed and cannot be a matter of faith. Also, no revelation can be communicated that contains an idea not based upon sense experience. Thus, St. Paul's experience of things "as eye hath not seen, nor ear heard, nor hath it entered into the heart of man to conceive," are things in which other people can have no faith. To move to another dimension in which reason takes precedence over faith, direct sense knowledge (what Locke calls "intuitive knowledge") is always more certain than any alleged revelation. Thus, a person who sees that someone is soaking wet cannot have it revealed to him that the person is at that moment dry. Rational proofs, in mathematics and science, also cannot be contradicted by divine revelation. The interior angles of a rectangle equal 360, and no alleged revelation to the contrary is credible. In short, "Nothing that is contrary to, and inconsistent with, the clear and self-

evident dictates of reason, has a right to be urged or assented to as a matter of faith....”

What space, then, does faith occupy within the mansion of human beliefs? According to Locke, it shares a room with probable truths, those propositions of which reason cannot be certain. There are two types: claims about observable matters of fact and claims that go “beyond the discovery of our sense.” Religious propositions belong to each category, as do empirical or scientific ones. That Caesar crossed the Rubicon and that Jesus walked on water belong to the first type of probable proposition. That heat is caused by the friction of imperceptibly small bodies and that angels exist are propositions that belong to the second category.

While mixing religious claims with scientific ones might seem to secure a place for the former, in fact it did not. For Locke also held that whether something is a revelation or not “reason must judge,” and more generally that “*Reason must be our last judge and guide in everything.*” Although this maxim was intended to reconcile reason and revelation – indeed, he calls reason “natural revelation” and revelation “*natural reason enlarged* by a new set of discoveries communicated by God” – over the course of 200 years reason repeatedly judged that alleged revelations had no scientific or intellectual standing.

Although there is a strong religious element in modern thinkers, especially before the middle of the 18th century, the purely secular aspects of their thought predominate in the following discussion, because it is these that are of contemporary interest to epistemologists.

## Impact of Modern Science on Epistemology

Nicolaus Copernicus (1473-1543), a cleric, argued in *On the Revolutions of the Celestial Spheres* (1543) that the Earth revolves around the Sun. His theory was epistemologically shocking for at least two reasons. First, it goes directly counter to how humans experience their relation to the Sun; it is everyone's prescientific view that the Sun revolves around the Earth. If science can overthrow such a belief, then scientific reasoning seems to lead to knowledge in a way that nonscientific reasoning cannot. Indeed, the nonscientific reasoning of everyday life may seem to be a kind of superstition. Second, his theory was shocking because it contradicts the view that is presented in several books of the Bible, most importantly the explicit account in Genesis of the structure of the cosmos, according to which Earth is at the center of creation and the Sun hangs from a celestial ceiling that holds back the waters which once flooded the Earth. If Copernicus is right, then the Bible can no longer be taken as a reliable scientific treatise. Scientific beliefs about the world, then, must be gathered in a radically new way.

Many of the discoveries of Galileo Galilei (1564-1642) had the same two shocking consequences. His telescope seemed to reveal that unaided human vision gives false or seriously incomplete information about the nature of celestial bodies. His mathematical formulations of physical phenomena seem to indicate that most sensory information may contribute nothing to knowledge. Like his contemporary, the astronomer Johannes Kepler, he distinguished between two kinds of properties. Primary qualities, such as shape, quantity, and motion, are genuine properties of things and are knowable by mathematics. Secondary qualities, namely, odour, taste, sound, color, warmth, or coldness, exist only in human consciousness and are not part of the objects to which they are normally attributed.

## René Descartes

Both the rise of modern science and the rediscovery of Scepticism were important influences on René Descartes (1596-1650). While he believed that humans were capable of knowledge and certainty and that modern science was developing the superstructure of knowledge, he thought that Scepticism presented a legitimate challenge that needed an answer, one that only he could provide.

The challenge of Scepticism, as Descartes saw it, is vividly portrayed in his *Meditations*. He considered the supposition that all of one's beliefs are false, being the delusions of an evil genius who has the power to impose beliefs on people unbeknownst to them. But Descartes claimed that it is not possible for all of one's beliefs to be false, for anyone who has false beliefs is thinking and knows that he is thinking, and if the person is thinking, then that person exists. Nonexistent things cannot think. This line of argument is summarized in Descartes's formula, "Cogito, ergo sum" ("I think; therefore, I am").

Descartes distinguished two sources of knowledge: intuition and deduction. Intuition is an unmediated mental seeing or direct apprehension of something experienced. The truth of the proposition "I think" is guaranteed by the intuition one has of one's own experience of thinking. One might think that the proposition "I am" is guaranteed by deduction, as is suggested by the "ergo." In *Objections and Replies* (1642), however, Descartes explicitly says that the certainty of "I am" is also based upon intuition.

If one could know only that one thinks and exists, human knowledge would be depressingly narrow. So Descartes proceeded to broaden the limits

of human knowledge. After showing that all human knowledge depended upon thought or reason, not sensation or imagination, he then proceeded to prove to his own satisfaction that God exists; that the criterion for knowledge is clearness and distinctness; that mind is more easily known than body; that the essence of matter is extension; and that most of his former beliefs are true.

Few of these proofs convinced many people in the form in which Descartes presented them. One major problem is what has come to be known as the Cartesian circle. In order to escape from the possibility that an evil genius is deluding him about everything he believes, Descartes proves that God exists. He then argues that clearness and distinctness is the criterion for all knowledge because God does not deceive man. But, since this criterion is arrived at only after the existence of God has been proven, he cannot appeal to this criterion when he presents his proof for the existence of God; hence he cannot know that his proof is cogent.

John Locke

*An Essay Concerning Human Understanding* by John Locke (1632-1704) is often taken to be the first major empiricist work. Book I discusses innate ideas in order to deny that there are any; Book II discusses various genuine kinds of ideas; Book III discusses language with an emphasis on the meaning of words; and Book IV discusses knowledge and related cognitive states and processes.

Innate ideas are ideas that humans are born with. Rationalist philosophers, like Descartes and Gottfried Wilhelm Leibniz (1646-1716), thought that there have to be such ideas in order to explain the existence of

some of the ideas which humans have. One argument for innate ideas is that, while the ideas of blue, dog, and large, for example, can be explained as the result of certain sense impressions, other ideas seem unable to be attributed to sensation. Numbers, for example, seem to be outside the realm of sensation. Another argument is that some principles are accepted by all human beings, as, for example, the principle that out of nothing nothing comes. Locke did not think either of these arguments had any force. He held that all ideas can be explained in terms of sensation, and he set as one of his projects the task of providing such an explanation. Instead of directly attacking the hypothesis of innate ideas, Locke's strategy was to refute it by showing that it is otiose and hence dispensable.

In Book II of the *Essay* Locke supposes the mind to be like a blank sheet of paper that is to be filled with writing. How does the paper come to be filled? "To this I answer, in one word," says Locke, "Experience." He divides experience into two types: observation of external objects and observation of the internal operations of the mind.

Observation of external objects is another description for sensation. Observation of the internal operations of the mind does not have its own word in ordinary language, and Locke stipulated "reflection" to designate it, because people arrive at ideas by reflecting on the operations of their own minds. Examples of reflection are perceiving, thinking, doubting, believing, reasoning, knowing, and willing.

An idea is anything that the mind "perceives *in itself*, or is the immediate object of perception." Qualities are the powers that objects have to cause ideas. Many words have dual senses. The word *red*, for example, might mean either the idea of red in the mind or the quality in a body that causes the idea



of red in the mind. Some qualities are primary in the sense that all bodies have them. Solidity, extension, figure, and mobility are primary qualities. Secondary qualities are those powers that, in virtue of the primary qualities, cause the sensations of sound, color, odour, and taste. Locke's view is that the phenomenal redness of a fire engine is not in the fire engine itself, nor is the phenomenal sweet smell of a rose in the flower itself. Rather, certain configurations of the primary qualities cause phenomena such as the appearance of red or the taste of sweetness, and in virtue of these configurations the object itself is said to have the quality of redness or sweetness. But there is no resemblance between the idea in the mind (phenomenon) and the secondary quality that causes it. Locke claims, without justification, as George Berkeley was later to argue, that there is, however, a resemblance between primary qualities and the ideas of them. (Locke distinguishes a third sort of quality, e.g., the power of fire to produce a new color or consistency in wax or clay, but he makes nothing of it.)

Although Locke along with most distinguished modern philosophers repudiated Aristotelianism and the Scholasticism to which it gave rise, a doctrine of abstraction survives in his philosophy. Abstraction occurs when "ideas taken from particular beings become general representatives of all of the same kind." That is, to abstract is to ignore the particular circumstances of time and place and to use an idea to represent all things of a certain kind.

In Book IV Locke finally defines knowledge as "the perception of the connexion of and agreement, or disagreement and repugnancy of any of our ideas." He also distinguishes several degrees of knowledge. The first is knowledge in which the mind "perceives the agreement or disagreement of two ideas *immediately by themselves*, without the intervention of any other," which he calls "intuitive knowledge." His first examples are such analytic

propositions as “*white* is not *black*,” “a *circle* is not a *triangle*,” and “*three* are more than *two*.” But later he says, “The knowledge of our own being we have by intuition.” Relying on the metaphor of light as Augustine and others had, Locke says of this knowledge that “the mind is presently filled with the clear light of it. It is on this intuition that depends all the certainty and evidence of all our knowledge.”

The second degree of knowledge occurs when “the mind perceives the agreement or disagreement of... ideas, but not immediately.” Some mediating idea makes it possible to see the connection between two other ideas. Proofs are things that show the mediating connections between ideas, and a clear and plain proof is a demonstration. Demonstrative knowledge is certain but not as evident as intuitive knowledge, says Locke, because it requires effort and attention to go through the steps needed to recognize the certainty of the conclusion.

A third degree of knowledge, “sensitive knowledge,” approximates to what Duns Scotus and Ockham called “intuitive cognition,” namely, the perception of “the particular existence of finite beings without us.” Unlike medieval intuitive cognition, Locke’s sensitive knowledge is less certain than his intuitive or demonstrative knowledge.

Beneath knowledge is probability, which is the appearance of agreement or disagreement of ideas with each other. Etymologically, probability is a likeliness to be true, and it guides in matters “whereof we have no certainty.” Locke suggests that probability rests upon the testimony of others and, like knowledge, comes in degrees, which depend upon the likely veracity of the sources of the proposition. The highest degree of probability attaches to propositions endorsed by the general consent of all people in all ages. Locke

may have in mind the virtually general consent of his contemporaries in the proposition that God exists. But he explicitly mentioned beliefs about causal relations, which are not perceived but inferred. To argue from such beliefs is called “an argument from the nature of things.” The next degree of probability or assurance in probable propositions attaches to matters that hold not universally but for the most part, such as that persons prefer their own private advantage to the public good. This sort of proposition is typically derived from history. The next degree of probability or assurance attaches to claims about specific facts; for example, that a man named Julius Caesar lived a long time ago. Problems arise when testimonies conflict, as they often do, but there is no simple rule or set of rules that instructs one how to resolve such controversies.

In addition to these probabilities, all of which concern particular matters of fact, there are also probabilities about things that are not within the power of the senses. The existence, nature, and operation of angels, devils, microbes, magnets, and molecules all fall into this class. It is important to recognize that for people as scientific as Locke, who was a member of the Royal Society, all of these were part of the same class. It took many centuries to separate science from religion and superstition.

### George Berkeley

Locke is part of a philosophical tradition called empiricism, that is, the view that the sole or at least the major source of human knowledge is sensory experience. George Berkeley (1685-1753) was the next great adherent of empiricism. In his major work, *Treatise Concerning the Principles of Human*

*Knowledge* (1710), he divides ideas into three types: Ideas that come from sense correspond to Locke's simple ideas of sensation. Ideas that come from "attending to the passions and operations of the mind" correspond to Locke's ideas of reflection. Ideas that come from compounding, dividing, or otherwise representing ideas, correspond to Locke's compound ideas. An apple, for example, is a compound of the simple ideas of color, taste, smell, and figure associated with it.

In addition to ideas, what exists are spirits or souls or minds. By "spirit," Berkeley means "one simple, undivided, active being." Spirit exercises itself in two ways: in understanding and in willing. Understanding is spirit perceiving ideas, and will is spirit producing ideas. It is evident, says Berkeley, that no idea, including those of sensation, can exist outside of a mind. This is evident, not merely in virtue of the meaning of "idea" but what it means to exist. For a table to exist is for someone to see or feel it. To be an odour is to be smelled. To be a sound is to be heard. In short, for nonthinking beings, *esse is percipi* (to be is to be perceived).

The question whether a tree falling in a virgin forest makes a sound is inspired by Berkeley's philosophy, though he never asked it in those terms. He did, however, consider the thrust of the objection and gave various answers to it. He sometimes says that a table in a room unperceived is a table that would be perceived if someone were there. This conditional response, however, is not sufficient. Granted that the table would exist if it were perceived, does it exist when it is not perceived? Berkeley's other answer is that, when no human is perceiving a table or other such object, God is; and it is his thinking that keeps the otherwise unperceived object in existence.

However strange his doctrine may initially sound, Berkeley claimed that he was merely describing the commonsense view of reality. To say that colors, sounds, trees, dogs, and tables are ideas is not to say that they do not really exist. It is merely to say what they are. To say that animals and pieces of furniture are ideas is not to say that they are diaphanous, gossamer, and evanescent. Opacity, density, and permanence are also ideas that partially constitute these objects.

Berkeley has a syllogistic argument for his main point: physical things, such as trees, dogs, and houses, are things perceived by sense, and things perceived by sense are ideas; therefore, physical things are ideas. If one objects that the first premise is false, Berkeley in reply would challenge the objector to point out one example of something that is not sensed. The only way to identify such an example is through some sensation, either by sight, touch, taste, or hearing. In this way, any proffered counterexample becomes an example of Berkeley's point.

If one objects that the second premise of the syllogism is false on the grounds that people sense things, not ideas, Berkeley would reply that there are no sensations without ideas and that it makes no sense to speak of some additional thing which ideas are supposed to represent or resemble. Unlike Locke, Berkeley does not believe that there is anything "behind" ideas in a world external to the mind. There could not be. If the alleged external objects, of which ideas are supposed to be representations, exist, then they are themselves either ideas or not. If they are ideas, then Berkeley's point that everything perceived is an idea is vindicated. If they are not ideas, then they are unperceived; in particular, they would be invisible colors, intangible textured things, odourless smells, and silent sounds. If someone objects that he can imagine trees or books in a closet unperceived, Berkeley would reply that

this proves nothing except that there are imagined trees and books. People who think that there are unperceived objects are deceived because they do not take into account their own thinking of the allegedly unperceived object.

A consequence of this argument is that Locke's distinction between primary and secondary qualities is spurious. Extension, figure, motion, rest, and solidity are as much ideas as green, loud, and bitter are; there is nothing special about the former kinds of ideas. Furthermore, matter, as philosophers conceive it, does not exist and indeed is contradictory. For matter is supposedly unsensed extension, figure, and motion, but since extension, figure, and motion are ideas, they must be sensed.

Berkeley's doctrine that things unperceived by human beings continue to exist in the thought of God was also not novel. It was part of the traditional belief of Christian philosophers from Augustine onward through Aquinas and at least to Descartes that God not only creates all things but keeps them in existence by thinking of them. In this view if he were ever to stop thinking of a creature, it would immediately be annihilated.

On another matter, the doctrine of abstraction, Berkeley made a clean break with the past. Berkeley rejected it completely, because he thought it led to belief in unperceived, nonspiritual substances. Abstractionism, according to Berkeley, illicitly warrants the separation of existence from being perceived. For him every idea is particular and of a particular object. There cannot be an idea of motion in general but only of a certain body moving slowly or quickly. To reject abstract ideas is not to reject general ideas. An idea is general in virtue of "being made to represent or stand for all the other particular ideas of the same sort." That is, each general idea is a particular idea that stands for many things.

## David Hume

Although Berkeley rejected the Lockean notions of primary and secondary qualities and matter, he retained Locke's beliefs in the existence of mind, substance, and cause as a power or secret force. David Hume (1711-76), in addition to rejecting all the Lockean notions that Berkeley did, also rejected what Berkeley had retained. His justification for this step was empiricist and scientific, for he thought that all science is empiricist and that there is no empirical justification for belief in mind or spirit.

Hume aspired to be the Newton of philosophy. As stated in *A Treatise of Human Nature* (1730-40), he wanted to formulate universal principles to explain "all effects from the simplest and fewest causes," but a boundary condition on these principles is that they "cannot go beyond experience." Further, the ultimate principles that humans can form will themselves lack justification. They will explain experience without having an explanation of their own.

## Kinds of Perceptions

Hume has a twofold division of perceptions: impressions and ideas. Impressions are perceptions that enter with "most force and violence." Ideas are "faint images" of impressions. Hume thinks the distinction so obvious that he demurs from explaining it at any length. Impressions are felt; ideas are thought, he indicates in his summary explication. He also concedes that, although one can always discern the difference between an impression and an idea by its force, sleep, fever, and madness sometimes produce ideas that

approximate to the force of impressions, and certain impressions approach the weakness of ideas. But such occasions are rare.

The distinction has a problem that Hume did not notice. The impression (experience) of anger has an unmistakable quality and intensity, but it is not the case that the idea of anger always makes a person feel angry. Thinking of anger no more guarantees being angry than thinking of the idea of happiness guarantees being happy, even if thinking happy thoughts tends to make people happy. So there is a difference between the experience of anger and the idea of anger that Hume's philosophy does not capture.

In addition to impressions and ideas, perceptions can be divided into the categories of simple and complex. Whereas simple perceptions are not subject to further separation or distinction, complex perceptions are. For example, apples, although unitary objects in one view, are in fact complex perceptions; they are divisible into a certain shape, color, texture, and aroma. It is noteworthy that for every simple impression there is a simple idea that corresponds to it and differs from it only in force and vivacity, and vice versa. So, corresponding to the impression of red is the idea of red. This does not hold true in general for complex perceptions. Although there is a correspondence between the impression of an apple and the idea of an apple, there is not always a correspondence between impressions and ideas. There is no impression that corresponds to the idea of Pegasus or a unicorn; these complex ideas do not have a correlate in reality. There are also complex impressions that do not have a corresponding idea. A traveler who has seen an extensive part of Rome nonetheless does not have an idea of Rome that corresponds in every respect to his perceptions.



Because of their correspondence, there seems to be a special connection between simple impressions and simple ideas: the former cause the latter. Hume deduces this on the following grounds. A simple impression always precedes the corresponding idea, and the idea invariably follows the conjoined impression. Thus, because of the temporal priority of impressions and the constant conjunction of impressions and ideas, Hume concludes that impressions cause ideas.

There are two kinds of impressions: sensation and reflection. Sensation “arises in the soul originally from unknown causes.” Hume says little more about sensation because discussion of it belongs to anatomists and scientists. (Many late 20th-century philosophers do not accept this division between philosophy and anatomy.) To explain reflection is rather complicated because it derives from a complex mental operation. After people feel heat or cold, thirst or hunger, pleasure or pain, they form ideas of heat or cold, thirst or hunger, pleasure or pain. And, following the formation of these ideas – at a third stage of cogitation – they form from the ideas the second kind of impressions: impressions of “desire and aversion, hope and fear.” These impressions are the result of reflecting on ideas caused by sensation.

Since imagination can divide and assemble disparate ideas as it will, some explanation is needed for why the mind seems to run in predictable channels. Hume says that the mind is guided by three principles: resemblance, contiguity, and cause and effect. Thus a person who thinks of one idea is likely to think of another idea that resembles it. For example, a person’s thought, if one accepts Hume’s account, will run from red to pink to white, or from dog to wolf to coyote. Hume also uses the principle of resemblance to explain how general ideas function. Hume agrees with Berkeley in denying that there are abstract ideas, and he affirms that all ideas are particular. Some

of them, however, are used to represent many objects by inclining the mind to think of other ideas that resemble the first. These particular ideas that represent many things are general ideas. Concerning contiguity, people are inclined to think of things that are next to each other in space and time. Finally and most importantly, people associate ideas on the basis of cause and effect relations. Fire and smoke, parent and child, disease and death are tied in the mind because of their causal relations. But cause and effect relations play a more central role in Hume's thought than these brief remarks might suggest.

### Cause and Effect

Although people gain much information from their impressions, most matters of fact depend upon reasoning about causes and effects, even though people do not directly experience causal relations. What, then, are causal relations? According to Hume they have three components: contiguity of time and place, temporal priority of the cause, and constant conjunction. In order for  $x$  to be the cause of  $y$ ,  $x$  and  $y$  must exist adjacent to each other in space and time,  $x$  must precede  $y$ , and  $x$  and  $y$  must invariably exist together. There is nothing more to the idea of causality than this; in particular, people do not experience and do not know of any power, energy, or secret force that causes possess and that they transfer to the effect. Still, all judgments about causes and their effects are based upon experience. To cite examples from *An Enquiry Concerning Human Understanding* (1748), since there is nothing in the experience of seeing a fire close by which logically requires that one will feel heat, and since there is nothing in the experience of seeing one rolling billiard ball contact another that logically requires the second one to begin moving, why does one expect heat to be felt and the second ball to roll? The

explanation is custom. In previous experiences, the feeling of heat has regularly accompanied the sight of fire, and the motion of one billiard ball has accompanied the motion of another. Thus the mind becomes accustomed to certain expectations. “All inferences from experience, therefore, are effects of custom, not of reasoning.” Thus it is that custom, not reason, is the great guide of life. In short, the idea of cause and effect is neither a relation of ideas nor a matter of fact. Although it is not a perception and not rationally justified, it is crucial to human survival and a central aspect of human cognition.

### Substance

One of the cornerstones of philosophy from Plato to Berkeley was the notion of substance, that which exists in itself and does not depend upon anything else for its existence. Substance is contrasted with accident or modes of being, which exist in substances and depend on them for their existence. A dog is a substance, and its color, shape, weight, and bark exist in the dog and depend on it for their existence. One of the reasons for Hume’s place in the history of philosophy is that he denied the existence of substance, using the epistemological principles he shared, not simply with empiricists like Locke and Berkeley, but with Aristotle and Aquinas as well. As argued in the *Treatise*, since all human knowledge must be traced back to sensation, the idea of substance must be also. But what sensation can give rise to the idea of substance? It is not a color, shape, sound, or taste. Substance, by its proponents’ own definition, is not an accident or mode. Hume concludes, “We have therefore no idea of substance, distinct from that of a collection of particular qualities, nor have we any other meaning when we either talk or reason concerning it.” What then are the things that earlier philosophers

designated substances? They are “nothing but a collection of simple ideas, that are united by the imagination, and have a particular name assigned to them.” Gold, to take Hume’s example, is nothing but the collection of the ideas of yellow, malleable, fusible, and so on. Even the mind is only a collection, “a heap or collection of different perceptions united together by certain relations and suppos’d tho’ falsely, to be endow’d with a perfect simplicity or identity.”

### Relations of Ideas and Matters of Fact

Human thought concerns two kinds of things: relations of ideas and matters of fact. Relations of ideas can either be intuited, that is, seen directly, or deduced from other propositions. That  $a$  is identical with  $a$ , that  $b$  resembles  $c$ , and that  $d$  is larger than  $e$  are examples of propositions that are intuited. The opposites of true propositions expressing relations of ideas are contradictory. Arithmetic and algebra are the subjects about which there can be the most certainty. In his *Treatise* Hume says that geometry is almost as certain as these, but not quite, because its original principles derive from sensation, and about sensation there can never be absolute certainty. He revised his views about geometry later, and in the *Enquiry* he puts geometry on an equal footing with the other mathematical sciences.

In contrast with relations of ideas, matters of fact are derived from experience. Experience, however, would be quite limited if it did not include causal relations, which go beyond what is experienced.

## Scepticism

Hume's discussion about relations of ideas and matters of fact gives the impression that he thought that human knowledge is possible. Relations of ideas seem to be the object of knowledge, while matters of fact seem to be the object of probability. In Part II of the *Treatise* he denies this and argues forcefully for Scepticism.

Until the beginning of Part IV of Book I of the *Treatise*, there is little or no hint of Scepticism. The distinction between knowledge (of the mathematical sciences) and probability (of matters of fact) seems to presuppose that there is knowledge. But one then discovers that Scepticism undermines it all. Although the rules of science are certain and infallible, the application of those rules by humans is uncertain and fallible because humans are prone to error. It does no good for a person to try to check his chain of reasonings because the process of checking is no more immune to error than the original calculation. How can one know that the checking process was performed correctly? And, if the checking procedure seems to identify a mistake in the original calculation, how can one determine whether the error is in the original or in the seeming identification of an error? Adding a checking procedure is in one respect worse than leaving the original calculation alone. It introduces a second event, which, like the original calculation, is possibly flawed. And it is more probable that one of two possibly flawed events is flawed than either one of the two alone. "By this means," Hume says, "all knowledge degenerates into probability." Another way to see this consequence is to consider that reason is a cause of truth. But, since all causal relations are probable, not certain, all human reasoning is at best probable.

If one thinks further about the matter, the probability of knowledge diminishes and doubt increases. Each judgment of the probability of some judgment introduces further reasons for doubt and thus lowers the overall probability. The joint probability of  $p$  and  $q$  is lower than the probability of  $p$ ; and the joint probability of  $p$ ,  $q$ , and  $r$  is lower than the probability of  $p$  and  $q$ . Ultimately, “when I proceed still farther, to turn the scrutiny against every successive estimation I make of my faculties all the rules of logic require a diminution, and at last a total extinction of belief and evidence.” If one should say, “Surely, you are kidding,” Hume’s answer would be a beguiling one: In a sense, “yes,” for nature has so made human beings that they cannot in fact be sceptical even though the argument for Scepticism is cogent. As Hume says in his *Enquiry*, people conduct their lives for the most part governed by custom and nature, not reason. Scepticism is true even though there are no Sceptics, because, as in Berkeley’s philosophy, the arguments for Scepticism “admit of no answer and produce no conviction.”

There is another way of expressing Hume’s position. If one examines the grounds that human beings have for trusting their reasoning, one will not be able to find rational grounds. Reason cannot be rationally grounded, and the ground of rationality is wholly nonrational: “belief is more properly an act of the sensitive, than of the cogitative part of our natures.”

Some people have tried to make short shrift of Scepticism by pointing out that if the sceptic recognizes his arguments to be rationally compelling, then he must recognize the sovereignty of reason and hence the falsity of Scepticism. Hume points out that the battle against Scepticism cannot be won in this way. Scepticism is a refutation of the claims of reason. As such, one assumes the truth of rationalism in order to show that it is contradictory and hence false. In other words, Hume’s proof is a *reductio ad absurdum*

argument against belief in rationality. The sceptical argument proceeds by arguing that, if rationalism is true, then it is not rational to be rational. Since the consequent is contradictory, the assumption that rationalism is true must be false. Thus, rationalism is false.

Hume has been called “the complete Pyrrhonist,” but Hume himself denied that he was one, in large part because he did not distinguish between Pyrrhonism and Academic Scepticism, both of which, according to him, advocate the suspension of belief even as one conducts one’s ordinary affairs. Hume thought such a program impossible for human beings: humans are condemned to believe. Unlike the Pyrrhonist, Hume does not suspend judgment or abandon reason. He judges according to reason because it is his nature to do so even though sceptical arguments against reason are cogent. This philosophical schizophrenia – the use and trust in reason coupled with the recognition that rationality has no rational justification – is part of what Hume calls “mitigated Scepticism.” Another part of it is restricting one’s investigations to topics that are within the “narrow capacity of human understanding,” namely to experience and the mathematical sciences.

Given his Scepticism, one might wonder whether it could be directed against Hume’s own positive doctrine. It can. At the end of Part I of his *Treatise* Hume says, “Can I be sure, that in leaving all establish’d opinions I am following truth; and by what criterion shall I distinguish her, even if fortune shou’d at last guide me on her foot-steps? After the most accurate and exact of my reasonings, I can give no reason why I shou’d assent to it; and feel nothing but a *strong* propensity to consider objects *strongly* in that view, under which they appear to me.” Ultimately one judges according to custom and the way nature dictates one must judge. The *Enquiry Concerning Human*

*Understanding* is intended to be an accurate description of how people judge, not a justification of it.

### Immanuel Kant

Idealism is often defined as the view that everything which exists is mental; that is, everything is either a mind or depends for its existence upon a mind, as do ideas and thinking. Immanuel Kant (1724-1804) was not strictly an idealist according to this definition, although he called himself a “transcendental idealist.” On his view, humans can know only what is presented to their senses or what is contributed by their own mind. Every sensory experience is a mixture of a sensory content, which is simply given to a person, and a spatial and temporal form, which is contributed by the mind itself. Further, if one formulates a sensory experience into a judgment, then the mind also contributes certain additional objective features: the judgment incorporates ideas of something being a substance or quality of that substance, ideas of one thing causing another, or one thing being related by necessity or by accident to another. In short, the raw data of sensory input is only a small part of what constitutes human knowledge. Most of it is contributed by the human mind itself; and, so far as human knowledge is concerned, rather than the mind trying to accommodate itself to the external world, the world conforms to the requirements of human sensibility and rationality. Kant compared his radical reorientation of the way philosophers ought to study human knowledge to the Copernican revolution in astronomy. Just as the Earth revolves around the Sun, contrary to common sense, objects conform themselves to the human mind, contrary to common sense.



Kant's idealism notwithstanding, he also believed that a world existed independent of the human mind and completely unknowable by it. This world consists of things-in-themselves, which do not exist in space and time, are not organized in causal relations, and so on, because these are elements contributed by the human mind as conditions for knowing. Because of his commitment to realism (minimal though it may be) Kant was disturbed by Berkeley's uncompromising idealism, which amounted to a denial of the external world. Kant found this incredible and rejected "the absurd conclusion that there can be appearance without anything that appears."

Kant's goal, as developed in *Critique of Pure Reason* (1781), was to supplant Berkeley's crude idealism with a transcendental idealism. The difference, as Kant saw it, is that, while Berkeley began empirically by noting that everything that humans are rationally justified in asserting to exist is related to consciousness, he went on to ask what necessary conditions underlie any empirical experience at all. Kant did not deny that there is empirical experience, but he was critical of Berkeley for not excavating its rational underpinnings. Kant is called a "rationalist" because he thought that the conditions for empirical experience can only be reasoned to, not discovered in, experience; he called his idealism "transcendental" because the conditions he was looking for are common to – they transcend – any experience. In his notorious "proof of an external world," he claimed that he experienced himself as an object in time, that time requires something permanent outside of his consciousness as a precondition for his existence in time, and hence that an external world exists. In other words, the claim is that inner experience presupposes an outer or external world. But few philosophers have claimed to understand why this should be so, and the very contrast of inner and outer seems to beg the question.

Kant believed that all objects of sensation must be experienced within the limits of space or time. Thus, all physical objects have a spatiotemporal location. Because space and time are the backdrop for all sensations, he called them pure forms of sensibility. In addition to these forms, there are also pure forms of understanding, that is, categories or general structures of thought that the human mind contributes in order to understand physical phenomena. Thus, every empirical object is thought to have some cause, to be either a substance or part of some substance, and so on. The structure of judgments finally leads to the question of what properties the propositions that express judgments (or knowledge) have.

From a logical point of view, the propositions that express human knowledge can be divided according to two distinctions. First is the distinction between propositions that are a priori, in the sense that they are knowable prior to experience, and those that are a posteriori, in the sense that they are knowable only after experience. Second is the distinction between propositions that are analytic, that is, those in which the predicate is included in the subject, and those that are synthetic, that is, those in which the predicate is not included in the subject. Putting the terms of these two distinctions together yields a fourfold classification of propositions. (1) Analytic a priori propositions include “All bachelors are unmarried” and “All squares have four sides.” (2) Analytic a posteriori propositions do not exist, according to Kant, because, if the predicate is conceptually included in the subject, the appeal to experience is irrelevant and unnecessary. Also, the negation of an analytic proposition is a contradiction; but, because any experience is contingent, its opposite is logically possible and hence not contradictory. (3) Synthetic a priori propositions include “Every event has a cause” and “ $7 + 5 = 12$ .” Although it is not part of the concept of an event that it be a cause, it is

universally true and necessary that every event has a cause. And, because 12 is a different concept from seven, five, and plus, it does not include any of them singly or jointly as a part of it. (4) Finally, synthetic a posteriori propositions include, “The cat is on the mat” and “It is raining.” They are straightforwardly and uncontroversially empirical propositions that are not necessary and are discoverable through observation.

Kant’s view that human experience is bounded by space and time and that it is intelligible only as a system of completely determined causal relations existing between events in the world and not between the world and anything outside of it has the consequence that there can be no knowledge of God, freedom, or human immortality. Each of these ideas exceeds the bounds of empirical experience and hence is banished from the realm of reason. As he said, he “found it necessary to deny *knowledge*, in order to make room for faith.”

#### G.F.W. Hegel

G.F.W. Hegel (1770-1831) developed his epistemology *pari passu* with ontology. Since his positive views are difficult and replete with technical terms, his epistemology is not susceptible of summary here. Some of his criticisms of earlier epistemological views, however, should be mentioned since they helped to bring modern philosophy to a close.

Empiricism takes cognition of particular sensed objects as the foundation for knowledge. But, Hegel argues, no sensation is purely particular. For every sensation consists of something that has a certain feature, quality, or feel, and this feature, quality, or feel is something common to other

sensations and hence not particular. Also, all knowledge must be expressible in language, and all fully articulated language uses predicates, which express concepts. Even if the empiricist attempts to represent his knowledge with a single, purely demonstrative word, say, “this” or “now,” his view is contradictory. For “this” is common to any indicated object, and “now” can be used to refer to any time. An analogous argument holds against anyone who, like Descartes or Kant, wants to begin with the referent of “I.”

Another mistake common to empiricism and rationalism is to think that knowledge requires a correspondence between a person’s beliefs and reality. The search for such correspondence is logically absurd since every such search ends with some belief about whether the correspondence holds or not, and thus one has not advanced beyond belief. Kant’s distinction between the thing-in-itself and the phenomenon of consciousness is an instance of this absurdity. To make the distinction is to have the object in itself in consciousness and hence not in itself. Thus, Hegel concludes that knowledge and reality cannot be two things but must be identical. Knowledge cannot be perspectival or relative to each person; it is as absolute and objective as reality.

### Contemporary Philosophy

Contemporary philosophy begins in the late 19th and early 20th century. Much of what sets contemporary philosophy off from modern philosophy is its explicit criticism of the modern tradition and sometimes its apparent indifference to it. There are two basic strains of contemporary philosophy: Continental philosophy, which designates the philosophical style of Western

European philosophers, and Anglo-American, or analytic, philosophy, which includes the work of many European philosophers who immigrated to Britain, the United States, and Australia shortly before World War II.

### Continental Philosophy

In epistemology, Continental philosophers during the first quarter of the 20th century were preoccupied with the problem of overcoming the apparent gap between the knower and the known. If a human being has access only to his own ideas of the world and not the world itself, how can there be knowledge at all?

The German philosopher Edmund Husserl (1859-1938) thought that the standard epistemological theories had become intrusive because philosophers were attending to repairing or complicating them rather than focusing on the phenomena of knowledge as humans experience them. To emphasize this reorientation of thinking, he adopted the slogan, "To the things themselves." Philosophers needed to recover the sense of what is given in experience itself, and this could only be accomplished through a careful description of phenomena. Thus, Husserl called his philosophy "phenomenology," which was to begin as a purely descriptive science and only later to ascend to a theoretical, or "transcendental," science.

Husserl thought that the philosophies of Descartes and Kant presupposed a gap between the aspiring knower and what is known and that the experience of the external world was thus dubious and had to be proven. These presuppositions violated Husserl's belief that philosophy, as the most fundamental science, should be free of presuppositions. Thus, he held that it is

illegitimate to assume there to be any problem of knowledge or of the external world prior to an investigation of the matter without any presuppositions. Husserl's device to cut through the Gordian knot of such assumptions was to introduce an "*epoche*." In other words, he would bracket or refuse to consider traditional philosophical problems until after the phenomenological description had been completed.

The *epoche* was just one of a series of so-called transcendental reductions that Husserl proposed in order to ensure that he was not presupposing anything. One of these reductions supposedly gave one access to "the transcendental ego," or "pure consciousness." Although one might expect phenomenology then to describe the experience or contents of this ego, Husserl instead aimed at "eidetic reduction," that is, the discovery of the essences of various sorts of ideas, such as redness, surface, or relation. All of these moves were part of Husserl's desire to discover the one, perfect methodology for philosophy in order to ensure absolute certainty.

Because Husserl's transcendental ego seems very much like the Cartesian mind that thinks of a world but does not have either direct access to or certainty of it, Husserl tried in *Cartesianische Meditationen* (1931; "Cartesian Meditations") to overcome the apparent gap, the very thing he had set out either to destroy or bypass. Because the transcendental ego seems to be the only genuinely existent consciousness, Husserl also tried to overcome the problem of solipsism.

Many of Husserl's followers, including his most famous student, Martin Heidegger (1889-1976), recognized that something had gone radically wrong with the original direction of phenomenology. According to Heidegger's diagnosis, the root of the problem was Husserl's assumption that there is an

“Archimedean point” for human knowledge, to use Husserl’s own phrase; but, there is no ego detached from the world and filled with ideas or representations, according to Heidegger. In *Being and Time* (1927) Heidegger returned to the original formulation of the phenomenological project as a return to the things themselves. Thus, all the transcendental reductions are abandoned. What he claimed to discover is that human beings are inherently world-bound. The world does not need to be derived; it is presupposed by human experience. In their prereflective experience, humans inhabit a sociocultural environment, in which the primordial kind of cognition is practical and communal, not theoretical or individual (“egoistic”). Human beings interact with the things of their everyday world (*Lebenswelt*) as a workman interacts with his tools; they hardly ever approach the world as a philosopher or scientist would. The theoretical knowledge of a philosopher is a derivative and specialized form of cognition, and the major mistake of epistemology from Descartes to Kant to Husserl was to take philosophical knowledge as the paradigm for all knowledge.

