Reflections on the Origins of Religious Thought

"It occurs to me that the man and his religion are one and the same thing. The unknown exists. Each man projects on the blankness the shape of his own particular world-view. He endows his creation with his personal volitions and attitudes. The religious man stating his case is in essence explaining himself. When a fanatic is contradicted, he feels a threat to his own existence; he reacts violently."

"And the Atheist?"

"He projects no image upon the blank whatever. The cosmic mysteries he accepts as things in themselves; he feels no need to hang a more or less human mask upon them. Otherwise, the correlation between a man and the shape into which he molds the unknown for greater ease of manipulation is exact."

--Jack Vance

Introduction

Religion, as a set of practices, affiliations, and beliefs, has been a characteristic of human cultures throughout recorded history. Indeed, as a human enterprise, religion has been with us longer even than agriculture, longer than there have been towns and cities. Unequivocal evidence of religious behaviors goes back 35, 000 years, with suggestions that it goes back twice that far, possibly more. Excavations at the Gobekli Tepe site in S. E. Turkey show evidence of highly sophisticated monumental construction dating to 9,5000 B.C.E. (and possibly earlier). This site predates pottery, writing, and the domestication of animals and plants (Curry, 2008). The support for the large labor pool required to construct this ceremonial site over a period of decades and even centuries suggests that religion, in the sense of creating a place of worship, may have been the stimulus for settled agriculture and herding in the region. Even today, religion is often a dominant force in human interactions - sparking armed conflicts around the world, and frequently dominating political debates.

Why are we religious, and what is the source of religion's lasting hold on our species? If rational thought and and the modern understanding of the world provided by science have reduced the need for supernatural intervention, why do we still have religion? Is it some evolved trait, controlled by our genes? Is it a cultural phenomenon passed on from generation to generation like many other forms of knowledge? Or is it something else entirely?

Religion as a human institution is a growing area of investigation in the fields of evolutionary biology and anthropology. Two distinct schools of thought have emerged: the adaptationists who conclude that religious beliefs and practices were biologically-derived traits which gave early humans a survival advantage; and the behaviorists who argue that religion comprises a set of learned behaviors with no specific adaptive advantage and no biological "cause." As with most polarized debates, the answer probably lies somewhere in between.

Religion is a uniquely human activity not observed in other animal species. Religious thoughts and expression require consciousness, which leads to self-awareness and, in humans, to symbolic thinking. While the nature of consciousness is not well understood, what is known is that it arises from the emergent complexity of trillions of interconnected cells in the brain. Reduce the number of brain cells

(i.e., brain size) and their connections, and consciousness diminishes, self-awareness disappears.

We share a level of consciousness with certain other species. Chimpanzees, dolphins, and elephants, along with certain members of the corvid family (crows and ravens, magpies, rollers), have been shown to be self-aware (Reiss, and Marino, 2001 and Plotnik, et al., 2006). Dolphins have brain to body mass ratios on par with modern humans and are known to exhibit inter-species altruism. Dolphins and whales also communicate, sometimes over vast distances, but the meanings of their vocalizations are beyond current human understanding. Elephants have been observed to display apparent grief over the death of a family member, a precursor of moral thought. Chimp groups in the wild use up to 20 types of tools for various functions of daily life, including sociality, subsistence, self-maintenance, and sex (McGrew, 2010). Chimpanzees create in a social context and have been shown to have a sense of humor and to transfer cultural knowledge (Whiten and Boesch, 2001; Goodall, 2001). Most primates have a range of vocalizations which communicate specific meaning to members of their groups. However, the limited range of signals do not rise to the level of symbolic speech universal in modern humans. King (2007) does not consider chimps and gorillas to exhibit religious behaviors, but believes that modern humans' tendency toward religion has its roots in the social behaviors of our primate ancestors. Goodall (2001) reports that chimpanzees in the wild respond to a thunderstorm the way they would to an animal predator, such as a leopard. In other words, they assign an animate "purpose" to the storm, different from their reaction to, say, a wildfire. Still, to the extent that we can put ourselves into the minds of other species through observation of physical behavior, no other animals appear to ponder their origins, the meaning of life, or the existence of the divine.

Comparisons of the genomes of modern humans with our closest primate relative, the chimpanzee, show that we share 99% of our genetic make-up – out of 3 billion DNA bases, only 15 million are different. Looking at where the differences lie, however, is quite revealing. A study by Katherine S. Pollard (2009) looked at the parts of the human genome which had undergone the greatest change. One region, Human Accelerated Region1 (HAR1), had 118 base differences (compare that to only 2 base differences between chimpanzees and chickens for this same DNA segment). It turns out that this region of the genome is active in the development of the cerebral cortex, an area of the brain which is enlarged in humans compared to other modern primates. Another gene, labeled ASPM, associated with brain size also is different between humans and chimps. Indeed, our brains are far larger than needed for basic survival. Human babies are born premature compared to other primates so that their heads can pass through the birth canal. This puts a very specific burden on human parents and communities to provide nurturing through an extended childhood. Given this extraordinary parenting effort and the fact that the modern human brain uses 20% of the body's energy, there must have been an evolutionary advantage associated with brain size and function. The pre-frontal cortex of the human brain, which is significantly enlarged compared to other primates, is the center of our moral conscience - as shown by studies of individuals who have suffered traumatic brain injuries. This area of the brain mediates the emotional responses arising from our mid-brain. Also, the pre-frontal cortex is the center for higher thought and is strongly associated with our feelings of empathy towards others. Empathy and conscience are absolutely necessary for complex social interactions.