Heidegger’s insistence that a human being is something that inhabits a world notwithstanding, he marked out human reality as ontologically special. He called this reality *Dasein*, the being, apart from all others, which is present to the world. Thus, like the transcendental ego, a cognitive being takes pride of place in Heidegger’s philosophy.

In France the principal phenomenological proponent of the mid-century was Maurice Merleau-Ponty (1908-61). But he rejected Husserl’s bracketing of the world, that is, his mistake in not recognizing that human experience of the world is primary, a view capsulized in Merleau-Ponty’s phrase “the primacy of perception.” He furthermore held that dualistic analyses of knowledge, such as the Cartesian mind-body dualism, are inadequate. In fact,

no conceptualization of the world can be complete in his view. Because human cognitive experience requires a body and the body a position in space, human experience is necessarily perspectival and thus incomplete. Although humans experience material beings as multidimensional objects, part of the object always exceeds the cognitive grasp of the person just because of his limited perspective. In *Phenomenology of Perception* (1945), Merleau-Ponty develops these ideas (along with a detailed attack on the sense-datum theory, discussed below).

The epistemological views of Jean-Paul Sartre (1905-80) share some features with Merleau-Ponty's. Both reject Husserl's transcendental reductions, and both think of human reality as being-in-the-world. But Sartre's views have Cartesian elements that were anathema to Merleau-Ponty. Sartre distinguished between two basic kinds of being. Being-in-itself (*en soi*) is the inert and determinate world of nonhuman existence. Over and against it is being-for-itself (*pour soi*), which is the pure consciousness that defines human reality.

Later Continental philosophers attacked the entire philosophical tradition from Descartes to the 20th century for its explicit or implicit dualisms. Being/nonbeing, mind/body, knower/known, ego/world, being-in-itself/being-for-itself are all variations on a way of philosophizing that the philosophers of the last third of the 20th century have tried to undermine. The structuralist Michel Foucault (1926-84) wrote extensive historical studies, most notably *The Archaeology of Knowledge* (1969), in order to demonstrate that all concepts are historically conditioned and that many of the most important ones serve the political function of controlling people rather than any purely cognitive purpose. Jacques Derrida has claimed that all dualisms are value-laden but indefensible. His technique of "deconstruction" attempts to show



that every philosophical dichotomy is incoherent, because whatever can be said about one term of the dichotomy can also be said of the other.

Dissatisfaction with the Cartesian philosophical tradition can also be found in the United States. The American pragmatist John Dewey (1859-1952) directly challenged the idea that knowledge is primarily theoretical; experience, he argued, consists of an interaction between a living being and his environment. Knowledge is not a fixed staring at something but a process of acting and being acted upon. Richard Rorty has done much to reconcile Continental and Anglo-American philosophy. He has argued that Dewey, Heidegger, and Ludwig Wittgenstein are the three greatest philosophers of the 20th century, specifically because of their attacks on the epistemological tradition of modern philosophy.

### Analytic Philosophy

Analytic philosophy, the prevailing philosophy in the Anglo-American world in the 20th century, has its origins in symbolic logic on the one hand and in British empiricism on the other. Some of its important contributions have been nonepistemological in character, but in the area of epistemology its contributions have also been of the first order. Its main characteristics have been the avoidance of system building and a commitment to detailed, piecemeal analyses of specific issues. Within this tradition there have been two main approaches: a formal style, deriving from logic; and an approach emphasizing ordinary language. Among those who can be identified with the first method are Bertrand Russell, Gottlob Frege, Rudolf Carnap, Alfred Tarski, and W.V.O. Quine; and among those with the second are G.E. Moore,

Gilbert Ryle, J.L. Austin, Norman Malcolm, P.F. Strawson, and Zeno Vendler. Wittgenstein can be situated in both groups, his early work belonging to the former tradition and his posthumous works, *Philosophical Investigations* (1953) and *On Certainty* (1969), to the latter.

Perhaps the most distinctive feature of analytic philosophy is its emphasis upon the role that language plays in the creation and resolution of philosophical problems. These problems, it is said, arise through the misuses, oversimplifications, and unwarranted generalizations of everyday language. Wittgenstein said in this connection: "Philosophy is a battle against the bewitchment of the intelligence by means of language." The idea that philosophical problems are in some important sense linguistic (or conceptual) is called the "linguistic turn."

#### Commonsense Philosophy, Logical Positivism, and Naturalized Epistemology

Three of the most notable achievements of analytic philosophy are commonsense philosophy, logical positivism, and naturalized epistemology. G.E. Moore (1873-1958) made a defense of what he called the commonsense view of the world. According to Moore, virtually everybody knows certain propositions to be true, such as that the Earth exists, that it is very old, and that other persons now exist on it. Furthermore, any philosophical theory that runs counter to this commonsense view can be rejected out of hand as mistaken. All forms of idealism fall into this category. Wittgenstein, for whom certainty is that "which stands fast for all of us," extended this view. In *On*

*Certainty* he argued that certitude is connected with action and that “Action lies at the bottom of the language game.”

The development of logical positivism (also called logical empiricism) was a product of the Vienna Circle under the leadership of the German logical empiricist philosopher Moritz Schlick, and it became a dominant form of philosophy in England with the publication of A.J. Ayer’s *Language, Truth, and Logic* (1936). Logical positivism holds that all significant propositions are either those of logic or mathematics on the one hand or those of science on the other. Since the utterances of traditional philosophy (especially metaphysics) fall into neither of these groups, they are unverifiable in principle and accordingly can be rejected as nonsense. The only legitimate function for philosophy is conceptual analysis, i.e., the clarification of various notions, such as “probability” or “causality.”

W.V.O. Quine (b. 1908), in “Two Dogmas of Empiricism” (1950), launched an attack upon the notion that there is a difference in kind between analytic and synthetic statements. Quine argued powerfully that the so-called difference is one of degree. In a later work, *Word and Object* (1960), Quine developed a new type of philosophy, which he called “naturalized epistemology.” He rejected the notion that epistemology has a normative function and claimed that its only legitimate role is to describe the way knowledge is actually obtained. In effect, its function is to describe how present science arrives at the beliefs accepted by the scientific community.

## Perception and Knowledge

To a great extent the epistemological interests of analytic philosophers in the 20th century have been concentrated upon the relationship between knowledge and perception. The major figures in this development have been Bertrand Russell, G.E. Moore, H.H. Price, C.D. Broad, A.J. Ayer, and H.P. Grice. Although their views differed considerably – Russell, Broad, and Ayer were phenomenalists, Grice was a defender of the causal theory of perception, and Moore attempted to construct a theory of direct realism – all of them were defenders of sense-data theory.

Sense-data theory was criticized by proponents of the so-called theory of appearing, such as G.A. Paul and W.H.F. Barnes, who claimed that the arguments for the existence of sense-data are spurious. Those arguments assume, for example, that because a penny looks elliptical from a certain perspective, it follows that there exists an elliptical object (sense-datum), which an observer is directly apprehending. They denied the inference, saying that the introduction of a separate entity, a sense-datum, does not follow from the fact that a circular object looks elliptical and to believe that it does is simply to misdescribe certain common perceptual situations. The most powerful attack on sense-data theory was generated by J.L. Austin in *Sense and Sensibilia* (1962).

Many philosophers, in turn, rejected the theory of appearing. They felt that puzzles about the status of illusions and other visual anomalies still require explanation. Their aim was to give a coherent account of how knowledge is possible despite the existence of perceptual error. Realism and phenomenalism are the two main types of theories developed to account for these difficulties.

Both realism and phenomenism have had numerous variants. Two forms of realism, direct (naive) realism and representative realism (also called “the causal theory”), are historically important.

## Realism

Realism is both a metaphysical and an epistemological theory. The realist is committed to two principles: first, that some of the objects apprehended through perception are public and, second, that some of those objects are mind-independent. It is especially the second of these notions that distinguishes realists from phenomenists.

The realist believes that there is an intuitive commonsense distinction among various classes of entities perceived by human beings. One class consists, among others, of headaches, thoughts, pains, or desires, and the other of tables, rocks, planets, persons, animals, and certain physical phenomena such as rainbows, lightning, and shadows. The metaphysical aspect of realism sees the former as mental, the latter as physical. A realist metaphysics maintains that the classes are mutually exclusive. What a realist epistemology adds to this metaphysics is that mental entities are private, whereas physical objects are public. By “private” it is meant that each item belonging to the category of the mental is apprehensible by one person only. Thus, only one person can have a particular headache or a particular pain. In contrast, physical objects are public; more than one person can see or touch the same chair.

The realist also believes that items belonging to the class of the physical are mind-independent. What is meant by this notion is that the existence of these objects does not depend upon their being perceived by anyone. Thus,

whether or not a particular table is being seen or touched by someone has no effect upon its existence. Even if nobody is looking at it, it would still exist (other things being equal). But this is not true of mental phenomena. If somebody is not actually having a headache, realists would deny that the headache exists. A headache is thus mind-dependent in a way in which tables, rocks, and shadows are not.

Realist theories of knowledge thus begin by assuming the public-private distinction, and most realists start by assuming that one does not have to prove the existence of mental phenomena. These are things of which each person is directly aware, and there is no special “problem” about their existence. But they do not assume this to be true of physical phenomena. As the existence of visual aberrations, illusions, and other anomalies shows, one cannot be sure that in any perceptual situation one is apprehending physical objects. All a person can be sure of is that he is aware of something, an appearance of some sort, say of a bent stick in water; but whether that appearance corresponds to anything actually existing in the external world is an open question.

In the *Foundations of Empirical Knowledge* (1940) Ayer called this difficulty “the egocentric predicament.” When a person looks at what he thinks is a physical object, such as a chair, what he is directly apprehending is a certain visual appearance. But such an appearance seems to be private to that person; it seems to be something mental and not publicly accessible. What then justifies the individual’s belief in the existence of supposedly external objects – i.e., physical entities that exist external to the human mind? Direct realism and representative realism are the two main theoretical responses to this challenge.

Both direct realism and representative realism rely strongly on sense-data theory. The technical term “sense-datum,” which played an important role in the development of versions of both theories, is sometimes explained by using examples. If one is hallucinating and sees pink rats, one is seeing a sense-datum. Although no real rats are there, one is having a certain visual sensation as of colored rats, and this sensation is what is called a sense-datum. The image one sees with one’s eyes closed after looking fixedly at a bright light is another example. But, even in normal vision, one can be said to be apprehending sense-data. For instance, in looking at a round penny from a certain angle, one will see the penny to be elliptical. In such a case, there is an elliptical sense-datum in one’s visual field. This last example was held by Broad, Price, and Moore to be particularly important, for it makes a strong case for holding that one always sees sense-data, whether perception is normal or abnormal.

According to defenders of sense-data theory, what these examples have in common is that in every perceptual act one is directly aware of something. A sense-datum is thus frequently defined as an entity that is the object of direct perception. By “direct” these philosophers mean that no inference is necessary in order to apprehend these entities. According to Broad, Price, and Ayer, sense-data differ from physical objects in having the properties they appear to have; i.e., they cannot appear to have properties they do not really have. The problem for a realist who accepts sense-data is to show how these private sensations allow justification of the intuitive belief that there are physical objects which exist outside of the individual’s perception. Russell in particular tried to show in such works as *The Problems of Philosophy* (1912) and *Our Knowledge of the External World* (1914) how knowledge of the external world could be built up from such mental, private apprehensions.

During the 20th century direct realism took many forms; indeed there were direct realists, such as James J. Gibson who, in *The Ecological Approach to Visual Perception* (1979), rejected sense-data theory and claimed that the outside aspects (the physical surfaces) of physical objects are normally directly observed. But many realists, such as G.E. Moore and his followers, believed that the existence of sense-data must be accepted. Moore took the unusual step of suggesting that such sense-data might not be mental entities but could be a physical part of the surface of the perceived material object. Thompson Clarke in “Perceiving Physical Objects and Surfaces” (1965) went beyond Moore in arguing that one normally directly perceives the whole physical object itself.

All of these views have problems in dealing with perceptual anomalies. In fact, Moore, in his last published paper, “Visual Sense-Data” (1957), abandoned the attempt to defend direct realism. He held that, because the elliptical sense-datum one perceives when one looks at a round coin cannot be identical with the circular surface of the coin, one cannot be seeing the coin directly but only the sense-datum. Hence, one cannot have direct knowledge of external objects.

Because of the problems associated with direct realism, many philosophers, including H.H. Price, H.P. Grice, and Robert E. French, have argued for the causal theory, that is, the theory of representative realism. This is an old view whose most famous exponent in early modern philosophy was Locke. It is also sometimes called “the scientific theory” because it seems to be supported by findings in optics and physics. According to this form of realism there are real physical objects that exist external to the human mind, and there are also sense-data (or their equivalents, such as so-called mental representations). Visual perception is then explained as follows. Light is



reflected from external objects, moves through space according to well-known laws of physics, is picked up by the human visual system, which includes the eye, the optic nerve, and the retina, and then is ultimately processed by the brain. This is a causal sequence. Light causes a reaction in the eye, that reaction is the cause of a response in the optic nerve, and so forth. The last event in this causal sequence is “seeing.”

What one is apprehending in such a case is a mental representation (sense-datum) of the original object; and, through various processes in the brain, this representation gives human beings a depiction of the object as it is. Visual illusion is explained in various ways, but usually as the result of some anomaly in the causal chain that gives rise to distortions and other types of aberrant visual phenomena. In such a view, human observers are directly aware of mental representations, or sense-data, and only indirectly aware of the physical objects that cause these data in the brain.

The difficulty with this view is that, since one cannot compare the sense-datum that is directly perceived with the original object, one cannot ever be sure that it gives an accurate representation of it; and therefore human beings cannot know that the real world corresponds to their perception of it. They are still confined within the circle of appearance after all. It thus seems that neither version of realism satisfactorily solves the problem it began with.

### Phenomenalism

In light of these difficulties with realist theories of perception some philosophers, so-called phenomenologists, proposed a completely different way of analyzing the relationship between perception and knowledge. In particular,

they rejected the distinction between independently existing physical objects and mind-dependent sense-data that direct realism presupposes. They claimed that either the very notion of an independent existence is nonsense because human beings have no evidence for it or that what is meant by “independent existence” must be reinterpreted in such a way as not to go beyond the sort of perceptual evidence human beings do or could have for the existence of things. In effect, these philosophers challenged the cogency of the intuitive ideas that the ordinary person supposedly has about independent existence.

All variants of phenomenalism are strongly verificationist in thrust. That is, they wish to maintain that belief in an external world must be capable of verification or confirmation, and this entails that such a belief cannot be acceptable if it goes beyond the realm of possible perceptual experience.

Phenomenalists have thus tried to analyze in wholly perceptual terms what it means to say that any object, say a tomato, exists. They claim that any such analysis must start by deciding what is meant by a tomato. In their view a tomato is something that has certain properties, including a certain size, weight, color, and shape. If one were to abstract the total set of such observed properties from the object, nothing would be left over; there would be no presumed Lockean “substratum” that supports these properties and which is itself unperceived. There is thus no evidence in favor of such an unperceivable feature, and no reference to it is needed in explaining what a tomato or any so-called physical object is.

To talk about any existent object is thus to talk about a collection of perceivable features localized in a particular portion of space-time. Hence, what one means by a tomato is something that in principle must be perceivable. Accordingly, to say that a tomato exists is either to describe a

collection of properties that an observer is actually perceiving or a collection that such an observer would perceive under certain specified conditions. To say, for instance, that a tomato exists in the next room is to say that, if one went to that room, one would see a familiar reddish shape, would obtain a certain taste if one bit into it, or would feel something soft and smooth if one touched it. To speak about that tomato's existing unperceived in the next room thus does not entail that it is unperceivable. In principle, everything that exists is perceivable. Therefore, the notion of existing independently of perception has been misunderstood or mischaracterized by both philosophers and nonphilosophers. Once it is understood that objects are merely sets of properties and that such collections of properties are in principle always perceivable, the notion that there is some sort of unbridgeable gap between people's perceptual evidence and the existence of an object is just a mistake, a confusion between the concepts of actually being perceived and of being perceivable.

In this view, perceptual error is explained in terms of coherence and predictability. To say with truth that one is perceiving a tomato means that one's present set of perceptual experiences and an unspecified set of future experiences will "cohere." That is, if the object a person is looking at is a tomato, then he can expect that, if he touches, tastes, and smells it, he will receive a recognizable grouping of sensations. If the object he has in his visual field is hallucinatory, then there will be a lack of coherence between what he touches, tastes, and smells. He might see a red shape but not be able to touch or taste it.

The theory is generalized to include what others would touch, see, and hear as well, so that what the realists call "public" will also be defined in terms of the coherence of perceptions. A so-called physical object is public if

the perceptions of many persons cohere or agree, and otherwise it is not. This explains why a headache is not a public object. In similar fashion, a so-called physical object will be said to have an independent existence if the expectations of future perceptual experiences are borne out. If tomorrow, or the day after, a person has similar perceptual experiences to those he had today, then he can say that the object he is perceiving has an independent existence. The phenomenalist thus attempts to account for all the facts that the realist wishes to explain without positing the existence of anything that transcends possible experience.

The criticisms of this view tend to be technical. Generally speaking, however, realists have objected to it on the ground that it is counterintuitive to think of a tomato as being a set of actual or possible perceptual experiences. The realist argues that human beings do have such experiences, or under certain circumstances would have them, because there is an object out there that exists independently of them and is their source. Phenomenalism, they contend, has the implication that, if no perceivers existed, then the world would contain no objects; and, if this is a consequence of the view, then it is surely inconsistent both with what ordinary persons believe and with the known scientific fact that all sorts of objects existed in the universe long before there were any perceivers. But its supporters deny that phenomenism carries such an implication, and the debate about its merits remains unresolved.

## Philosophy of Mind and Epistemology

In the late 1970s a series of developments occurred in a variety of intellectual fields that promise to cast new light on the nature of the human mind. There have been explosive advances in neuroscience, psychology, cognitive science, neurobiology, artificial intelligence, and computer studies. These have resulted in a new understanding of how seeing works, how the mind forms representations of the external world, how information is stored and retrieved, and the ways in which calculations, decision procedures, and other intellectual processes resemble and differ from the operations of sophisticated computers, especially those capable of parallel processing.

The implications for epistemology of these developments are equally exciting. They promise to give philosophers new understandings of the relationship between common sense and theorizing, that is, whether some form of materialism which eliminates reference to mental phenomena is true or whether the mental-physical dualism which common sense assumes is irreducible, and they also open new avenues for dealing with the classical problem of other minds. It is too early to make an assessment of the relevance for epistemology of what has already been achieved in these areas. There is no doubt, however, that these advances are revolutionary and that a new area of intellectual discovery has begun.

## Philosophy of Mind

### Introduction

One attribute that sharply distinguishes man from the rest of nature is his highly developed capacity for thought, feeling, and deliberate action. Here and there in other animals, rudiments, approximations, and limited elements of this capacity may occasionally be found; but the full-blown development that is called a mind is unmatched elsewhere in nature.

The task assumed by the discipline known as the philosophy of mind is to examine and analyze those concepts that involve the mind (including the very concept of the mind itself) in an attempt to discover the nature of each of these concepts, the relations between them, how they are to be classified, and how they are to be related to certain other concepts – especially to the concepts of matter and energy, the human body, and, in particular, the central nervous system.

It should be clear that the range of topics in the philosophy of mind goes far beyond what is intended in everyday discourse by “mind.” When, for example, the layman speaks of someone as having “a good mind” or as pursuing “the pleasures of the mind,” he is thinking of those particular activities that have to do with abstract reasoning, intellectual pursuits, and the exercise of intelligence. The “mind,” as the term is used more technically in this article and in the philosophy of mind in general today, encompasses a variety of elements including sensation and sense perception, feeling and emotion, dreams, traits of character and personality, the unconscious, and the volitional aspects of human life, as well as the more narrowly intellectual phenomena, such as thought, memory, and belief.

## Philosophy of Mind as a Discipline

In distinguishing the field of philosophy of mind from other sorts of investigation, one immediately obvious feature is its subject matter, the nature of mind and its various manifestations. This serves to distinguish it from empirical sciences such as astronomy and physics, which study matter in motion; from formal disciplines such as geometry and algebra, which study mathematical relationships; and from other fields of philosophy such as the philosophy of art and the philosophy of law. But subject matter alone does not serve to distinguish the philosophy of mind, since the mind is the subject of investigation of other disciplines as well – especially of psychology and of certain phases of biology, physiology, sociology, and anthropology. In comparison with these fields, it is by its method that the philosophy of mind is to be distinguished; for it proceeds not by the methods of empirical investigation – detailed sense observation, the formulation of predictions, the construction of experiments, inductive confirmation, the inventing and testing of contingent generalizations, theories, and laws – but by the method of philosophical reflection. That method consists of the examination of meanings, the analysis and clarification of concepts, the search for necessary truths, the use of deductive inference, *reductio ad absurdum*, and arguments with infinitely repeating terms and other forms of a priori reasoning, and the attempt to arrive at and evaluate the fundamental principles that underlie and justify the basic forms of human thought and endeavor.

Although the philosophy of mind is a distinct field of investigation, it has many important relations with other fields. First, its methods, being those of philosophy in general, are to be tested by the fruits that they have yielded in other areas: if a method has been successful in other areas, it is reasonable to try it here; if unsuccessful in other areas, it is suspect here. Second, the

conclusions achieved in such fields as epistemology, metaphysics, logic, ethics, and the philosophy of religion are quite relevant to the philosophy of mind; and its conclusions, in turn, have important implications for those fields. Moreover, this reciprocity applies as well to its relations to such empirical disciplines as neurology, psychology, sociology, and history. Thus, the philosopher of mind must keep informed of developments in all related fields of investigation.

### The Search for a Criterion of the Mental

The bewildering variety of phenomena that fall under the heading of the mind or the mental was suggested earlier in a list. The question arises, however, whether there is some attribute that all of these mental phenomena have in common, something that characterizes them or that can serve as a criterion of the mental. More specifically, are there certain features that are either necessary or sufficient for mental phenomena?

### Purposeful Behavior

Whenever a man watches a hungry animal using stealth and cunning in searching out, attacking, and killing its prey, he cannot but believe that the animal has a purpose and uses intelligence in achieving his goal. Whether it be a team of scientists designing a way of launching a man to the Moon, an ape figuring out how to screw two pieces of pipe together to get a banana that is out of reach, or – at a much lower level – a lobster trying to get out of a pot of boiling water, there seems to be a mind at work. Somewhere, as the



phenomenon is traced farther down the ladder in the scheme of things toward inanimate matter, a line must eventually be drawn; but there is no agreement about where it should be drawn. It would be widely agreed that an ovum that has just been fertilized does not have a mind and that a normal adult does – but it is impossible to say exactly where in human development the change occurs. On the other hand, it would be just as erroneous to conclude that because there is no sharp dividing line there is no change as it would be to conclude that red and orange are the same color because no sharp line divides them in the spectrum. In both instances there exists a transitional range within which the designation of a dividing line would be purely arbitrary; but at either end beyond that range a clear and definite difference is evident.

The question may then be raised as to how adequate purposeful activity is as a criterion of the mental. A major issue arises from the fact that a mechanical device can be built that exhibits the kind of activity ordinarily called purposeful – a surface-to-air missile, for example, so designed that it will hunt for a jet aircraft by searching for, and zeroing in on, the heat exhaust, thereby finding and destroying the aircraft. Such devices, known as “servomechanisms” (of which a thermostat is a simple example), achieve an end state by systematically diminishing any deviation from that predetermined end state. There are, in addition, the modern computers, capable of receiving, storing, and retrieving information, of making inferences, and of communicating information. Near the height of modern sophistication in machine technology are those machines, combining servomechanisms and computers, designed to roam the surfaces of other planets, gathering, processing, and sending back data and thus providing what would seem to be paradigms of purposeful behavior and raising the question whether such systems are examples of minds at work. There are three possibilities worth

considering: (1) one might continue to hold that purposeful behavior is the criterion of the mental but argue that these devices do not really meet the criterion of exhibiting purposeful behavior; (2) one might hold that the more complex of these devices do indeed have what can be called minds – simple and rudimentary, to be sure, but still minds – “artificial intelligences” that in a very literal sense have beliefs, think thoughts, solve problems, and achieve goals; or (3) one might give up the criterion of purposeful behavior, or at least give it up as a *sufficient* condition of the mental.

Someone defending possibility (1) would attempt to find some feature of purposeful behavior that could not be found in any mechanical device. He might hold, for instance, that the alleged purposes of mechanical devices are built in by their designers and that it is not up to the devices to choose their purposes. Against this line of argument, however, others might assert that for a large number of organisms the basic purposes are also built in through the genetic mechanisms of heredity: basic biological drives for food, reproduction, and safety govern most of their purposeful behavior. People who accept this point of view argue that, in most cases, the organism is not really free to choose its purposes. On this argument, even human beings seem to display such built-in purposes; and it would be specious, at least in this instance, to deny them minds on this account.

Conceding that organisms have some built-in controls, the defender of the first possibility might then argue that the higher organisms have a flexibility that allows for the development of purposive methods that are novel. Machines, he would allege, solve problems only by the methods designed into them, whereas creatures with minds can invent new methods. Against this line of argument others might argue that machines have been developed to use trial and error, analyze the outcomes of trends, and come up

with new approaches that are more successful than earlier ones, and that, in an important sense, such machines might be called creative, since they “learn from experience” and use “ingenuity.” Many observers assume that this trend in machine technology will continue and that machines will be developed with much, if not all, of the flexibility of many of the creatures that would unhesitatingly be acknowledged to have minds.

The basic issue, then, is whether a philosopher would want to say that a machine has a mind if it exhibits the flexibility in purposeful activity of, say, a normal seven-year-old child, who undoubtedly has a mind. In accepting possibility (2), the philosopher would maintain that such a machine does indeed have a mind and exhibits a wide range of the phenomena called mental. Many contemporary philosophers, however, would reject that thesis, considering it a needless flaunting of common sense and an affront to ordinary language to speak of a heat-seeking missile, for example, or even a lunar robot, as having a mind. Because something essential still appears to be omitted, further attempts are made below to determine the essence of the mind.

### Intentionality

Another characteristic of the mental is sometimes thought to be found in certain ways in which an individual may be said to have something as his object. Thus, thinking, believing, desiring, and other such attitudes are thought to resemble one another in that they may be said to take an object, or to be directed upon an object, in a way quite unlike anything to be found in what is purely physical. “Intentionality” is the term for this way of being directed

upon an object. The concept had been emphasized by some of the Scholastics and was introduced to modern philosophy in 1874 by a German philosopher and psychologist, Franz Brentano, and clarified and defended by a U.S. philosopher, Roderick M. Chisholm, in the 20th century.

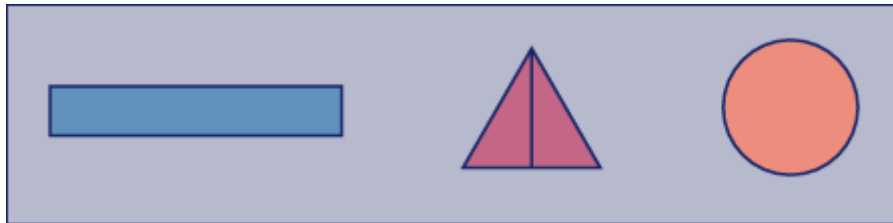


Figure 1: Three arbitrary physical objects in meaningless configuration

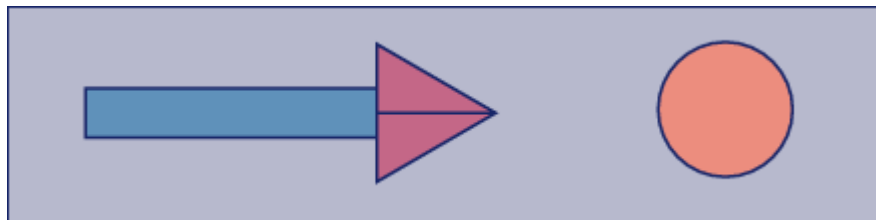


Figure 2: Physical objects with intentionality.

The idea of intentionality can be explicated in the following way: if one imagines three objects arranged as in Figure 1 and then supposes that the wind blows them so that they are arranged as in Figure 2, there results, from the physical point of view, simply a new arrangement. From a psychological point of view, however, something radically new also has been introduced: one

object now appears to be pointing to another – aimed at or directed toward it. It would seem that such pointing cannot be accounted for if the observer confines himself to the purely physical facts of the new configuration and that his mind has to be brought in to account for the feature of pointing to. Thus, intentionality is *prima facie* a reasonable candidate for the criterion of the mental.

Intentionality is exhibited in a variety of phenomena. Thus, if a person experiences an emotion toward an object – e.g., loves, fears, pities, envies, or reveres it – he has an intentional attitude toward it. Other examples of intentional attitudes toward an object are: looking for or expecting, believing in, doubting or conjecturing about, daydreaming, reminiscing, imagining, favoring, or disapproving – a list that seems to go on endlessly. Because it clearly comprises so many of the things that one thinks of as typically mental, intentionality, being of broader scope than purposefulness, would seem to be a more appropriate choice than purposeful behavior for the criterion of the mental.

One of the characteristics of intentionality is what the Scholastics called “inexistence”: a man may be intentionally related to an object that does not exist or to an event that does not occur. Thus, what a man looks for may not exist, and an event that he believes to occur may not occur at all. In contrast with such a nonintentional phenomenon as bumping into something, in which the object bumped into must be real, looking for something (an intentional act) does not necessarily imply that the object looked for exists. Similarly, in contrast with an explosion’s resulting in the fact that many were hurt, a witness believes that many were hurt (again an intentional act) does not imply the fact that many were hurt. Thus, existence and truth are irrelevant to intentionality.

Though this possible relationship to nonexistent objects as opposed to existent ones is a necessary feature of intentionality, it is not sufficient to define it, for there are phenomena that are equally concerned with nonexistent essences that are nonetheless nonintentional. “That lady resembles a mermaid,” to use an example of Chisholm’s, may be a true sentence even if mermaids, though having an essence, do not exist. Similarly, “That metal will ignite at temperatures above 1,000,000” may be true whether or not such temperatures exist. Thus, intentionality requires further characterization if its scope is to be narrowed to exclude such examples as these.

Another characteristic of the intentional state is that not every description of its object will be appropriate. Assuming that his pen is the millionth pen produced this year, for example, a man may be in the intentional state of searching for it as his pen but not in a state of searching for the millionth pen produced this year; similarly, he may believe this is his pen and yet not believe that this is the millionth pen produced this year. This second feature of intentionality, often called “referential opacity,” is such that a true sentence asserting an intentional state will become false when some alternative description of the object of that state is substituted for it (it is false that he is searching for the millionth pen).

There is no general agreement on the best way of conceiving of intentional phenomena. Brentano, at one point, thought of intentionality as being a relation between a subject and an entity, in which the entity is something that might or might not exist; but difficulties arise in characterizing the ontological status of such an entity – i.e., its kind of reality. More popular today are certain linguistic approaches: intentionality may be viewed, for example, as it was by Rudolf Carnap, a philosopher of science, and others, as a relation between a subject and a piece of language or, as others have

explained, as a relation between a subject and a linguistic practice or linguistic role. Under this view, the intentionality consists not in the relation of a subject to an *essence* (that of a millionth pen) but in its relation to a *sentence* (“This is the millionth pen...”) that has that alleged essence as its meaning. It remains to be seen whether such approaches will succeed in dealing with all intentional phenomena. It would seem to pose particular difficulty in those cases in which the intentional state is overtly directed toward some existent entity, with language playing a minor or null role, as in situations in which one feels anger, pity, or love toward someone; or when an animal is stalking its prey (which involves an intentional state). In such instances, an analysis in terms of linguistic attitudes would seem wide of the mark.

#### The Scope of Application of Intentionality

The question of whether or not intentionality can apply to nonliving physical systems has become a controversial issue. If it can apply, then either intentionality would have to be given up as an exclusive criterion of the mental or else one would have to say that such systems exhibit some mental characteristics.

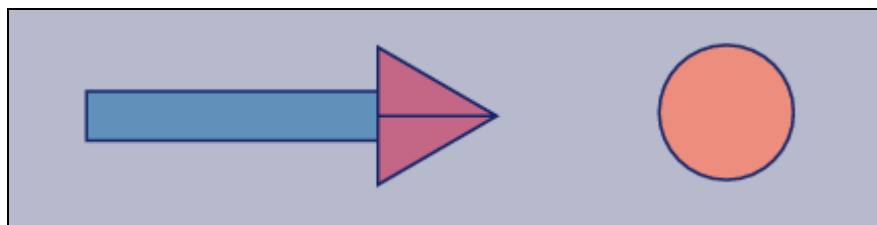


Figure 2: Physical objects with intentionality.

It will be useful to consider a system designed for some purpose, taking the example again of the surface-to-air missile that searches for jet aircraft, and to ask whether it has intentionality. It does satisfy the first characteristic mentioned above: that it can be truly said to be a jet searcher regardless of whether there are or have been any jet aircraft (one could similarly design a unicorn searcher built to detect unicorns by their special horn). The question next arises whether some descriptions of the object are inappropriate. On the supposition that all and only jet aircraft have a component made of compound *X*, one can ask whether it would be true of the missile that it searches for things with a component made of compound *X*. It would seem that – unless this compound chances to be what the search system was sensitized to – the foregoing statement is a false, and thus an inappropriate, description of the device; and if so, it is plausible to regard the missile as a physical system with intentionality as that notion has been here characterized. An intentional physical system, however, would have to be of considerable complexity. One would not want to say that the left-hand complex in Figure 2 was pointed to the right-hand figure unless he had in mind that, if the right-hand figure were to shift its location, the left-hand complex would shift appropriately. If it did keep shifting appropriately, however, it would seem proper to say that it points to the right-hand figure. The question remains, however, whether *all* intentional phenomena are capable of appearing as instances in nonliving physical systems – whether such a physical system could have, for example, an emotion toward something, daydream about something, or be amused by something. Here it is very difficult to cite a plausible case; it would appear that one would have to strain such concepts considerably to apply them to nonliving systems.



The thesis that intentional phenomena are the essence of the mental thus seems problematic. Its suggestion that the jet-searching missile has a mind or partakes of the mental, as appeared in the discussion of the criterion of purposeful behavior, would, to many scholars, appear to be quite implausible. Nor does it seem that the trouble lies in the limited number of intentional phenomena found in the missile. Even the lunar-exploration machines, with all of their flexibility and multiplicity of functions, would not be said by most analysts to have minds.

It might be possible to save intentionality as the criterion of the mental by insisting on the presence of such highly sophisticated intentional phenomena as emotions, daydreams, or amusement, but then one would have to deny minds to those human beings who lack a sense of humour, never daydream, or are cold-bloodedly unemotional, which does not seem correct either. Some progress can be made here if the question is asked whether intentionality is a necessary condition of all mental phenomena – whether there are any phenomena that are mental but nonintentional. Examples of a mental phenomenon that can most plausibly be said to be nonintentional are sensations, such as feeling pain, which lack both of the aforementioned characteristics of intentionality – inexistence and referential opacity. A man cannot feel a pain that, unbeknownst to him, does not exist; if he feels pain, there must be something he feels. Moreover, if a man feels pain, and the pain is identified with the effect of a tumour, then he does feel the effect of the tumour.

Sensations, which thus lack both of the characteristics of intentional phenomena, are not just an odd counterexample; not only do sensations comprise a large and central group of mental phenomena, but they also call attention to an important aspect of many other mental phenomena, viz.,

subjective experience. The arrow in Figure 2 may point to the circle, but it does not have the subjective experience of pointing, it does not feel itself pointing; and the jet-searching missile does not experience how it feels to be searching for jets. But when a person is in an intentional state, directed toward an object, he – at least sometimes – experiences, feels, or is aware of that directedness.

Clearly, this usage of “intentionality” differs somewhat from that found in medieval philosophy; and there are other features of the concept, not covered here, that are stressed by Phenomenologists and Existentialists.

### Subjective Experience

It is often maintained that the essence of the mental consists of states of consciousness taken as subjective experiences. When a person wakes up or regains consciousness after a general anesthetic, a host of experiences of color and light, sounds, feelings, thoughts, and memories flood in on him. As far as his objective, observable behavior is concerned, he may be lying unmoved and unmoving; but as far as his state of consciousness is concerned, he may be undergoing a series of subjective experiences. To take an example, when a person sees a scarlet patch, he experiences the homogeneous, spread-out, distinctive scarletness present before him. A blind or color-blind person who has never experienced scarlet would not have the awareness of scarlet that the normally-sighted person has. He might have some vague idea, as did the hero of the story told by John Locke, a 17th-century British Empiricist:

A studious blind man, who had mightily beat his head about visible objects, and made use of the explication of his books and friends, to

understand those names of light and colors which often came in his way, bragged one day, that he now understood what scarlet signified. Upon which his friend demanding, what scarlet was? the blind man answered, It was like the sound of a trumpet.

This reply is not totally wide of the mark; but any sighted person will have a far more precise idea of scarlet than that. What he has and what the blind person lacks is something that philosophers have called the “raw feel” of scarlet, that peculiar and special way scarlet looks.

The subjective experience of scarlet is to be contrasted with the discrimination of scarlet things. One could imagine a blind person who was able to discriminate scarlet from other colors by the use of optical instruments (e.g., spectrosopes with Braille printouts). But he would lack the subjective experience of the color; he would not know the look of scarlet. Defenders of this view would claim that there is a great variety of subjective experiences and that the experience of colors is only one of them. Sensations (e.g., the experiences of pain, tickles, throbbings, pangs, nausea, and tiredness) provide another such example. Still other subjective experiences include: the experiencing of images (afterimages, memory images, and others); feelings of exultation, depression, pride, anger, fear, and love; and thoughts (imaginings, surmisings, doubttings, and recollectings). All of these are episodes, occurring at a particular time and place, in which the subject is in a state of awareness that has a particular content.

### Adequacy as a Criterion of the Mental

The question now arises of how adequate subjective experience is as a criterion of the mental – whether, though it is obviously a sufficient condition for something to be mental, it is a sufficient condition for something to have a mind. The Scotsman David Hume, an 18th-century philosophical sceptic and historian, once asked whether a creature that had but one state of consciousness could be said to have a mind and concluded that it could not. In his view, it takes, at the very least, a number of states of consciousness linked by memory before one would say that the creature has a mind; and it may be that there has to be a certain level of complexity in the nature and relation of the conscious states for there to be a mind.

It is doubtful, however, whether consciousness is a necessary condition for the mental. Before Sigmund Freud, it would have been widely agreed that the notion of unconscious mental phenomena was logically impossible – a contradiction in the very terms. That view had one important exception, however: Gottfried Wilhelm Leibniz, a 17th-century Rationalist and mathematician, held that there are *petites perceptions* of which the subject is unconscious. They are so slight, so similar to others, so familiar, or in such a crowd of other perceptions, that the subject is unaware of them at the time. One of the examples that Leibniz cited is the person who is unaware of the roar of the waterfall or the rumble of the mill if he has lived nearby for some time. Leibniz seemed to have had in mind what modern psychologists call “subliminal” perceptions, viz., those below the threshold of awareness but still capable of leaving some effects on the mind. But Leibniz confined unconscious states to perceptions; he would not have allowed unconscious beliefs, desires, emotions, or judgments.

It was Freud's great contribution to have discovered a range of phenomena of which the patient was unconscious but which were very much like typically mental phenomena, especially in their behavioral manifestations. In the light of such similarities, it was plausible to extend the concept of the mental to include these unconscious phenomena – especially since they were such that the patient could become conscious of them through hypnosis or psychotherapy. Freud postulated a mechanism that he called “repression” to explain why the patient is unconscious of them.

In addition to the subliminal and the unconscious, there are more familiar characteristically mental phenomena that do not consist of states of consciousness. When a man falls into a dreamless sleep, he does not lose all his beliefs or abandon all his goals, he does not cease wanting a better world or being artistic or imaginative or lazy, nor does he forget how to do arithmetic or speak French. A person is not jealous of someone only when thinking of him, nor does a businessman have confidence in the dollar only when concentrating on business. Obviously, these mentalistic characteristics can apply in a dispositional way to people who are not at that moment expressing or exhibiting the disposition.

Furthermore, as Gilbert Ryle has pointed out in great detail, a person may use his mind on many occasions without the feeling of subjective experiences. As he says,

When we describe people as exercising qualities of mind, we are not referring to occult episodes of which their overt acts and utterances are effects; we are referring to those overt acts and utterances themselves. (This and the following quotations attributed to Ryle are from *The Concept of Mind* by Gilbert Ryle. Copyright 1949 by Gilbert Ryle. Reprinted by permission of Barnes & Noble, Publishers, New York, Hutchinson Publishing Group Ltd., London.)

To be responsive to one's surroundings, to act intelligently, deliberately, with wit or good grace, to utilize arithmetic or logic, to be sympathetic or coldhearted, to drive alertly or absentmindedly – none of these requires the occurrence of subjective experiences or inner states of consciousness, the immediacy of feelings or sensations. In such activity, there may be nothing going on except performances of a particular kind, and there may be nothing more required except that under further circumstances other performances of a particular kind will be forthcoming. It is, thus, reasonable to conclude that subjective experience is not a necessary condition for the mental.

Those who have put the private events of subjective experience at the center of the mental have committed what Ryle calls a “category-mistake... represent[ing] the facts of mental life as if they belonged to one logical type or category,... when they actually belong to another.” The mistake consists of taking talk about a person's mind as talk of events in a world parallel to the ordinary world but occult and mysterious. The truth, according to Ryle, is that

to talk of a person's mind... is to talk of the person's abilities, liabilities and inclinations to do and undergo certain sorts of things, and of the doing and undergoing of these things in the ordinary world.

It would be rash, however, to draw the further conclusion that subjective experiences are in no way involved in whatever is mental. Returning to the case of Leibniz' *petites perceptions* that are not experienced, a person can be conscious of them in various ways, either before getting used to them or when they are alone or when their intensity or his own sensitivity is increased; and Freud's unconscious phenomena can become conscious phenomena under favorable conditions. The beliefs that an individual is not aware of in sleep are sometimes the objects of his consciousness, as are his moments of laziness and imaginativeness, his knowledge of arithmetic, and his goals. It is dubious that something that has no connection with states of consciousness could qualify as mental.

#### Core Characteristics of Subjectivity

Philosophers deeply disagree on how to characterize what is peculiar to subjective experiences. Some hold that the existence of subjective experience indicates that there are peculiar events that do not occur in the public space-time world that everyone shares and has equal access to but occur only in a private world that each person has exclusively to himself, which he cannot share with others, and to which no one else has access. Ryle has called this view, with what he admits to be "deliberate abusiveness," "the dogma of the Ghost in the Machine." He characterizes the dogma as follows:

Minds are not in space, nor are their operations subject to mechanical laws. The workings of one mind are not witnessable by other observers; its career is private. Only I can take direct cognisance of the states and processes of my own mind. A person therefore lives through two collateral histories, one

consisting of what happens in and to his body, the other consisting of what happens in and to his mind. The first is public, the second private. The events in the first history are events in the physical world, those in the second are events in the mental world.

Are there private events? Even so adamant a critic of privacy as Ryle admits the existence of some private phenomena, chiefly dreams and daydreams, sensations, thoughts, and imaginings. He insists, however, that the sequence of your sensations and imaginings is not the sole field in which your wits and character are shown; perhaps only for lunatics is it more than a small corner of that field.

In Ryle's view, private events occupy a small and inessential place in the total range of mental phenomena; but they do occur. The notion of privacy is really the conflation of two ideas: the metaphysical idea that mental events do not occur in space and the epistemological idea that mental events are objects of awareness solely to the person who is subject to them. Each of these may be considered in turn.

The Rationalist René Descartes, the earliest major philosopher of modern times, held that the essence of all that is nonmental consists in being extended in space. Turning this around and broadening it, one could say that the essence of the mental consists in the lack of spatiality; i.e., the lack of shape, size, and, above all, location. If the philosopher confined himself to events, he would say that necessarily a physical event occurs in some place or other, but, necessarily, a mental event does not. It would be conceded that the person who experiences the mental event does typically have a location, and this leads to the question of why the event is not located where the person is located.



A defender of the nonspatiality criterion would argue that such ascriptions of location to mental events are very different from ascriptions of location for physical events. For a physical event, it is always possible to ask whether it occurred at some point, in some part, or throughout the location. Thus, if the temperature of a body of water rises, one can ask precisely where the rise occurred – at certain points, in certain parts, or throughout the volume. But if a thought occurs, it is senseless to ask whether it occurred throughout the area or only in some part of it. Furthermore, if the water undergoing the rise in temperature is in a box, it is reasonable to say that a rise in temperature occurred in the box; but if the person having a thought is in a box, it is senseless to say that a thought occurred in the box. So the sort of ascription of location is quite different for mental events, and the criterion can still be used to mark off the mental from the physical.

The question remains whether the sort of nonspatiality that is allegedly appropriate to the mental is peculiar to it. If such a physical event as recovering from an illness or changing shape is considered, it would appear also that it does not make sense to ask whether the event occurred throughout the whole volume, in some part, or at some point. Thus, it would seem that even this modified notion of spatiality does not uniquely distinguish the mental.

### Privileged Status of Subjectivity

Other philosophers would interpret subjective experiences not as private events but as a special way of knowing certain events, specifically by introspection. This is called the “privileged access” view. John Locke,

contrasting this way of knowing with sensation, called it “reflection,” defining it as “that notice which the mind takes of its own operations and the manner of them.” It is a way of being aware of one’s own present states without the intervention or use of the senses. The emphasis here is on the way of knowing rather than on the events known. Someone who holds the privacy view will have to hold that there is some special way of knowing these special events, but someone who holds the privileged access view is not necessarily committed to holding that the events so known are in any way special. A person could hold that one and the same event can be known both by sense perception and in some other way. Being knowable by introspection would then be the characteristic that defines events as mental. Such an account, however, would not rule out that they may also be knowable by sense perception or by inference.

Some contemporary philosophers deny that there is any such special way of knowing. Ryle offers three objections: first, it would require that there be simultaneously multiple attentions – in the mental event itself and in the attending to that event; though it is not denied that such divisions of attention are possible, he suggests that they are more unusual and difficult to achieve than the proponent of introspection would have the reader believe; second, because there is obviously some upper limit to the number of simultaneous attendings that a person is capable of, there will have to be some mental acts of which a person is unaware, and if it is admitted that some mental events occur without being known in this special way, it is fair to ask whether one must assume that any of them are known that way; finally, for many states of mind – e.g., extreme panic or fury – the person is so involved that he is incapable of taking note of them, yet such states are not, in consequence, suspect – the person involved is as sure that they occur as he is of any so-

called mental events. There is thus no need to postulate this special way of knowing to account for man's knowledge of any such events.

It is not clear how compelling Ryle's objections are. It is admitted that attention can be divided, though it may be contended that it is unusual and difficult to achieve this division. Others would reply that it is a lot more common and easier than might be thought, that it occurs whenever a man takes note of his mental states. And from the fact that he cannot take note at the same time of very many of his mental states, it hardly follows that he never does; each could still be introspectable even if it was not actually introspected on that occasion. As for Ryle's third objection, it might be that some states of mind cannot be introspected, but it does not follow that none can be introspected; they might still be private for all that. Ryle, for instance, while denying introspection, admits retrospection, a capacity to recall one's states just after they occur. It would seem, however, that there is no important difference between a concurrent "introspection" and a prompt "retrospection." One advantage of retrospection is that it would explain an individual's self-knowledge of those events that are difficult to explain in terms of introspection; e.g., extreme panic or fury.

Whether a person introspects or retrospects (the truth appears to be that sometimes he does the one, sometimes the other), he would still seem to have a kind of knowledge about his own present and recently past mental states that he does not have of the mental states of others and that others do not have of his. It is not possible either to introspect or to retrospect the mental states of others; the knowledge that a man has of the present and immediately past mental states of others must be based upon perceptions or inferences from perceptions, whereas the knowledge that he has of his own present and immediately past mental states need not be, and usually is not, so based.

It is possible that the notion of introspection can thus be used to define the mental. Such a definition would be of the form: a mental event is an inner event that can be introspected. The difficulty remains, however, of how “introspected” is to be defined. If it is defined merely as “known without inference or sense perception,” then it would seem to apply equally to the knowledge of certain bodily events that no one would want to call mental. An individual can know without sense perception, for example, that his heart is beating rapidly or that his fingers are crossed. To rule such cases out, one can include among the senses the kinesthetic sense that utilizes nerve endings within the body – those, for instance, that register the conditions of one’s own muscles. But then it might appear that one must say that sensations are not mental phenomena, since the awareness of them typically involves such nerve endings. Such an admission, however, would be fatal for the privileged access view because sensations are precisely the sort of thing to which a person is supposed to have privileged access. If, on the other hand, the philosopher makes it a matter of definition that introspection applies only to the mental, then he cannot define the mental in terms of introspection. Thus, philosophers are at the present time faced with serious and unsolved difficulties in using the notion of introspection to define the mental.

Finally, it is significant here, as it was in the discussion of subjective experience, that to much of man’s mental life and to many of the exercises of his mind – e.g., employments of intelligence – he has no special privileged access; there are, in addition, the unconscious phenomena that are not introspectable. So introspection cannot be a necessary condition of the mental.

A clue to a more satisfactory criterion of the mental can be found in the attack on introspection cited above. There the difficulty was noted that there does not seem to be a way of distinguishing how an individual knows his

mental state from how he knows such inner physical states as the rapid beating of his heart. But it may be argued that there does seem to be a difference between these two ways of knowing: specifically, it is clear how a person could be shown that he was mistaken in believing that his heart was beating rapidly; but it is by no means clear what would show a person that he was mistaken in believing himself to be feeling a particular throbbing, pounding sensation. For mental events, the subject's own beliefs are peculiarly authoritative. This authority only holds, of course, for present mental events; it is clear that many things could show that a person's belief about a past mental event of his was mistaken. It is sometimes claimed that what distinguishes mental events is their so-called indubitability – the fact that a belief by the subject that the event is occurring cannot be false or in error. However, the view that first-person, present-tense reports of mental events are indubitable has come under serious attack; to make such a report is to classify, and it is argued that it is always possible to err in classification.

Instead of holding that such beliefs are indubitable, it is often more modestly maintained merely that such beliefs are “incorrigible,” meaning that nothing will count as overthrowing (or correcting) such beliefs. A person who believes that he is experiencing a throbbing sensation may be mistaken; but there is nothing that will show an observer or him that he is mistaken, nothing that will entitle either of them to believe that he is mistaken. He may be experiencing a throbbing sensation even when no part of his body is actually throbbing, though the explanation for this curious fact might not be known.

It might be objected against the incorrigibility thesis that the same difficulty that arises for the alleged indubitability of first-person, present-tense beliefs about mental events also arises for their alleged incorrigibility. For if misclassification is possible, it would also seem possible to gather evidence

that someone is misclassifying. If one could confuse a throbbing sensation with a different but somewhat similar sensation, it is reasonable to believe that this confusion could be known by others to have occurred. Perhaps the best that can be said for the incorrigibility thesis is that there is always a strong presumption that such beliefs are true, though this presumption can sometimes prove to be unwarranted. But then it is by no means clear that privileged authority is a unique criterion that distinguishes mental events, for such a presumption would also hold for many nonmental events as well (e.g., the belief that one's heart is beating rapidly). Yet if the degree of presumptive force is taken into account, it is reasonable to say that it would be *comparatively* harder to overthrow beliefs about one's present mental events; and perhaps this is all that one needs to give the criterion force.

#### The Existence and Status of the Mind

The basic metaphysical issues in the philosophy of mind concern whether the mind exists and, if it does, what kind of existence it has and what its relation is to the rest of what exists. Materialists hold that only physical matter (and physical energy) exists. For those who hold, on the other hand, that the mind exists as an immaterial entity, there are dualistic theories for which both immaterial minds and material bodies exist, and immaterialistic theories for which only minds exist but not bodies. There are, finally, the so-called neutral monist theories for which the fundamental existents in nature are neither mental nor physical but some neutral stuff out of which both the mental and the material are formed.

## The Mind as Material

The basic contention of Materialism is that nothing exists but matter and its purely material properties, so that the concepts that are necessary and sufficient for describing and explaining matter will be necessary and sufficient for describing everything that exists. This view can be found in the early Greek philosophers. Thales of Miletus, who lived some 2,500 years ago (6th century BCE) and who is generally regarded as the first philosopher in the Western tradition, is supposed to have held that all things are composed of water in some form or other; later thinkers added air, fire, and earth to the list of fundamental elements. The philosopher Anaxagoras of Clazomenae, born about 500 BCE, introduced a new factor, *Nous* (Mind), which arranged all other things in their proper order, started them in motion, and continues to control them. There is still controversy as to how his concept of Mind is to be understood, but since he spoke of Mind as being “the finest and purest of all things” and as occupying space, it is likely that he did not think of it, as some later thinkers did, as nonmaterial stuff but rather as a very special kind of material stuff.

It was with the Atomists, Leucippus of Miletus and his disciple Democritus of Abdera, in the 5th and early 4th centuries BCE, that Materialism was given its most developed statement. According to them, nature consists solely of an infinite number of indivisible particles, having shape, size, and impenetrability, and no further properties, and moving through an otherwise empty space. The shape, size, location, and movement of these particles make up literally all of the qualities, relations, and other features of the natural world. Such phenomena as sensations, images, sense perceptions, and thought – of particular interest to the philosophy of mind –

are explicitly held to consist in the various qualities and relations of the particles.

Contemporary Materialists would, no doubt, wish to incorporate into their theory the latest findings of the physical sciences – the convertibility of matter and energy, the wave-particle duality, and the various subatomic particles and antiparticles with their peculiar properties, including the conservation of charge, direction of spin, and direction of time – but these would represent mere changes in detail. In broad outline, the theory would be the same.

Given the theory of Materialism in such broad outline, however, a serious question remains concerning the actual account to be given of such phenomena as sensations, images, perceptions, emotions, memories and expectations, desires, beliefs, thoughts, imaginings, and intentions. Among the possible views are those called eliminative Materialism, Behaviorism, and the central-state theory.

#### Eliminative Materialism

A philosopher might hold that there are no such things as sensations, images, perceptions, or emotions and that there never have been such. From this view, those who have believed in the existence of such things have simply been mistaken. A person might hold this view, called eliminative Materialism, on the grounds that all talk of such supposed phenomena is (1) meaningless verbiage, or (2) part of a set of theories that are outmoded, scientifically fruitless, and to be discarded, like theories about witches or the Homeric gods. On either account, it is implied that all such terms should be eliminated from



the philosopher's vocabulary. There is a further doctrine, however, to the effect that all such talk is (3) meaningful but nondescriptive and without truth value. On this account, the proper function of such language is not to state facts but might be to prescribe or evaluate.

Among Materialistic views, the alternative to eliminative Materialism is some kind of reductive Materialism. According to this view, there are indeed such things as sensations, images, perceptions, and emotions, but they are only complicated forms of matter in motion. The philosopher may thus continue to use terms referring to such things (in contrast with eliminative Materialism), but he should keep in mind that no extra entities or features are being postulated over and above the physical entities with their physical features.

### Behaviorism

If one asks reductive Materialists what sensations, images, and the like are, one will find that two alternatives have been proposed. The first is Behaviorism, the view that all such terms refer to the behavior or movements of certain bodies, particularly of the higher animals. Thus, the Behaviorist would claim that to feel pain is to groan, writhe, blanch, moan, and so on, or at least to be disposed or tend toward such behavior; to desire food is to engage in eating in the presence of food, in hunting in the absence of food, and so on, or at least to be disposed or tend toward such behavior; and so also with all of the states and activities that one thinks of as mental.

Usually, Behaviorism is intended as a logical doctrine to the effect that the very meanings of the words referring to the mind, its mental states and

activities, are to be analyzed in behavioral terms, that every mentalistic term is synonymous in meaning with some behavioral term. It is important to distinguish this view, logical Behaviorism, from the view of many psychologists that the most fruitful way to study psychological phenomena is to study human and animal behavior. Such a view might be called methodological Behaviorism because it is actually the proposal that the science of psychology restrict itself to certain methods. It does not entail logical Behaviorism. Logical Behaviorism might also be distinguished from the view that psychological and behavioral terms, though not synonymous in meaning, have, as a matter of fact, the same denotation or reference, a view that might be called *de facto* Behaviorism.

### Central-State Theory

The second type of reductive Materialism is the central-state theory. In this view, mental states and activities are identical with states and activities within the body (hence this theory is sometimes called the identity thesis). In particular, they are identical with states and activities of the central nervous system or brain. Thus, to feel pain is for the brain to be in a particular state; to desire food is for the brain to be in another state.

Distinctions parallel to those for Behaviorism can be made for the central-state theory. A psychologist might hold that the only useful way of studying psychological phenomena is to study the central nervous system; this view might then be called methodological central-statism. A philosopher might hold that the very terms referring to the mind, its mental states and activities, are synonymous with neurological terms (or, more plausibly, that

they *should* be taken to be synonymous – they obviously are not synonymous as language now stands). This position, which could be called logical centralism, would differ from the eliminative Materialism mentioned above in that it would retain mentalistic terms rather than eliminate them but would redefine them neurologically. If this came to pass, such terms might eventually disappear, a result that eliminative Materialism would strive to achieve more directly.

### The Mind as Immaterial

Plato was the first important figure in the Western tradition explicitly to defend the doctrine that the mind is an entirely nonmaterial entity – without such defining material properties as size, shape, or impenetrability – separate and distinct from the human body and able to exist apart from it. Plato used the Greek word *psyche* (traditionally translated as “soul”).

Plato held that the mind (*psyche*) was in charge of the body and directed its movements. In his dialogue the *Phaedrus*, Plato spoke of the mind as having both appetitive desires and the higher desires and as having, in addition, a rational capacity to control, direct, and adjudicate between the two. This rational capacity of mind is the most valuable aspect of man, the part most worthy to be nurtured and developed, and the aspect of man most likely to be immortal (much of the dialogue concerning the last hours of Socrates, the *Phaedo*, is about these topics).

## Dualism

Plato was a dualist; he believed in the existence of both material entities and immaterial ones. The most explicit statement of dualism, however, is found in the writing of René Descartes, who argued that mind and matter are two separate and distinct sorts of substances, absolutely opposed in their natures, each capable of existing entirely independently of the other.

The dualist is faced with the question of how, if at all, mind and matter are related to each other. Most dualists would agree that in rocks, tables, and other material things, matter exists alone and unrelated to mind; and that at what is called death (since for Descartes the soul is immortal), immaterial minds exist unrelated to matter. In the case of a living human being, however, there are two substances: a mind and a body. Thus, the question arises of how the relation between them is to be conceived. Any dualistic theory would have to account for certain obvious facts about human beings. When people's bodies are affected in certain ways – when subjected, for example, to bright lights, loud noises, rises in temperature – people often experience colors, sounds, or sensations of warmth or of pain. Again, when people experience certain things, their bodies undergo certain changes – they shut their eyes, they put their hands to their ears, they perspire, or their faces become pale.

There are various ways that dualists have proposed to account for these facts. The most straightforward position is interactionism, the view (held by Descartes) that mind and body are capable of affecting each other causally, so that what happens in the body can produce effects in the mind and vice versa. Descartes decided that somewhere within the nerve tissues of the brain was the place where the interactions occurred and chose the pineal gland as the precise point because of its central location. (It is now known that the pineal

gland cannot perform the functions that Descartes attributed to it, though its precise functions are still unknown.)

It is an implication of interactionism that there cannot be a complete explanation of brain functioning exclusively in terms of the laws of neurology because of the intervention at crucial moments of the influences of the mind. This limitation has struck many scholars as an important difficulty. One way around it is epiphenomenalism, the view that the body can affect the mind but that the mind cannot affect the body. Mental events are mere by-products of brain activity, like the exhaust from an engine or the shadows cast by moving figures. When the mind would appear to be affecting the body, as when the experience of pain seems to cause one to grimace, the epiphenomenalist hypothesizes that the very brain state that produces the experience of pain also produces the grimace.

Dualists of either the interactionist or epiphenomenalist persuasion are committed to the existence of causal relations between body and mind. Some philosophers, struck by how entirely different mind and matter are supposed to be on the dualist hypothesis, have held it to be impossible that they could affect each other. Psychophysical parallelism avoids this difficulty by postulating that mind and body are like two perfect clocks, each with its own mechanism but in constant and uniform correlation with the other. Unfortunately, the analogy does not hold very well, for the mind does not seem to have the kind of internal mechanism that would account for any precise sequence of its successive states, and without such a mechanism it would be implausible to expect a constant but noncausal correlation between those states and states of the body.

## Immaterialism

Some philosophers have held the doctrine of immaterialism, so named by Bishop George Berkeley, one of the classic British Empiricists, in whose view everything that exists is mental, of “the stuff that dreams are made on,” and there is no such thing as the material. There are two major alternatives here: that reality consists of one vast, all-encompassing mind, or that it consists of a plurality of minds. The former position is sometimes called absolute Idealism; the latter, which Berkeley himself held, is sometimes called subjective Idealism.

The philosophy of Berkeley represents a highly developed and energetically defended statement of the position that reality consists wholly of minds, the divine Mind and the multiplicity of finite minds that includes all men. Whatever exists does so either because it is a mind or because it is dependent upon a mind; nothing material exists. Berkeley argued that the notion of the material should play no role in one’s thinking, for its existence is unverifiable, its postulation unnecessary, and, at bottom, the very notion is self-contradictory. How does Berkeley view the status of tables and chairs, rocks, the Moon, and all of the other apparently material things that everyone accepts as existing? Berkeley agreed that they do indeed exist but only as collections of ideas that exist in the mind of God and that are often caused by God to exist in the minds of men as well.

There are well-known difficulties in Berkeley’s view. His account of the nature of tables and other objects cannot be accepted as an account of the meanings of these terms because it is implausible to think that the concept of a divine Mind is somehow part of their meaning. Nor does it seem a plausible scientific theory about such objects because of its ad hoc character and its lack

of predictive value. If the notion of God is dropped, however, the philosopher is left with the phenomenalist theory that such objects are collections of appearances. But phenomenism also has serious difficulties; in particular, it cannot in the end account for the difference between real objects and illusions because it cannot provide an account of the difference between circumstances in which perceptions are veridical and those in which they are not.

The other variety of immaterialism, called absolute Idealism, derives from certain doctrines of Immanuel Kant and of the classical German Idealists who followed him – Johann Fichte, Friedrich Schelling, and G.W.F. Hegel – concerning the fundamental dependence of reality on mind or spirit in general. Among the several philosophers who have defended this view, there was, at the turn of the 20th century, F.H. Bradley, whose *Appearance and Reality* (1893; 2nd edition 1897) comprises its most systematic exposition and defense. Bradley denied that a plurality of minds exists and insisted that there is only one infinite Mind, Idea, or Experience that comprehends all of existence within it.

### Neutral Theories

Another important view has been that neither the mental nor the physical is really fundamental; each is an aspect of some underlying reality that is neither mental nor physical but neutral between them. There are many variants of such a view. Spinoza, a 17th-century Rationalist, held that the underlying substance, which encompassed all of reality and which he called God or Nature, had both thinking (the mental) and extension (the material) as attributes. A modern version of this position is that of Peter Strawson, a

leading philosopher of the Oxford “ordinary language” school, who differs from Spinoza in holding that there is a multiplicity of substances, some of which are purely material and some of which are persons (thus he is not really a monist). Strawson conceives of persons as substances whose nature is to have both mental and physical attributes. Thus, one and the same substance can have both qualities, and the difference between the mental and the physical is conceived as a basic difference between the qualities.

A different approach was suggested in some of Hume’s writings and diversely stated by the Pragmatist William James and by various Positivists (Ernst Mach, Rudolf Carnap, and A.J. Ayer). They postulate a number of particular entities, experiences that go to make up minds when they are related in certain ways, as by the laws of association and memory, and that go to make up bodies when the entities are related in other ways, as by the laws of perspective. Thus, a person’s mind is conceived to be just the collection of his experiences, whereas a physical object is conceived to be just the collection of experiences that people can have of it. Here the difference between the mental and physical consists in the different kinds of relations obtaining between the neutral particulars, experiences.

Recently, it has been suggested by certain Linguistic philosophers that the difference between mind and body lies in two different kinds of language or conceptual systems: the physicalistic-conceptual language, on the one hand, with its spatiotemporal terms, and person-talk, on the other, with its reference to norms for assessing the rationality, moral responsibility, and ethical value of human actions.

Existentialist and Phenomenological philosophers have expressed similar conclusions, supported not so much by linguistic considerations as by



general observations of man's condition as a being in the world, with a body, which he experiences and which, by its nature, affects his experience. Man can be viewed as a spatiotemporal aggregate, an object for observation, study, and manipulation, an instance of the laws of nature. But man can also be viewed as a self-moved mover, a being who alters himself and the world through the decisions he makes, who determines values and invests things with those values, who can make his life and his world according to the values that he determines, and who, in the end, can negate his values and even terminate his life by choice. Here the philosopher finds surprising similarities between some Analytic philosophers of the English-speaking world and the more speculative continental philosophers.

#### The Analysis of Mental Phenomena

When the specific phenomena that go to make up the mental are considered, one finds that they all raise philosophical issues, only some of which can be sketched here. Mental phenomena are traditionally divided into three areas: the cognitive, which is concerned with knowledge; the affective, with feeling; and the volitional, with action. It is no longer believed that this division reflects the three so-called basic faculties that comprise the mind; nevertheless, as a very rough classification, it provides a convenient approach to the variety of mental phenomena.

## The Cognitive

Many philosophers since Plato have taken man's ability to know as the characteristic distinguishing him from all other animals. The very name of his species, *Homo sapiens*, means "man the knower."

If one asks what knowledge is, he has raised the central problem of a major field of philosophy, epistemology. But there is also a very important psychological aspect to knowledge, and that is where the philosophy of mind becomes relevant. It is often claimed, for example, that knowing that something is so entails believing that it is so; and the nature of belief lies clearly within the province of the philosophy of mind. Since a person does not lose a belief when he is not consciously attending to it, the approach to belief most in favor today is to treat it as a disposition, which, like all such, comes to open expression only sporadically. Other psychological phenomena falling within the area of the cognitive are attention, sense perception, understanding, memory, inference, and doubt. The view that each of these requires a subjective experience has been effectively refuted in the writings of Ludwig Wittgenstein, one of the seminal thinkers of modern Linguistic Analysis. Remembering that the oven is still turned on may consist in nothing but getting up in the middle of a conversation, going over to the oven, and turning it off, all the while animatedly continuing the conversation. But exactly why this is called "remembering that the oven is still on" is not clear. Perhaps the best that can be said is that there are analogies between such instances of remembering and other, more self-conscious instances. It is the task of the philosophy of mind to examine, classify, and analyze the relations among such phenomena.

## The Affective

Man has not only the capacity to know but also the capacity to respond emotionally to what he knows. A man may not only believe that some event will occur, but he may also dread it or welcome it. Concerning the things that a person knows, he may approve or disapprove, love or hate, pity or envy, enjoy or abhor. Here, although the subjective experience often plays an important role, it clearly is not the whole story. To enjoy doing something, as has been pointed out, is not to do the thing *and also* undergo a series of experiences of enjoyment; it may simply be to do the thing when circumstances permit and make efforts to avoid its cessation or interruption. But a disposition-to-behave approach will be less successful for other affective phenomena. For example, people have feelings about the past – regret, nostalgia, pride – feelings in which future behavior plays a relatively minor role.

All of the affective phenomena so far considered have the property of intentionality, of being directed toward an object. It is clear, however, that this is not a sufficient condition for defining the affective, since it marks out too broad a scope – including, for example, believing, which, though intentional, falls not within the affective but within the cognitive. But neither does intentionality seem to be a necessary condition of the affective. Moods such as depression, anxiety, or joviality may not have any specific object, though it is sometimes replied that such emotions take as objects anything the person happens to think of. Sensations also do not seem to be intentional, even though they are usually classified as affects. One view is that sensations are really cognitions – the awareness of some bodily disturbance. The difficulty in trying to decide whether a sensation is an affect or a cognition further

illustrates the inadequacy of the classification of mental phenomena into the cognitive, affective, and volitional.

### The Volitional

Intellect and emotion often come to expression in volition and action, important topics in the philosophy of mind – topics that comprise such concepts as motive, desire and purpose, deliberation, decision, intention, attempt, and action, both voluntary and involuntary.

There is a rough distinction to be made between the things that happen to a person and the things he does or makes to happen. If a person slips on the ice, it is something that happens to him; if he walks on the ice, it is something that he does. “Henry slid on the ice” is ambiguous: it may report something that happened to Henry or something that Henry did, depending upon the meaning. In this example, the observable event may be the same: from a photograph of Henry sliding on the ice one may not be able to tell which it is. The problem of action is primarily to understand this distinction and its ramifications. Wittgenstein once put the question this way: “And the problem arises: what is left over if I subtract the fact that my arm goes up from the fact that I raise my arm?”

There are a number of different answers: (1) Actions are events produced by causes of certain sorts – volitions or acts of will according to some theories; beliefs and desires under other theories; and simply persons or agents in yet another theory. (2) Actions are events that are “caused” in a special sense; they have a teleological rather than an efficient or mechanical cause, or an immanent (or originating) cause rather than one that is merely a

reaction to, or modification of, an action coming from some other source. (3) Actions are events that are properly characterized and assessed in terms of rules of conduct, or principles of rational and ethical behavior, and for which the agent is held responsible, liable, accountable, to be praised or blamed, rewarded or punished.

Any theory of action is expected to throw light on the issue of free will, a matter of great importance for ethical theory. If the philosopher holds that free will is compatible with determinism, any of the views above will allow for free will. Even if he holds that an action is not free if it has causes that eventually lie outside the agent, his view will be compatible with the various views of action unless he holds the version of (1) – that an action is an event produced by volitions or beliefs and desires – and also holds the additional thesis (2) – that volitions or beliefs and desires themselves have causes that lie outside the agent. Only then will there be no freedom of the will.

## Some Metaphysical and Epistemological Issues

### Personal Identity Through Time

A person, as he goes through life, changes in many ways; but he remains the person that he was. He is that person who was born on a certain day, that person who graduated 23rd in a particular high school class, who married on a certain date in a certain place; he has a particular identity through time. It is difficult to state what exactly it is that makes a person one and the same self through time.

An obvious starting point is the fact that throughout a person's natural life he has the same body and that this is what makes him one and the same person throughout a particular period of time. But there are difficulties in this view. First, since the body cells are constantly being replaced and in some instances whole organs are transplanted, it is not clear what makes a particular body identical with a body that existed, say, 20 years earlier. A second difficulty arises through the hypothetical possibility of brain transplants; if two brains were interchanged, in all likelihood there would be a systematic interchange of memory, beliefs, personality and character traits, skills, and habits of thought and action. Such a transplant would incline one to say that not merely a small portion of each body had been interchanged but two people as well; for one also takes as a criterion of personal identity similarities through time of memory, personality, skills, and habits. After all, a man is often willing to say that this is the same person who did something in the past, not on the basis of knowing that it is the same body but on a quite different basis – that the person recounts the past situation with great accuracy, exhibits similar personal reactions, and displays the same skills.

Because two different kinds of criteria, bodily and psychological, are used for determining personal identity, it is possible to imagine instances of conflict in which the criterion of bodily identity would indicate that it is a different person but the psychological criteria would indicate that it is the same person and vice versa. The Austro-Czech novelist Franz Kafka, known for his nightmarish works, in his short story *Die Verwandlung* (1915; *The Metamorphosis*) tells of a person who awoke one morning to find, to his horror, that he had the body of a large insect. Although his family accepted his conclusion that he was the same person even though he had an entirely different body, others would have disagreed. There is still, in fact,

considerable disagreement among scholars on this whole issue – on how to state precisely the bodily criterion; on whether there is a psychological criterion as well and, if so, how it is to be formulated; on what is the basic criterion of personal identity; and on what to say about instances in which criteria conflict.

### Personal Immortality

Many people believe that when the human body ceases to be a living system, there is not total annihilation of the person but that in some respect the person continues to exist. The philosopher of mind can put aside the various watered-down versions of immortality in which the person continues to exist in the remote sense that people still remember him or his works or that his influence continues through history. The philosopher does look with interest, however, on the claim that there is an immortality in which a person, in his survival, meets the psychological criteria of personal identity, of inheritance of memory, beliefs, habits, and personality characteristics.

It is clear that a person's view of immortality will be affected by opinions that he holds about the relation of mind to matter. Given the versions of Materialism that urge the elimination of mental terms or their definition in bodily terms or that take bodily identity to be the basic criterion of personal identity, the very notion of survival after death is completely unintelligible. Many philosophers, however, reason that, since the notion of survival is intelligible, such versions of Materialism cannot be accepted. Central-state or identity theorists would admit survival to be an intelligible notion but would view it, like lightning without electricity, as something that never happens;

they would thus be in agreement with many dualists, in particular epiphenomenalists and psychophysical parallelists. Even an interactionist would be free to accept or reject survival, as would a neutral monist.

If a philosopher holds that survival is an intelligible notion, he is still left with the further question of whether it ever happens. In the past there have been various a priori arguments for survival after death. Arguments based upon the nature of the self, such as its indivisibility, can be found in Plato's *Phaedo*. Kant argued that man's moral principles require survival as a postulate. But among those today that hold that survival is intelligible, it is widely agreed that a priori arguments will not do. If there is survival, they say, it is a contingent fact and not a necessity; one must thus look to empirical data for guidance. A survey of the evidence shows that the case against survival, though strong, is by no means conclusive. One thing is clear: if there is survival, the survivors can theoretically give firsthand testimony to it, whereas if there is no survival, there will be no one to give such testimony.

#### Knowledge of Other Minds

An important problem in the theory of knowledge has been the status of the belief in other minds, the belief that one's own consciousness is not the only consciousness in existence. Though few, if any, sane persons have seriously accepted solipsism (the view that one's own is the only consciousness), the grounds for rejecting it are not at all clear.

Again, as with the problems of personal identity and personal survival, one's view of the relation of mind to matter is relevant. On various Materialistic views, the problem reduces itself to that of justifying the belief in



an external world that contains other bodies of the appropriate sort and with the appropriate behavior. But for dualists and immaterialists, who hold that mental phenomena are something irreducibly different from the physical, there is the further question of whether that something is unique to oneself or whether there are other instances of it in the world.