Other human characteristics, such as imagination, are harder to associate with specific brain regions, seeming instead to arise from the interactions of multiple brain centers. It is very difficult to pinpoint the precise moment when human beings began to express imagination and to reason symbolically – prerequisites for entertaining religious "thoughts." Prior to the development of writing,our knowledge of the earliest humans is largely limited to durable materials such as stone and bone. The physical

evidences for the existence of a symbolic, and thus a potentially spiritual culture include: cave paintings, rock engravings, personal ornamentation, decorated tools, the use of natural pigments, engraved bones and stones, burials with grave goods, systems of notation, musical instruments, and complex stone, bone and wood technologies. Explicitly, the physical demonstration of thought about, and symbolic representation of, our ancestors' relation to the world around them is to be found in **art.**

There are hints that hominid species ancestral to modern humans may also have had the capacity for complex communication, and imagination (D'Errico, et al., 2003). The collection and use of natural pigments for body adornment (or other forms of decoration) may date as far back as 400,000 years B. P. At the Twin Rivers site in Zambia, 300 lumps of ochre and other pigments (yellow, pink, red, purple, brown, and blue-black), some gathered far from the site, have been dated to the time (300,000 – 400,000 years B.P) of the large-brained human ancestor, ***homo heidelbergensis***. However, in the absence of other cultural evidence, the meaning of these pigments is unclear. ***Homo heidelbergensis*** also has been associated with an 8-step manufacturing process for 400,000 year-old wooden spears and for a change in the quality of craftsmanship of stone tools – moving from the simply utilitarian forms used by earlier ***homo erectus***, to ones of striking symmetry (Balter, 2009). At the early archaic human (***homo ergaster or homo heidelbergensis)*** site of Atapuerca in Spain, and dating to around 300,000 years, there is evidence of the intentional storing of bones from at least 32 individuals. This suggests a belief that humans are not the same as animals (http://anthro.palomar.edu/homo2/mod_homo_3.htm).

Homo neanderthalensis sites from the Late Stone Age in Europe show evidence of body ornamentation (shell and bone beads) and complex tool making. However, these physical traces all occur after the time of contact between Neanderthals and modern humans, so that the significance is uncertain. Neanderthals also created intentional burials, the bodies commonly being found flexed in a fetal position. Often, the bones were stained with hematite – either sprinkled on as powdered pigment, or mixed with a vegetable oil and painted on the bodies. In the case of a burial in Shanidar Cave (northern Iraq), the body of a Neandethal man had been placed on pine boughs in a grave and flowers of 8 different species had been sprinkled on top. Neanderthals also buried the heads of cave bears in at least two caves in western Europe. These are the remains of very powerful predators with whom Neanderthals competed (and feared). At Regourdou Cave in southern France, Neanderthals dug a rectangular pit, lined it with stones and buried at least 20 cave bear skulls which had been colored with hematie. A large stone slab was intentionally placed over the pit. A similar burial was found at Drachenloch Cave in Switzerland (http://anthro.palomar.edu/homo2/mod_homo_3.htm). All of these burials strongly suggest a deep thinking on the nature of death and supernatural power, but what those thoughts were, we'll never know. Some research on Neanderthal habitation sites has determined that dwelling patterns suggestive of gender segregation, not only physically but in terms of resource consumption, implies that ***homo neanderthalensis*** had thought processes very different from those of modern humans.

Anatomically modern humans arose in Africa somewhere between 160,000 and 200,000 years ago, and their remains have been found in the Levant, dated to around 100,000 years ago. However, modern anatomy and modern behaviors did not necessarily coincide. The Levant ***homo sapiens*** sites do not show cultural remains any more sophisticated than temporally coincident Neanderthal sites. The timing of when humans began to think symbolically, and thus had the capacity to entertain religion, is highly uncertain. From the southernmost coast of South Africa comes evidence that 164,000 years ago ancestral modern humans were making composite tools with mini flakes of quatrzite and silcrete being hafted onto wooden handles. These same people harvested tidal zone shellfish species for food, but also collected empty deep water helmet snail shells for apparently aesthetic reasons (Marean, 2010). By around 75,000 years ago we start seeing objects associated with ***homo sapiens*** remains which strongly

suggest a new way of thinking about themselves and the world around them. From the Blombos Cave, also on the Cape Coast of South Africa, come a set of worn shell beads indicating an interest in bodily adornment. The same site has produced the first known human artwork, a piece of ochre engraved with a geometric linear pattern. Around the same time, humans in the north of what is now Botswana had created a ritual site in a small cave beneath the Tsodilo Hills. Here, finely crafted stone tools made of materials occurring hundreds of kilometers distant were buried in shallow pits beneath a natural stone outcropping which had been "pecked" to resemble a python. Red colored spear points showed evidence of having been burned before interment. There is no evidence of normal habitation at the site (e.g., animal and plant remains, hearths); this was a cave dedicated to ritual purposes only (Science Daily, 2006).

In a time span covering the next 40,000, years and from sites throughout Africa, the Middle East, Australia, and Europe archaeologists have uncovered an ever increasing treasure trove of artifacts demonstrating that early ***homo sapiens*** possessed self-awareness, and imagination. By 35,000 years ago (and possibly earlier), art and spiritual expression were in full swing, represented most dramatically by cave paintings and rock engravings in western Europe, Africa, and Australia. This art included fantastical creatures, part animal, part human - evidence of fully modern imaginative ability.

In addition to art our species created music, bodily adornments, stone tools with aesthetics rather than simple utility in mind, and also complex social structures. We buried our dead with care and placed in these graves food, jewelry, and weapons, strongly suggesting a belief in an afterlife. The abundant physical evidence ***homo sapiens*** left behind is a clear indication of our early ability to think and communicate symbolically. As Ian Tattersall (2002) points out, only modern humans have the demonstrated ability to divide up the world around them into a huge number of discrete elements - and then to name those elements. This allows us to rearrange those elements in our minds and imagine a variety of different realities. It is this ability to question and imagine that has allowed us to achieve mastery over our environment. How did this ability come about? Tattersall believes that it arose as ***homo sapiens*** began to express an understanding of the world in ever more complex language. Language - words and syntax - is the mechanism of our conscious thoughts. Try thinking deeply about something without thinking in words. The richer the language, the richer and deeper the possible thoughts. This capability clearly distinguishes our species from all other primates, current or extinct.

Complex language, in turn, required the combined action of multiple brain centers, and a larynx located low in the throat, giving us the ability to make a wide range of vocalizations. Studies of the ***Neanderthal*** genome indicate that while this ancestral human species possessed the FOXP2 gene, responsible for the fine muscle control used in complex speech, its shorter larynx limited the range of sounds that could be produced (Pennisi, 2009).