Some scholars claim that individuals sometimes have direct awareness of the conscious states of others, either in telepathic experiences, moments of empathy, or even in everyday social intercourse. There is, moreover, a transcendental argument, found in Kant and defended by Strawson, holding that, unless a person could be confident of the existence of other minds, he could not be confident of the existence of his own mind. A different line of reasoning, the so-called argument from analogy, is based upon the similarities between one's own body and its behavior, on the one hand, and other human bodies and their behavior on the other. To pursue the argument, since a mind is known to be associated with one's own body, it is reasonable to conclude that another mind is associated with the body of another person. Finally, there is the view that the best way to explain the complex behavior of other bodies, especially their ability to behave rationally and in particular to speak and communicate information, is to postulate other minds at work.

None of these arguments compels strong conviction, certainly not the degree of conviction that all persons feel concerning the existence of other minds. Whether stronger arguments will be found, whether philosophers must admit that there is a considerable amount of faith required here, or whether they will reformulate their concepts of the mind in a more Materialistic way to bring them in closer accord with observable data remains to be seen.

## Artificial Intelligence

Remarkable progress in the development of high-speed electronic computers has led many philosophers to conclude that a suitably programmed computer with a sufficient memory capacity would have an actual mind capable of intelligent thought. The term artificial intelligence denotes the area of investigation that aims to develop computers with such capabilities.

Two questions are intensely debated in this field. First, what are the theoretical limits to what can be achieved in the way of artificial intelligence? Despite phenomenal progress in recent years, no computer yet devised even approximates in its capacity the multiplicitous powers of the human mind. However, it would be most unwise at present to make dogmatic predictions about future developments. Second, assuming that the optimistic hopes of artificial intelligence researchers are realized, would such devices literally have minds or would they be mere imitations of minds? It is already common linguistic practice to describe computers as having memories, making inferences, understanding one language or another, and the like, but are such descriptions literally true or simply metaphorical? One group holds that computers will never be more than tools employed by the human intelligence to aid its own thinking. Another group holds that human intelligence itself consists of the very computational processes that could be exemplified by advanced machines, so that it would be unreasonable to deny the attribution of intelligence to such machines. The issue may remain unresolved until researchers in artificial intelligence have had more time to determine the limits of computer capabilities.

## Ethics

### Introduction

How should we live? Shall we aim at happiness or at knowledge, virtue, or the creation of beautiful objects? If we choose happiness, will it be our own or the happiness of all? And what of the more particular questions that face us: Is it right to be dishonest in a good cause? Can we justify living in opulence while elsewhere in the world people are starving? If conscripted to fight in a war we do not support, should we disobey the law? What are our obligations to the other creatures with whom we share this planet and to the generations of humans who will come after us?

Ethics deals with such questions at all levels. Its subject consists of the fundamental issues of practical decision making, and its major concerns include the nature of ultimate value and the standards by which human actions can be judged right or wrong.

The terms ethics and morality are closely related. We now often refer to ethical judgments or ethical principles where it once would have been more common to speak of moral judgments or moral principles. These applications are an extension of the meaning of ethics. Strictly speaking, however, the term refers not to morality itself but to the field of study, or branch of inquiry, that has morality as its subject matter. In this sense, ethics is equivalent to moral philosophy.

Although ethics has always been viewed as a branch of philosophy, its all-embracing practical nature links it with many other areas of study, including anthropology, biology, economics, history, politics, sociology, and theology. Yet, ethics remains distinct from such disciplines because it is not a

matter of factual knowledge in the way that the sciences and other branches of inquiry are. Rather, it has to do with determining the nature of normative theories and applying these sets of principles to practical moral problems.

## The Origins of Ethics

### Mythical Accounts

#### Introduction of Moral Codes

When did ethics begin and how did it originate? If we are referring to ethics proper – i.e., the systematic study of what we ought to do – it is clear that ethics can only have come into existence when human beings started to reflect on the best way to live. This reflective stage emerged long after human societies had developed some kind of morality, usually in the form of customary standards of right and wrong conduct. The process of reflection tended to arise from such customs, even if in the end it may have found them wanting. Accordingly, ethics began with the introduction of the first moral codes.

Virtually every human society has some form of myth to explain the origin of morality. In the Louvre in Paris there is a black Babylonian column with a relief showing the sun god Shamash presenting the code of laws to Hammurabi. The Old Testament account of God giving the Ten Commandments to Moses on Mt. Sinai might be considered another example. In Plato's *Protagoras* there is an avowedly mythical account of how Zeus took pity on the hapless humans, who, living in small groups and with inadequate teeth, weak claws, and lack of speed, were no match for the other

beasts. To make up for these deficiencies, Zeus gave humans a moral sense and the capacity for law and justice, so that they could live in larger communities and cooperate with one another.

That morality should be invested with all the mystery and power of divine origin is not surprising. Nothing else could provide such strong reasons for accepting the moral law. By attributing a divine origin to morality, the priesthood became its interpreter and guardian, and thereby secured for itself a power that it would not readily relinquish. This link between morality and religion has been so firmly forged that it is still sometimes asserted that there can be no morality without religion. According to this view, ethics ceases to be an independent field of study. It becomes, instead, moral theology.

There is some difficulty, already known to Plato, with the view that morality was created by a divine power. In his dialogue *Euthyphro*, Plato considered the suggestion that it is divine approval that makes an action good. Plato pointed out that if this were the case, we could not say that the gods approve of the actions because the actions are good. Why then do the gods approve of these actions rather than others? Is their approval entirely arbitrary? Plato considered this impossible and so held that there must be some standards of right or wrong that are independent of the likes and dislikes of the gods. Modern philosophers have generally accepted Plato's argument because the alternative implies that if the gods had happened to approve of torturing children and to disapprove of helping one's neighbours, then torture would have been good and neighbourliness bad.

## Problems of Divine Origin

A modern theist might say that since God is good, he could not possibly approve of torturing children nor disapprove of helping neighbours. In saying this, however, the theist would have tacitly admitted that there is a standard of goodness that is independent of God. Without an independent standard, it would be pointless to say that God is good; this could only mean that God is approved of by God. It seems therefore that, even for those who believe in the existence of God, it is impossible to give a satisfactory account of the origin of morality in terms of a divine creation. We need a different account.

There are other possible connections between religion and morality. It has been said that even if good and evil exist independently of God or the gods, only divine revelation can reliably inform us about good and evil. An obvious problem with this view is that those who receive divine revelations, or who consider themselves qualified to interpret them, do not always agree on what is good and what is evil. Without an accepted criterion for the authenticity of a revelation or an interpretation, we are no better off, so far as reaching moral agreement is concerned, than we would be if we were to decide on good and evil ourselves with no assistance from religion.

Traditionally, a more important link between religion and ethics was that religious teachings were thought to provide a reason for doing what is right. In its crudest form, the reason was that those who obey the moral law will be rewarded by an eternity of bliss while everyone else roasts in hell. In more sophisticated versions, the motivation provided by religion was less blatantly self-seeking and more of an inspirational kind. Whether in its crude or sophisticated version, or something in between, religion does provide an answer to one of the great questions of ethics: Why should I do what is right?

As will be seen in the course of this article, however, the answer provided by religion is by no means the only answer. It will be considered after the alternatives have been examined.

### Prehuman Ethics

### Nonhuman Behavior

Can we do better than the religious accounts of the origin of morality? Because, for obvious reasons, we have no historical record of a human society in the period before it had any standards of right and wrong, history cannot tell us the origins of morality. Nor is anthropology able to assist because all human societies studied have already had, except perhaps during the most extreme circumstances, their own form of morality. Fortunately there is another mode of inquiry open to us. Human beings are social animals. Living in a social group is a characteristic we share with many other animal species, including our closest relatives, the apes. Presumably, the common ancestor of humans and apes also lived in a social group, so that we were social beings before we were human beings. Here, then, in the social behavior of nonhuman animals and in the evolutionary theory that explains such behavior, we may find the origins of human morality.

Social life, even for nonhuman animals, requires constraints on behavior. No group can stay together if its members make frequent, no-holds-barred attacks on one another. Social animals either refrain altogether from attacking other members of the social group, or, if an attack does take place, the ensuing struggle does not become a fight to the death – it is over when the weaker animal shows submissive behavior. It is not difficult to see analogies

here with human moral codes. The parallels, however, go much further than this. Like humans, social animals may behave in ways that benefit other members of the group at some cost or risk to themselves. Male baboons threaten predators and cover the rear as the troop retreats. Wolves and wild dogs bring meat back to members of the pack not present at the kill. Gibbons and chimpanzees with food will, in response to a gesture, share their food with others of the group. Dolphins support sick or injured animals, swimming under them for hours at a time and pushing them to the surface so they can breathe.

It may be thought that the existence of such apparently altruistic behavior is odd, for evolutionary theory states that those who do not struggle to survive and reproduce will be wiped out in the ruthless competition known as natural selection. Research in evolutionary theory applied to social behavior, however, has shown that evolution need not be quite so ruthless after all. Some of this altruistic behavior is explained by kin selection. The most obvious examples are those in which parents make sacrifices for their offspring. If wolves help their cubs to survive, it is more likely that genetic characteristics, including the characteristic of helping their own cubs, will spread through further generations of wolves.

### Kinship and Reciprocity

Less obviously, the principle also holds for assistance to other close relatives, even if they are not descendants. A child shares 50 percent of the genes of each of its parents, but full siblings too, on the average, have 50 percent of their genes in common. Thus a tendency to sacrifice one's life for



two or more of one's siblings could spread from one generation to the next. Between cousins, where only 12½ percent of the genes are shared, the sacrifice-to-benefit ratio would have to be correspondingly increased.

When apparent altruism is not between kin, it may be based on reciprocity. A monkey will present its back to another monkey, who will pick out parasites; after a time the roles will be reversed. Reciprocity may also be a factor in food sharing among unrelated animals. Such reciprocity will pay off, in evolutionary terms, as long as the costs of helping are less than the benefits of being helped and as long as animals will not gain in the long run by "cheating" – that is to say, by receiving favors without returning them. It would seem that the best way to ensure that those who cheat do not prosper is for animals to be able to recognize cheats and refuse them the benefits of cooperation the next time around. This is only possible among intelligent animals living in small, stable groups over a long period of time. Evidence supports this conclusion: reciprocal behavior has been observed in birds and mammals, the clearest cases occurring among wolves, wild dogs, dolphins, monkeys, and apes.

In short, kin altruism and reciprocity do exist, at least in some nonhuman animals living in groups. Could these forms of behavior be the basis of human ethics? There are good reasons for believing that they could. A surprising proportion of human morality can be derived from the twin bases of concern for kin and reciprocity. Kinship is a source of obligation in every human society. A mother's duty to look after her children seems so obvious that it scarcely needs to be mentioned. The duty of a married man to support and protect his family is almost equally as widespread. Duties to close relatives take priority over duties to more distant relatives, but in most societies even distant relatives are still treated better than strangers.

If kinship is the most basic and universal tie between human beings, the bond of reciprocity is not far behind. It would be difficult to find a society that did not recognize, at least under some circumstances, an obligation to return favors. In many cultures this is taken to extraordinary lengths, and there are elaborate rituals of gift giving. Often the repayment has to be superior to the original gift, and this escalation can reach such extremes as to threaten the economic security of the donor. The huge “potlatch” feasts of certain American Indian tribes are a well-known example of this type of situation. Many Melanesian societies also place great importance on giving and receiving very substantial amounts of valuable items.

Many features of human morality could have grown out of simple reciprocal practices such as the mutual removal of parasites from awkward places. Suppose I want to have the lice in my hair picked out and I am willing in return to remove lice from someone else’s hair. I must, however, choose my partner carefully. If I help everyone indiscriminately, I will find myself delousing others without getting my own lice removed. To avoid this, I must learn to distinguish between those who return favors and those who do not. In making this distinction, I am separating reciprocators and nonreciprocators and, in the process, developing crude notions of fairness and of cheating. I will strengthen my links with those who reciprocate, and bonds of friendship and loyalty, with a consequent sense of obligation to assist, will result.

This is not all. The reciprocators are likely to react in a hostile and angry way to those who do not reciprocate. Perhaps they will regard reciprocity as good and “right” and cheating as bad and “wrong.” From here it is a small step to concluding that the worst of the nonreciprocators should be driven out of society or else punished in some way, so that they will not take advantage

of others again. Thus a system of punishment and a notion of desert constitute the other side of reciprocal altruism.

Although kinship and reciprocity loom large in human morality, they do not cover the entire field. Typically, there are obligations to other members of the village, tribe, or nation even when these are strangers. There may also be a loyalty to the group as a whole that is distinct from loyalty to individual members of the group. It may be at this point that human culture intervenes. Each society has a clear interest in promoting devotion to the group and can be expected to develop cultural influences that exalt those who make sacrifices for the sake of the group and revile those who put their own interests too far ahead of the interests of the group. More tangible rewards and punishments may supplement the persuasive effect of social opinion. This is simply the start of a process of cultural development of moral codes.

Before considering the cultural variations in human morality and their significance for ethics, let us draw together this discussion of the origins of morality. Since we are dealing with a prehistoric period and morality leaves no fossils, any account of the origins of morality will necessarily remain to some extent speculative. It seems likely that morality is the gradual outgrowth of forms of altruism that exist in some social animals and that are the result of the usual evolutionary processes of natural selection. No myths are required to explain its existence.

### Anthropology and Ethics

It is commonly believed that there are no ethical universals – i.e., there is so much variation from one culture to another that no single principle or

judgment is generally accepted. We have already seen that such is not the case. Of course, there are immense differences in the way in which the broad principles so far discussed are applied. The duty of children to their parents meant one thing in traditional Chinese society and means something quite different in contemporary Anglo-Saxon society. Yet, concern for kin and reciprocity to those who treat us well are considered good in virtually all human societies. Also, all societies have, for obvious reasons, some constraints on killing and wounding other members of the group.

Beyond that common ground, the variations in moral attitudes soon become more striking than the similarities. Man's fascination with such variations goes back a long way. The Greek historian Herodotus relates that Darius, king of Persia, once summoned Greeks before him and asked them how much he would have to pay them to eat their fathers' dead bodies. They refused to do it at any price. Then Darius brought in some Indians who by custom ate the bodies of their parents and asked them what would make them willing to burn their fathers' bodies. The Indians cried out that he should not mention so horrid an act. Herodotus drew the obvious moral: each nation thinks its own customs best.

Variations in morals were not systematically studied until the 19th century, when knowledge of the more remote parts of the globe began to increase. At the beginning of the 20th century, Edward Westermarck published *The Origin and Development of the Moral Ideas* (1906-08), two large volumes comparing differences among societies in such matters as the wrongness of killing (including killing in warfare, euthanasia, suicide, infanticide, abortion, human sacrifices, and duelling); whose duty it is to support children, the aged, or the poor; the forms of sexual relationship permitted; the status of women; the right to property and what constitutes

theft; the holding of slaves; the duty to tell the truth; dietary restrictions; concern for nonhuman animals; duties to the dead; and duties to the gods. Westermarck had no difficulty in demonstrating tremendous diversity in all these issues. More recent, though less comprehensive, studies have confirmed that human societies can and do flourish while holding radically different views about all such matters.

As noted earlier, ethics itself is not primarily concerned with the description of moral systems in different societies. That task, which remains on the level of description, is one for anthropology or sociology. In contrast, ethics deals with the justification of moral principles. Nevertheless, ethics must take note of the variations in moral systems because it has often been claimed that this knowledge shows that morality is simply a matter of what is customary and is always relative to a particular society. According to this view, no ethical principles can be valid except in terms of the society in which they are held. Words such as good and bad just mean, it is claimed, “approved in my society” or “disapproved in my society,” and so to search for an objective, or rationally justifiable, ethic is to search for what is in fact an illusion.

One way of replying to this position would be to stress the fact that there are some features common to virtually all human moralities. It might be thought that these common features must be the universally valid and objective core of morality. This argument would, however, involve a fallacy. If the explanation for the common features is simply that they are advantageous in terms of evolutionary theory, that does not make them right. Evolution is a blind force incapable of conferring a moral imprimatur on human behavior. It may be a fact that concern for kin is in accord with evolutionary theory, but to say that concern for kin is therefore right would be

to attempt to deduce values from facts. As will be seen later, it is not possible to deduce values from facts in this manner. In any case, that something is universally approved does not make it right. If all human societies enslaved any tribe they could conquer, some freethinking moralists might still insist that slavery is wrong. They could not be said to be talking nonsense merely because they had few supporters. Similarly, then, universal support for principles of kinship and reciprocity cannot prove that these principles are in some way objectively justified.

This example illustrates the way in which ethics differs from a descriptive science. From the standpoint of ethics, whether human moral codes closely parallel one another or are extraordinarily diverse, the question of how an individual should act remains open. If you are thinking deeply about what you should do, your uncertainty will not be overcome by being told what your society thinks you should do in the circumstances in which you find yourself. Even if you are told that virtually all other human societies agree, you may choose not to go that way. If you are told that there is great variation among human societies over what people should do in your circumstances, you may wonder whether there can be any objective answer, but your dilemma has still not been resolved. In fact, this diversity does not rule out the possibility of an objective answer either: conceivably, most societies simply got it wrong. This, too, is something that will be taken up later in this article, for the possibility of an objective morality is one of the constant themes of ethics.

## Ancient Ethics

The first ethical precepts were certainly passed down by word of mouth by parents and elders, but as societies learned to use the written word, they began to set down their ethical beliefs. These records constitute the first historical evidence of the origins of ethics.

## The Middle East

The earliest surviving writings that might be taken as ethics textbooks are a series of lists of precepts to be learned by boys of the ruling class of Egypt, prepared some 3,000 years before the Christian Era. In most cases, they consist of shrewd advice on how to live happily, avoid unnecessary troubles, and advance one's career by cultivating the favor of superiors. There are, however, several passages that recommend more broadly based ideals of conduct, such as the following: Rulers should treat their people justly and judge impartially between their subjects. They should aim to make their people prosperous. Those who have bread are urged to share it with the hungry. Humble and lowly people must be treated with kindness. One should not laugh at the blind or at dwarfs.

Why then should one follow these precepts? Did the ancient Egyptians believe that one should do what is good for its own sake? The precepts frequently state that it will profit a man to act justly, much as we say that "honesty is the best policy." They also emphasize the importance of having a good name. Since these precepts are intended for the instruction of the ruling classes, however, we have to ask why helping the destitute should have contributed to an individual's good reputation among this class. To some

degree the authors of the precepts must have thought that to make people prosperous and happy and to be kind to those who have least is not merely personally advantageous but good in itself.

The precepts are not works of ethics in the philosophical sense. No attempt is made to find any underlying principles of conduct that might provide a more systematic understanding of ethics. Justice, for example, is given a prominent place, but there is no elaboration of the notion of justice nor any discussion of how disagreements about what is just and unjust might be resolved. Furthermore, there is no probing of ethical dilemmas that may occur if the precepts should conflict with one another. The precepts are full of sound observations and practical wisdom, but they do not encourage theoretical speculation.

The same practical bent can be found in other early codes or lists of ethical injunctions. The great codification of Babylonian law by Hammurabi is often said to have been based on the principle of “an eye for an eye, a tooth for a tooth,” as if this were some fundamental principle of justice, elaborated and applied to all cases. In fact, the code reflects no such consistent principle. It frequently prescribes the death penalty for offenses that do not themselves cause death – e.g., for robbery or for accepting bribes. Moreover, even the eye-for-an-eye rule applies only if the eye of the original victim is that of a member of the patrician class; if it is the eye of a commoner, the punishment is a fine of a quantity of silver. Apparently such differences in punishment were not thought to require justification. At any rate, there are no surviving attempts to defend the principles of justice on which the code was based.

The Hebrew people were at different times captives of both the Egyptians and the Babylonians. It is therefore not surprising that the law of



ancient Israel, which was put into its definitive form during the Babylonian Exile, shows the influence both of the ancient Egyptian precepts and of the Code of Hammurabi. The book of Exodus refers, for example, to the principle of “life for life, eye for eye, tooth for tooth.” Hebrew law does not differentiate, as the Babylonian law does, between patricians and commoners, but it does stipulate that in several respects foreigners may be treated in ways that it is not permissible to treat fellow Hebrews; for instance, Hebrew slaves, but not others, had to be freed without ransom in the seventh year. Yet, in other respects Israeli law and morality developed the humane concern shown in the Egyptian precepts for the poor and unfortunate: hired servants must be paid promptly, because they rely on their wages to satisfy their pressing needs; slaves must be allowed to rest on the seventh day; widows, orphans, and the blind and deaf must not be wronged, and the poor man should not be refused a loan. There was even a tithe providing for an incipient welfare state. The spirit of this humane concern was summed up by the injunction to “love thy neighbour as thyself,” a sweepingly generous form of the rule of reciprocity.

The famed Ten Commandments are thought to be a legacy of Semitic tribal law when important commands were taught, one for each finger, so that they could more easily be remembered. (Sets of five or 10 laws are common among preliterate civilizations.) The content of the Hebrew commandments differed from other laws of the region mainly in its emphasis on duties to God. In the more detailed laws laid down elsewhere, this emphasis continued with as much as half the legislation concerned with crimes against God and ceremonial and ritualistic matters, though there may be other explanations for some of these ostensibly religious requirements concerning the avoidance of certain foods and the need for ceremonial cleansings.

In addition to lengthy statements of the law, the surviving literature of ancient Israel includes both proverbs and the books of the prophets. The proverbs, like the precepts of the Egyptians, are brief statements without much concern for systematic presentation or overall coherence. They go further than the Egyptian precepts, however, in urging conduct that is just and upright and pleasing to God. There are correspondingly fewer references to what is needed for a successful career, although it is frequently stated that God rewards the just. In this connection the Book of Job is notable as an exploration of the problem raised for those who accept this motive for obeying the moral law: How are we to explain the fact that the best of people may suffer the worst misfortunes? The book offers no solution beyond faith in God, but the sharpened awareness of the problem it offers may have influenced some to adopt belief in reward and punishment in another realm as the only possible solution.

The literature of the prophets contains a good deal of social and ethical criticism, though more at the level of denunciation than discussion about what goodness really is or why there is so much wrongdoing. The Book of Isaiah is especially notable for its early portrayal of a utopia in which “the desert shall blossom as the rose... the wolf also shall dwell with the lamb... They shall not hurt or destroy in all my holy mountain.”

## India

Unlike the ethical teaching of ancient Egypt and Babylon, Indian ethics was philosophical from the start. In the oldest of the Indian writings, the Vedas, ethics is an integral aspect of philosophical and religious speculation

about the nature of reality. These writings date from about 1500 BCE. They have been described as the oldest philosophical literature in the world, and what they say about how people ought to live may therefore be the first philosophical ethics.

The Vedas are, in a sense, hymns, but the gods to which they refer are not persons but manifestations of ultimate truth and reality. In the Vedic philosophy, the basic principle of the universe, the ultimate reality on which the cosmos exists, is the principle of *Ritam*, which is the word from which the Western notion of right is derived. There is thus a belief in a right moral order somehow built into the universe itself. Hence, truth and right are linked; to penetrate through illusion and understand the ultimate truth of human existence is to understand what is right. To be an enlightened one is to know what is real and to live rightly, for these are not two separate things but one and the same.

The ethic that is thus traced to the very essence of the universe is not without its detailed practical applications. These were based on four ideals, or proper goals, of life: prosperity, the satisfaction of desires, moral duty, and spiritual perfection – i.e., liberation from a finite existence. From these ends follow certain virtues: honesty, rectitude, charity, nonviolence, modesty, and purity of heart. To be condemned, on the other hand, are falsehood, egoism, cruelty, adultery, theft, and injury to living things. Because the eternal moral law is part of the universe, to do what is praiseworthy is to act in harmony with the universe and accordingly will receive its proper reward; conversely, once the true nature of the self is understood, it becomes apparent that those who do what is wrong are acting self-destructively.

The basic principles underwent considerable modification over the ensuing centuries, especially in the *Upanisads*, a body of philosophical literature dating from 800 BCE. The Indian caste system, with its intricate laws about what members of each caste may or may not do, is accepted by the *Upanisads* as part of the proper order of the universe. Ethics itself, however, is not regarded as a matter of conformity to laws. Instead, the desire to be ethical is an inner desire. It is part of the quest for spiritual perfection, which in turn is elevated to the highest of the four goals of life.

During the following centuries the ethical philosophy of this early period gradually became a rigid and dogmatic system that provoked several reactions. One, which is uncharacteristic of Indian thought in general, was the Carvaka, or materialist school, which mocked religious ceremonies, saying that they were invented by the Brahmans (the priestly caste) to ensure their livelihood. When the Brahmans defended animal sacrifices by claiming that the sacrificed beast goes straight to heaven, the members of the Carvaka asked why the Brahmans did not kill their aged parents to hasten their arrival in heaven. Against the postulation of an eventual spiritual liberation, Carvaka ethics urged each individual to seek his or her pleasure here and now.

Jainism, another reaction to the traditional Vedic outlook, went in exactly the opposite direction. The Jaina philosophy is based on spiritual liberation as the highest of all goals and nonviolence as the means to it. In true philosophical manner, the Jainas found in the principle of nonviolence a guide to all morality. First, apart from the obvious application to prohibiting violent acts to other humans, nonviolence is extended to all living things. The Jainas are vegetarian. They are often ridiculed by Westerners for the care they take to avoid injuring insects or other living things while walking or drinking water that may contain minute organisms; it is less well known that Jainas began to

care for sick and injured animals thousands of years before animal shelters were thought of in Europe. The Jainas do not draw the distinction usually made in Western ethics between their responsibility for what they do and their responsibility for what they omit doing. Omitting to care for an injured animal would also be in their view a form of violence.

Other moral duties are also derived from the notion of nonviolence. To tell someone a lie, for example, is regarded as inflicting a mental injury on that person. Stealing, of course, is another form of injury, but because of the absence of a distinction between acts and omissions, even the possession of wealth is seen as depriving the poor and hungry of the means to satisfy their wants. Thus nonviolence leads to a principle of nonpossession of property. Jaina priests were expected to be strict ascetics and to avoid sexual intercourse. Ordinary Jainas, however, followed a slightly less severe code, which was intended to give effect to the major forms of nonviolence while still being compatible with a normal life.

The other great ethical system to develop as a reaction to the ossified form of the old Vedic philosophy was Buddhism. The person who became known as the Buddha, which means the “enlightened one,” was born about 563 BCE, the son of a king. Until he was 29 years old, he lived the sheltered life of a typical prince, with every luxury he could desire. At that time, legend has it, he was jolted out of his idleness by the “Four Signs”: he saw in rapid succession a very feeble old man, a hideous leper, a funeral, and a venerable ascetic monk. He began to think about old age, disease, and death, and decided to follow the way of the monk. For six years he led an ascetic life of renunciation, but finally, while meditating under a tree, he concluded that the solution was not withdrawal from the world, but rather a practical life of compassion for all.

Buddhism is often thought to be a religion, and indeed over the centuries it has adopted in many places the trappings of religion. This is an irony of history, however, because the Buddha himself was a strong critic of religion. He rejected the authority of the Vedas and refused to set up any alternative creed. He saw religious ceremonies as a waste of time and theological beliefs as mere superstition. He refused to discuss abstract metaphysical problems such as the immortality of the soul. The Buddha told his followers to think for themselves and take responsibility for their own future. In place of religious beliefs and religious ceremonies, the Buddha advocated a life devoted to universal compassion and brotherhood. Through such a life one might reach the ultimate goal, Nirvana, a state in which all living things are free from pain and sorrow. There are similarities between this ethic of universal compassion and the ethics of the Jainas. Nevertheless, the Buddha was the first historical figure to develop such a boundless ethic.

In keeping with his own previous experience, the Buddha proposed a “middle path” between self-indulgence and self-renunciation. In fact, it is not so much a path between these two extremes as one that draws together the benefits of both. Through living a life of compassion and love for all, a person achieves the liberation from selfish cravings sought by the ascetic and a serenity and satisfaction that are more fulfilling than anything obtained by indulgence in pleasure.

It is sometimes thought that because the Buddhist goal is Nirvana, a state of freedom from pain and sorrow that can be reached by meditation, Buddhism teaches a withdrawal from the real world. Nirvana, however, is not to be sought for oneself alone; it is regarded as a unity of the individual self with the universal self in which all things take part. In the Mahayana school of

Buddhism, the aspirant for Enlightenment even takes a vow not to accept final release until everything that exists in the universe has attained Nirvana.

The Buddha lived and taught in India, and so Buddhism is properly classified as an Indian ethical philosophy. Yet, Buddhism did not take hold in the land of its origin. Instead, it spread in different forms south into Sri Lanka and Southeast Asia, and north through Tibet to China, Korea, and Japan. In the process, Buddhism suffered the same fate as the Vedic philosophy against which it had rebelled: it became a religion, often rigid, with its own sects, ceremonies, and superstitions.

## China

The two greatest moral philosophers of ancient China, Lao-tzu (flourished c. 6th century BCE) and Confucius (551-479 BCE), thought in very different ways. Lao-tzu is best known for his ideas about the Tao (literally “Way,” the Supreme Principle). The Tao is based on the traditional Chinese virtues of simplicity and sincerity. To follow the Tao is not a matter of keeping to any set list of duties or prohibitions, but rather of living in a simple and honest manner, being true to oneself, and avoiding the distractions of ordinary living. Lao-tzu’s classic book on the Tao, *Tao-te Ching*, consists only of aphorisms and isolated paragraphs, making it difficult to draw an intelligible system of ethics from it. Perhaps this is because Lao-tzu was a type of moral skeptic: he rejected both righteousness and benevolence, apparently because he saw them as imposed on individuals from without rather than coming from their own inner nature. Like the Buddha, Lao-tzu found the things prized by the world – rank, luxury, and glamour – to be

empty, worthless values when compared with the ultimate value of the peaceful inner life. He also emphasized gentleness, calm, and nonviolence. Nearly 600 years before Jesus, he said: "It is the way of the Tao... to recompense injury with kindness." By returning good for good and also good for evil, Lao-tzu believed that all would become good; to return evil for evil would lead to chaos.

The lives of Lao-tzu and Confucius overlapped, and there is even an account of a meeting between them, which is said to have left the younger Confucius baffled. Confucius was the more down-to-earth thinker, absorbed in the practical task of social reform. When he was a provincial minister of justice, the province became renowned for the honesty of its people and their respect for the aged and their care for the poor. Probably because of its practical nature, the teachings of Confucius had a far greater influence on China than did those of the more withdrawn Lao-tzu.

Confucius did not organize his recommendations into any coherent system. His teachings are offered in the form of sayings, aphorisms, and anecdotes, usually in reply to questions by disciples. They aim at guiding the audience in what is necessary to become a better person, a concept translated as "gentleman" or "the superior man." In opposition to the prevailing feudal ideal of the aristocratic lord, Confucius presented the superior man as one who is humane and thoughtful, motivated by the desire to do what is good rather than by personal profit. Beyond this, however, the concept is not discussed in any detail; it is only shown by diverse examples, some of them trite: "A superior man's life leads upwards... The superior man is broad and fair; the inferior man takes sides and is petty... A superior man shapes the good in man; he does not shape the bad in him."



One of the recorded sayings of Confucius is an answer to a request from a disciple for a single word that could serve as a guide to conduct for one's entire life. He replied: "Is not reciprocity such a word? What you do not want done to yourself, do not do to others." This rule is repeated several times in the Confucian literature and might be considered the supreme principle of Confucian ethics. Other duties are not, however, presented as derivative from this supreme principle, nor is the principle used to determine what is to be done when more specific duties – e.g., duties to parents and duties to friends, both of which were given prominence in Confucian ethics – should clash.

Confucius did not explain why the superior man chose righteousness rather than personal profit. This question was taken up more than 100 years after his death by his follower Mencius, who asserted that humans are naturally inclined to do what is humane and right. Evil is not in human nature but is the result of poor upbringing or lack of education. But Confucius also had another distinguished follower, Hsün-tzu, who said that man's nature is to seek self-profit and to envy others. The rules of morality are designed to avoid the strife that would otherwise follow from this nature. The Confucian school was united in its ideal of the superior man but divided over whether such an ideal was to be obtained by allowing people to fulfill their natural desires or by educating them to control those desires.

### Ancient Greece

Early Greece was the birthplace of Western philosophical ethics. The ideas of Socrates, Plato, and Aristotle, who flourished in the 5th and 4th centuries BCE, will be discussed in the next section. The sudden blooming of

philosophy during that period had its roots in the ethical thought of earlier centuries. In the poetic literature of the 7th and 6th centuries BCE, there were, as in the early development of ethics in other cultures, ethical precepts but no real attempts to formulate a coherent overall ethical position. The Greeks were later to refer to the most prominent of these poets and early philosophers as the seven sages, and they are frequently quoted with respect by Plato and Aristotle. Knowledge of the thought of this period is limited, for often only fragments of original writings, along with later accounts of dubious accuracy, remain.

Pythagoras (c. 580-c. 500 BCE), whose name is familiar because of the geometrical theorem that bears his name, is one such early Greek thinker about whom little is known. He appears to have written nothing at all, but he was the founder of a school of thought that touched on all aspects of life and that may have been a kind of philosophical and religious order. In ancient times the school was best known for its advocacy of vegetarianism, which, like that of the Jainas, was associated with the belief that after the death of the body, the human soul may take up residence in the body of an animal. Pythagoreans continued to espouse this view for many centuries, and classical passages in the works of such writers as Ovid and Porphyry opposing bloodshed and animal slaughter can be traced back to Pythagoras.

Ironically, an important stimulus for the development of moral philosophy came from a group of teachers to whom the later Greek philosophers – Socrates, Plato, and Aristotle – were consistently hostile: the Sophists. This term was used in the 5th century to refer to a class of professional teachers of rhetoric and argument. The Sophists promised their pupils success in political debate and increased influence in the affairs of the city. They were accused of being mercenaries who taught their students to win

arguments by fair means or foul. Aristotle said that Protagoras, perhaps the most famous of them, claimed to teach how “to make the weaker argument the stronger.”

The Sophists, however, were more than mere teachers of rhetorical tricks. They saw their role as imparting the cultural and intellectual qualities necessary for success, and their involvement with argument about practical affairs led them to develop views about ethics. The recurrent theme in the views of the better known Sophists, such as Protagoras, Antiphon, and Thrasymachus, is that what is commonly called good and bad or just and unjust does not reflect any objective fact of nature but is rather a matter of social convention. It is to Protagoras that we owe the celebrated epigram summing up this theme, “Man is the measure of all things.” Plato represents him as saying “Whatever things seem just and fine to each city, are just and fine for that city, so long as it thinks them so.” Protagoras, like Herodotus, was an early social relativist, but he drew a moderate conclusion from his relativism. He argued that while the particular content of the moral rules may vary, there must be rules of some kind if life is to be tolerable. Thus Protagoras stated that the foundations of an ethical system needed nothing from the gods or from any special metaphysical realm beyond the ordinary world of the senses.

The Sophist Thrasymachus appears to have taken a more radical approach – if Plato’s portrayal of his views is historically accurate. He explained that the concept of justice means nothing more than obedience to the laws of society, and, since these laws are made by the strongest political group in their own interests, justice represents nothing but the interests of the stronger. This position is often represented by the slogan “Might is right.” Thrasymachus was probably not saying, however, that whatever the mightiest

do really is right; he is more likely to have been denying that the distinction between right and wrong has any objective basis. Presumably he would then encourage his pupils to follow their own interests as best they could. He is thus an early representative of Scepticism about morals and perhaps of a form of egoism, the view that the rational thing to do is follow one's own interests.

It is not surprising that with ideas of this sort in circulation other thinkers should react by probing more deeply into ethics to see if the potentially destructive conclusions of some of the Sophists could be resisted. This reaction produced works that have served ever since as the cornerstone for the entire edifice of Western ethics.

## Western Ethics from Socrates to the 20th Century

### The Classical Period of Greek Ethics

#### Socrates

“The unexamined life is not worth living,” Socrates once observed. This thought typifies his questioning, philosophical approach to ethics. Socrates, who lived from about 470 BCE until he was put to death in 399 BCE, must be regarded as one of the greatest teachers of ethics. Yet, unlike other figures of comparable importance such as the Buddha or Confucius, he did not tell his audience how they should live. What Socrates taught was a method of inquiry. When the Sophists or their pupils boasted that they knew what justice, piety, temperance, or law was, Socrates would ask them to give an account of it and then show that the account offered was entirely inadequate. For instance, against the received wisdom that justice consists in keeping promises and

paying debts, Socrates put forth the example of a person faced with an unusual situation: a friend from whom he borrowed a weapon has since become insane but wants the weapon back. Conventional morality gives no clear answer to this dilemma; therefore, the original definition of justice has to be reformulated. So the Socratic dialogue gets under way.

Because his method of inquiry threatened conventional beliefs, Socrates' enemies contrived to have him put to death on a charge of corrupting the youth of Athens. For those who saw adherence to the conventional moral code as more desirable than the cultivation of an inquiring mind, the charge was appropriate. By conventional standards, Socrates was indeed corrupting the youth of Athens, but he himself saw the destruction of beliefs that could not stand up to criticism as a necessary preliminary to the search for true knowledge. Here, he differed from the Sophists with their moral relativism, for he thought that virtue is something that can be known and that the good person is the one who knows of what virtue, or justice, consists.

It is therefore not entirely accurate to see Socrates as contributing a method of inquiry but no positive views of his own. He believed in goodness as something that can be known, even though he did not himself profess to know it. He also thought that those who know what good is are in fact good. This latter belief seems peculiar today, because we make a sharp distinction between what is good and what is in a person's own interests. Accordingly, it does not seem surprising if people know what they ought morally to do but then proceed to do what is in their own interests instead. How to provide such people with reasons for doing what is right has been a major problem for Western ethics. Socrates did not see a problem here at all; in his view anyone who does not act well must simply be ignorant of the nature of goodness. Socrates could say this because in ancient Greece the distinction between

goodness and self-interest was not made, or at least not in the clear-cut manner that it is today. The Greeks believed that virtue is good both for the individual and for the community. To be sure, they recognized that to live virtuously might not be the best way to prosper financially, but then they did not assume, as we are prone to do, that material wealth is a major factor in whether a person's life goes well or ill.