Religion Defined

Students of theology tend to approach the subject of religion from their own experience; however, modern religions are as much as 100,000 years removed from the first stirrings of religious thought. As noted by Carl Sagan, the eminent scientist and philosopher, over the course of human history there have been as many religions as there have been separate human communities to conceive of them. This equates to hundreds of thousands of conceptions of the divine, and of religious "truths" and practices. Even today, there are over 1,000 distinct religions actively embraced by cultures around the world. While we cannot know for certain what the earliest forms of religious thought were like, two lines of evidence are available to us. First, there is the physical evidence left by our earliest ancestors in the form

of habitation sites with manufactured artifacts and burials. Second, we can examine the religious beliefs and practices of aboriginal peoples (a.k.a. "First Peoples") in various parts of the world today. The beliefs of modern foraging cultures undoubtedly are evolved beyond, and are more "sophisticated" than, the first human religious beliefs; still, they provide a window into the minds of humans living within the rhythms of the natural world.

Before we go much further, there is a basic question which needs to be answered - ***what is religion***? The answer is not as simple as one might think. One very basic definition states that " religion is a belief in some higher power, defined however the believer wishes." While simple, this definition does not explain why:

- diverse religions still exist and haven't yet merged;
- religious traditions have such lasting power in an age of science;
- so much conflict still exists between religious groups;
- some people can claim to have a religious affiliation yet do not believe in, or are indifferent to, the existence of a "higher power."

For some people, religion is the connection to God - or gods - or some transcendent spirit. For others, religion equates to a specific set of rituals and practices, some of which have origins now lost in the mists of time. For yet others, religion equates to a physical church with members who are of the same social standing, sharing common beliefs, behaviors and world views. Like beauty, or pornography, everyone will have an idea of what that term means for them, yet there is no consistent, universally applicable definition that covers all religious traditions. As pointed out by the Ontario Consultants on Religious Tolerance (www.religioustolerance.org) , all commonly used definitions of "religion" contain at least one deficiency. Some might exclude beliefs that are widely perceived to be religious. Those traditions that focus only on belief in an involved god or gods exclude non-theistic religions such as Buddhism or Confucianism. Definitions which equate religion only with Christianity deny the beliefs of 2/3 of the planet's inhabitants. Other definitions include areas of study such as Ecology or Cosmology which are more correctly regarded as scientific disciplines.

Rather than try and create yet another complicated, cumbersome, and incomplete definition, I will use a different approach. What are the functions that religions all have in common, and can we see evidences of these same functions in ancient cultures? It turns out that all religions serve multiple functions in the lives of individual people and human communities.

The six basic functions associated with religion can be described succinctly:

- providing answers (or paths to answers) for the great questions (e.g., the nature of death; the purpose of life)
- providing methods for interceding or connecting with the supernatural
- explaining features and phenomena of the natural world
- providing a context and rules for moral behavior
- supporting individual and group identity
- supporting community and social stability

Taken together, answers to the great questions, explanations of the natural world, and ways of interceding with the divine, result in beliefs. The three remaining functions relate to the social contract that exists between an individual and society. Not all faith traditions pursue each function to the same degree. Systems such as Confucianism and Shinto place strong emphasis on harmony and community stability while leaving the pondering of great questions up to the individual. Buddhism places a strong emphasis on moral behavior and encourages individuals to seek their own path to transcendence (connecting with the supernatural). Religious beliefs are largely unique to an individual as they are not based on objective, reproducible evidence, and thus cannot easily be shared. Religion, on the other hand, is a group activity.

Some scholars would raise ritual to an essential characteristic of religion - and certainly most faith traditions engage in ritual practices. However, under the scheme described here, rituals derive from higher level functions - in this case, methods for interceding with the supernatural, and creating strong individual and group identity. Others argue that the giving of joy or a sense of tranquility are a function of religion. Again, these feelings - which vary from individual to individual - are the secondary effects of higher level functions. Being accepted into a religious community strengthens our personal identity, frequently leading to feelings of contentment and happiness. Feelings of joy or ecstasy associated with religious expression are the result of practices, developed over millennia, which allow practitioners to achieve altered states of consciousness - related to the search for ways to connect with the supernatural (discussed more fully below).

The functions provided by religion tend not to be stand-alone attributes, but are interrelated, often in complex ways. From an evolutionary perspective, the complex interrelationship between these functions demonstrates that religion and religious behaviors did not have a single cause. Each of these functions also can be provided by other societal institutions and functions. Philosophy, shorn of specific religious trappings and supernatural agents, addresses the great questions of human life. Various meditative practices outside of any formal religious context can provide the practitioner with a sense of connection to a higher plane of existence. Science has been shown to do a much better job than religious beliefs and traditions when it comes to understanding the natural world. However, science fails as a tool when it comes to answering "ultimate questions." Cavanaugh (2007) shows convincingly that many human social systems and philosophies - such as nationalism, communism, rationalism, fascism - can mimic religion in promoting individual or community identity and stability, including the imposition of specific required behaviors. These "-isms", however, fall short when it comes to answering the great

questions or providing methods for interceding/connecting with the divine. Thus, while religion is not necessary for a full and meaningful life, it is the only human institution which provides for all six functions in one set of practices.

Death and Other Ultimate Questions

Why the traits of imagination and symbolic reasoning - the ultimate underpinnings of religious thought - evolved in our species is still a matter of heated discussion between archeologists, anthropologists, neuro-scientists, and sociologists. Certainly the ability to think abstractly, and to communicate complex thoughts would improve group cooperation and transmission of knowledge, and thus aid survival. Imagination, too, would have endowed a survival advantage. Early humans could visualize a future that had not yet come to be, using their knowledge of the world to predict storms, know when the floods came or when the mountain pass would be closed by snow, and know which trees would have ripe fruit in the different seasons. They could also put themselves into the minds of the animals they hunted, reading their tracks to understand their movements. Taken further, early humans' ability to understand the behavior of their peers in terms of their own feelings and motives (termed a "Theory of Mind") allowed for more complex group dynamics and levels of cooperation.

But, visualizing the future doesn't stop with immediate practical applications. Once this ability arose, early peoples could look to the future and project other happenings, including their own deaths. Not that anyone, then or now, can predict the specific timing and circumstances of their demise, but we can imagine a future in which we won't be present. This is apparently a uniquely human trait, and for many it is terrifying.

Psychologists have long known that one of, if not the most fundamental of needs we all have is for identity, to belong and to know that we exist. It's part of our awareness of self: self-awareness = consciousness = identity. Most of us derive this identity from our social groups. I am... and I belong to... are extremely comforting sentiments. We also look to our social interactions to validate our identity. Early people derived their identities through association with their extended families and tribal groups, much the same way we derive ours from family, friends, job, church, clubs, schools, and communities. This is why banishment was, and still is, such an effective punishment amongst tribal groups. If you are banished from the only group that gives you your identity, you became a non-entity. In those traditional cultures that still practice banishment, the usual end result is that the banished individual loses all will to live, and literally curls up and dies.

Another important aspect of self-awareness in ***homo sapiens*** is that everything is personal (aka "it's all about ME")." It is a curious thing about people, with our imaginations and ability to construct questions; we are never satisfied with the answer, "***I don't know."*** We reject the impersonal in the forces acting on our lives. If I get cancer, I want to know why - what specific event or act caused this to happen to me? I don't want to hear that I'm just one of the 3% of the population who statistically will develop this type of cancer sometime in their lives. I'm not a statistic - I'm me! In the absence of evidence we even prefer made-up explanations to the uncertainty posed by an open question.

This personalized world view also leads to "magic thinking." The odds of wining the lottery may be 175,000,000 to one, but I'll go ahead and buy $10.00 worth of tickets because I'm feeling lucky. We believe we are deserving of positive outcomes because we are important. Also, positive outcomes are self-reinforcing; that's what causes gamblers to keep shoving coins into the slot machine, even though they know the odds always favor the house. A negative outcome requires rationalization. I didn't win because: I lost my lucky rabbit's foot; the number combination was for next week's lotto drawing; I'm

being punished for running that stop sign; the ritual wasn't performed correctly and the deity rejected the offering; the stars weren't aligned; bad mojo." Unacceptable answers include: "chance favors no person" and "I am no more worthy than anyone else." Rationalizations for a failed outcome can be endless.

Death is the ultimate loss of identity - the great unknown. At the same time, death was a common experience to early hunting and gathering peoples. The hunter's prey went from vital and struggling one moment to inert the next. And so too it was with people. A person or animal who died never came back again. But, paradoxically, life came from death. When the antelope died it meant that the hunters' family would continue to eat and thrive. Green shoots were seen to spring forth from the ashes of a wild fire. Leaves reappeared on the winter skeletons of trees. Truly, death was a deep mystery and a source of awe and fear. These observations led to the greatest of the Great (or "Ultimate") Questions - ***what happens to us when we die?*** When grandma closed her eyes for the last time, and the warmth left her body, where did her life force go? Her physical body is still here, unchanged, but whatever it was that made her Grandma is gone. What happened to her stories? Her memories? Was grandma only the flesh and bones of the person we knew; or was there something more? Surely these important people just didn't disappear - for if they did, that would mean that we too, in our time, just disappear.

Intentional burials, whether with specific material "offerings" or not, are a sign of deep reflection on the nature of death, and the importance of the deceased in the lives of the group. The few ***Neanderthal*** burials that have been discovered are simple in construction – a few flowers placed in the grave, and traces of ocher suggesting an attempt to put color back into the skin of the corpse. Burials for early ***homo sapiens*** are more elaborate in terms of the careful arrangement of the remains and the variety and sophistication of the objects placed in the grave (hunting tools, jewelery, carved figurines). Clearly, burials are not just a desire to dispose of a corpse. That can be done simply by dragging the body out into the forest or the vedlt and letting nature's efficient recycling services go to work. Instead, our ancestors could imagine their own inevitable futures; how would we want our remains dealt with? There was always the possibility that the life spirit or animating force still resided somewhere within the cold flesh. Did they believe, as some modern cultures do, that consuming certain parts of an animal transfers that animal's abilities or spirit to the eater? The body needed to be kept intact and away from scavengers - just in case. In modern foraging societies, death is not viewed as the cessation of the life spirit, but is usually considered to result in the joining of the deceased's spirit with a body of ancestral spirits who very much still have an existence. It is not unreasonable to imagine that similar belief systems were created by our earliest ancestors to explain, and overcome the fear of death. This is religion at its most basic. Answering the question of death in a positive way may have been a psychological necessity once we were forced to confront our own mortality.

Pondering the nature of death and the possibility of an afterlife reached a pinnacle in the kingdoms of ancient Egypt where even the poorest peasants focused their lives' work on funerary arrangements. Even in our modern age, thoughts of death, resurrection, and the nature of the afterlife lie at the heart of major and minor faith traditions. Often religion is looked to to validate a person's existence as an imortal being – provided, of course, that one follows the rules.

Besides death, other great questions also occupied our ancestors' minds. Where does my life spirit come from? Why am I here, and is there a purpose to life? Why do bad things happen to good people (and vice versa)? An ultimate question is one which cannot be answered by factual, objective information; by observation or testing. Answers to ultimate questions thus become matters of faith.

Of course, there can be multiple answers to each ultimate question; some of which are very unsatisfying: What happens when we die? **Nothing - we just come to an end.** What is the purpose of life? **There isn't any.** Why am I here? **No particular reason, just chance.** For many this set of answers is fearful

stuff in that it denies our need to feel significant. Religion exists (in part) to provide acceptable answers to these questions, to calm the fears of the unknown and unknowable. We want to believe that we matter. We want to believe that "someone" is in charge, someone who holds the answers to these questions, someone who won't let the flame go out when we die.