## Plato

Socrates' greatest disciple, Plato (428/427-348/347 BCE), accepted the key Socratic beliefs in the objectivity of goodness and in the link between knowing what is good and doing it. He also took over the Socratic method of conducting philosophy, developing the case for his own positions by exposing errors and confusions in the arguments of his opponents. He did this by writing his works as dialogues in which Socrates is portrayed as engaging in argument with others, usually Sophists. The early dialogues are generally accepted as reasonably accurate accounts of Socrates' views, but the later ones, written many years after the death of Socrates, use the latter as a mouthpiece for ideas and arguments that were Plato's rather than those of the historical Socrates.

In the most famous of Plato's dialogues, *Politeia (The Republic)*, the imaginary Socrates is challenged by the following example: Suppose a person obtained the legendary ring of Gyges, which has the magical property of rendering the wearer invisible. Would that person still have any reason to behave justly? Behind this challenge lies the suggestion, made by the Sophists and still heard today, that the only reason for acting justly is that one cannot

get away with acting unjustly. Plato's response to this challenge is a long argument developing a position that appears to go beyond anything the historical Socrates asserted. Plato maintained that true knowledge consists not in knowing particular things but in knowing something general that is common to all the particular cases. This is obviously derived from the way in which Socrates would press his opponents to go beyond merely describing particular good, or temperate, or just acts, and to give instead a general account of goodness, or temperance, or justice. The implication is that we do not know what goodness is unless we can give this general account. But the question then arises, what is it that we know when we know this general idea of goodness? Plato's answer seems to be that what we know is some general form or idea of goodness, which is shared by every particular thing that is good. Yet, if we are truly to be able to know this form or idea of goodness, it seems to follow that it must really exist. Plato accepts this implication. His theory of forms is the view that when we know what goodness is, we have knowledge of something that is the common element in virtue of which all good things are good and, at the same time, is some existing thing, the pure form of goodness.

It has been said that all of Western philosophy consists of footnotes to Plato. Certainly the central issue around which all of Western ethics has revolved can be traced back to the debate between the Sophists, on the one hand, with their claims that goodness and justice are relative to the customs of each society or, worse still, merely a disguise for the interests of the stronger, and, on the other, Plato's defense of the possibility of knowledge of an objective form or idea of goodness.

But even if we know what goodness or justice is, why should we act justly if we can profit by doing the opposite? This remaining part of the

challenge posed by the legendary ring of Gyges is still to be answered, for even if we accept that goodness is objective, it does not follow that we all have sufficient reason to do what is good. Whether goodness leads to happiness is, as has been seen from the preceding discussion of early ethics in other cultures, a perennial topic for all who think about ethics. Plato's answer is that justice consists in harmony between the three elements of the soul: intellect, emotion, and desire. The unjust person lives in an unsatisfactory state of internal discord, trying always to overcome the discomfort of unsatisfied desire but never achieving anything better than the mere absence of want. The soul of the good person, on the other hand, is harmoniously ordered under the governance of reason, and the good person finds truly satisfying enjoyment in the pursuit of knowledge. Plato remarks that the highest pleasure, in fact, comes from intellectual speculation. He also gives an argument for the belief that the human soul is immortal; therefore, even if just individuals seem to be living in poverty or illness, the gods will not neglect them in the next life, and there they will have the greatest rewards of all. In summary, then, Plato asserts that we should act justly because in doing so we are "at one with ourselves and with the gods."

Today, this may seem like a strange account of justice and a farfetched view of what it takes to achieve human happiness. Plato does not recommend justice for its own sake, independently of any personal gains one might obtain from being a just person. This is characteristic of Greek ethics, with its refusal to recognize that there could be an irresolvable conflict between one's own interest and the good of the community. Not until Immanuel Kant, in the 18th century, does a philosopher forcefully assert the importance of doing what is right simply because it is right quite apart from self-interested motivation. To be sure, Plato must not be interpreted as holding that the motivation for each



and every just act is some personal gain; on the contrary, the person who takes up justice will do what is just because it is just. Nevertheless, Plato accepts the assumption of his opponents that one could not recommend taking up justice in the first place unless doing so could be shown to be advantageous for oneself as well as for others.

In spite of the fact that many people now think differently about this connection between morality and self-interest, Plato's attempt to argue that those who are just are in the long run happier than those who are unjust has had an enormous influence on Western ethics. Like Plato's views on the objectivity of goodness, the claim that justice and personal happiness are linked has helped to frame the agenda for a debate that continues even today.

## Aristotle

Plato founded a school of philosophy in Athens known as the Academy. Here Aristotle (384-322 BCE), Plato's younger contemporary and only rival in terms of influence on the course of Western philosophy, came to study. Aristotle was often fiercely critical of Plato, and his writing is very different in style and content, but the time they spent together is reflected in a considerable amount of common ground. Thus Aristotle holds with Plato that the life of virtue is rewarding for the virtuous, as well as beneficial for the community. Aristotle also agrees that the highest and most satisfying form of human existence is that in which man exercises his rational faculties to the fullest extent. One major difference is that Aristotle does not accept Plato's theory of common essences, or universal ideas, existing independently of

particular things. Thus he does not argue that the path to goodness is through knowledge of the universal form or idea of “the good.”

Aristotle’s ethics are based on his view of the universe. He saw it as a hierarchy in which everything has a function. The highest form of existence is the life of the rational being, and the function of lower beings is to serve this form of life. This led him to defend slavery – because he thought barbarians were less rational than Greeks and by nature suited to be “living tools” – and the killing of nonhuman animals for food or clothing. From this also came a view of human nature and an ethical theory derived from it. All living things, Aristotle held, have inherent potentialities and it is their nature to develop that potential to the full. This is the form of life properly suited to them and constitutes their goal. What, however, is the potentiality of human beings? For Aristotle this question turns out to be equivalent to asking what it is that is distinctive about human beings, and this, of course, is the capacity to reason. The ultimate goal of humans, therefore, is to develop their reasoning powers. When they do this, they are living well, in accordance with their true nature, and they will find this the most rewarding existence possible.

Aristotle thus ends up agreeing with Plato that the life of the intellect is the highest form of life; though having a greater sense of realism than Plato, he tempered this view with the suggestion that the best feasible life for humans must also have the goods of material prosperity and close friendships. Aristotle’s argument for regarding the life of the intellect so highly, however, is different from that used by Plato; and the difference is significant because Aristotle committed a fallacy that has often been repeated. The fallacy is to assume that whatever capacity distinguishes humans from other beings is, for that very reason, the highest and best of their capacities. Perhaps the ability to reason is the best of our capacities, but we cannot be compelled to draw this

conclusion from the fact that it is what is most distinctive of the human species.

A broader and still more pervasive fallacy underlies Aristotle's ethics. It is the idea that an investigation of human nature can reveal what we ought to do. For Aristotle, an examination of a knife would reveal that its distinctive quality is to cut, and from this we could conclude that a good knife would be a knife that cuts well. In the same way, an examination of human nature should reveal the distinctive quality of human beings, and from this we should be able to conclude what it is to be a good human being. This line of thought makes sense if we think, as Aristotle did, that the universe as a whole has a purpose and that we exist as part of such a goal-directed scheme of things, but its error becomes glaring once we reject this view and come to see our existence as the result of a blind process of evolution. Then we know that the standards of quality for knives are a result of the fact that knives are made with a specific purpose in mind and that a good knife is one that fills this purpose well. Human beings, however, were not made with any particular purpose in mind. Their nature is the result of random forces of natural selection and thus cannot, without further moral premises, determine how they ought to live.

It is to Aristotle that we owe the notion of the final end, or, as it was later called by medieval scholars, the *summum bonum* – the overall good for human beings. This can be found, Aristotle wrote, by asking why we do the things that we do. If we ask why we chop wood, the answer may be to build a fire; and if we ask why we build a fire, it may be to keep warm; but, if we ask why we keep warm, the answer is likely to be simply that it is pleasant to be warm and unpleasant to be cold. We can ask the same kind of questions about other activities; the answer always points, Aristotle thought, to what he called

*eudaimonia*. This Greek word is usually translated as “happiness,” but this is only accurate if we understand that term in its broadest sense to mean living a fulfilling, satisfying life. Happiness in the narrower sense of joy or pleasure would certainly be a concomitant of such a life, but it is not happiness in this narrower sense that is the goal.

In searching for the overall good, Aristotle separates what may be called instrumental goods from intrinsic goods. The former are good only because they lead to something else that is good; the latter are good in themselves. The distinction is neglected in the early lists of ethical precepts that were surveyed above, but it is of the first importance if a firmly grounded answer to questions about how one ought to live is to be obtained.

Aristotle is also responsible for much later thinking about the virtues one should cultivate. In his most important ethical treatise, the *Ethica Nicomachea* (*Nicomachean Ethics*), he sorts through the virtues as they were popularly understood in his day, specifying in each case what is truly virtuous and what is mistakenly thought to be so. Here, he uses the idea of the Golden Mean, which is essentially the same idea as the Buddha’s middle path between self-indulgence and self-renunciation. Thus courage, for example, is the mean between two extremes: one can have a deficiency of it, which is cowardice, or one can have an excess of it, which is foolhardiness. The virtue of friendliness, to give another example, is the mean between obsequiousness and surliness.

Aristotle does not intend the idea of the mean to be applied mechanically in every instance: he says that in the case of the virtue of temperance, or self-restraint, it is easy to find the excess of self-indulgence in the physical pleasures, but the opposite error, insufficient concern for such pleasures,

scarcely exists. (The Buddha, with his experience of the ascetic life of renunciation, would not have agreed.) This caution in the application of the idea is just as well, for while it may be a useful device for moral education, the notion of a mean cannot help us to discover new truths about virtue. We can only arrive at the mean if we already have a notion as to what is an excess and what is a defect of the trait in question, but this is not something to be discovered by a morally neutral inspection of the trait itself. We need a prior conception of the virtue in order to decide what is excessive and what is defective. To attempt to use the doctrine of the mean to define the particular virtues would be to travel in a circle.

Aristotle's list of the virtues differs from later Christian lists. Courage, temperance, and liberality are common to both periods, but Aristotle also includes a virtue that literally means "greatness of soul." This is the characteristic of holding a high opinion of oneself. The corresponding vice of excess is unjustified vanity, but the vice of deficiency is humility, which for Christians is a virtue.

Aristotle's discussion of the virtue of justice has been the starting point for almost all Western accounts. He distinguishes between justice in the distribution of wealth or other goods and justice in reparation, as, for example, in punishing someone for a wrong he has done. The key element of justice, according to Aristotle, is treating like cases alike – an idea that has set later thinkers the task of working out which similarities (need, desert, talent) are relevant. As with the notion of virtue as a mean, Aristotle's conception of justice provides a framework that needs to be filled in before it can be put to use.

Aristotle distinguished between theoretical and practical wisdom. His concept of practical wisdom is significant, for it goes beyond merely choosing the means best suited to whatever ends or goals one may have. The practically wise person also has the right ends. This implies that one's ends are not purely a matter of brute desires or feelings; the right ends are something that can be known. It also gives rise to the problem that faced Socrates: How is it that people can know the difference between good and bad and still choose what is bad? As noted earlier, Socrates simply denied that this could happen, saying that those who did not choose the good must, appearances notwithstanding, be ignorant of what it is. Aristotle said that this view of Socrates was "plainly at variance with the observed facts" and, instead, offered a detailed account of the ways in which one can possess knowledge and yet not act on it because of lack of control or weakness of will.

#### Later Greek and Roman Ethics

In ethics, as in many other fields, the later Greek and Roman periods do not display the same penetrating insight as the Classic period of 5th- and 4th-century Greek civilization. Nevertheless, the two dominant schools of thought, Stoicism and Epicureanism, represent important approaches to the question of how one ought to live.

#### The Stoics

Stoicism had its origins in the views of Socrates and Plato, as modified by Zeno and then by Chrysippus in the 3rd century BCE. It gradually gained

influence in Rome, chiefly through the teachings of Cicero (106-43 BCE) and then later in the 1st century CE through those of Seneca. Remarkably, its chief proponents include both a slave, Epictetus, and an emperor, Marcus Aurelius. This is a fine illustration of the Stoic message that what is important is the pursuit of wisdom and virtue, a pursuit that is open to all human beings owing to their common capacity for reason and that can be carried out no matter what the external circumstances of their lives.

Today, the word stoic conjures up one who remains unmoved by the sorrows and afflictions that distress the rest of humanity. This is an accurate representation of a stoic ideal, but it must be placed in the context of a systematic approach to life. Plato held that human passions and physical desires are in need of regulation by reason. The Stoics went further: they rejected passions altogether as a basis for deciding what is good or bad. Physical desires cannot simply be abolished, but when we become wise we appreciate the difference between wanting something and judging it to be good. Our desires make us want something, but only our reason can judge the goodness of what is wanted. If we are wise, we will identify with our reason, not with our desires; hence, we will not place our hopes on the attainment of our physical desires nor our anxieties on our failure to attain them. Wise Stoics will feel physical pain as others do, but in their minds they will know that physical pain leaves the true reasoning self untouched. The only thing that is truly good is to live in a state of wisdom and virtue. In aiming at such a life, we are not subject to the same play of fortune that afflicts us when we aim at physical pleasure or material wealth, for wisdom and virtue are matters of the intellect and under our own control. Moreover, if matters become too grim, there is always a way of ending the pain of the physical world. The Stoics

were not reluctant to counsel suicide as a means of avoiding otherwise inescapable pain.

Perhaps the most important legacy of Stoicism, however, is its conviction that all human beings share the capacity to reason. This led the Stoics to a fundamental sense of equality, which went beyond the limited Greek conception of equal citizenship. Thus Seneca claimed that the wise man will esteem the community of rational beings far above any particular community in which the accident of birth has placed him, and Marcus Aurelius said that common reason makes all individuals fellow citizens. The belief that human reasoning capacities are common to all was also important, because from it the Stoics drew the implication that there is a universal moral law, which all people are capable of appreciating. The Stoics thus strengthened the tradition that sees the universality of reason as the basis on which ethical relativism is to be rejected.

### The Epicureans

While the modern use of the term stoic accurately represents at least a part of the Stoic philosophy, anyone taking the present-day meaning of epicure as a guide to the philosophy of Epicurus (341-270 BCE) would go astray. True, the Epicureans regarded pleasure as the sole ultimate good and pain as the sole evil; and they did regard the more refined pleasures as superior, simply in terms of the quantity and durability of the pleasure they provided, to the coarser pleasures. To portray them as searching for these more refined pleasures by dining at the best restaurants and drinking the finest wines, however, is the reverse of the truth. By refined pleasures, Epicurus



meant pleasures of the mind, as opposed to the coarse pleasures of the body. He taught that the highest pleasure obtainable is the pleasure of tranquillity, which is to be obtained by the removal of unsatisfied wants. The way to do this is to eliminate all but the simplest wants; these are then easily satisfied even by those who are not wealthy.

Epicurus developed his position systematically. To determine whether something is good, he would ask if it increased pleasure or reduced pain. If it did, it was good as a means; if it did not, it was not good at all. Thus justice was good but merely as an expedient arrangement to prevent mutual harm. Why not then commit injustice when we can get away with it? Only because, Epicurus says, the perpetual dread of discovery will cause painful anxiety. Epicurus also exalted friendship, and the Epicureans were famous for the warmth of their personal relationships; but, again, they proclaimed that friendship is good only because of its tendency to create pleasure.

Both Stoic and Epicurean ethics can be seen as precursors of later trends in Western ethics: the Stoics of the modern belief in equality and the Epicureans of a Utilitarian ethic based on pleasure. The development of these ethical positions, however, was dramatically affected by the spreading from the East of a new religion that had its roots in a Jewish conception of ethics as obedience to a divine authority. With the conversion of Emperor Constantine I to Christianity by CE 313, the older schools of philosophy lost their sway over the thinking of the Roman Empire.

## Christian Ethics from the New Testament to the Scholastics

### Ethics in the New Testament

Matthew reports Jesus as having said, in the Sermon on the Mount, that he came not to destroy the law of the prophets but to fulfill it. Indeed, when Jesus is regarded as a teacher of ethics, it is clear that he was more a reformer of the Hebrew tradition than a radical innovator. The Hebrew tradition had a tendency to place great emphasis on compliance with the letter of the law; the Gospel accounts of Jesus portray him as preaching against this “righteousness of the scribes and Pharisees,” championing the spirit rather than the letter of the law. This spirit he characterized as one of love, for God and for one’s neighbour. But since he was not proposing that the old teachings be discarded, he saw no need to develop a comprehensive ethical system. Christianity thus never really broke with the Jewish conception of morality as a matter of divine law to be discovered by reading and interpreting the word of God as revealed in the Scriptures.

This conception of morality had important consequences for the future development of Western ethics. The Greeks and Romans, and indeed thinkers such as Confucius too, did not have the Western conception of a distinctively moral realm of conduct. For them, everything that one did was a matter of practical reasoning, in which one could do well or poorly. In the more legalistic Judeo-Christian view, however, it is one thing to lack practical wisdom in, say, household budgeting, and a quite different and much more serious matter to fall short of what the moral law requires. This distinction between the moral and the nonmoral realms now affects every question in Western ethics, including the very way the questions themselves are framed.

Another consequence of the retention of the basically legalistic stance of Jewish ethics was that from the beginning Christian ethics had to deal with the question of how to judge the person who breaks the law from good motives or keeps it from bad motives. The latter half of this question was particularly acute because the Gospels describe Jesus as repeatedly warning of a coming resurrection of the dead at which time all would be judged and punished or rewarded according to their sins and virtues in this life. The punishments and rewards were weighty enough to motivate anyone who took this message seriously; and it was given added emphasis by the fact that it was not going to be long in coming. (Jesus said that it would take place during the lifetime of some of those listening to him.) This is, therefore, an ethic that invokes external sanctions as a reason for doing what is right, in contrast to Plato or Aristotle for whom happiness is an internal element of a virtuous life. At the same time, it is an ethic that places love above mere literal compliance with the law. These two aspects do not sit easily together. Can one love God and neighbour in order to be rewarded with eternal happiness in another life?

The fact that Jesus and Paul, too, believed in the imminence of the Second Coming led them to suggest ways of living that were scarcely feasible on any other assumption: taking no thought for the morrow; turning the other cheek; and giving away all one has. Even Paul's preference for celibacy rather than marriage and his grudging acceptance of the latter on the basis that "It is better to marry than to burn" makes some sense once we grasp that he was proposing ethical standards for what he thought would be the last generation on earth. When the expected event did not occur and Christianity became the official religion of the vast and embattled Roman Empire, Christian leaders were faced with the awkward task of reinterpreting these injunctions in a manner more suited for a continuing society.

The new Christian ethical standards did lead to some changes in Roman morality. Perhaps the most vital was a new sense of the equal moral status of all human beings. As previously noted, the Stoics had been the first to elaborate this conception, grounding equality on the common capacity to reason. For Christians, humans are equal because they are all potentially immortal and equally precious in the sight of God. This caused Christians to condemn a wide variety of practices that had been accepted by both Greek and Roman moralists. Many of these related to the taking of innocent human life: from the earliest days Christian leaders condemned abortion, infanticide, and suicide. Even killing in war was at first regarded as wrong, and soldiers converted to Christianity had refused to continue to bear arms. Once the empire became Christian, however, this was one of the inconvenient ideas that had to yield. In spite of what Jesus had said about turning the other cheek, the church leaders declared that killing in a “just war” was not a sin. The Christian condemnation of killing in gladiatorial games, on the other hand, had a more permanent effect. Finally, but perhaps most importantly, while Christian emperors continued to uphold the legality of slavery, the Christian church accepted slaves as equals, admitted them to its ceremonies, and regarded the granting of freedom to slaves as a virtuous, if not obligatory, act. This moral pressure led over several hundred years to the gradual disappearance of slavery in Europe.

The Christian contribution to improving the position of slaves can also be linked with the distinctively Christian list of virtues. Some of the virtues described by Aristotle, as, for example, greatness of soul, are quite contrary in spirit to Christian virtues such as humility. In general, it can be said that the Greeks and Romans prized independence, self-reliance, magnanimity, and worldly success. By contrast, Christians saw virtue in meekness, obedience,

patience, and resignation. As the Greeks and Romans conceived virtue, a virtuous slave was almost a contradiction in terms, but for Christians there was nothing in the state of slavery that was incompatible with the highest moral character.

### Augustine

Christianity began with a set of scriptures incorporating many ethical injunctions but with no ethical philosophy. The first serious attempt to provide such a philosophy was made by St. Augustine of Hippo (354-430). Augustine was acquainted with a version of Plato's philosophy, and he developed the Platonic idea of the rational soul into a Christian view wherein humans are essentially souls, using their bodies as means to achieve their spiritual ends. The ultimate object remains happiness, as in Greek ethics, but Augustine saw happiness as consisting in a union of the soul with God after the body has died. It was through Augustine, therefore, that Christianity received the Platonic theme of the relative inferiority of bodily pleasures. There was, to be sure, a fundamental difference: whereas Plato saw this inferiority in terms of a comparison with the pleasures of philosophical contemplation in this world, Christians compared them unfavorably with the pleasures of spiritual existence in the next world. Moreover, Christians came to see bodily pleasures not merely as inferior but also as a positive threat to the achievement of spiritual bliss.

It was also important that Augustine could not accept the view, common to so many Greek and Roman philosophers, that philosophical reasoning was the path to wisdom and happiness. For a Christian, of course, the path had to

be through love of God and faith in Jesus as the Saviour. The result was to be, for many centuries, a rejection of the use of unfettered reasoning powers in ethics.

Augustine was aware of the tension caused by the dual Christian motivations of love of God and neighbour, on the one hand, and reward and punishment in the afterlife, on the other. He came down firmly on the side of love, insisting that those who keep the moral law through fear of punishment are not really keeping it at all. But it is not ordinary human love, either, that suffices as a motivation for true Christian living. Augustine believed all men bear the burden of Adam's original sin, and so are incapable of redeeming themselves by their own efforts. Only the unmerited grace of God makes possible obedience to the "first greatest commandment" of loving God, and without such, one cannot fulfill the moral law. This view made a clear-cut distinction between Christians and pagan moralists, no matter how humble and pure the latter might be; only the former could be saved because only they could receive the blessing of divine grace. But this gain, as Augustine saw it, was purchased at the cost of denying that man is free to choose good or evil. Only Adam had this choice: he chose for all humanity, and he chose evil.

#### Aquinas and the Moral Philosophy of the Scholastics

At this point we may pass over more than 800 years in silence, for there were no major developments in ethics in the West until the rise of Scholasticism in the 12th and 13th centuries. Among the first of the significant works written during this time was a treatise on ethics by the French philosopher and theologian Peter Abelard (1079-1142). His

importance in ethical theory lies in his emphasis on intentions. Abelard maintained, for example, that the sin of sexual wrongdoing consists not in the act of illicit sexual intercourse nor even in the desire for it, but in mentally consenting to that desire. In this he was far more modern than Augustine, with his doctrine of grace, and also more thoughtful than those who even today assert that the mere desire for what is wrong is as wrong as the act itself. Abelard saw that there is a problem in holding anyone morally responsible for the existence of mere physical desires. His ingenious solution was taken up by later medieval writers, and traces of it can still be found in modern discussions of moral responsibility.

Aristotle's ethical writings were not known to scholars in Western Europe during Abelard's time. Latin translations became available only in the first half of the 13th century, and the rediscovery of Aristotle dominated later medieval philosophy. Nowhere is his influence more marked than in the thought of St. Thomas Aquinas (1225-74), often regarded as the greatest of the Scholastic philosophers and undoubtedly the most influential, since his teachings became the semiofficial philosophy of the Roman Catholic Church. Such is the respect in which Aquinas held Aristotle that he referred to him simply as The Philosopher, and it is not too far from the truth to say that the chief aim of Aquinas' work was to reconcile Aristotle's views with Christian doctrine.

Aquinas took from Aristotle the notion of a final end, or *summum bonum*, at which all action is ultimately directed; and, like Aristotle, he saw this end as necessarily linked with happiness. This conception was Christianized, however, by the idea that happiness is to be found in the love of God. Thus a person seeks to know God but cannot fully succeed in this in life on earth. The reward of heaven, where one can know God, is available only to

those who merit it, though even then it is given by God's grace rather than obtained by right. Short of heaven, a person can experience only a more limited form of happiness to be gained through a life of virtue and friendship, much as Aristotle had recommended.

The blend of Aristotle's teachings and Christianity is also evident in Aquinas' views about right and wrong, and how we come to know the difference between them. Aquinas is often described as advocating a "natural law" ethic, but this term is easily misunderstood. The natural law to which Aquinas referred does not require a legislator any more than do the laws of nature that govern the motions of the planets. An even more common mistake is to imagine that this conception of natural law relies on contrasting what is natural with what is artificial. Aquinas' theory of the basis of right and wrong developed rather as an alternative to the view that morality is determined simply by the arbitrary will of God. Instead of conceiving of right and wrong in this manner as something fundamentally unrelated to human goals and purposes, Aquinas saw morality as deriving from human nature and the activities that are objectively suited to it.

It is a consequence of this natural law ethic that the difference between right and wrong can be appreciated by the use of reason and reflection on experience. Christian revelation may supplement this knowledge in some respects, but even such pagan philosophers as Aristotle could understand the essentials of virtuous living. We are, however, likely to err when we apply these general principles to the particular cases that confront us in everyday life. Corrupt customs and poor moral education may obscure the messages of natural reason. Hence, societies must enact laws of their own to supplement natural law and, where necessary, to coerce those who, because of their own imperfections, are liable to do what is wrong and socially destructive.



It follows, too, that virtue and human flourishing are linked. When we do what is right, we do what is objectively suited to our true nature. Thus the promise of heaven is no mere external sanction, rewarding actions that would otherwise be indifferent to us or even against our best interests. On the contrary, Aquinas wrote that “God is not offended by us except by what we do against our own good.” Reward and punishment in the afterlife reinforce a moral law that all humans, Christian or pagan, have adequate prior reasons for following.

In arguing for his views, Aquinas was always concerned to show that he had the authority of the Scriptures or the Church Fathers on his side, but the substance of his ethical system is to a remarkable degree based on reason rather than revelation. This is strong testimony to the power of Aristotle’s example. Nonetheless, Aquinas absorbed the weaknesses as well as the strengths of the Aristotelian system. His attempt to base right and wrong on human nature, in particular, invites the objection that we cannot presuppose our nature to be good. Aquinas might reply that it is good because God made it so, but this merely shifts back one step the issue of the basis of good and bad: Did God make it good in accordance with some independent standard of goodness, or would any human nature made by God be good? If we give the former answer, we need an account of the independent standard of goodness. Because this cannot – if we are to avoid circular argument – be based on human nature, it is not clear what account Aquinas could offer. If we maintain, however, that any human nature made by God would be good, we must accept that if God had made our nature such that we flourish and achieve happiness by torturing the weak and helpless among us, that would have been what we should do in order to live virtuously.

Something resembling this second option – but without the intermediate step of an appeal to human nature – was the position taken by the last of the great Scholastic philosophers, William of Ockham (c. 1285-1349?). Ockham boldly broke with much that had been taken for granted by his immediate predecessors. Fundamental to this was his rejection of the central Aristotelian idea that all things have a final end, or goal, toward which they naturally tend. He, therefore, also spurned Aquinas' attempt to base morality on human nature, and with it the idea that happiness is man's goal and closely linked with goodness. This led him to a position in stark contrast to almost all previous Western ethics. Ockham denied all standards of good and evil that are independent of God's will. What God wills is good; what God condemns is evil. That is all there is to say about the matter. This position is sometimes called a divine approbation theory, because it defines "good" as whatever is approved by God. As indicated earlier, when discussing attempts to link morality with religion, it follows from such a position that it is meaningless to describe God himself as good. It also follows that if God had willed us to torture children, it would be good to do so. As for the actual content of God's will, according to Ockham, that is not a subject for philosophy but rather a matter for revelation and faith.

The rigour and consistency of Ockham's philosophy made it for a time one of the leading schools of Scholastic thought, but eventually it was the philosophy of Aquinas that prevailed in the Roman Catholic Church. After the Reformation, however, Ockham's view exerted influence on Protestant theologians. Meanwhile, it hastened the decline of Scholastic moral philosophy because it effectively removed ethics from the sphere of reason.

## Renaissance and Reformation

The revival of Classical learning and culture that began in 15th-century Italy and then slowly spread throughout Europe did not give immediate birth to any major new ethical theories. Its significance for ethics lies, rather, in a change of focus. For the first time since the conversion of the Roman Empire to Christianity, man, not God, became the chief object of interest, and the theme was not religion but humanism – the powers, freedom, and accomplishments of human beings. This does not mean that there was a sudden conversion to atheism. Renaissance thinkers remained Christian and still considered human beings as somehow midway between the beasts and the angels. Yet, even this middle position meant that humans were special. It meant, too, a new conception of human dignity and of the importance of the individual.

## Machiavelli

Although the Renaissance did not produce any outstanding moral philosophers, there is one writer whose work is of some importance in the history of ethics: the Italian author and statesman Niccolò Machiavelli. His book *Il principe* (1513; *The Prince*) offered advice to rulers as to what they must do to achieve their aims and secure their power. Its significance for ethics lies precisely in the fact that Machiavelli's advice ignores the usual ethical rules: "It is necessary for a prince, who wishes to maintain himself, to learn how not to be good, and to use this knowledge and not use it, according to the necessities of the case." There had not been so frank a rejection of morality since the Greek Sophists. So startling is the cynicism of

Machiavelli's advice that it has been suggested that *Il principe* was an attempt to satirize the conduct of the princely rulers of Renaissance Italy. It may be more accurate, however, to view Machiavelli as an early political scientist, concerned only with setting out what human beings are like and how power is maintained, with no intention of passing moral judgment on the state of affairs described. In any case, *Il principe* gained instant notoriety, and Machiavelli's name became synonymous with political cynicism and deviousness. In spite of the chorus of condemnation, the work has led to a sharper appreciation of the difference between the lofty ethical systems of the philosophers and the practical realities of political life.

#### The First Protestants

It was left to the 17th-century English philosopher and political theorist Thomas Hobbes to take up the challenge of constructing an ethical system on the basis of so unflattering a view of human nature. Between Machiavelli and Hobbes, however, there occurred the traumatic breakup of Western Christianity known as the Reformation. Reacting against the worldly immorality apparent in the Renaissance church, Martin Luther, John Calvin, and other leaders of the new Protestantism sought to return to the pure early Christianity of the Scriptures, especially the teachings of Paul, and of the Church Fathers, with Augustine foremost among them. They were contemptuous of Aristotle (Luther called him a "buffoon") and of non-Christian philosophers in general. Luther's standard of right and wrong was what God commands. Like William of Ockham, Luther insisted that the commands of God cannot be justified by any independent standard of goodness: good simply means what God commands. Luther did not believe

these commands would be designed to satisfy human desires because he was convinced that desires are totally corrupt. In fact, he thought that human nature was totally corrupt. In any case, Luther insisted that one does not earn salvation by good works: one is justified by faith in Christ and receives salvation through divine grace.

It is apparent that if these premises are accepted, there is little scope for human reason in ethics. As a result, no moral philosophy has ever had the kind of close association with any Protestant church that, say, the philosophy of Aquinas has had with Roman Catholicism. Yet, because Protestants emphasized the capacity of the individual to read and understand the Gospels without obtaining the authoritative interpretation of the church, the ultimate outcome of the Reformation was a greater freedom to read and write independently of the church hierarchy. This made possible a new era of ethical thought.

From this time, too, distinctively national traditions of moral philosophy began to emerge; the British tradition, in particular, developed largely independently of ethics on the Continent. Accordingly, the present discussion will follow this tradition through the 19th century before returning to consider the different line of development in continental Europe.

## The British Tradition: from Hobbes to the Utilitarians

### Hobbes

Thomas Hobbes (1588-1679) is an outstanding example of the independence of mind that became possible in Protestant countries after the Reformation. God does, to be sure, play an honourable role in Hobbes's philosophy, but it is a dispensable role. The philosophical edifice stands on its own foundations; God merely crowns the apex. Hobbes was the equal of the Greek philosophers in his readiness to develop an ethical position based only on the facts of human nature and the circumstances in which humans live; and he surpassed even Plato and Aristotle in the extent to which he sought to do this by systematic deduction from clearly set out premises.

Hobbes started with a severe view of human nature: all of man's voluntary acts are aimed at self-pleasure or self-preservation. This position is known as psychological hedonism, because it asserts that the fundamental psychological motivation is the desire for pleasure. Like later psychological hedonists, Hobbes was confronted with the objection that people often seem to act altruistically. There is a story that Hobbes was seen giving alms to a beggar outside St. Paul's Cathedral. A clergyman sought to score a point by asking Hobbes if he would have given the money, had Christ not urged giving to the poor. Hobbes replied that he gave the money because it pleased him to see the poor man pleased. The reply reveals the dilemma that always faces those who propose startling new explanations for all human actions: either the theory is flagrantly at odds with how people really behave or else it must be broadened to such an extent that it loses much of what made it so shocking in the first place.

Hobbes's account of "good" is equally devoid of religious or metaphysical premises. He defined good as "any object of desire," and insisted that the term must be used in relation to a person – nothing is simply good of itself independently of the person who desires it. Hobbes may therefore be considered a subjectivist. If one were to say, for example, of the incident just described, "What Hobbes did was good," this statement would not be objectively true or false. It would be good for the poor man, and, if Hobbes's reply was accurate, it would also be good for Hobbes. But if a second poor person, for instance, was jealous of the success of the first, that person could quite properly say that what Hobbes did was bad.

Remarkably, this unpromising picture of self-interested individuals who have no notion of good apart from their own desires serves as the foundation of Hobbes's account of justice and morality in his masterpiece, *Leviathan* (1651). Starting with the premises that humans are self-interested and the world does not provide for all their needs, Hobbes argued that in the state of nature, without civil society, there will be competition between men for wealth, security, and glory. The ensuing struggle is Hobbes's famous "war of all against all," in which there can be no industry, commerce, or civilization, and the life of man is "solitary, poor, nasty, brutish and short." The struggle occurs because each individual rationally pursues his or her own interests, but the outcome is in no one's interest.

How can this disastrous situation be ended? Not by an appeal to morality or justice; in the state of nature these ideas have no meaning. Yet, we want to survive and we can reason. Our reason leads us to seek peace if it is attainable but to continue to use all the means of war if it is not. How is peace to be obtained? Only by a social contract. We must all agree to give up our rights to attack others in return for their giving up their rights to attack us. By

reasoning in order to increase our prospects for survival, we have found the solution.

We know that a social contract will solve our problems. Our reason therefore leads us to desire such an arrangement. But how is it to come about? My reason cannot tell me to accept it while others do not. Nor is Hobbes under the illusion that the mere making of a promise or contract will carry any weight. Since we are self-interested, we will keep our promises only if it is in our interest to do so. A promise that cannot be enforced is worthless. Therefore, in making the social contract, we must establish some means of enforcing it. To do this we must all hand our powers over to some other person or group of persons who will punish anyone who breaches the contract. This person or group of persons Hobbes calls the sovereign. It may be a single person, or an elected legislature, or almost any other form of government; the essence of sovereignty consists only in having sufficient power to keep the peace by punishing those who would break it. When such a sovereign – the Leviathan of his title – exists, justice becomes meaningful in that agreements or promises are necessarily kept. At the same time, each individual has adequate reason to be just, for the sovereign will ensure that those who do not keep their agreements are suitably punished.

Hobbes witnessed the turbulence and near anarchy of the English Civil Wars (1642-51) and was keenly aware of the dangers caused by disputed sovereignty. His solution was to insist that sovereignty must not be divided. Because the sovereign was appointed to enforce the social contract fundamental to peace and everything desired, it can only be rational to resist the sovereign if the sovereign directly threatens one's life. Hobbes was, in effect, a supporter of absolute sovereignty, and this has been the focus of much political discussion of his ideas. His significance for ethics, however,



lies rather in his success in dealing with the subject independently of theology and of those quasi-theological or quasi-Aristotelian accounts that see the world as designed for the benefit of human beings. With this achievement, he brought ethics into the modern era.

#### Early Intuitionists: Cudworth, More, and Clarke

There was, of course, immediate opposition to Hobbes's views. Ralph Cudworth (1617-88), one of a group known as the Cambridge Platonists, defended a position in some respects similar to that of Plato. That is to say, Cudworth believed the distinction between good and evil does not lie in human desires but is something objective and can be known by reason, just as the truths of mathematics can be known by reason. Cudworth was thus a forerunner of what has since come to be called intuitionism, the view that there are objective moral truths that can be known by a kind of rational intuition. This view was to attract the support of a line of distinguished thinkers until the 20th century when it became for a time the dominant view in British academic philosophy.

Henry More (1614-87), another leading member of the Cambridge Platonists, attempted to give effect to the comparison between mathematics and morality by listing moral axioms that can be seen as self-evidently true, just as the axioms of geometry are seen to be self-evident. In marked contrast to Hobbes, More included an axiom of benevolence: "If it be good that one man should be supplied with the means of living well and happily, it is mathematically certain that it is doubly good that two should be so supplied, and so on." Here, More was attempting to build on something that Hobbes

himself accepted – namely, our own desire to be supplied with the means of living well. More, however, wanted to enlist reason to lead us beyond this narrow egoism to a universal benevolence. There are traces of this line of thought in the Stoics, but it was More who introduced it into British ethical thinking, wherein it is still very much alive.