Interceding with the Supernatural

Early people, seated at night around a fire, were convinced that there were supernatural forces that controlled the natural world. How else could the sun set, the moon rise day after day with no visible agents involved? Why did some clouds produce rain and others not? What made the lightning and the frightening thunder, and caused the return of life to the trees after the winter's cold? Some natural phenomena are regular and predictable (e.g., sunrise, the phases of the moon, the change of seasons); others are sporadic and even threatening (e.g., earthquakes, tornados, floods, wildfires). Lightning was known for its power to kill, and the thunder was terrifying; but lightning also gave fire. Fire gave people greater control over the world in which they lived, and as a result, lives became safer, longer and more comfortable. Thus, the spirit behind the lightning was at once both fearsome and benevolent. However, control of fire required very specific actions; constant feeding, and protection from the rain. If it went out, a major effort was required to rekindle it. The fire "spirit" needed to be coaxed and appeased in specific ways. Being able to control fire would have resulted in search for control over other aspects of nature as well. The apparent capriciousness of nature must have struck a resonant chord with our ancestors. Regularity, broken by short, sporadic bursts of anger, was characteristic of a basic human temperament. It was easier to understand the vagaries of the natural world if it was assumed that these controlling forces - or "spirits" - were imbued with human characteristics (including our own foibles). People sought ways to intercede with the different "humanized" aspects of the supernatural.

Why would we think that appeasement of, or a connection with these forces would be possible? As noted by astronomer, Carl Sagan, in one of his Gifford Lectures, presented in 1985 (Sagan, 2006, pp 177-178):

> "***We all grow up in the land of giants when we are very small and the adults are very large. And then, through a set of slow stages, we grow up, and we become one of the adults. But still within us, surely, is some part of our childhood that hasn't disappeared and hasn't grown up. It's just there. In your formative years, you then learn from direct experience, absolutely incontrovertibly, that there are much larger, much older, much wiser, and much more powerful creatures in the universe than you. And your strongest emotional bonds are to them. And, among other things, they are sometimes angry with you and then you have to work through the anger. And they ask you to do things that you may not want to do, and you must propitiate them, you must apologize, you must do a set of things. Now, how likely is it that after we are all grown up we've fully detached ourselves from this formative experience? Isn't it much more likely that there remains a part of us that is still in the practice of this kind of childhood dealing with parents and other adults? Could that have something to do with prayer specifically and with religious beliefs in general?"***

Once our ancestors did the very human thing of assigning personalities to the forces controlling the natural world (and this is the form of religious consciousness of all current groups of First Peoples), then it was a minor step to consider these powers larger than our own to be like the adults when we were children. It made these forces easier to comprehend and to deal with. They set expectations for our behavior, and had rules which we needed to learn. They were given to occasional outbursts of anger

when we transgressed, and we needed to appease them and ask forgiveness.

According to the BaMbuti People (a.k.a., Pygmies) of the central African Ituri rain forest:

> "***the forest is a father and mother to us, and like a father or mother, it gives us everything we need - food, clothing, shelter, warmth... and affection. Normally, everything goes well, because the forest is good to its children, but when things go wrong there must be a reason...***"
>
> "...***Normally everything goes well in our world. But at night when we are sleeping, sometimes things go wrong, because we are not awake to stop them from going wrong. Army ants invade the camp; leopards may come in and steal a hunting dog or even a child. If we were awake, these things would not happen. So, when something big goes wrong, like illness, or bad hunting, or death, it must be that the forest is sleeping and not looking after its children. So, what do we do? We wake it up. We wake it up by singing to it, and we do this because we want it to awaken happy. Then everything will be well and good again. So, when our world is going well, then we also sing to the forest because we want it to share our happiness.***" (Turnbull, 1961).

Some adults embrace us with unconditional love, and others only conditionally. We had to learn how to navigate this world that we could not fully comprehend. Communication between children and adults is pretty straight forward - after all, they share language if not meaning. Communicating or connecting with an unseen spirit or force - regardless of how human-like we imagine it to be - is more of a challenge. We don't know if we share either language or meaning. This challenge confronts most religions today as much as it did our ancient ancestors.

In addition to the capacity for abstract thought and imagination in personalizing the forces of nature, the modern human brain is capable of generating transcendental experiences. When adaptationists talk about religious beliefs and practices, they are usually referring to the observed human ability to achieve a transcendental state of mind through the mechanisms of trance, psychoactive substances, deep meditation (including prayer), rhythmic patterns (e.g., drumming), or strenuous physical movement (e.g., dance), or some combination. Does the ability to enter a trance state convey a survival advantage, or does it arise simply from the nature of our neuro architecture? Reflect that without the protection of family and friends, someone entering a trance is an easy dinner for the local predator.

Four association areas of the brain which evolved for fuller perception of the world are involved in experiencing the transcendental - some by being activated, some by being diminished or shut down. When we have balanced perception, the brain centers work in concert. During religious "experiences", the brain centers become unbalanced, with the specific form of the imbalance determining the nature of the experience (Newburg, et al., 2001). It is also interesting to note that the brain centers most involved in feelings of transcendence are those associated with sexual arousal and response.

Newburg et al. (2001) have shown that part of our sense of identity is the physical knowledge our brains hold of our body's position in space. This is the ability to know where "we" end and the rest of the universe begins. This sense of physical orientation is controlled by the superior posterior parietal region of the brain. Measurements of brain activity during deep meditation or trance states show diminished activity in this area. In deep meditation the distinction between self and everything else is reduced, often being reported as a "oneness with God," or a connection with one's true self, or being "at one with the universe". Transcendental experiences are interpreted differently by the individuals experiencing them; they become whatever a person's memories, cultural background, belief systems and wishes dictate. A Buddhist monk, returning from a deep meditative trance might report having "become at one with the

Cosmic All." Roman Catholic nuns describe a physical "joining with Jesus" during deep meditative prayer.

Other brain areas also give rise to religious feelings. The temporal lobe is associated with verbal and abstract conceptualization. Studies of individuals with temporal lobe epilepsy (TLE) have shown that stimulation of this part of the brain can give the TLE patient what has been described as a "religious experience". Individuals with TLE also have a heightened response to religious language and icons. Ellen White, who's ecstatic visions gave rise to the Seventh Day Adventist movement, was, in all likelihood, the victim of Temporal Lobe Epilepsy caused by a traumatic head injury during her youth (Hodder and Holmes, 1981).