Samuel Clarke (1675-1729), the next major intuitionist, accepted More's axiom of benevolence in slightly different words. He was also responsible for a principle of equity, which, though derived from the Golden Rule so widespread in ancient ethics, was formulated with a new precision: "Whatever I judge reasonable or unreasonable for another to do for me, that by the same judgment I declare reasonable or unreasonable that I in the like case should do for him." As for the means by which these moral truths are known, Clarke accepted Cudworth's and More's analogy with truths of mathematics and added the idea that what human reason discerns is a certain "fitness or unfitness" about the relationship between circumstances and actions. The right action in a given set of circumstances is the fitting one; the wrong action is unfitting. This is something known intuitively; it is self-evident.

Clarke's notion of fitness is obscure, but intuitionism faces a still more serious problem that has always been a barrier to its acceptance. Suppose we accept the ability of reason to discern that it would be wrong to deceive a person in order to profit from the deception. Why should our discerning this truth provide us with a motive sufficient to override our desire to profit? The intuitionist position divorces our moral knowledge from the forces that motivate us. The former is a matter of reason, the latter of desire.

The punitive power of Hobbes's sovereign is, of course, one way to provide sufficient motivation for obedience to the social contract and to the

laws decreed by the sovereign as necessary for the peaceful functioning of society. The intuitionists, however, wanted to show that morality is objective and holds in all circumstances whether there is a sovereign or not. Reward and punishment in the afterlife, administered by an all-powerful God, would provide a more universal motive; and some intuitionists, such as Clarke, did make use of this divine sanction. Other thinkers, however, wanted to show that it is reasonable to do what is good independently of the threats of any external power, human or divine. This desire lay behind the development of the major alternative to intuitionism in 17th- and 18th-century British moral philosophy: moral sense theory. The debate between the intuitionist and moral sense schools of thought aired for the first time the major issue in what is still the central debate in moral philosophy: Is morality based on reason or on feelings?

#### Shaftesbury and the Moral Sense School

The term moral sense was first used by the 3rd Earl of Shaftesbury (1671-1713), whose writings reflect the optimistic tone both of the school of thought he founded and of so much of the philosophy of the 18th-century Enlightenment. Shaftesbury believed that Hobbes had erred by presenting a one-sided picture of human nature. Selfishness is not the only natural passion. We also have natural feelings directed to others: benevolence, generosity, sympathy, gratitude, and so on. These feelings give us an “affection for virtue,” which leads us to promote the public interest. Shaftesbury called this affection the moral sense, and he thought it created a natural harmony between virtue and self-interest. Shaftesbury was, of course, realistic enough to acknowledge that we also have contrary desires and that not all of us are

virtuous all of the time. Virtue could, however, be recommended because – and here Shaftesbury picked up a theme of Greek ethics – the pleasures of virtue are superior to the pleasures of vice.

#### Butler on Self-Interest and Conscience

Joseph Butler (1692-1752), a bishop of the Church of England, developed Shaftesbury's position in two ways. He strengthened the case for a harmony between morality and enlightened self-interest by claiming that happiness occurs as a by-product of the satisfaction of desires for things other than happiness itself. Those who aim directly at happiness do not find it; those who have their goals elsewhere are more likely to achieve happiness as well. Butler was not doubting the reasonableness of pursuing one's own happiness as an ultimate aim. He went so far as to say that "... when we sit down in a cool hour, we can neither justify to ourselves this or any other pursuit, till we are convinced that it will be for our happiness, or at least not contrary to it." He held, however, that direct and simple egoism is a self-defeating strategy. Egoists will do better for themselves by adopting immediate goals other than their own interests and living their everyday life in accordance with these more immediate goals.

Butler's second addition to Shaftesbury's account was the idea of conscience. This he saw as a second natural guide to conduct, alongside enlightened self-interest. Butler believed that there is no inconsistency between the two; he admitted, however, that Sceptics may doubt "the happy tendency of virtue" and for them conscience can serve as an authoritative guide. Just what reason these Sceptics have to follow conscience, if they

believe its guidance to be contrary to their own happiness, is something that Butler did not adequately explain. Nevertheless, his introduction of conscience as an independent source of moral reasoning reflects an important difference between ancient and modern ethical thinking. The Greek and Roman philosophers would have had no difficulty in accepting everything Butler said about the pursuit of happiness, but they would not have understood his idea of another independent source of rational guidance. Although Butler insisted that the two operate in harmony, this was for him a fortunate fact about the world and not a necessary principle of reason. Thus his recognition of conscience opened the way for later formulations of a universal principle of conduct at odds with the path indicated by even the most enlightened self-interested reasoning.

#### The Climax of Moral Sense Theory: Hutcheson and Hume

The moral sense school reached its fullest development in the works of two Scottish philosophers, Francis Hutcheson (1694-1746) and David Hume (1711-76). Hutcheson was concerned with showing, against the intuitionists, that moral judgment cannot be based on reason and therefore must be a matter of whether an action is “amiable or disagreeable” to one’s moral sense. Like Butler’s notion of conscience, Hutcheson’s moral sense does not find pleasing only, or even predominantly, those actions that are in one’s own interest. On the contrary, Hutcheson conceived moral sense as based on a disinterested benevolence. This led him to state, as the ultimate criterion of the goodness of an action, a principle that was to serve as the basis for the Utilitarian reformers: “that action is best which procures the greatest happiness for the greatest numbers....”

Hume, like Hutcheson, held that reason cannot be the basis of morality. His chief ground for this conclusion was that morality is essentially practical: there is no point in judging something good if the judgment does not incline us to act accordingly. Reason alone, however, Hume regarded as “the slave of the passions.” Reason can show us how best to achieve our ends, but it cannot determine our ultimate desires and is incapable of moving us to action except in accordance with some prior want or desire. Hence, reason cannot give rise to moral judgments.

This is an important argument that is still employed in the debate between those who believe that morality is based on reason and those who base it instead on emotion or feelings. Hume’s conclusion certainly follows from his premises. Can either premise be denied? We have seen that intuitionists such as Cudworth and Clarke maintained that reason can lead to action. Reason, they would have said, leads us to see a particular action as fitting in given circumstances and therefore to do it. Hume would have none of this. “Tis not contrary to reason,” he provocatively asserted, “to prefer the destruction of the whole world to the scratching of my finger.” To show that he was not embracing the view that only egoism is rational, Hume continued: “Tis not contrary to reason to choose my total ruin, to prevent the least uneasiness of an Indian or person wholly unknown to me.” His point was simply that to have these preferences is to have certain desires or feelings; they are not matters of reason at all. The intuitionists might insist that moral and mathematical reasoning are analogous, but this analogy was not helpful here. We can know a truth of geometry and not be motivated to act in any way.

What of Hume’s other premise that morality is essentially practical and moral judgments must lead to action? This can be denied more easily. We

could say that moral judgments merely tell us what is right or wrong. They do not lead to action unless we want to do what is right. Then Hume's argument would do nothing to undermine the claim that moral judgments are based on reason. But there is a price to pay. The terms right and wrong lose much of their force. We can no longer assert that those who know what is right but do what is wrong are in any way irrational. They are just people who do not happen to have the desire to do what is right. This desire – because it leads to action – must be acknowledged to be based on feeling rather than reason. Denying that morality is necessarily action-guiding means abandoning the idea, so important to those defending the objectivity of morality, that some things are objectively required of all rational beings.

Hume's forceful presentation of this argument against a rational basis for morality would have been enough to earn him a place in the history of ethics, but it is by no means his only achievement in this field. In *A Treatise of Human Nature* (1739-40) Hume points, almost as an afterthought, to the fact that writers on morality regularly start by making various observations about human nature or about the existence of a god – all statements of fact about what is the case – and then suddenly switch to statements about what ought or ought not be done. Hume says that he cannot conceive how this new relationship of “ought” can be deduced from the preceding statements that were related by “is”; and he suggests these authors should explain how this deduction is to be achieved. The point has since been called Hume's Law and taken as proof of the existence of a gulf between facts and values, or between “is” and “ought.” This places too much weight on Hume's brief and ironic comment, but there is no doubt that many writers, both before and after Hume, have argued as if values could easily be deduced from facts. They can usually

be found to have smuggled values in somewhere. Attention to Hume's Law makes it easy for us to detect such logically illicit contraband.

Hume's positive account of morality is in line with that of the moral sense school: "The hypothesis which we embrace is plain. It maintains that morality is determined by sentiment. It defines virtue to be whatever mental action or quality gives to a spectator the pleasing sentiment of approbation; and vice the contrary." In other words, Hume takes moral judgments to be based on a feeling. They do not reflect any objective state of the world. Having said that, however, it may still be asked whether this feeling is one that is common to all of us or one that varies from individual to individual. If Hume gives the former answer, moral judgments retain a kind of objectivity. While they do not reflect anything out there in the universe apart from human feelings, one's judgments may be true or false depending on whether they capture this universal human moral sentiment. If, on the other hand, the feeling varies from one individual to the next, moral judgments become entirely subjective. People's judgments would express their own feelings, and to reject someone else's judgment as wrong would merely be to say that one's own feelings were different.

Hume does not make entirely clear which of these two views he holds; but if he is to avoid breaching his own rule about not deducing an "ought" from an "is," he cannot hold that a moral judgment can follow logically from a description of the feelings that an action gives to a particular group of spectators. From the mere existence of a feeling we cannot draw the inference that we ought to obey it. For Hume to be consistent on this point – and even with his central argument that moral judgments must move to action – the moral judgment must be based not on the fact that all people, or most people, or even the speaker, have a certain feeling; it must rather be based on the



actual experience of the feeling by whoever accepts the judgment. This still leaves it open whether the feeling is common to all or limited to the person accepting the judgment, but it shows that, in either case, the “truth” of a judgment for any individual depends on whether that individual actually has the appropriate feeling. Is this “truth” at all? As will be seen below, 20th-century philosophers with views broadly similar to Hume’s have suggested that moral judgments have a special kind of meaning not susceptible of truth or falsity in the ordinary way.

#### The Intuitionist Response: Price and Reid

Powerful as they were, Hume’s arguments did not end the debate between the moral sense theorists and the intuitionists. They did, however, lead Richard Price (1723-91), Thomas Reid (1710-96), and later intuitionists to abandon the idea that moral truths can be established by some process of demonstrative reasoning akin to that used in mathematics. Instead, these proponents of intuitionism took the line that our notions of right and wrong are simple, objective ideas, directly perceived by us and not further analyzable into anything such as “fitness.” We know of these ideas, not through any moral sense based on feelings, but rather through a faculty of reason or of the intellect that is capable of discerning truth. Since Hume, this has been the only plausible form of intuitionism. Yet, Price and Reid failed to explain adequately just what are the objective moral qualities that we perceive directly and how they connect with the actions we choose.

## Utilitarianism

At this point the argument over whether morality is based on reason or feelings was temporarily exhausted, and the focus of British ethics shifted from such questions about the nature of morality as a whole to an inquiry into which actions are right and which are wrong. Today, the distinction between these two types of inquiry would be expressed by saying that whereas the 18th-century debate between intuitionism and the moral sense school dealt with questions of metaethics, 19th-century thinkers became chiefly concerned with questions of normative ethics. The positions we take in metaethics over whether ethics is objective or subjective, for example, do not tell us what we ought to do. That task is the province of normative ethics.

## Paley

The impetus to the discussion of normative ethics was provided by the challenge of Utilitarianism. The essential principle of Utilitarianism was, as noted above, put forth by Hutcheson. Curiously, it gained further development from the widely read theologian William Paley (1743-1805), who provides a good example of the independence of metaethics and normative ethics. His position on the nature of morality was similar to that of Ockham and Luther – namely, he held that right and wrong are determined by the will of God. Yet, because he believed that God wills the happiness of his creatures, his normative ethics were Utilitarian: whatever increases happiness is right; whatever diminishes it is wrong.

## Bentham

Notwithstanding these predecessors, Jeremy Bentham (1748-1832) is properly considered the father of modern Utilitarianism. It was he who made the Utilitarian principle serve as the basis for a unified and comprehensive ethical system that applies, in theory at least, to every area of life. Never before had a complete, detailed system of ethics been so consistently constructed from a single fundamental ethical principle.

Bentham's ethics began with the proposition that nature has placed human beings under two masters: pleasure and pain. Anything that seems good must either be directly pleasurable, or thought to be a means to pleasure or to the avoidance of pain. Conversely, anything that seems bad must either be directly painful, or thought to be a means to pain or to the deprivation of pleasure. From this Bentham argued that the words right and wrong can only be meaningful if they are used in accordance with the Utilitarian principle, so that whatever increases the net surplus of pleasure over pain is right and whatever decreases it is wrong.

Bentham then set out how we are to weigh the consequences of an action, and thereby decide whether it is right or wrong. We must, he says, take account of the pleasures and pains of everyone affected by the action, and this is to be done on an equal basis: "Each to count for one, and none for more than one." (At a time when Britain had a major trade in slaves, this was a radical suggestion; and Bentham went further still, explicitly extending consideration to nonhuman animals as well.) We must also consider how certain or uncertain the pleasures and pains are, their intensity, how long they last, and whether they tend to give rise to further feelings of the same or of the opposite kind.

Bentham did not allow for distinctions in the quality of pleasure or pain as such. Referring to a popular game, he affirmed that “quantity of pleasure being equal, pushpin is as good as poetry.” This led his opponents to characterize his philosophy as one fit for pigs. The charge is only half true. Bentham could have defended a taste for poetry on the grounds that whereas one tires of mere games, the pleasures of a true appreciation of poetry have no limit; thus the quantities of pleasure obtained by poetry are greater than those obtained by pushpin. All the same, one of the strengths of Bentham’s position is its honest bluntness, which it owes to his refusal to be fazed by the contrary opinions either of conventional morality or of refined society. He never thought that the aim of Utilitarianism was to explain or justify ordinary moral views; it was, rather, to reform them.

## Mill

John Stuart Mill (1806-73), Bentham’s successor as the leader of the Utilitarians and the most influential British thinker of the 19th century, had some sympathy for the view that Bentham’s position was too narrow and crude. His essay “Utilitarianism” (1861) introduced several modifications, all aimed at a broader view of what is worthwhile in human existence and at implications less shocking to established moral convictions. Although his position was based on the maximization of happiness (and this is said to consist in pleasure and the absence of pain), he distinguished between pleasures that are higher and those that are lower in quality. This enabled him to say that it is “better to be Socrates dissatisfied than a fool satisfied.” The fool, he argued, would only be of a different opinion because he did not know both sides of the question.

Mill sought to show that Utilitarianism is compatible with moral rules and principles relating to justice, honesty, and truthfulness by arguing that Utilitarians should not attempt to calculate before each action whether that specific action will maximize utility. Instead, they should be guided by the fact that an action falls under a general principle (such as the principle that we should keep our promises), and adherence to that general principle tends to increase happiness. Only under special circumstances is it necessary to consider whether an exception may have to be made.

#### Sidgwick

Mill's easily readable prose ensured a wide audience for his exposition of Utilitarianism, but as a philosopher he was markedly inferior to the last of the 19th-century Utilitarians, Henry Sidgwick (1838-1900). Sidgwick's *Methods of Ethics* (1874) is the most detailed and subtle work of Utilitarian ethics yet produced. Especially noteworthy is his discussion of the various principles accepted by what he calls common sense morality – i.e., the morality accepted by most people without systematic thought. Price, Reid, and some adherents of their brand of intuitionism thought that such principles (e.g., those of truthfulness, justice, honesty, benevolence, purity, and gratitude) were self-evident, independent moral truths. Sidgwick was himself an intuitionist as far as the basis of ethics was concerned: he believed that the principle of Utilitarianism must ultimately be based on a self-evident axiom of rational benevolence. Nonetheless, he strongly rejected the view that all principles of common sense morality are themselves self-evident. He went on to demonstrate that the allegedly self-evident principles conflict with one another and are vague in their application. They could only be part of a

coherent system of morality, he argued, if they were regarded as subordinate to the Utilitarian principle, which defined their application and resolved the conflicts between them.

Sidgwick was satisfied that he had reconciled common sense morality and Utilitarianism by showing that whatever was sound in the former could be accounted for by the latter. He was, however, troubled by his inability to achieve any such reconciliation between Utilitarianism and egoism, the third method of ethical reasoning dealt with in his book. True, Sidgwick regarded it as self-evident that “from the point of view of the universe” one’s own good is of no greater value than the like good of any other person, but what could be said to the egoist who expresses no concern for the point of view of the universe, taking his stand instead on the fact that his own good mattered more to him than anyone else’s? Bentham had apparently believed either that self-interest and the general happiness are not at odds or that it is the legislator’s task to reward or punish actions so as to see that they are not. Mill also had written of the need for sanctions but was more concerned with the role of education in shaping human nature in such a way that one finds happiness in doing what benefits all. By contrast, Sidgwick was convinced that this could lead at best to a partial overlap between what is in one’s own interest and what is in the interest of all. Hence, he searched for arguments with which to convince the egoist of the rationality of universal benevolence but failed to find any. *The Methods of Ethics* concludes with an honest admission of this failure and an expression of dismay at the fact that, as a result, “. . . it would seem necessary to abandon the idea of rationalizing [morality] completely.”

## The Continental Tradition: from Spinoza to Nietzsche

### Spinoza

If Hobbes is to be regarded as the first of a distinctively British philosophical tradition, the Dutch-Jewish philosopher Benedict Spinoza (1632-77) appropriately occupies the same position in continental Europe. Unlike Hobbes, Spinoza did not provoke a long-running philosophical debate. In fact, his philosophy was neglected for a century after his death and was in any case too much of a self-contained system to invite debate. Nevertheless, Spinoza held positions on crucial issues that were in sharp contrast to those taken by Hobbes, and these differences were to grow over the centuries during which British and continental European philosophy followed their own paths.

The first of these contrasts with Hobbes is Spinoza's attitude toward natural desires. As has been noted, Hobbes took self-interested desire for pleasure as an unchangeable fact about human nature and proceeded to build a moral and political system to cope with it. Spinoza did just the opposite. He saw natural desires as a form of bondage. We do not choose to have them of our own will. Our will cannot be free if it is subject to forces outside itself. Thus our real interests lie not in satisfying these desires but in transforming them by the application of reason. Spinoza thus stands in opposition not only to Hobbes but also to the position later to be taken by Hume, for Spinoza saw reason not as the slave of the passions but as their master.

The second important contrast is that while individual humans and their separate interests are always assumed in Hobbes's philosophy, this separation is simply an illusion from Spinoza's viewpoint. Everything that exists is part of a single system, which is at the same time nature and God. (One possible

interpretation of this is that Spinoza was a pantheist, believing that God exists in every aspect of the world and not apart from it.) We, too, are part of this system and are subject to its rationally necessary laws. Once we know this, we understand how irrational it would be to desire that things should be different from the way they are. This means that it is irrational to envy, to hate, and to feel guilt, for these emotions presuppose the possibility of things being different. So we cease to feel such emotions and find peace, happiness, and even freedom – in Spinoza's terms the only freedom there can be – in understanding the system of which we are a part.

A view of the world so different from our everyday conceptions as that of Spinoza's cannot be made to seem remotely plausible when presented in summary form. To many philosophers it remains implausible even when complete. Its value for ethics, however, lies not in its validity as a whole, but in the introduction into continental European philosophy of a few key ideas: that our everyday nature may not be our true nature; that we are part of a larger unity; and that freedom is to be found in following reason.

## Leibniz

The German philosopher and mathematician Gottfried Wilhelm Leibniz (1646-1716), the next great figure in the Rationalist tradition, gave scant attention to ethics, perhaps because of his belief that the world is governed by a perfect God, and hence must be the best of all possible worlds. As a result of Voltaire's hilarious parody in *Candide* (1758), this position has achieved a certain notoriety. It is not generally recognized, however, that it does at least provide a consistent solution to a problem that has baffled thinking Christians



for many centuries: How can there be evil in a world governed by an all-powerful, all-knowing, and all-good God? Leibniz's solution may not be plausible, but there may be no better one if the above premises are allowed to pass unchallenged.

## Rousseau

It was the French philosopher and writer Jean-Jacques Rousseau (1712-78) who took the next step. His *Discours sur l'origine et les fondements de l'inégalité parmi les hommes* (1755; *A Discourse upon the Origin and Foundation of the Inequality Among Mankind*) depicted a state of nature very different from that described by Hobbes as well as from Christian conceptions of original sin. Rousseau's "noble savages" lived isolated, trouble-free lives, supplying their simple wants from the abundance that nature provided and even coming to each other's aid in times of need. Only when someone claimed possession of a piece of land did laws have to be introduced, and with them came civilization and all its corrupting influences. This is, of course, a message that resembles one of Spinoza's key points: The human nature we see before us in our fellow citizens is not the only possibility; somewhere, there is something better. If we can find a way to reach it, we will have found the solution to our ethical and social problems.

Rousseau revealed his route in his *Contrat social* (1762; *A Treatise on the Social Compact, or Social Contract*). It required rule by the "general will." This may sound like democracy and, in a sense, it was democracy that Rousseau advocated; but his conception of rule by the general will is very different from the modern idea of democratic government. Today, we assume

that in any society the interests of different citizens will be in conflict, and that as a result for every majority that succeeds in having its will implemented there will be a minority that fails to do so. For Rousseau, on the other hand, the general will is not the sum of all the individual wills in the community but the true common will of all the citizens. Even if a person dislikes and opposes a decision carried by the majority, that decision represents the general will, the common will in which he shares. For this to be possible, Rousseau must be assuming that there is some common good in which all human beings share and hence that their true interests coincide. As man passes from the state of nature to civil society, he has to “consult his reason rather than study his inclinations.” This is not, however, a sacrifice of his true interests, for in following reason he ceases to be a slave to “physical impulses” and so gains moral freedom.

This leads to a picture of civilized human beings as divided selves. The general will represents the rational will of every member of the community. If an individual opposes the decision of the general will, his opposition must stem from his physical impulses and not from his true, autonomous will. For obvious reasons, this idea was to find favor with such autocratic leaders of the French Revolution as Robespierre. It also had a much less sinister influence on one of the outstanding philosophers of modern times: Immanuel Kant of Germany.

## Kant

Interestingly, Kant (1724-1804) acknowledged that he had despised the ignorant masses until he read Rousseau and came to appreciate the worth that

exists in every human being. For other reasons too, Kant is part of the tradition deriving from both Spinoza and Rousseau. Like his predecessors, Kant insisted that actions resulting from desires cannot be free. Freedom is to be found only in rational action. Moreover, whatever is demanded by reason must be demanded of all rational beings; hence, rational action cannot be based on a single individual's personal desires, but must be action in accordance with something that he can will to be a universal law. This view roughly parallels Rousseau's idea of the general will as that which, as opposed to the individual will, a person shares with the whole community. Kant extended this community to all rational beings.

Kant's most distinctive contribution to ethics was his insistence that our actions possess moral worth only when we do our duty for its own sake. He first introduced this idea as something accepted by our common moral consciousness and only then tried to show that it is an essential element of any rational morality. In claiming that this idea is central to the common moral consciousness, Kant was expressing in heightened form a tendency of Judeo-Christian ethics and revealing how much the Western ethical consciousness had changed since the time of Socrates, Plato, and Aristotle.

Does our common moral consciousness really insist that there is no moral worth in any action done for any motive other than duty? Certainly we would be less inclined to praise the young man who plunges into the surf to rescue a drowning child if we learned that he did it because he expected a handsome reward from the child's millionaire father. This feeling lies behind Kant's disagreement with all those moral philosophers who have argued that we should do what is right because that is the path to happiness, either on earth or in heaven. But Kant went further than this. He was equally opposed to those who see benevolent or sympathetic feelings as the basis of morality.

Here he may be reflecting the moral consciousness of 18th-century Protestant Germany, but it appears that even then the moral consciousness of Britain, as reflected in the writings of Shaftesbury, Hutcheson, Butler, and Hume, was very different. The moral consciousness of Western civilization in the last quarter of the 20th century also appears to be different from the one Kant was describing.

Kant's ethics is based on his distinction between hypothetical and categorical imperatives. He called any action based on desires a hypothetical imperative, meaning by this that it is a command of reason that applies only if we desire the goal. For example, "Be honest, so that people will think well of you!" is an imperative that applies only if you want people to think well of you. A similarly hypothetical analysis can be given of the imperatives suggested by, say, Shaftesbury's ethics: "Help those in distress, if you sympathize with their sufferings!" In contrast to such approaches to ethics, Kant said that the commands of morality must be categorical imperatives: they must apply to all rational beings, regardless of their wants and feelings. To most philosophers this poses an insuperable problem: a moral law that applied to all rational beings, irrespective of their personal wants and desires, could have no specific goals or aims because all such aims would have to be based on someone's wants or desires. It took Kant's peculiar genius to seize upon precisely this implication, which to others would have refuted his claims, and to use it to derive the nature of the moral law. Because nothing else but reason is left to determine the content of the moral law, the only form this law can take is the universal principle of reason. Thus the supreme formal principle of Kant's ethics is: "Act only on that maxim through which you can at the same time will that it should become a universal law."

Kant still faced two major problems. First, he had to explain how we can be moved by reason alone to act in accordance with this supreme moral law; and, second, he had to show that this principle is able to provide practical guidance in our choices. If we were to couple Hume's theory that reason is always the slave of the passions with Kant's denial of moral worth to all actions motivated by desires, the outcome would be that no actions can have moral worth. To avoid such moral scepticism, Kant maintained that reason alone can lead to action. Unfortunately he was unable to say much in defense of this claim. Of course, the mere fact that we otherwise face so unpalatable a conclusion is in itself a powerful incentive to believe that somehow a categorical imperative must be possible, but this is not convincing to anyone not already wedded to Kant's view of moral worth. At one point Kant appeared to be taking a different line. He wrote that the moral law inevitably produces in us a feeling of reverence or awe. If he meant to say that this feeling then becomes the motivation for obedience, however, he was conceding Hume's point that reason alone is powerless to bring about action. It would also be difficult to accept that anything, even the moral law, can necessarily produce a certain kind of feeling in all rational beings regardless of their psychological constitution. Thus this approach does not succeed in clarifying Kant's position or rendering it plausible.

Kant gave closer attention to the problem of how his supreme formal principle of morality can provide guidance in concrete situations. One of his examples is as follows. Suppose that I plan to get some money by promising to pay it back, although I have no intention of keeping my promise. The maxim of such an action might be "Make false promises when it suits you to do so." Could such a maxim be a universal law? Of course not. If promises were so easily broken, no one would rely on them, and the practice of

promising would cease. For this reason, I know that the moral law does not allow me to carry out my plan.

Not all situations are so easily decided. Another of Kant's examples deals with aiding those in distress. I see someone in distress, whom I could easily help, but I prefer not to do so. Can I will as a universal law the maxim that a person should refuse assistance to those in distress? Unlike the case of promising, there is no strict inconsistency in this maxim being a universal law. Kant, however, says that I cannot will it to be such because I may someday be in distress myself, and I would then want assistance from others. This type of example is less convincing than the previous one. If I value self-sufficiency so highly that I would rather remain in distress than escape from it through the intervention of another, Kant's principle no longer tells me that I have a duty to assist those in distress. In effect, Kant's supreme principle of practical reason can only tell us what to do in those special cases in which turning the maxim of our action into a universal law yields a contradiction. Outside this limited range, the moral law that was to apply to all rational beings regardless of their wants and desires cannot guide us except by appealing to our desires.

Kant does offer alternative formulations of the categorical imperative, and one of these has been seen as providing more substantial guidance than the formulation so far considered. This formulation is: "So act that you treat humanity in your own person and in the person of everyone else always at the same time as an end and never merely as means." The connection between this formulation and the first one is not entirely clear, but the idea seems to be that when I choose for myself I treat myself as an end. If, therefore, in accordance with the principle of universal law, I must choose so that all could choose similarly, I must respect everyone else as an end. Even if this is valid, the application of the principle raises further questions. What is it to treat

someone merely as a means? Using a person as a slave is an obvious example; Kant, like Bentham, was making a stand against this kind of inequality while it still flourished as an institution in some parts of the world. But to condemn slavery we have only to give equal weight to the interests of the slaves. Does Kant's principle take us any further than Utilitarianism? Modern Kantians hold that it does because they interpret it as denying the legitimacy of sacrificing the rights of one human being in order to benefit others.

One thing that can be said confidently is that Kant was firmly opposed to the Utilitarian principle of judging every action by its consequences. His ethics is a deontology. In other words, the rightness of an action depends on whether it accords with a rule irrespective of its consequences. In one essay Kant went so far as to say that it would be wrong to tell a lie even to a would-be murderer who came to your door seeking to kill an innocent person hidden in your house. This kind of situation illustrates how difficult it is to remain a strict deontologist when principles may clash. Apparently Kant believed that his principle of universal law required that one never tell lies, but it could also be argued that his principle of treating everyone as an end would necessitate doing everything possible to save the life of an innocent person. Another possibility would be to formulate the maxim of the action with sufficient precision to define the circumstances under which it would be permissible to tell lies – e.g., we could all agree to a universal law that permitted lies to people intending to commit murder. Kant did not explore such solutions.

## Hegel

Kant's philosophy deeply affected subsequent German thought, but there were several aspects of it that troubled later thinkers. One of these was his portrayal of human nature as irreconcilably split between reason and emotion. In *Briefe über die ästhetische Erziehung des Menschen* (1795; *Letters on the Aesthetic Education of Man*), the dramatist and literary theorist Friedrich Schiller suggested that while this might apply to modern human beings, it was not the case in ancient Greece where reason and feeling seemed to have been in harmony. (There is, as suggested earlier, some basis for this claim insofar as the Greek moral consciousness did not make the modern distinction between morality and self-interest.) Schiller's suggestion may have been the spark that led Georg Wilhelm Friedrich Hegel (1770-1831) to develop the first philosophical system that has historical change as its core.

As Hegel presents it, all of history is the progress of mind or spirit along a logically necessary path that leads to freedom. Human beings are manifestations of this universal mind, although at first they do not realize this. Freedom cannot be achieved until human beings do realize it, and so feel at home in the universe. There are echoes of Spinoza in Hegel's idea of mind as something universal and also in his conception of freedom as based on knowledge. What is original, however, is the way in which all of history is presented as leading to the goal of freedom. Thus Hegel accepts Schiller's view that for the ancient Greeks, reason and feeling were in harmony, but he sees this as a naive harmony that could exist only as long as the Greeks did not see themselves as free individuals with a conscience independent of the views of the community. For freedom to develop, it was necessary for this harmony to break down. This occurred as a result of the Reformation, with its insistence on the right of individual conscience. But the rise of individual



conscience left human beings divided between conscience and self-interest, between reason and feeling. We have seen how many philosophers tried unsuccessfully to bridge this gulf until Kant's insistence that we must do our duty for duty's sake made the division an apparently inevitable part of moral life. For Hegel, however, it can be overcome by a synthesis of the harmonious communal nature of Greek life with the modern freedom of individual conscience.

In *Naturrecht und Staatswissenschaft im Grundrisse*, alternatively entitled *Grundlinien der Philosophie des Rechts* (1821; *The Philosophy of Right*), Hegel described how this synthesis could be achieved in an organic community. The key to his solution is the recognition that human nature is not fixed but is shaped by the society in which one lives. The organic community would foster those desires that most benefit the community. It would imbue its members with the sense that their own identity consists in being a part of the community, so that they would no more think of going off in pursuit of their own private interests than one's left arm would think of going off without the rest of the body. Nor should it be forgotten that such organic relationships are reciprocal: the organic community will no more disregard the interests of its members than an individual would disregard an injury to his or her arm. Harmony would thus prevail but not the naive harmony of ancient Greece. The citizens of Hegel's organic community do not obey its laws and customs simply because they are there. With the independence of mind characteristic of modern times, they can only give their allegiance to institutions that they recognize as conforming to rational principles. The modern organic state, unlike the ancient Greek city-state, is self-consciously based on rationally selected principles.

Hegel provided a new approach to the ancient problem of reconciling morality and self-interest. Others had accepted the problem as part of the inevitable nature of things and looked for ways around it. Hegel looked at it historically and saw it as a problem only in a certain type of society. Instead of solving the problem as it existed, he looked to the emergence of a new form of society in which it would disappear. In this way Hegel claimed to have overcome one great problem that was insoluble for Kant.

Hegel also believed that he had the solution to the other key weakness in Kant's ethics – namely, the difficulty of giving content to the supreme formal moral principle. In Hegel's organic community, the content of our moral duty would be given to us by our position in society. We would know that our duty was to be a good parent, a good citizen, a good teacher, merchant, or soldier, as the case might be. It is an ethic that has been called "my station and its duties." It might be thought that this is a limited, conservative conception of what we ought to do with our lives, especially when compared with Kant's principle of universal law, which does not base what we ought to do on what our particular station in society happens to be. Hegel would have replied that because the organic community is based on universally valid principles of reason, it complies with Kant's principle of universal law. Moreover, without the specific content provided by the concrete institutions and practices of a society, that principle would remain an empty formula.

Hegel's philosophy has both a conservative and a radical side. The conservative aspect is reflected in the ethic of "my station and its duties," and even more strongly in the significant resemblance between Hegel's detailed description of the organic society and the actual institutions of the Prussian state in which he lived and taught for the last decade of his life. This resemblance, however, was in no way a necessary implication of Hegel's

philosophy as a whole. After Hegel's death, a group of his more radical followers known as the Young Hegelians hailed the manner in which he had demonstrated the need for a new form of society to overcome the separation between self and community but scorned the implication that the state in which they were living could be this solution to all the problems of history. Among this group was a young student named Karl Marx.

## Marx

Marx (1818-83) has often been presented by his followers as a scientist rather than a moralist. He did not deal directly with the ethical issues that occupied the philosophers so far discussed. His Materialist conception of history is, rather, an attempt to explain all ideas, whether political, religious, or ethical, as the product of the particular economic stage that society has reached. Thus a feudal society will regard loyalty and obedience to one's lord as the chief virtues. A capitalist economy, on the other hand, requires a mobile labour force and expanding markets, so that freedom, especially the freedom to sell one's labour, is its key ethical conception. Because Marx saw ethics as a mere by-product of the economic basis of society, he frequently took a dismissive stance toward it. Echoing the Sophist Thrasymachus, Marx said that the "ideas of the ruling class are in every epoch the ruling ideas." With his coauthor Friedrich Engels, he was even more scornful in the *Manifest der Kommunistischen Partei* (1848; *The Communist Manifesto*), in which morality, law, and religion are referred to as "so many bourgeois prejudices behind which lurk in ambush just as many bourgeois interests."

A sweeping rejection of ethics, however, is difficult to reconcile with the highly moralistic tone of Marx's condemnation of the miseries the capitalist system inflicts upon the working class and with his obvious commitment to hastening the arrival of the Communist society that will end such iniquities. After Marx died, Engels tried to explain this apparent inconsistency by saying that as long as society was divided into classes, morality would serve the interests of the ruling class. A classless society, on the other hand, would be based on a truly human morality that served the interests of all human beings. This does make Marx's position consistent by setting him up as a critic, not of ethics as such, but rather of the class-based moralities that would prevail until the Communist revolution.

By studying Marx's earlier writings – those produced when he was a Young Hegelian – one obtains a slightly different, though not incompatible, impression of the place of ethics in Marx's thought. There seems no doubt that the young Marx, like Hegel, saw human freedom as the ultimate goal. He also held, as did Hegel, that freedom could only be obtained in a society in which the dichotomy between private interest and the general interest had disappeared. Under the influence of socialist ideas, however, he formed the view that merely knowing what was wrong with the world would not achieve anything. Only the abolition of private property could lead to the transformation of human nature and so bring about the reconciliation of the individual and the community. Theory, Marx concluded, had gone as far as it could; even the theoretical problems of ethics, as illustrated in Kant's division between reason and feeling, would remain insoluble unless one moved from theory to practice. This is what Marx meant in the famous thesis that is engraved on his tombstone: "The philosophers have only interpreted the world, in various ways; the point is to change it." The goal of changing the

world stemmed from Marx's attempt to overcome one of the central problems of ethics; the means now passed beyond philosophy.

## Nietzsche

Friedrich Nietzsche (1844-1900) was a literary and social critic, not a systematic philosopher. In ethics, the chief target of his criticism is the Judeo-Christian tradition. He describes Jewish ethics as a "slave morality" based on envy. Christian ethics is, in his opinion, even worse because it makes a virtue of meekness, poverty, and humility, telling one to turn the other cheek rather than to struggle. It is the ethics of the weak, who hate and fear strength, pride, and self-affirmation. Such an ethics undermines the human drives that have led to the greatest and most noble human achievements.

Nietzsche thought the era of traditional religion to be over: "God is dead," perhaps his most widely repeated aphorism, was his paradoxical way of putting it. Yet, what was to be put in its place? Nietzsche took from Aristotle the concept of greatness of soul, the unchristian virtue that included nobility and a justified pride in one's achievements. He suggested a reevaluation of values that would lead to a new ideal: the *Übermensch*, a term usually translated as "Superman" and given connotations that suggest that Nietzsche would have regarded Hitler as an ideal type. Nietzsche's praise of "the will to power" is taken as further evidence that he would have approved of Hitler. This interpretation owes much to Nietzsche's racist sister, who after his death compiled a volume of his unpublished writings, arranging them to make it appear that he was a forerunner of Nazi thinking. This is at best a partial truth. Nietzsche was almost as contemptuous of pan-German racism

and anti-Semitism as he was of the ethics of Judaism and Christianity. What Nietzsche meant by *Übermensch* was a person who could rise above the limitations of ordinary morality; and by “the will to power” it seems that Nietzsche had in mind self-affirmation and not necessarily the use of power to oppress others.

Nevertheless, Nietzsche left himself wide open to those who wanted his philosophical imprimatur for their crimes against humanity. His belief in the importance of the *Übermensch* made him talk of ordinary people as “the herd,” who did not really matter. In *Jenseits von Gut und Böse* (1886; *Beyond Good and Evil*), he wrote with approval of “the distinguished type of morality,” according to which “one has duties only toward one’s equals; toward beings of a lower rank, toward everything foreign to one, one may act as one sees fit, ‘as one’s heart dictates’ “ – in any event, beyond good and evil. The point is that the *Übermensch* is above all ordinary moral standards: “The distinguished type of human being feels *himself* as value-determining; he does not need to be ratified; he judges ‘that which is harmful to me is harmful as such’; he knows that *he* is the something which gives value to objects; he *creates values*.” In this Nietzsche was a forerunner of Existentialism rather than Nazism, but then Existentialism, precisely because it gives no basis for choosing other than authenticity, is not incompatible with Nazism.

Nietzsche’s position on ethical matters represents a stark contrast to that of Henry Sidgwick, the last major figure of 19th-century British ethics treated in this article. Sidgwick believed in objective standards for ethical judgments and thought that the subject of ethics had over the centuries made progress toward these standards. He saw his own work as building carefully on that progress. Nietzsche, on the other hand, would have us sweep away everything

since Greek ethics and not keep much of that either. The superior types would then be able to freely create their own values as they saw fit.

## 20th-Century Western Ethics

The brief historical survey of Western ethics from Socrates to the 20th century provided above has shown three constant themes. Since the Sophists, there have been (1) disagreements over whether ethical judgments are truths about the world or only reflections of the wishes of those who make them; (2) frequent attempts to show, in the face of considerable scepticism, either that it is in one's own interests to do what is good or that, even though this is not necessarily in one's own interests, it is the rational thing to do; and (3) repeated debates over just what goodness and the standard of right and wrong might be. The 20th century has seen new twists to these old themes and an increased attention to the application of ethics to practical problems. Each of these major questions is considered below in terms of metaethics, normative ethics, and applied ethics.

### Metaethics

As previously noted, metaethics deals not with substantive ethical theories or moral judgments but rather with questions about the nature of these theories and judgments. Among 20th-century philosophers in English-speaking countries, those defending the objectivity of ethical judgments have most often been intuitionists or naturalists; those taking a different view have been emotivists or prescriptivists.

### Moore and the Naturalistic Fallacy

At first it was the intuitionists who dominated the scene. In 1903 the Cambridge philosopher G.E. Moore presented in *Principia Ethica* his “open question argument” against what he called the naturalistic fallacy. The argument can in fact be found in Sidgwick and to some extent in the 18th-century intuitionists, but Moore’s statement of it somehow caught the imagination of philosophers for the first half of the 1900s. Moore’s aim was to prove that “good” is the name of a simple, unanalyzable quality. His chief target was the attempt to define good in terms of some natural quality of the world whether it be “pleasure” (he had John Stuart Mill in mind), or “more evolved” (here he refers to Herbert Spencer, who had tried to build an ethical system around Darwin’s theory of evolution), or simply the idea of what is natural itself, as in appeals to a law of nature – hence the label naturalistic fallacy (i.e., the fallacy of treating good as if it were the name of a natural property). But the label is not apt because Moore’s argument applied, as he acknowledged, to any attempt to define good in terms of something else, including something metaphysical or supernatural such as “what God wills.”

The so-called open question argument itself is simple enough. It consists of taking the proposed definition of good and turning it into a question. For instance, if the proposed definition is “Good means whatever leads to the greatest happiness of the greatest number,” then Moore would ask: “Is whatever leads to the greatest happiness of the greatest number good?” Moore is not concerned whether we answer yes or no. His point is that if the question is at all meaningful – if a negative answer is not plainly self-contradictory – then the definition cannot be right, for a definition is supposed to preserve the meaning of the term defined. If it does, a question of the type Moore asks



would be absurd for all who understand the meaning of the term. Compare, for example, “Do all squares have four equal sides?”

Moore’s argument does show that definitions of the kind he criticized do not capture all that we ordinarily mean by the term good. It would still be open to a would-be naturalist to admit that the definition does not capture everything that we ordinarily mean by the term, and add that all this shows is that ordinary usage is muddled and in need of revision. (We shall see that J.L. Mackie was later to make this part of his defense of subjectivism.) As for Mill, it is questionable whether he really intended to offer a definition of the term good; he seems to have been more interested in offering a criterion by which we could ascertain which actions are good. As Moore acknowledged, the open question argument does not do anything to show that pleasure, for example, is not the sole criterion of the goodness of an action. It shows only that this cannot be known to be true by definition, and so, if it is to be known at all, it must be known by some other means.

In spite of these doubts, Moore’s argument was widely accepted at the time as showing that all attempts to derive ethical conclusions from anything not itself ethical in nature are bound to fail. The point was soon seen to be related to that made by Hume in his remarks on writers who move from “is” to “ought.” Moore, however, would have considered Hume’s own account of morality to be naturalistic because of its definition of virtue in terms of the sentiments of the spectator. The upshot was that for 30 years after the publication of *Principia Ethica* intuitionism was the dominant metaethical position in British philosophy. In addition to Moore, its supporters included H.A. Prichard and Sir W.D. Ross.

## Modern Intuitionism

The 20th-century intuitionists were not far removed philosophically from their 18th-century predecessors – those such as Richard Price who had learned from Hume’s criticism and did not attempt to reason his way to ethical conclusions but claimed rather that ethical knowledge is gained through an immediate apprehension of its truth. In other words, a true ethical judgment is self-evident as long as we are reflecting clearly and calmly and our judgment is not distorted by self-interest or faulty moral upbringing. Ross, for example, took “the convictions of thoughtful, well-educated people” as “the data of ethics,” observing that while some may be illusory, they should only be rejected when they conflict with others that are better able to stand up to “the test of reflection.”

The intuitionists differed on the nature of the moral truths that are apprehended in this way. For Moore it was self-evident that certain things are valuable: e.g., the pleasures of friendship and the enjoyment of beauty. On the other hand, Ross thought we know it to be our duty to do acts of a certain type. These differences will be dealt with in the discussion of normative ethics. They are, however, significant to metaethical intuitionism because they reveal the lack of agreement, even among the intuitionists themselves, about moral judgments that each claims to be self-evident.

This disagreement was one of the reasons for the eventual rejection of intuitionism, which, when it came, was as complete as its acceptance had been in earlier decades. But there was also a more powerful philosophical motive working against intuitionism. During the 1930s, Logical Positivism, brought from Vienna by Ludwig Wittgenstein and popularized by A.J. Ayer in his manifesto *Language, Truth and Logic* (1936), became influential in British

philosophy. According to the Logical Positivists, all true statements fall into two categories: logical truths and statements of fact. Moral judgments cannot fit comfortably into either category. They cannot be logical truths, for these are mere tautologies that can tell us nothing more than what is already contained in the definitions of the terms. Nor can they be statements of fact because these must, according to the Logical Positivists, be at least in principle verifiable; there is no way of verifying the truths that the intuitionists claimed to apprehend. The truths of mathematics, on which intuitionists had continued to rely as the one clear parallel case of a truth known by its self-evidence, were explained now as logical truths. In this view, mathematics tells us nothing about the world; it is simply a logical system, true by the definitions of the terms involved, which may be useful in our dealings with the world. Thus the intuitionists lost the one useful analogy to which they could appeal in support of the existence of a body of self-evident truths known by reason alone. It seemed to follow that moral judgments could not be truths at all.

### Emotivism

In his above-cited *Language, Truth and Logic*, Ayer offered an alternative account: moral judgments are not statements at all. When we say, “You acted wrongly in stealing that money,” we are not expressing any fact beyond that stated by “You stole that money.” It is, however, as if we had stated this fact with a special tone of abhorrence, for in saying that something is wrong, we are expressing our feelings of disapproval toward it.

This view was more fully developed by Charles Stevenson in *Ethics and Language* (1945). As the titles of books of this period suggest, philosophers were now paying more attention to language and to the different ways in which it could be used. Stevenson distinguished the facts a sentence may convey from the emotive impact it is intended to have. Moral judgments are significant, he urged, because of their emotive impact. In saying that something is wrong, we are not merely expressing our disapproval of it, as Ayer suggested. We are encouraging those to whom we speak to share our attitude. This is why we bother to argue about our moral views, while on matters of taste we may simply agree to differ. It is important to us that others share our attitudes on war, equality, or killing; we do not care if they prefer to take their tea with lemon and we do not.

The emotivists were immediately accused of being subjectivists. In one sense of the term subjectivist, the emotivists could firmly reject this charge. Unlike other subjectivists in the past, they did not hold that those who say, for example, “Stealing is wrong,” are making a statement of fact about their own feelings or attitudes toward stealing. This view – more properly known as subjective naturalism because it makes the truth of moral judgments depend on a natural, albeit subjective, fact about the world – could be refuted by Moore’s open question argument. It makes sense to ask: “I know that I have a feeling of approval toward this, but is it good?” It was the emotivists’ view, however, that moral judgments make no statements of fact at all. The emotivists could not be defeated by the open question argument because they agreed that no definition of “good” in terms of facts, natural or unnatural, could capture the emotive element of its meaning. Yet, this reply fails to confront the real misgivings behind the charge of subjectivism: the concern

that there are no possible standards of right and wrong other than one's own subjective feelings. In this sense, the emotivists were subjectivists.

### Existentialism

About this time a different form of subjectivism was becoming fashionable on the Continent and to some extent in the United States. Existentialism was as much a literary as a philosophical movement. Its leading figure, Jean-Paul Sartre, propounded his ideas in novels and plays as well as in his major philosophical treatise, *L'Être et le néant* (1943; *Being and Nothingness*). For Sartre, because there is no God, human beings have not been designed for any particular purpose. The Existentialists express this by stating that our existence precedes our essence. In saying this, they make clear their rejection of the Aristotelian notion that just as we can recognize a good knife once we know that the essence of a knife is to cut, so we can recognize a good human being once we understand the essence of human nature. Because we have not been designed for any specific end, we are free to choose our own essence, which means to choose how we will live. To say that we are compelled by our situation, our nature, or our role in life to act in a certain way is to exhibit "bad faith." This seems to be the only term of disapproval the Existentialists are prepared to use. As long as we choose "authentically," there are no moral standards by which our conduct can be criticized.

This, at least, is the view most widely held by the Existentialists. In one work, a brochure entitled *L'Existentialisme est un humanisme* (1946; "Existentialism Is a Humanism"; Eng. trans., *Existentialism and Humanism*), Sartre backs away from so radical a subjectivism by suggesting a version of

Kant's idea that we must be prepared to apply our judgments universally. He does not reconcile this view with conflicting statements elsewhere in his writings, and it is doubtful if it can be regarded as a statement of his true ethical views. It may reflect, however, a widespread postwar reaction to the spreading knowledge of what happened at Auschwitz and other Nazi death camps. One leading German prewar Existentialist, Martin Heidegger, had actually become a Nazi. Was this "authentic choice" just as good as Sartre's own choice to join the French Résistance? Is there really no firm ground from which such a choice could be rejected? This seemed to be the upshot of the pure Existentialist position, just as it was an implication of the ethical emotivism that was dominant among English-speaking philosophers. It is scarcely surprising that many philosophers should search for a metaethical view that did not commit them to this conclusion. The means used by Sartre in *L'Existentialisme est un humanisme* were also to have their parallel, though in a much more sophisticated form, in British moral philosophy.

#### Universal Prescriptivism

In *The Language of Morals* (1952), R.M. Hare supported some of the elements of emotivism but rejected others. He agreed that in making moral judgments we are not primarily seeking to describe anything; but neither, he said, are we simply expressing our attitudes. Instead, he suggested that moral judgments prescribe; that is, they are a form of imperative sentence. Hume's rule about not deriving an "is" from an "ought" can best be explained, according to Hare, in terms of the impossibility of deriving any prescription from a set of descriptive sentences. Even the description "There is an enraged bull bearing down on you" does not necessarily entail the prescription "Run!"

because I may have been searching for ways of killing myself in such a way that my children can still benefit from my life insurance. Only I can choose whether the prescription fits what I want. Herein lies moral freedom: because the choice of prescription is individual, no one can tell another what he or she must think right.

Hare's espousal of the view that moral judgments are prescriptions led commentators on his first book to classify him with the emotivists as one who did not believe in the possibility of using reason to arrive at ethical conclusions. That this was a mistake became apparent with the publication of his second book, *Freedom and Reason* (1963). The aim of the book was to show that the moral freedom guaranteed by prescriptivism is, notwithstanding its element of choice, compatible with a substantial amount of reasoning about moral judgments. Such reasoning is possible, Hare wrote, because moral judgments must be "universalizable." This notion owed something to the ancient Golden Rule and even more to Kant's first formulation of the categorical imperative. In Hare's treatment, however, these ideas were refined so as to eliminate their obvious defects. Moreover, for Hare universalizability is not a substantive moral principle but a logical feature of the moral terms. This means that anyone who uses such terms as right and ought is logically committed to universalizability.

To say that a moral judgment must be universalizable means, for Hare, that if I judge a particular action – say, a man's embezzlement of a million dollars from his employer – to be wrong, I must also judge any relevantly similar action to be wrong. Of course, everything will depend on what is allowed to count as a relevant difference. Hare's answer is that all features may count, except those that contain ineliminable uses of words such as I or my, or singular terms such as proper names. In other words, the fact that he

embezzled a million dollars in order to be able to take holidays in Tahiti, whereas I embezzled the same sum so as to channel it from my wealthy employer to those starving in Africa, may be a relevant difference; the fact that the man's crime benefitted him, whereas my crime benefitted me, cannot be so.

This notion of universalizability can also be used to test whether a difference that is alleged to be relevant – for instance, skin color or even the position of a freckle on one's nose – really is relevant. Hare emphasized that the same judgment must be made in all conceivable cases. Thus if a Nazi were to claim that he may kill a person because that person is Jewish, he must be prepared to prescribe that if, somehow, it should turn out that he is himself of Jewish origin, he should also be killed. Nothing turns on the likelihood of such a discovery; the same prescription has to be made in all hypothetically, as well as actually, similar cases. Since only an unusually fanatical Nazi would be prepared to do this, universalizability is a powerful means of reasoning against certain moral judgments, including those made by the Nazis. At the same time, since there could be fanatical Nazis who are prepared to die for the purity of the Aryan race, the argument of *Freedom and Reason* allows that the role played by reason in ethics does have definite limits. Hare's position at this stage, therefore, appeared to be a compromise between the extreme subjectivism of the emotivists and some more objectivist view of ethics. As so often happens with those who try to take the middle ground, Hare was soon to receive criticism from both sides.



## Modern Naturalism

For a time, Moore's presentation of the naturalistic fallacy halted attempts to define "good" in terms of natural qualities such as happiness. The effect was, however, both local and temporary. In the United States, Ralph Barton Perry was untroubled by Moore's arguments. His *General Theory of Value* (1926) gave an account of value that was objectivist and much less mysterious than the intuitionist accounts, which were at that time dominating British philosophy. Perry suggested that there is no such thing as value until a being desires something, and nothing can have intrinsic value considered apart from all desiring beings. A novel, for example, has no value at all unless there is a being who desires to read it or perhaps use it for some other purpose, such as starting a fire on a cold night. Thus Perry is a naturalist, for he defines value in terms of the natural quality of being desired or, as he puts it, being an object of an interest. His naturalism is objectivist, in spite of this dependence of value on desires, because value is defined as any object of any interest. Accordingly, even if I do not desire, say, this encyclopaedia for any purpose at all, I cannot deny that it has some value so long as there is some being who does desire it. Moreover, Perry believed it followed from his theory that the greatest moral value is to be found in whatever leads to the harmonious integration of interests.

In Britain, Moore's impact was for a long time too great for any form of naturalism to be taken seriously. It was only as a response to Hare's intimation that any principle could be a moral principle so long as it satisfied the formal requirement of universalizability that philosophers such as Philippa Foot, Elizabeth Anscombe, and Geoffrey Warnock began to suggest that perhaps a moral principle must also have a particular kind of content – i.e., it must deal, for instance, with some aspect of wants, welfare, or flourishing.

The problem with these suggestions, Hare soon pointed out, is that if we define morality in such a way that moral principles are restricted to those that maximize well-being, then if there is a person who is not interested in maximizing well-being, moral principles, as we have defined them, will have no prescriptive force for that person. This reply elicited two responses – namely, those of Anscombe and Foot.

Anscombe went back to Aristotle, suggesting that we need a theory of human flourishing that will provide an account of what any person must do in order to flourish, and so will lead to a morality that every one of us has reason to follow. No such theory was forthcoming, however, until 1980 when John Finnis offered a theory of basic human goods in his *Natural Law and Natural Rights*. The book was acclaimed by Roman Catholic moral theologians and philosophers, but natural law ethics continues to have few followers outside these circles.

Foot initially attempted to defend a similarly Aristotelian view in which virtue and self-interest are necessarily linked, but she came to the conclusion that this link could not be made. This led her to abandon the assumption that we all have adequate reasons for doing what is right. Like Hume, she suggested that it depends on what we desire and especially on how much we care about others. She observed that morality is a system of hypothetical, not categorical, imperatives.

A much cruder form of naturalism surfaced from a different direction with the publication of Edward O. Wilson's *Sociobiology: The New Synthesis* (1975). Wilson, a biologist rather than a philosopher, claimed that new developments in the application of evolutionary theory to social behavior would allow ethics to be "removed from the hands of philosophers" and

“biologicized.” It was not the first time that a scientist, frustrated by the apparent lack of progress in ethics as compared to the sciences, had proposed some way of transforming ethics into a science. In a later book, *On Human Nature* (1978), Wilson suggested that biology justifies specific values (including the survival of the gene pool) and, because man is a mammal rather than a social insect, universal human rights. Other sociobiologists have gone further still, reviving the claims of earlier “social Darwinists” to the effect that Darwin’s theory of evolution shows why it is right that there should be social inequality.

As the above section on the origin of ethics suggests, evolutionary theory may indeed have something to reveal about the origins and nature of the systems of morality used by human societies. Wilson is, however, plainly guilty of breaching Hume’s rule when he tries to draw from a theory of a factual nature ethical premises that tell us what we ought to do. It may be that, coupled with the premise that we wish our species to survive for as long as possible, evolutionary theory will suggest the direction we ought to take, but even that premise cannot be regarded as unquestionable. It is not impossible to imagine circumstances in which life is so grim that extinction is preferable. That choice cannot be dictated by science. It is even less plausible to suppose that more specific choices about social equality can be settled by evolutionary theory. At best, the theory would indicate the costs we might incur by moving to greater equality; it could not conceivably tell us whether incurring those costs is justifiable.

### Recent Developments in Metaethics

In view of the heat of the debate between Hare and his naturalist opponents during the 1960s, the next development was surprising. At first in articles and then in the book *Moral Thinking* (1981), Hare offered a new understanding of what is involved in universalizability that relies on treating moral ideals in a similar fashion to ordinary desires or preferences. In *Freedom and Reason* the universalizability of moral judgments prevented me from giving greater weight to my own interests, simply on the grounds that they are mine, than I was prepared to give to anyone else's interests. In *Moral Thinking* Hare argued that to hold an ideal, whether it be a Nazi ideal such as the purity of the Aryan race or a more conventional ideal such as that justice must be done irrespective of the consequences, is really to have a special kind of preference. When I ask whether I can prescribe a moral judgment universally, I must take into account all the ideals and preferences held by all those who will be affected by the action I am judging; and in taking these into account, I cannot give any special weight to my own ideals merely because they are my own. The effect of this application of universalizability is that for a moral judgment to be universalizable it must ultimately be based on the maximum possible satisfaction of the preferences of all those affected by it. Thus Hare claimed that his reading of the formal property of universalizability inherent in moral language enables him to solve the ancient problem of showing how reason can, at least in principle, resolve ethical disagreement. Moral freedom, on the other hand, has been reduced to the freedom to be an amoralist and to avoid using moral language altogether.

Hare's position was immediately challenged by J.L. Mackie in *Ethics: Inventing Right and Wrong* (1977). In the course of a defense of moral subjectivism, Mackie argued that Hare had stretched the notion of

universalizability far beyond anything that is really inherent in moral language. Moreover, even if such a notion were embodied in our way of thinking and talking about morality, Mackie insisted that we would always be free to reject such notions and to decide what to do without concerning ourselves with whether our judgments are universalizable in Hare's, or indeed in any, sense. According to Mackie, our ordinary use of moral language presupposes that moral judgments are statements about something in the universe and, therefore, can be true or false. This is, however, a mistake. Drawing on Hume, Mackie says that there cannot be any matters of fact that make it rational for everyone to act in a certain way. If we do not reject morality altogether, we can only base our moral judgments on our own desires and feelings.

There are a number of contemporary British philosophers who do not accept either Hare's or Mackie's metaethical views. Those who hold forms of naturalism have already been mentioned. Others, including the Oxford philosophers David Wiggins and John McDowell, have employed modern semantic theories of the nature of truth to show that even if moral judgments do not correspond to any objective facts or self-evident truths, they may still be proper candidates for being true or false. This position has become known as moral realism. For some, it makes moral judgments true or false at the cost of taking objectivity out of the notion of truth.

Many modern writers on ethics, including Mackie and Hare, share a view of the nature of practical reason derived from Hume. Our reasons for acting morally, they hold, must depend on our desires because reason in action applies only to the best way of achieving what we desire. This view of practical reason virtually precludes any general answer to the question "Why should I be moral?" Until very recently, this question had received less

attention in the 20th century than in earlier periods. In the early part of the century, such intuitionists as H.A. Prichard had rejected all attempts to offer extraneous reasons for being moral. Those who understood morality would, they said, see that it carried its own internal reasons for being followed. For those who could not see these reasons, the situation was reminiscent of the story of the emperor's new clothes.

The question fared no better with the emotivists. They defined morality so broadly that anything an individual desires can be considered to be moral. Thus there can be no conflict between morality and self-interest, and if anyone asks "Why should I be moral?" the emotivist response would be to say "Because whatever you most approve of doing is, by definition, your morality." Here the question is effectively being rejected as senseless, but this reply does nothing to persuade the questioners to act in a benevolent or socially desirable way. It merely tells them that no matter how antisocial their actions may be, they can still be moral as the emotivists define the term.

For Hare, on the other hand, the question "Why should I be moral?" amounts to asking why I should act only on those judgments that I am prepared to universalize; and the answer he gives is that unless this is what I want to do, it is not always possible to give an adult a reason for doing so. At the same time, Hare does believe that if someone asks why children should be brought up to be morally good, the answer is that they are more likely to be happy if they develop habits of acting morally.

Other philosophers have put the question to one side, saying that it is a matter for psychologists rather than for philosophers. In earlier periods, of course, psychology was considered a branch of philosophy rather than a separate discipline, but in fact psychologists have also had little to say about

the connection between morality and self-interest. In *Motivation and Personality* (1954) and other works, Abraham H. Maslow developed a psychological theory reminiscent of Shaftesbury in its optimism about the link between personal happiness and moral values, but Maslow's factual evidence was thin. Victor Emil Frankl, a psychotherapist, has written several popular books defending a position essentially similar to that of Joseph Butler on the attainment of happiness. The gist of this view is known as the paradox of hedonism. In *The Will to Meaning* (1969), Frankl states that those who aim directly at happiness do not find it; those whose lives have meaning or purpose apart from their own happiness find happiness as well.

The U.S. philosopher Thomas Nagel has taken a different approach to the question of how we may be motivated to act altruistically. Nagel challenges the assumption that Hume was right about reason being subordinate to desires. In *The Possibility of Altruism* (1969), Nagel sought to show that if reason must always be based on desire, even our normal idea of prudence (that we should give the same weight to our future pains and pleasures as we give to our present ones) becomes incoherent. Once we accept the rationality of prudence, however, Nagel argued that a very similar line of argument can lead us to accept the rationality of altruism – *i.e.*, the idea that the pains and pleasures of another individual are just as much a reason for one to act as are one's own pains and pleasures. This means that reason alone is capable of motivating moral action; hence, it is unnecessary to appeal to self-interest or benevolent feelings. Though not an intuitionist in the ordinary sense, Nagel has effectively reopened the 18th-century debate between the moral sense school and the intuitionists who believed that reason alone can play a role in action.

The most influential work in ethics by a U.S. philosopher since the early 1960s, John Rawls's *Theory of Justice* (1971), is for the most part centred on normative ethics, and so will be discussed in the next section; it has, however, had some impact in metaethics as well. To argue for his principles of justice, Rawls uses the idea of a hypothetical contract, in which the contracting parties are behind a "veil of ignorance" that prevent them from knowing any particular details about their own attributes. Thus one cannot try to benefit oneself by choosing principles of justice that favor the wealthy, the intelligent, males, or whites. The effect of this requirement is in many ways similar to Hare's idea of universalizability, but Rawls claims that it avoids, as the former does not, the trap of grouping together the interests of different individuals as if they all belonged to one person. Accordingly, the old social contract model that had largely been neglected since the time of Rousseau has had a new wave of popularity as a form of argument in ethics.

The other aspect of Rawls's thought to have metaethical significance is his so-called method of reflective equilibrium – the idea that a sound moral theory is one that matches reflective moral judgments. In *A Theory of Justice* Rawls uses this method to justify tinkering with the original model of the hypothetical contract until it produces results that are not too much at odds with ordinary ideas of justice. To his critics, this represents a reemergence of a conservative form of intuitionism, for it means that new moral theories are tested against ordinary moral intuitions. If a theory fails to match enough of these, it will be rejected no matter how strong its own foundations may be. In Rawls's defense it may be said that it is only our "reflective moral judgments" that serve as the testing ground – our ordinary moral intuitions may be rejected, perhaps simply because they are contrary to a well-grounded theory. If such be the case, the charge of conservatism may be misplaced, but in the



process the notion of some independent standard by which the moral theory may be tested has been weakened, perhaps so far as to become virtually meaningless.

Perhaps the most impressive work of metaethics published in the United States in recent years is R.B. Brandt's *Theory of the Good and the Right* (1979). Brandt returns to something like the naturalism of Ralph Barton Perry but with a distinctive late 20th-century American twist. He spends little time on the concept of good, believing that everything capable of being expressed by this word can be more clearly stated in terms of rational desires. To explicate this notion of a rational desire, Brandt appeals to cognitive psychotherapy. An ideal process of cognitive psychotherapy would eliminate many desires: those based on false beliefs, those which one has only because one is ignoring the feelings or desires that are likely to be expressed in the future, the desires or aversions that are artificially caused by others, desires that are based on early deprivation, and so on. The desires that an individual would still have, undiminished in strength after going through this process, are what Brandt is prepared to call rational desires.

In contrast to his view of the term good, Brandt does think that the notions of morally right and morally wrong are useful. He suggests that, in calling an action morally wrong, we should mean that it would be prohibited by any moral code that all fully rational people would support for the society in which they are to live. (Brandt then argues that fully rational people would support that moral code which would maximize happiness, but the justification of this claim is a task for normative ethics, not metaethics.)

Brandt's final chapter is an indication of the revival of interest in the question, as he phrases it, "Is it always rational to act morally?" His answer,

echoing Shaftesbury in modern guise, is that such desires as benevolence would survive cognitive psychotherapy, and so a rational person would be benevolent. A rational person would also have other moral motives, including an aversion to dishonesty. These motives will occasionally conflict with self-interested desires, and there can be no guarantee that the moral motives will be the stronger. If they are not, and in spite of the fact that a rational person would support a code favoring honesty, Brandt is unable to say that it would be irrational to follow self-interest rather than morality. A fully rational person might support a certain kind of moral code and yet not act in accordance with it on every occasion.

As the century draws to a close, the issues that divided Plato and the Sophists are still dividing moral philosophers. Ironically, the one position that now has few defenders is Plato's view that "good" refers to an idea or property having an objective existence quite apart from anyone's attitudes or desires – on this point the Sophists appear to have won out at last. Yet, this still leaves ample room for disagreement about the extent to which reason can bring about agreed decisions on what we ought to do. There also remains the dispute about whether it is proper to refer to moral judgments as true and false. On the other central question of metaethics, the relationship between morality and self-interest, a complete reconciliation of the two continues to prove – at least for those not prepared to appeal to a belief in reward and punishment in another life – as elusive as it did for Sidgwick at the end of the 19th century.

## Normative Ethics

### The Debate Over Consequentialism

Normative ethics seeks to set norms or standards for conduct. The term is commonly used in reference to the discussion of general theories about what one ought to do, a central part of Western ethics since ancient times. Normative ethics continued to hold the spotlight during the early years of the 20th century, with intuitionists such as W.D. Ross engaged in showing that an ethic based on a number of independent duties was superior to Utilitarianism. With the rise of Logical Positivism and emotivism, however, the logical status of normative ethics seemed doubtful: Was it not simply a matter of whatever one approved? Nor was the analysis of language, which dominated philosophy in English-speaking countries during the 1950s, any more congenial to normative ethics. If philosophy could do no more than analyze words and concepts, how could it offer guidance about what one ought to do? The subject was therefore largely neglected until the 1960s, when emotivism and linguistic analysis were both on the retreat and moral philosophers once again began to think about how individuals ought to live.

A crucial question of normative ethics is whether actions are to be judged right or wrong solely on the basis of their consequences. Traditionally, those theories that judge actions by their consequences have been known as teleological theories, while those that judge actions according to whether they fall under a rule have been referred to as deontological theories. Although the latter term continues to be used, the former has been replaced to a large extent by the more straightforward term consequentialist. The debate over this issue has led to the development of different forms of consequentialist theories and to a number of rival views.

## Varieties of Consequentialism

The simplest form of consequentialism is classical Utilitarianism, which holds that every action is to be judged good or bad according to whether its consequences do more than any alternative action to increase – or, if that is impossible, to limit any unavoidable decrease in – the net balance of pleasure over pain in the universe. This is often called hedonistic Utilitarianism.

G.E. Moore's normative position offers an example of a different form of consequentialism. In the final chapters of the aforementioned *Principia Ethica* and also in *Ethics* (1912), Moore argued that the consequences of actions are decisive for their morality, but he did not accept the classical Utilitarian view that pleasure and pain are the only consequences that matter. Moore asked his readers to picture a world filled with all possible imaginable beauty but devoid of any being who can experience pleasure or pain. Then the reader is to imagine another world, as ugly as can be but equally lacking in any being who experiences pleasure or pain. Would it not be better, Moore asked, that the beautiful world rather than the ugly world exist? He was clear in his own mind that the answer was affirmative, and he took this as evidence that beauty is good in itself, apart from the pleasure it brings. He also considered that the friendship of close personal relationships has a similar intrinsic value independent of its pleasantness. Moore thus judged actions by their consequences but not solely by the amount of pleasure they produced. Such a position was once called ideal Utilitarianism because it was a form of Utilitarianism based on certain ideals. Today, however, it is more frequently referred to by the general label consequentialism, which includes, but is not limited to, Utilitarianism.

R.M. Hare is another example of a consequentialist. His interpretation of universalizability leads him to the view that for a judgment to be universalizable, it must prescribe what is most in accord with the preferences of all those affected by the action. This form of consequentialism is frequently called preference Utilitarianism because it attempts to maximize the satisfaction of preferences, just as classical Utilitarianism endeavors to maximize pleasure or happiness. Part of the attraction of such a view lies in the way in which it avoids making judgments about what is intrinsically good, finding its content instead in the desires that people, or sentient beings generally, do have. Another advantage is that it overcomes the objection, which so deeply troubled Mill that the production of simple, mindless pleasure becomes the supreme goal of all human activity. Against these advantages we must put the fact that most preference Utilitarians want to base their judgments, not on the desires that people actually have, but rather on those they would have if they were fully informed and thinking clearly. It then becomes essential to discover what people would want under these conditions, and, because most people most of the time are less than fully informed and clear in their thoughts, the task is not an easy one.

It may also be noted in passing that Hare claims to derive his version of Utilitarianism from universalizability, which in turn he draws from moral language and moral concepts. Moore, on the other hand, had simply found it self-evident that certain things were intrinsically good. Another Utilitarian, the Australian philosopher J.J.C. Smart, has defended hedonistic Utilitarianism by asserting that he has a favorable attitude to making the surplus of happiness over misery as large as possible. As these differences suggest, consequentialism can be held on the basis of widely differing metaethical views.

Consequentialists may also be separated into those who ask of each individual action whether it will have the best consequences, and those who ask this question only of rules or broad principles and then judge individual actions by whether they fall under a good rule or principle. The distinction having arisen in the specific context of Utilitarian ethics, the former are known as act-Utilitarians and the latter as rule-Utilitarians.

Rule-Utilitarianism developed as a means of making the implications of Utilitarianism less shocking to ordinary moral consciousness. (The germ of this approach is seen in Mill's defense of Utilitarianism.) There might be occasions, for example, when stealing from one's wealthy employer in order to give to the poor would have good consequences. Yet, surely it would be wrong to do so. The rule-Utilitarian solution is to point out that a general rule against stealing is justified on Utilitarian grounds, because otherwise there could be no security of property. Once the general rule has been justified, individual acts of stealing can then be condemned whatever their consequences because they violate a justifiable rule.

This suggests an obvious question, one already raised by the above account of Kant's ethics: How specific may the rule be? Although a rule prohibiting stealing may have better consequences than no rule at all against stealing, would not the best consequences of all follow from a rule that permitted stealing only in those special cases in which it is clear that stealing will have better consequences than not stealing? But what then is the difference between act- and rule-Utilitarianism? In *Forms and Limits of Utilitarianism* (1965), David Lyons argued that if the rule were formulated with sufficient precision to take into account all its causally relevant consequences, rule-Utilitarianism would collapse into act-Utilitarianism. If rule-Utilitarianism is to be maintained as a distinct position, then there must

be some restriction on how specific the rule can be so that at least some relevant consequences are not taken into account.

To ignore relevant consequences is to break with the very essence of consequentialism; rule-Utilitarianism is therefore not a true form of Utilitarianism at all. That, at least, is the view taken by Smart, who has derided rule-Utilitarianism as “rule-worship” and consistently defended act-Utilitarianism. Of course, when time and circumstances make it awkward to calculate the precise consequences of an action, Smart’s act-Utilitarian will resort to rough and ready “rules of thumb” for guidance; but these rules of thumb have no independent status apart from their usefulness in predicting likely consequences, and if ever we are clear that we will produce better consequences by acting contrary to the rule of thumb, we should do so. If this leads us to do things that are contrary to the rules of conventional morality, then, Smart says, so much the worse for conventional morality.

Today, straightforward rule-Utilitarianism has few supporters. On the other hand, a number of more complex positions have been proposed, bridging in some way the distance between rule-Utilitarianism and act-Utilitarianism.

In *Moral Thinking* Hare distinguished two levels of thought about what we ought to do. At the critical level we may reason about the principles that should govern our action and consider what would be for the best in a variety of hypothetical cases. The correct answer here, Hare believed, is always that the best action will be the one that has the best consequences. This principle of critical thinking is not, however, well-suited for everyday moral decision making. It requires calculations that are difficult to carry out under the most ideal circumstances and virtually impossible to carry out properly when we

are hurried or liable to be swayed by our emotions or our interests. Everyday moral decisions are the proper domain of the intuitive level of moral thought. At this intuitive level we do not enter into fine calculations of consequences; instead, we act in accordance with fundamental moral principles that we have learned and accepted as determining, for practical purposes, whether an act is right or wrong. Just what these moral principles should be is a task for critical thinking. They must be the principles that, when applied intuitively by most people, will produce the best consequences overall, and they must also be sufficiently clear and brief to be made part of the moral education of children. Hare therefore can avoid the dilemma of the rule-Utilitarian while still preserving the advantages of that position. Given that ordinary moral beliefs reflect the experience of many generations, Hare believed that judgments made at the intuitive level will probably not be too different from judgments made by conventional morality. At the same time, Hare's restriction on the complexity of the intuitive principles is fully consequentialist in spirit.

Some recently published work has gone further still in this direction. Following on earlier discussions of the difficulties consequentialists may have in trusting one another – since the word of a Utilitarian is only as good as the consequences of keeping the promise appear to him to be – Donald Regan has explored the problems of cooperation among Utilitarians in his *Utilitarianism and Co-operation* (1980) and has come out with a further variation designed to make cooperation feasible and thus to achieve the best consequences on the whole. In *Reasons and Persons* (1984), Derek Parfit argued that to aim always at producing the best consequences would be indirectly self-defeating; we would be cutting ourselves off from some of the greatest goods of human life, including those close personal relationships that demand that we sacrifice the ideal of impartial benevolence to all in order that we may give preference to



those we love. We therefore need, Parfit suggested, not simply a theory of what we should all do, but a theory of what motives we should all have. Parfit, like Hare, plausibly contended that recognizing this distinction will bring the practical application of consequentialist theories closer to conventional moral judgments.

### An Ethic of Prima Facie Duties

In the first third of the 20th century, it was the intuitionists, especially W.D. Ross, who provided the major alternative to Utilitarianism. Because of this situation, the position described below is sometimes called intuitionism, but it seems less likely to cause confusion if we reserve that label for the quite distinct metaethical position held by Ross – and incidentally by Sidgwick as well – and refer to the normative position by the more descriptive label, an “ethic of prima facie duties.”

Ross’s normative ethic consists of a list of duties, each of which is to be given independent weight: fidelity, reparation, gratitude, beneficence, nonmaleficence, and self-improvement. If an act falls under one and only one of these duties, it ought to be carried out. Often, of course, an act will fall under two or more duties: I may owe a debt of gratitude to someone who once helped me, but beneficence will be better served if I help others in greater need. This is why the duties are, Ross says, prima facie rather than absolute; each duty can be overridden if it conflicts with a more stringent duty.