There are a number of methods by which brain centers can be either stimulated or suppressed. Various psychoactive drugs have been used for millennia to help shamen and healers to achieve a trance state. It is also possible that the alterations to brain chemistry from prolonged fasting will have a similar effect. The temporal lobe can also be stimulated with low frequency magnetic fields, resulting in sensations characterized as religious feelings in up to 80% of the non-epileptic subjects tested. Buddhist monks utilize quiet and deep meditation to reach a transcendental state. In many cultures, rhythmic dancing, or even swaying side-to-side, can convey a limited feeling of connection with the divine to participants. The Shakers of 19th Century America, the Garifuna of Central America, and the Sufi dervishes are examples of cultural groups which use rhythmic movement to alter brain states and achieve a transcendent state of mind.

As with modern First Peoples, when early humans became ill - not knowing anything about germ theory – they would assume that malevolent spirits had entered their bodies. In traditional, earth-centered religions, the shaman or holy woman channel for, or hold a direct personal link to these supernatural spirits. Healers in a Zhu/twasi family group connect with the spirit realm by means of vigorous, rhythmic dance, possibly aided by smoke inhalation. It is in this trance state that healers say they enter the spirit realm where they can deal directly – interceding or challenging – on behalf of the sick individual. A tribe's healer does battle with the evil spirit in an attempt to drive it from the victim's body. Treatment takes many forms depending on the diagnosis and the traditions followed by each healer. In addition, healing might take the form of the laying on of hands, muttered incantations, or the use of dance or psychoactive botanicals (e.g., the peyote ceremonies of the Kiowa and other Native Americans) to induce trances in an effort to channel/communicate with the spirits. Healers would also apply herbs and potions - some of which actually had a beneficial pharmacological effect. The mystical knowledge and rituals in these types of cultures are passed along in each generation from the holder of the knowledge to an apprentice.

The one condition that could not be cured, of course, was death. Death was permanent. The light that went out in the old man's eyes could not be re-kindled by any effort. The body remained as complete as it was in life, but cooled slowly. What force was it that kept the body warm, that gave energy to its actions? There must be something, some invisible force or spirit, that animates us and makes us who we are. Answers came from trance-state visions. "Grandma's life force still dwells "somewhere" because I've felt that place." Ritual and myth helped to reinforce these feelings by providing fleeting glimpses of this transcendence. Just as the rocks, trees, waters and winds were thought to be animated by spirits, so too was each person assigned a personal spirit. This was the beginning of "dualism", the concept of a soul separate from the physical body. The ritualistic burials of early homo sapiens, with anointed corpses, flowers, tools, jewelry, and more are proof not only of deep thoughts about the meaning of death, but also of attempts to influence the forces associated with death. These were religious rituals. In addition to direct contact with the spirit world, some religions, both ancient and current use art as a tool

to represent the spirits that control important aspects of nature (e.g., ancient cave and rock art, Native American sand painting, Tibetan Mandalas).

The concept of disease being caused by supernatural entities, that is, "evil spirits", lasted well into the 19th Century in the industrialized world (and is still prevalent in many parts of the world). In each case, the nature of the spirit cause of disease is determined by a community's religious traditions. Westernized societies, even with public recognition of the advances in modern medicine, are not far removed from earlier superstitious beliefs. Americans in growing numbers believe in ghosts and in the healing powers of crystals or homeopathic therapies. Possession of the body by the devil is still a popular theme with Hollywood, and with the public, as evidenced by box office receipts. According to a recent Baylor University survey (Stark, 2008), a majority of Americans (55%) believe strongly in guardian angels. Twenty percent claim to have heard the voice of God directly, and 23% claimed to have witnessed a miraculous physical healing. Political and social conservatives were most likely to report religious or mystical experiences.

One important consequence of the brain's capacity to achieve a transcendental state - even if only partially - is that it confirms for many that the supernatural exists, and that it can be "touched" by those with the right knowledge, training, and/or stimulation. The great mystics of history (Buddha, Jesus, Mohammad, and others), those who were able to achieve the highest level of transcendental state, all concluded that we are one with ALL. "Revealed truths" spoken by charismatic or authoritarian individuals in every age provided answers to each ultimate question, although the answers differed from culture to culture. Revelations coming to specific persons might have been the result of deep meditation, use of psychoactive substances, starvation by fasting, frenetic, rhythmic movement (as in trance dancing), or brain damage/abnormalities (e.g., temporal lobe epilepsy). It is interesting to note that the founders of the world's major religious traditions achieved transcendent states, and had their greatest revelations following periods of prolonged fasting.

Most people, however, neither seek nor want to be one with all things and all people. Such an idea goes against basic human nature - and is, frankly, terrifying. To achieve such a state means loss of self - the greatest innate fear of our species. The "it's about me" attitude is incompatible with the Buddhist goal of "there is no me." Most people would rather hold to a simple belief that there is a personal god, having approachable human characteristics, who will both answer supplications for assistance and act as a threat of punishment if we (or others) behave badly. We impose our identities on the animate and the inanimate around us. Invisible spirits are given human characteristics to make them easier to intercede with (aka "agent detection" in the vernacular of psychologists).

Given the abundance of differing ways to view the divine that have come and gone over the course of human history, it is clear that there is no single Truth. We create "God" or gods according to the dictates, needs, and experiences of the culture in which we live. We are not "hard-wired" to believe in God as some researchers maintain - otherwise there would not be so many people around the world who reject the existence of a deity. Rather, we have the brain circuitry that allows us, under the right circumstances, to feel connected to something larger, and to project our personalities and desires onto this connection.