An ethic structured in this manner may match our ordinary moral judgments more closely than a consequentialist ethic, but it suffers from two serious drawbacks. First, how can we be sure that just those duties listed by

Ross are independent sources of moral obligation? Ross could only respond that if we examine them closely we will find that these, and these alone, are self-evident. But others, even other intuitionists, have found that what was self-evident to Ross was not self-evident to them. Second, if we grant Ross his list of independent prima facie moral duties, we still need to know how to decide, in a particular situation, when a less stringent duty is overridden by a more stringent one. Here, too, Ross had no better answer than an unsatisfactory appeal to intuition.

#### Rawls's Theory of Justice

When philosophers again began to take an interest in normative ethics in the 1960s after an interval of some 30 years, no theory could rival the ability of Utilitarianism to provide a plausible and systematic basis for moral judgments in all circumstances. Yet, many people found themselves unable to accept Utilitarianism. One common ground for dissatisfaction was that Utilitarianism does not offer any principle of justice beyond the basic idea that everyone's happiness – or preferences, depending on the form of Utilitarianism – counts equally. Such a principle is quite compatible with sacrificing the welfare of some to the greater welfare of others. This situation explains the enthusiastic welcome accorded to Rawls's *Theory of Justice* when it appeared in 1971. Rawls offered an alternative to Utilitarianism that came close to matching its rival's ability to provide a systematic theory of what one ought to do and, at the same time, led to conclusions about justice very different from those of the Utilitarians.

Rawls asserted that if people had to choose principles of justice from behind a “veil of ignorance” that restricted what they could know of their own position in society, they would not seek to maximize overall utility. Instead, they would safeguard themselves against the worst possible outcome, first, by insisting on the maximum amount of liberty compatible with the like liberty for others; and, second, by requiring that wealth be distributed so as to make the worst-off members of the society as well-off as possible. This second principle is known as the “maximin” principle, because it seeks to maximize the welfare of those at the minimum level of society. Such a principle might be thought to lead directly to an insistence on the equal distribution of wealth, but Rawls points out that if we accept certain assumptions about the effect of incentives and the benefits that may flow to all from the productive labours of the most talented members of society, the maximin principle could allow considerable inequality.

In the decade following its appearance, *A Theory of Justice* was subjected to unprecedented scrutiny by moral philosophers throughout the world. Two major issues emerged: Were the two principles of justice soundly derived from the original contract situation? And did the two principles amount, in themselves, to an acceptable theory of justice?

To the first question, the general verdict was negative. Without appealing to specific psychological assumptions about an aversion to risk – and Rawls disclaimed any such assumptions – there was no convincing way in which Rawls could exclude the possibility that the parties to the original contract would choose to maximize average utility, thus giving themselves the best possible chance of having a high level of welfare. True, each individual making such a choice would have to accept the possibility that he would end

up with a very low level of welfare, but that might be a risk worth running for the sake of a chance at a very high level.

Even if the two principles cannot validly be derived from the original contract, they might be sufficiently attractive to stand on their own either as self-evident moral truths – if we are objectivists – or as principles to which we might have favorable attitudes. Maximin, in particular, has proved attractive in a variety of disciplines, including welfare economics, a field in which preference Utilitarianism once reigned unchallenged. But maximin has also had its critics, who have pointed out that the principle could require us to forgo very great benefits to the vast majority if, for some reason, this would require some loss (no matter how trivial) to the worst-off members of society.

### Rights Theories

One of Rawls's severest critics, Robert Nozick of the United States, rejected the assumption that lies behind not only the maximin principle but behind any principle that seeks to achieve a pattern of distribution by taking from one group in order to give to another. In attempting to bring about a certain pattern of distribution, Nozick said, these principles ignore the question of how the individuals from whom wealth will be taken acquired their wealth in the first place. If they have done so by wholly legitimate means without violating the rights of others, then Nozick held that no one, not even the state, can have the right to take their wealth from them without their consent.

Although appeals to rights have been common since the great 18th-century declarations of the rights of man, most ethical theorists have treated

rights as something that must be derived from more basic ethical principles or else from accepted social and legal practices. Recently, however, there have been attempts to turn this tendency around and make rights the basis of the ethical theory. It is in the United States, no doubt because of its history and constitution, that the appeal to rights as a fundamental moral principle has been most common. Nozick's *Anarchy, State and Utopia* (1974) is one example of a rights-based theory, although it is mostly concerned with the application of the theory in the political sphere and says very little about other areas of normative ethics. Unlike Rawls, who for all his disagreement with Utilitarianism is still a consequentialist of sorts, Nozick is a deontologist. Our rights to life, liberty, and legitimately acquired property are absolute, and no act can be justified if it violates them. On the other hand, we have no duty to assist people in the preservation of their rights. If others go about their own affairs without infringing on the rights of others, I must not infringe on their rights; but if they are starving, I have no duty to share my food with them. We can appeal to the generosity of the rich, but we have absolutely no right to tax them against their will so as to provide relief for the poor. This doctrine has found favor with some Americans on the political right, but it has proved too harsh for most students of ethics.

To illustrate the variety of possible theories based on rights, we can take as another example the one propounded by Ronald Dworkin in *Taking Rights Seriously* (1977). Dworkin agreed with Nozick that rights are not to be overridden for the sake of improved welfare: rights are, he said, "trumps" over ordinary consequentialist considerations. Dworkin's view of rights, however, derives from a fundamental right to equal concern and respect. This makes it much broader than Nozick's theory, since respect for others may require us to assist them and not merely leave them to fend for themselves. Accordingly,

Dworkin's view obliges the state to intervene in many areas to ensure that rights are respected.

In its emphasis on equal concern and respect, Dworkin's theory is part of a recent revival of interest in Kant's principle of respect for persons as the fundamental principle of ethics. This principle, like the principle of justice, is often said to be ignored by Utilitarians. Rawls invoked it when setting out the underlying rationale of his theory of justice. The concept, however, suffers from vagueness, and attempts to develop it into something more specific that could serve as the basis for a complete ethical theory have not – unless Rawls's theory is to count as one of them – offered a satisfactory basis for ethical decision making.

#### Natural Law Ethics

As far as secular moral philosophy is concerned, during most of the 20th century, natural law ethics has been considered a lifeless medieval relic, preserved only in Roman Catholic schools of moral theology. It is still true that the chief proponents of natural law are of that particular religious persuasion, but they have recently begun to defend their position by arguments that make no explicit appeal to their religious beliefs. Instead, they start their ethics with the claim that there are certain basic human goods that we should not act against. In the list offered by John Finnis in *Natural Law and Natural Rights* (1980), for example, these goods are life, knowledge, play, aesthetic experience, friendship, practical reasonableness, and religion. The identification of these goods is a matter of reflection, assisted by the findings

of anthropologists. Each of the basic goods is regarded as equally fundamental; there is no hierarchy among them.

It would, of course, be possible to hold a consequentialist ethic that identified several basic human goods of equal importance and judged actions by their tendency to produce or maintain these goods. Thus, if life is a good, any action that led to a preventable loss of life would, other things being equal, be wrong. Natural law ethics, however, rejects this consequentialist approach. It makes the claim that it is impossible to measure the basic goods against each other. Instead of engaging in consequentialist calculations, the natural law ethic is built on the absolute prohibition of any action that aims directly against any basic good. The killing of the innocent, for instance, is always wrong, even if somehow killing one innocent person were to be the only way of saving thousands of innocent people. What is not adequately explained in this rejection of consequentialism is why the life of one innocent person – about whom, let us say, we know no more than that he is innocent – cannot be measured against the lives of a thousand innocent people about whom we have precisely the same information.

Natural law ethics does allow one means of softening the effect of its absolute prohibitions. This is the doctrine of double effect, traditionally applied by Roman Catholic writers to some cases of abortion. If a pregnant woman is found to have a cancerous uterus, the doctrine of double effect allows a doctor to remove the uterus notwithstanding the fact that such action will kill the fetus. This allowance is made not because the life of the mother is regarded as more valuable than the life of the fetus, but because in removing the uterus the doctor is held not to aim directly at the death of the fetus. Instead, its death is an unwanted and indirect side effect of the laudable act of removing a diseased organ. On the other hand, a different medical condition

might mean that the only way of saving the mother's life is by directly killing the fetus. Some years ago before the development of modern obstetric techniques, this was the case if the head of the fetus became lodged during delivery. Then the only way of saving the life of the woman was to crush the skull of the fetus. Such a procedure was prohibited, for in performing it the doctor would be directly killing the fetus. This ruling was applied even to those cases in which the death of the mother would certainly bring about the death of the fetus as well. The claim was that the doctor who killed the fetus directly was responsible for a murder, but the deaths from natural causes of the mother and fetus were not considered to be the doctor's doing. The example is significant because it indicates the lengths to which proponents of the natural law ethics are prepared to go in order to preserve the absolute nature of the prohibitions.

### Ethical Egoism

All of the normative theories considered so far have had a universal focus – i.e., if they have been consequentialist theories, the goods they sought to achieve were sought for all capable of benefitting from them; and if they were deontological theories, the deontological principles applied equally to whoever might do the act in question. Ethical egoism departs from this consensus, suggesting that we should each consider only the consequences of our actions for our own interests. The great advantage of such a position is that it avoids any possible conflict between morality and self-interest. If it is rational for us to pursue our own interest, then, if the ethical egoist is right, the rationality of morality is equally clear.



We can distinguish two forms of egoism. The individual egoist says, “Everyone should do what is in my interests.” This indeed is egoism, but it is incapable of being couched in a universalizable form, and so it is arguably not a form of ethical egoism. Nor is the individual egoist likely to be able to persuade others to follow a course of action that is so obviously designed to benefit only the person who is advocating it.

Universal egoism is based on the principle “Everyone should do what is in her or his own interests.” This principle is universalizable, since it contains no reference to any particular individual and it is clearly an ethical principle. Others may be disposed to accept it because it appears to offer them the surest possible way of furthering their own interests. Accordingly, this form of egoism is from time to time seized upon by some popular writer who proclaims it the obvious answer to all our ills and has no difficulty finding agreement from a segment of the general public. The U.S. writer Ayn Rand is perhaps the best 20th-century example. Rand’s version of egoism is expounded in the novel *Atlas Shrugged* (1957) by her hero, John Galt, and in *The Virtue of Selfishness* (1965), a collection of her essays. It is a confusing mixture of appeals to self-interest and suggestions that everyone will benefit from the liberation of the creative energy that will flow from unfettered self-interest. Overlaying all this is the idea that true self-interest cannot be served by stealing, cheating, or similarly antisocial conduct.

As this example illustrates, what starts out as a defense of ethical egoism very often turns into an indirect form of Utilitarianism; the claim is that we will all be better off if each of us does what is in his or her own interest. The ethical egoist is virtually compelled to make this claim because otherwise there is a paradox in the fact that the ethical egoist advocates ethical egoism at all. Such advocacy would be contrary to the very principle of ethical egoism,

unless the egoist benefits from others' becoming ethical egoists. If we see our interests as threatened by others' pursuing their own interests, we will certainly not benefit by others' becoming egoists; we would do better to keep our own belief in egoism secret and advocate altruism.

Unfortunately for ethical egoism, the claim that we will all be better off if every one of us does what is in his or her own interest is incorrect. This is shown by what are known as "prisoner's dilemma" situations, which are playing an increasingly important role in discussions of ethical theory. The basic prisoner's dilemma is an imaginary situation in which two prisoners are accused of a crime. If one confesses and the other does not, the prisoner who confesses will be released immediately and the other who does not will spend the next 20 years in prison. If neither confesses, each will be held for a few months and then both will be released. And if both confess, they will each be jailed for 15 years. The prisoners cannot communicate with one another. If each of them does a purely self-interested calculation, the result will be that it is better to confess than not to confess no matter what the other prisoner does. Paradoxical as it might seem, two prisoners, each pursuing his own interest, will end up worse than they would if they were not egoists.

The example might seem bizarre, but analogous situations occur quite frequently on a larger scale. Consider the dilemma of the commuter. Suppose that each commuter finds his or her private car a little more convenient than the bus; but when each of them drives a car, the traffic becomes so congested that everyone would be better off if they all took the bus and the buses moved quickly without traffic holdups. Because private cars are somewhat more convenient than buses, however, and the overall volume of traffic is not appreciably affected by one more car on the road, it is in the interest of each to continue using a private car. At least on the collective level, therefore, egoism

is self-defeating – a conclusion well brought out by Parfit in his aforementioned *Reasons and Persons*.

### Applied Ethics

The most striking development in the study of ethics since the mid-1960s has been the growth of interest among philosophers in practical, or applied, ethics; i.e., the application of normative theories to practical moral problems. This is not, admittedly, a totally new departure. From Plato onward moral philosophers have concerned themselves with practical questions, including suicide, the exposure of infants, the treatment of women, and the proper behavior of public officials. Christian philosophers, notably Augustine and Aquinas, examined with great care such matters as when a war was just, whether it could ever be right to tell a lie, or if a Christian woman did wrong to commit suicide in order to save herself from rape. Hobbes had an eminently practical purpose in writing his *Leviathan*, and Hume wrote about the ethics of suicide. Practical concerns continued with the British Utilitarians, who saw reform as the aim of their philosophy: Bentham wrote on an incredible variety of topics, and Mill is celebrated for his essays on liberty and on the subjection of women.

Nevertheless, during the first six decades of the 20th century moral philosophers largely isolated themselves from practical ethics – something that now seems all but incredible, considering the traumatic events through which most of them lived. There were one or two notable exceptions. The philosopher Bertrand Russell was very much involved in practical issues, but his stature among his colleagues was based on his work in logic and

metaphysics and had nothing to do with his writings on topics such as disarmament and sexual morality. Russell himself seems to have regarded his practical contributions as largely separate from his philosophical work and did not develop his ethical views in any systematic or rigorous fashion.

The prevailing view of the period was that moral philosophy is quite separate from “moralizing,” a task best left to preachers. What was not generally considered was whether moral philosophers could, without merely preaching, make an effective contribution to discussions of practical issues involving difficult ethical questions. The value of such work began to be widely recognized only during the 1960s, when first the U.S. civil rights movement and subsequently the Vietnam War and the rise of student activism started to draw philosophers into discussions of the moral issues of equality, justice, war, and civil disobedience. (Interestingly, there has been very little discussion of sexual morality – an indication that a subject once almost synonymous with the term morals has become marginal to our moral concerns.)

The founding, in 1971, of *Philosophy and Public Affairs*, a new journal devoted to the application of philosophy to public issues, provided both a forum and a new standard of rigour for these contributions. Applied ethics soon became part of the teaching of most philosophy departments of universities in English-speaking countries. Here it is not possible to do more than briefly mention some of the major areas of applied ethics and point to the issues that they raise.

## Applications of Equality

Since much of the early impetus for applied ethics came from the U.S. civil rights movement, such topics as equality, human rights, and justice have been prominent. We often make statements such as “All humans are equal” without thinking too deeply about the justification for the claims. Since the mid-1960s much has been written about how they can be justified. Discussions of this sort have led in several directions, often following social and political movements. The initial focus, especially in the United States, was on racial equality, and here, for once, there was a general consensus among philosophers on the unacceptability of discrimination against blacks. With so little disagreement about racial discrimination itself, the center of attention soon moved to reverse discrimination: Is it acceptable to favor blacks for jobs and enrollment in universities and colleges because they had been discriminated against in the past and were generally so much worse off than whites? Or is this, too, a form of racial discrimination and unacceptable for that reason?

Inequality between the sexes has been another focus of discussion. Does equality here mean ending as far as possible all differences in the sex roles, or could we have equal status for different roles? There has been a lively debate – both between feminists and their opponents and, on a different level, among feminists themselves – about what a society without sexual inequality would be like. Here, too, the legitimacy of reverse discrimination has been a contentious issue. Feminist philosophers have also been involved in debates over abortion and new methods of reproduction. These topics will be covered separately below.

Many discussions of justice and equality are limited in scope to a single society. Even Rawls's theory of justice, for example, has nothing to say about the distribution of wealth between societies, a subject that could make acceptance of his maximin principle much more onerous. But philosophers have now begun to think about the moral implications of the inequality in wealth between the affluent nations (and their citizens) and those living in countries subject to famine. What are the obligations of those who have plenty when others are starving? It has not proved difficult to make a strong case for the view that affluent nations, as well as affluent individuals, ought to be doing much more to help the poor than they are generally now doing.

There is one issue related to equality in which philosophers have led, rather than followed, a social movement. In the early 1970s, a group of young Oxford-based philosophers began to question the assumption that while all humans are entitled to equal moral status, nonhuman animals automatically have an inferior position. The publication in 1972 of *Animals, Men and Morals: An Inquiry into the Maltreatment of Non-humans*, edited by Roslind and Stanley Godlovitch and John Harris, was followed three years later by Peter Singer's *Animal Liberation* and then by a flood of articles and books that established the issue as a part of applied ethics. At the same time, these writings provided the philosophical basis for the animal liberation movement, which has had an effect on attitudes and practices toward animals in many countries.

## Environmental Ethics

Environmental issues raise a host of difficult ethical questions, including the ancient one of the nature of intrinsic value. Whereas many philosophers in the past have agreed that human experiences have intrinsic value and the Utilitarians at least have always accepted that the pleasures and pains of nonhuman animals are of some intrinsic significance, this does not show why it is so bad if dodos become extinct or a rain forest is cut down. Are these things to be regretted only because of the loss to humans or other sentient creatures? Or is there more to it than that? Some philosophers are now prepared to defend the view that trees, rivers, species (considered apart from the individual animals of which they consist), and perhaps ecological systems as a whole have a value independent of the instrumental value they may have for humans or other sentient creatures.

Our concern for the environment also raises the question of our obligations to future generations. How much do we owe to the future? From a social contract view of ethics or for the ethical egoist, the answer would seem to be: nothing. For we can benefit them, but they are unable to reciprocate. Most other ethical theories, however, do give weight to the interests of coming generations. Utilitarians, for one, would not think that the fact that members of future generations do not exist yet is any reason for giving less consideration to their interests than we give to our own, provided only that we are certain that they will exist and will have interests that will be affected by what we do. In the case of, say, the storage of radioactive wastes, it seems clear that what we do will indeed affect the interests of generations to come.

The question becomes much more complex, however, when we consider that we can affect the size of future generations by the population policies we

choose and the extent to which we encourage large or small families. Most environmentalists believe that the world is already dangerously overcrowded. This may well be so, but the notion of overpopulation conceals a philosophical issue that is ingeniously explored by Derek Parfit in *Reasons and Persons* (1984). What is optimum population? Is it that population size at which the average level of welfare will be as high as possible? Or is it the size at which the total amount of welfare – the average multiplied by the number of people – is as great as possible? Both answers lead to counterintuitive outcomes, and the question remains one of the most baffling mysteries in applied ethics.

#### War and Peace

The Vietnam War ensured that discussions as to the justness of a war and of the legitimacy of conscription and civil disobedience were prominent in early writings in applied ethics. There was considerable support for civil disobedience against unjust aggression and against unjust laws even in a democracy.

With the cessation of hostilities in Vietnam and the end of conscription, interest in these questions declined. Concern about nuclear weapons in the early 1980s, however, has caused philosophers to argue about whether nuclear deterrence can be an ethically acceptable strategy if it means using civilian populations as potential nuclear targets. Jonathan Schell's *Fate of the Earth* (1982) raised several philosophical questions about what we ought to do in the face of the possible destruction of all life on our planet.



## Abortion, Euthanasia, and the Value of Human Life

A number of ethical questions cluster around both ends of the human life span. Whether abortion is morally justifiable has popularly been seen as depending on our answer to the question “When does a human life begin?” Many philosophers believe this to be the wrong question to ask because it suggests that there might be a factual answer that we can somehow discover through advances in science. Instead, these philosophers think we need to ask what it is that makes killing a human being wrong and then consider whether these characteristics, whatever they might be, apply to the fetus in an abortion. There is no generally agreed upon answer, yet some philosophers have presented surprisingly strong arguments to the effect that not only the fetus but even the newborn infant has no right to life. This position has been defended by Jonathan Glover in *Causing Death and Saving Lives* (1977) and in more detail by Michael Tooley in *Abortion and Infanticide* (1984).

Such views have been hotly contested, especially by those who claim that all human life, irrespective of its characteristics, must be regarded as sacrosanct. The task for those who defend the sanctity of human life is to explain why human life, no matter what its characteristics, is specially worthy of protection. Explanation could no doubt be provided in terms of such traditional Christian doctrines as that all humans are made in the image of God or that all humans have an immortal soul. In the current debate, however, the opponents of abortion have eschewed religious arguments of this kind without finding a convincing secular alternative.

Somewhat similar issues are raised by euthanasia when it is nonvoluntary, as, for example, in the case of severely disabled newborn infants. Euthanasia, however, can be voluntary, and this has brought it support

from some who hold that the state should not interfere with the free, informed choices of its citizens in matters that do not cause others harm. (The same argument is often invoked in defense of the pro-choice position in the abortion controversy; but it is on much weaker ground in this case because it presupposes what it needs to prove – namely, that the fetus does not count as an “other.”) Opposition to voluntary euthanasia has centred on practical matters such as the difficulty of adequate safeguards and on the argument that it would lead to a “slippery slope” that would take us to nonvoluntary euthanasia and eventually to the compulsory involuntary killing of those the state considers to be socially undesirable.

Philosophers have also canvassed the moral significance of the distinction between killing and allowing to die, which is reflected in the fact that many physicians will allow a patient with an incurable condition to die when life could still be prolonged, but they will not take active steps to end the patient’s life. Consequentialist philosophers, among them both Glover and Tooley, have denied that this distinction possesses any intrinsic moral significance. For those who uphold a system of absolute rules, on the other hand, a distinction between acts and omissions is essential if they are to render plausible the claim that we must never breach a valid moral rule.

## Bioethics

The issues of abortion and euthanasia are included in one of the fastest growing areas of applied ethics, that dealing with ethical issues raised by new developments in medicine and the biological sciences. This subject, known as bioethics, often involves interdisciplinary work, with physicians, lawyers,

scientists, and theologians all taking part. Centres for research in bioethics have been established in Australia, Britain, Canada, and the United States. Many medical schools have added the discussion of ethical issues in medicine to their curricula. Governments have sought to deal with the most controversial issues by appointing special committees to provide ethical advice.

Several key themes run through the subjects covered by bioethics. One, related to abortion and euthanasia, is whether the quality of a human life can be a reason for ending it or for deciding not to take steps to prolong it. Since medical science can now keep alive severely disabled infants who a few years ago would have died soon after birth, pediatricians are regularly faced with this question. The issue received national publicity in Britain in 1981 when a respected pediatrician was charged with murder, following the death of an infant with Down's syndrome. Evidence at the trial indicated that the parents had not wanted the child to live and that the pediatrician had consequently prescribed a narcotic painkiller. The doctor was acquitted. The following year, in the United States, an even greater furor was caused by a doctor's decision to follow the wishes of the parents of a Down's syndrome infant and not carry out surgery without which the baby would die. The doctor's decision was upheld by the Supreme Court of Indiana, and the baby died before an appeal could be made to the U.S. Supreme Court. In spite of the controversy and efforts by government officials to ensure that handicapped infants are given all necessary lifesaving treatment, in neither Britain nor the United States is there any consensus about the decisions that should be made when severely disabled infants are born or by whom these decisions should be made.

Medical advances have raised other related questions. Even those who defend the doctrine of the sanctity of all human life do not believe that doctors

have to use extraordinary means to prolong life, but the distinction between ordinary and extraordinary means, like that between acts and omissions, is itself under attack. Critics assert that the wishes of the patient or, if these cannot be ascertained, the quality of the patient's life provides a more relevant basis for a decision than the nature of the means to be used.

Another central theme is that of patient autonomy. This arises not only in the case of voluntary euthanasia but also in the area of human experimentation, which has come under close scrutiny following reported abuses. It is generally agreed that patients must give informed consent to any experimental procedures. But how much and how detailed information is the patient to be given? The problem is particularly acute in the case of randomly controlled trials, which scientists consider the most desirable way of testing the efficacy of a new procedure but which require that the patient agree to being administered randomly one of two or more forms of treatment.

The allocation of medical resources became a life-and-death issue when hospitals obtained dialysis machines and had to choose which of their patients suffering from kidney disease would be able to use the scarce machines. Some argued for "first come, first served," whereas others thought it obvious that younger patients or patients with dependents should have preference. Kidney machines are no longer as scarce, but the availability of various other exotic, expensive lifesaving techniques is limited; hence, the search for rational principles of distribution continues.

New issues arise as further advances are made in biology and medicine. In 1978 the birth of the first human being to be conceived outside the human body initiated a debate about the ethics of in vitro fertilization. This soon led to questions about the freezing of human embryos and what should be done

with them if, as happened in 1984 with two embryos frozen by an Australian medical team, the parents should die. The next controversy in this area arose over commercial agencies offering infertile married couples a surrogate mother who would for a fee be impregnated with the sperm of the husband and then surrender the resulting baby to the couple. Several questions emerged: Should we allow women to rent their wombs to the highest bidder? If a woman who has agreed to act as a surrogate changes her mind and decides to keep the baby, should she be allowed to do so?

The culmination of such advances in human reproduction will be the mastery of genetic engineering. Then we will all face the question posed by the title of Jonathan Glover's probing book *What Sort of People Should There Be?* (1984). Perhaps this will be the most challenging issue for 21st-century ethics.

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(1969). The chief epistemological works of PLATO are his *Meno*, *Theaetetus*, and *Republic*, especially Books V-VII. The views of ARISTOTLE can be found in *On the Soul*, *Metaphysics*, Book IV, ch. 5 and 6, and *Posterior Analytics*, Book I, ch. 3. The locus classicus for ancient scepticism is R.G. BURY (trans.), *Sextus Empiricus*, 4 vol. (1933-49), in *The Loeb Classical Library* series. From among the voluminous writings of AUGUSTINE, see *Against the Academicians*, trans. by MARY PATRICIA GARVEY (1942, reissued 1978).

(*Medieval*): For the period as a whole, see appropriate articles in *The Cambridge History of Later Greek and Early Medieval Philosophy*, ed. by A.H. ARMSTRONG (1967); and *The Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism, 1100-1600*, ed. by NORMAN KRETZMANN, ANTHONY KENNY, and JAN PINBORG (1982). For the thoughts of ANSELM OF CANTERBURY, see his *Proslogium*, ch. 1, and *On Truth*. THOMAS AQUINAS, *Summa Theologiae*, discusses the soul in general in part I, question 77, and the intellectual powers of the soul in part I, question 79. The views of JOHN DUNS SCOTUS can be found in the relevant sections of his *Philosophical Writings*, trans. by ALLAN WOLTER (1962, reprinted 1987); and in A.P. MARTINICH, "Duns Scotus on the Possibility of an Infinite Being," *Philosophical Topics*, supplementary vol. 80, pp. 23-29 (1982). The ideas of WILLIAM OF OCKHAM can be found in the relevant sections of his *Philosophical Writings*, trans. by PHILOTHEUS BOEHNER (1957, reissued 1967).

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emphasizes the effect of modern science on philosophy; and RICHARD H. POPKIN, *The History of Scepticism from Erasmus to Spinoza*, rev. and expanded ed. (1979), which emphasizes the rediscovery of scepticism in the 16th century. RENÉ DESCARTES's greatest work is *Meditations on First Philosophy*, trans. by JOHN COTTINGHAM (1986; originally published in Latin, 1641). JOHN LOCKE attacks the doctrine of innate ideas in Book I of his *An Essay Concerning Human Understanding*, ed. by PETER H. NIDDITCH (1975), while his position on knowledge is developed in Books II and IV. A good introduction to Locke's thought is JOHN W. YOLTON, *Locke: An Introduction* (1985). The best work of GEORGE BERKELEY is *A Treatise Concerning the Principles of Human Knowledge*, ed. by KENNETH WINKLER (1982); a more popular presentation of his views is *Three Dialogues Between Hylas and Philonous*, ed. by ROBERT MERRIHEW ADAMS (1979). DANIEL E. FLAGE, *Berkeley's Doctrine of Notions: A Reconstruction Based on His Theory of Meaning* (1987), discusses a central but neglected aspect of Berkeley's epistemology. DAVID HUME's most expansive discussion of knowledge is in Book I of *A Treatise of Human Nature*, 2nd ed., edited by L.A. SELBY-BIGGE and rev. by P.H. NIDDITCH (1978). A later and more accessible statement of Hume's view is presented in *An Enquiry Concerning Human Understanding*, ed. by ERIC STEINBERG (1977). IMMANUEL KANT, *Critique of Pure Reason*, trans. by NORMAN KEMP SMITH (1929, reissued 1978; originally published in German, 1781), is Kant's greatest work. The best clear, brief, and accurate explanation of Kant's epistemology is A.C. EWING, *A Short Commentary on Kant's "Critique of Pure Reason"* (1938, reprinted 1987). An important book that rejects the view of Kant as a phenomenalist or subjective idealist is HENRY E. ALLISON, *Kant's Transcendental Idealism: An Interpretation and Defense* (1983). For G.F.W. HEGEL's criticisms of Kant, see his *Lectures on the*

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The 20th-century literature on perception and knowledge is vast. A good general collection is ROBERT J. SWARTZ (ed.), *Perceiving, Sensing, and Knowing* (1965, reissued 1976), which includes two important attacks upon sense-data theory – W.H.F. BARNES, “The Myth of Sense-Data,” and G.A. PAUL, “Is There a Problem About Sense-Data?” – and a strong defense of the sense-datum view by C.D. BROAD, “The Theory of Sensa.” The most important pre-World War II books on perception and knowledge are

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### Philosophy of Mind

BIBLIOGRAPHY. Various formulations of Materialism can be found in the writings of the pre-Socratic philosophers, especially Leucippus and Democritus. PLATO, *Phaedo*, *Timaeus*, *Phaedrus*, and books iv and x of the

*Republic*, demonstrate his dualism and his views on the nature of the soul. ARISTOTLE, *De Anima (On the Soul)*, is a whole treatise devoted to the subject, expressing a qualified Materialism. THOMAS HOBBS, *Leviathan* (1651), is radically Materialistic; whereas RENÉ DESCARTES, *Meditationes de prima philosophia*, 2nd ed. (1642), and other writings, presents a classic interactionist dualism. Dualism of the parallelist variety can be found in the writings of Gottfried Leibniz. BENEDICT DE SPINOZA, *Ethica* (1677), rejects both Materialism and dualism, expounding a double-aspect theory. GEORGE BERKELEY, *Treatise Concerning the Principles of Human Knowledge* (1710), provides the classic statement and defense of Idealism (in his word, immaterialism). All the works above can be found in modern editions.

The contemporary interest in the philosophy of mind is largely a result of the provocative work by GILBERT RYLE, *Concept of Mind* (1949, reprinted 1984). Also of great importance was the wholly new approach to all of philosophy taken by LUDWIG WITTGENSTEIN, *Philosophical Investigations*, 3rd ed. (1958, reissued 1973). There followed a spate of journal articles, some of the best of which are in the following anthologies: MYLES BRAND (ed.), *The Nature of Human Action* (1970); ANTONY FLEW (ed.), *Body, Mind, and Death* (1964); DONALD F. GUSTAFSON (ed.), *Essays in Philosophical Psychology* (1964); HAROLD MORICK (ed.), *Introduction to the Philosophy of Mind* (1970, reissued 1981); GEORGE PITCHER (ed.), *Wittgenstein: The Philosophical Investigations* (1966); ALAN R. WHITE (ed.), *The Philosophy of Action* (1968, reprinted 1977); and OSCAR P. WOOD and GEORGE PITCHER (eds.), *Ryle* (1970). Another useful work is DAVID M. ROSENTHAL (ed.), *The Nature of Mind* (1991). Selections written from Existentialist and Phenomenological perspectives are

found in STUART F. SPICKER (ed.), *The Philosophy of the Body* (1970). MERLEAU-PONTY, *Phenomenology of Perception* (1989; originally published in French, 1945), is also of interest. Introductory writings that include original contributions as well as balanced assessments are GERALD E. MYERS, *Self* (1969); ALAN R. WHITE, *The Philosophy of Mind* (1967, reprinted 1978); JEROME A. SHAFFER, *Philosophy of Mind* (1968); COLIN MCGINN, *The Character of Mind* (1982); PETER SMITH and O.R. JONES, *The Philosophy of Mind: An Introduction* (1986); ROM HARRÉ, *Physical Being: A Theory for a Corporeal Psychology* (1991), on how we think about the body in everyday life; and DALE JACQUETTE, *Philosophy of Mind* (1994).

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Works dealing with the problem of personal identity include HAROLD W. NOONAN, *Personal Identity* (1989, reissued 1993), a rigorous introduction; PETER UNGER, *Identity, Consciousness, and Value* (1990), for specialists; A.J. AYER, *The Concept of a Person* (1963); and CHRIS L. KLEINKE, *Self-Perception: The Psychology of Personal Awareness* (1978). The problem of one's knowledge of other minds is explored in HAROLD



MORICK (ed.), *Wittgenstein and the Problem of Other Minds* (1967, reissued 1981); ALVIN PLANTINGA, *God and Other Minds* (1967, reissued 1990); and JOHN WISDOM, *Other Minds*, 2nd ed. (1965). A defense of dualism may be found in JOHN FOSTER, *The Immaterial Self* (1991); and W.D. HART, *The Engines of the Soul* (1988). R.J. NELSON, *The Logic of Mind*, 2nd ed. (1989), offers a mechanistic approach to philosophy of mind; whereas JOHN ECCLES and DANIEL N. ROBINSON, *The Wonder of Being Human: Our Brain and Our Mind* (1984), poses strong opposition to the “human-as-machine” approach. The implications of artificial intelligence are examined in ALAN ROSS ANDERSON (ed.), *Minds and Machines* (1964); HUBERT L. DREYFUS, *What Computers Can’t Do*, rev. ed. (1979); DANIEL C. DENNETT, *Brainstorms* (1978; reissued 1981), and *Consciousness Explained* (1991); and PAUL M. CHURCHLAND, *The Engine of Reason, the Seat of the Soul* (1995).

## Ethics

### *General works:*

For an introduction to the major theories of ethics, the reader should consult RICHARD B. BRANDT, *Ethical Theory: The Problems of Normative and Critical Ethics* (1959), an excellent comprehensive textbook. WILLIAM K. FRANKENA, *Ethics*, 2nd ed. (1973), is a much briefer treatment. Another concise work is BERNARD WILLIAMS, *Ethics and the Limits of Philosophy* (1985). There are several useful collections of classical and modern writings; among the better ones are OLIVER A. JOHNSON, *Ethics: Selections from Classical and Contemporary Writers*, 5th ed. (1984); and JAMES RACHELS

(ed.), *Understanding Moral Philosophy* (1976), which places greater emphasis on modern writers.

*Origins of ethics:*

JOYCE O. HERTZLER, *The Social Thought of the Ancient Civilizations* (1936, reissued 1961), is a wide-ranging collection of materials. EDWARD WESTERMARCK, *The Origin and Development of the Moral Ideas*, 2 vol., 2nd ed. (1912-17, reprinted 1971), is dated but still unsurpassed as a comprehensive account of anthropological data. MARY MIDGLEY, *Beast and Man: The Roots of Human Nature* (1978, reissued 1980), is excellent on the links between biology and ethics; and EDWARD O. WILSON, *Sociobiology: The New Synthesis* (1975), and *On Human Nature* (1978), contain controversial speculations on the biological basis of social behavior. RICHARD DAWKINS, *The Selfish Gene* (1976, reprinted 1978), is another evolutionary account, fascinating but to be used with care.

*History of Western ethics:*

HENRY SIDGWICK, *Outlines of the History of Ethics for English Readers*, 6th enlarged ed. (1931, reissued 1967), is a triumph of scholarship and brevity. WILLIAM EDWARD HARTPOLE LECKY, *History of European Morals from Augustus to Charlemagne*, 2 vol., 3rd rev. ed. (1877, reprinted 1975), is fascinating and informative. Among more recent histories, VERNON J. BOURKE, *History of Ethics* (1968, reissued in 2 vol., 1970), is remarkably comprehensive; while ALASDAIRE MacINTYRE, *A Short History of Ethics* (1966), is a readable personal view.

*Indian ethics:*

SURAMA DASGUPTA, *Development of Moral Philosophy in India* (1961, reissued 1965), is a clear discussion of the various schools. SARVEPALLI RADHAKRISHNAN and CHARLES A. MOORE (eds.), *A Source Book in Indian Philosophy* (1957, reprinted 1967), is a collection of key primary sources. For Buddhist texts, see EDWARD CONZE *et al.* (eds.), *Buddhist Texts Through the Ages* (1954, reissued 1964).

*Chinese ethics:*

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*Ancient Greek and Roman ethics:*

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*Epicurus, the Extant Remains* (1926, reprinted 1979). The most complete of the surviving works of the Epicureans is LUCRETIUS, *De rerum natura* (*On the Nature of Things*).

*Early and medieval Christian ethics:*

In addition to the Gospels and Paul's letters, important writings include ST. AUGUSTINE, *De civitate Dei* (413-426; *The City of God*), and *Enchiridion ad Laurentium de fide, spe, et caritate* (421; *Enchiridion to Laurentius on Faith, Hope and Love*); PETER ABELARD, *Ethica* (c. 1135; *Ethics*); and ST. THOMAS AQUINAS, *Summa theologiae* (1265 or 1266-73). On the history of the transition from Roman ethics to Christianity, W.E.H. LECKY, *op.cit.*, remains unsurpassed. D.J. O'CONNOR, *Aquinas and Natural Law* (1967), is a brief introduction to the most important of the Scholastic writers on ethics.

*Ethics of the Renaissance and Reformation:*

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