Does this mean that there is no God? No. The existence or non-existence of a supreme deity is one of the great questions that can't be answered by any tools of logic or observation. Early on in the Judaic tradition the most learned priests held that their god could not be named. This view was driven, not by fear of offending the deity, but by a recognition that the instant one puts a label on the transcendent, it is diminished. The divine, the transcendent, the infinite, the "unknowable unknown", remains outside the human ability to comprehend. Any attempt at comprehension requires consideration within a human frame of reference and symbolism - which immediately makes the infinite finite, and thus incomplete. It

is not even possible to state that the transcendent exists outside of our imaginings and longings. The intellectual recognition that a transcendent deity must be beyond human comprehension is strongly at odds with the idea of a personal god who has human characteristics and is approachable through prayer, sacrifice, or other rituals. Just as most people do not want to have an intense transcendental experience - the total loss of selfness - so too, they look for a god or spirit who is accessible and is interested in their well-being.

Explaining the Natural World

The lives of early peoples were dominated by natural forces. Rainfall meant life or death. The changing seasons were marked not only by changes in the length of a day, but also by changes in temperature, by migrations of the great herds, and the ripening of fruit and grains in the places where they were found. The patterns of the seasons were marked by the movements of the sun, the moon and the stars. Much of nature followed predictable rhythmic patterns - but not all. Natural disasters: floods, droughts, storms, earthquakes, volcanoes, came without warning and could have dire consequences for the family group. Natural cycles also brought the great mysteries of birth, death, and sickness.

Humans' highly evolved ability to perceive and imagine the world around them provided a distinct survival advantage. However, it also resulted in a compulsion to explain why everything is the way it is. Curiosity gives rise to both scientific exploration, and religious reasoning (myth making). When data are available, logic provides a cause and effect explanation. When data are lacking, incomplete, or equivocal, we still want answers - and this leads to speculation, to the projection of human characteristics and interests, resulting in beliefs [a belief is something held to be factual/true in the absence of evidence].

In 17th Century Europe, the method of acquiring knowledge we now call Science came into being. In part, this new way of looking at the world was a consequence of the Protestant Reformation which demonstrated the fallibility of religious authority. Scientific investigation was also spurred on by the acceleration of international trade, exploration, and conquest. These forces drove advances in: mathematics, astronomy, and chronometry for navigation; optics; material science for new trade goods and better tools; mining; and industrial processes. Increasing knowledge of how the world works became the underpinning of a new socio-economic system that continues to this day.

The scientific method initially was based on what were inherently religious premises -

- God is rational, not capricious;
- nature (God's creation) operates by a fixed set of unvarying principles which can be studied and understood; and
- all natural phenomena have a cause which can be deduced logically from the processes of the natural world.

Mathematics became the key to understanding nature, and the most powerful demonstration of the age was Newton's ability to predict precisely the motions of the planets.

The results of the scientific revolution are obvious. Every major technological innovation and convenience we take for granted in our daily lives is the result of the scientific exploration of the

universe around us following a structured process of asking questions, prediction, testing, observation, and validation. However, despite the fact that our modern lives depend on it, Rationalism, the idea that the universe can be studied and explained by the methods of science, has never really caught on with the majority of humans. Most people see natural events as somehow personal, and purposeful. Showing that natural phenomena have natural causes is a demonstration that God is not directly involved. This comes too close to saying "you can't have a personal god." People want to believe that they can influence events in their lives by supplication to a supernatural power. Rationalism places responsibility for our actions (and their consequences) back on the individual. There is no appeal (in either sense of the word).

When explanations of the natural world become interwoven with, and integral to, answers for the great questions, or the nature of the divine, then conflicts arise. Various faith traditions have given physical dimensions to deities, mythical events, and promised end times which are unsupportable by scientific investigation. If one aspect of a belief system is called into question - or is negated by scientific observation - then it can call into question the entire belief system. *If the Garden of Eden did not exist, then the story of original sin is just that, a story. And if original sin is a fiction, how can there be salvation? And without salvation, how can there be eternal life?* Once one part of a mythic tradition collapses, the entire fabric of belief can unravel - unless reinforced by other rationalizations. Belief in a personal, involved deity is so satisfying, so essential, that it's worth promoting erroneous arguments against science and the knowledge of the natural world that science brings. Belief in a personal god negates any motivation for people to become scientifically literate.

Evolutionary biologist, Stephen J. Gould, proposed that science and religion constituted separate and separable ways of knowing - "non-overlapping magisteria". In this conception, the two approaches to knowledge need never be in conflict as they address different areas of human inquiry. The reality is very different than this ideal. It is significant that at the start of the 21st Century nearly 90% of Americans profess a belief in a god, and 50% don't know that the Earth revolves around the sun and takes one year to complete a circuit (Scientific American, 2007). According to a 2001 survey by the National Academy of Science, nearly 70% of Americans do not understand the basics of the scientific method; and fully 54% said that their knowledge of the development of life on Earth "came from religious teaching." In 2004, the National Science Foundation reported that the public's knowledge of science in the United States is not improving. Survey respondents' ability to answer most questions about science has remained essentially unchanged since the 1990s, with one exception: more people now know that antibiotics do not kill viruses. Conversely, belief in pseudoscience - astrology, extra sensory perception, crystal healing, and alien encounters - is on the rise.

Science brings clarity and increasingly certain understandings. But it also brings ambiguity and recognition of uncertainty – scientific explanations are always tentative. For someone who seeks absolutes, science can be unnerving. Science exposes the complexity of the world around us, anathema to those who want only simple answers.

Not every faith tradition is threatened by the methods and understandings of the natural world provided by science. In his 2005 book, The Universe in a Single Atom, the Dalai Lama states: ***"If scientific analysis were conclusively to demonstrate certain claims in Buddhism to be false, then we must accept the findings of science and abandon those claims," he writes. No one who wants to understand the world "can ignore the basic insights of theories as key as evolution, relativity and quantum mechanics."***

In the Christian world, no lesser figure than Dr. Martin Luther King Jr. (1981) noted: ***Softmindedness often invades religion. ... Softminded persons have revised the Beautitudes to read "Blessed are the pure in ignorance: for they shall see God." This has led to a widespread belief that there is a conflict***

between science and religion. But this is not true. There may be a conflict between softminded religionists and toughminded scientists, but not between science and religion. ... Science investigates; religion interprets. Science gives humankind knowledge which is power; religion gives humankind wisdom which is control. Science deals mainly with facts; religion deals mainly with values. The two are not rivals. They are complementary."

Rules for Moral Behavior

All social species have behaviors that promote the stability and security of the immediate group, be it herd, troop, or tribe. These behaviors include dominance hierarchies, mating preferences, access to specific foods, defensive response to external threats, and leadership of group movements. These behaviors appear mostly to be "hard wired" into individuals, although in certain primates more complex social behaviors (e.g., cooperation, compassion, trust) are at least partly learned. In some of our closest relatives we have observations of food sharing, use of simple tools to improve food supply and quality, and various coercive measures to reduce male aggression (e.g., by female bonobos). A key element of complex cooperative strategies is the ability to put oneself into the mind of another. Psychologists call this ability to understand what someone else is feeling a "Theory of Mind." Modern human children begin to develop this ability around age 2, but it isn't fully developed until age 8. Our primate cousins, the chimpanzees, bonobos, and baboons have at least a rudimentary form of this characteristic.

Homo neanderthalensis apparently cared for elderly and injured individuals, and buried their dead with great respect (Tattersall, 1995). Neanderthal remains show a high frequency of fractures (ribs, spine, fibula, skull) possibly due to the highly physical and aggressive hunting strategies they employed. Often the bone fractures are healed and show little sign of infection, suggesting that the injured individuals were cared for until they recovered. Clearly, moral behavior was in place long before our species arrived on the scene.

Like religion, moral behavior can be difficult to define in a way that all would agree. Morality and moral conduct are typically defined in terms of right and wrong behaviors, but always within the context of a social group. In a religious context, actions are sometimes referred to as good and evil. These terms have meaning only in a human framework, and cannot legitimately be ascribed to other social species, or to nature at large. Hurricanes, as much as they may cause us harm, are not evil, although many peoples, ancient and modern would term destructive natural events the work of evil spirits or angry deities. Often, morality means a code of conduct held to be authoritative, whether by society, philosophy, religion, or individual conscience. According to this view, moral behavior is not absolute, but arises in response to cultural norms and expectations. Every human culture for the past 75,000+ years has had to figure out how to balance the needs of the group with the selfish desires of individual group members, creating the "Social Contract" (Ardrey, 1970). There is constant tension between the desire of the individual for personal benefit and gratification, and the group for cohesion and stability. This social contract has necessitated the development of complex social rules to govern complex, non-"hard-wired" behaviors. To this end, every human culture has developed rules for proper behavior - within that culture. An example of the lack of a universal moral code is the 2011 decision by a number of western and Arab nations to impose a "no-fly zone" over Libya. Most (not all) countries gave at least lip service to a condemnation of Colonel Moamar Qaddafi's violence against his own people. Some countries were willing to allow an act of genocide occur for reasons that ranged from a belief that military force should never be used against another country, to a fear of being involved in an unending conflict in a failed state.

What were the forces driving the development of human moral behavior? When did morality arise

among the hominids? The invention of new rules for enhanced cooperation within human groups would have paralleled increases in brain size. Larger brains meant more difficult labor and delivery, with the young being born less mature. This in turn led to a longer childhood requiring adult nurturing and protection, and the teaching of complex social "rules". The trend toward larger brains began with ***homo erectus***. We know that ***homo erectus*** lived in groups in many different climatic zones, made and used stone tools, probably hunted small game (as well as scavenging the kills of other animals), and eventually learned how to control fire. This implies a complexity of social organization beyond all present day non-human primates.

The ability for symbolic thought and speech, the control of fire, and the invention of carrying devices (skin bags, woven reeds/grasses, even large leaves) allowed early humans to create new forms of subsistence based on a centralized "camp" and foraging parties. Anthropologist, Richard Borsay Lee (1979) proposed the concept of "***resource exchange"*** as the basis behind much of modern human moral behavior. When we look at other primate species we note that individuals act largely in their own self-interest when it comes to the daily activities of food gathering and consumption. Food items are consumed on the spot, and sharing is limited by constraints of culture and physical abilities. Human foraging groups, however, operate on a totally different model. Individuals go out daily to gather plant foods or to hunt and, while some food may be consumed on the spot, most is collected and brought back to central camp where it is shared out in an equitable fashion among all group members. These new forms of subsistence made it possible to give extended care to the young, the elderly, and the infirm.

Homo sapiens have been able to dominate the planet, and to live and thrive in more environments than any other higher plant or animal species (bacteria are at home in more places across the globe than humans). This is because we evolved the ability to work together in small social groups for the common benefit, which in turn promoted the development of new technologies (fire, clothing, complex tools, dwellings, domestication of plants and animals). In humans, imagination allows us to predict multiple outcomes for any specific action. Individual humans, in seeking to maximize personal gratification or status, exercise a much broader range of actions matched to varied social situations than members of other hominid species. This range of intentional actions is what philosophers and theologians would term "free will".

These remarkable adaptations had a number of positive consequences for our species (and probably for ancestral human species as well). The development of an exchange economy paved the way for more and more complex societies and methods of subsistence. These complexities in turn drove the development of equally complex rules of behavior to retain the cohesion of the basic human group. Our closest relatives amongst the primates (chimps, bonobos, baboons, gorillas) live in relatively small groups. Baboon troops of up to 150 individuals have been observed, although most primate groups rarely exceed 50 individuals. Clearly, cultural factors have supplanted the limitations of our biology. Humans, on the other hand, have created extraordinarily large cooperative groups. Hill, et al. (2011) identify several distinctive features of human societies versus the other primates:

- human groups are always part of nested structures of alliances; most primate societies are are independent, single-group structures.
- nearly all human groups are communities of families formed by monogamous partners, a pattern not seen in other primates.
- in most primates, either the males or females move as adolescents into new groups; brothers and sisters stop interacting around puberty. In humans, strong familial ties between siblings are life-long.

- bonobos and chimps are sexually promiscuous, and patrilineal kin do not recognize each other.
- The human family group required to nurture children over an extensive time period led to enduring associations between mothers and fathers. Children not only knew who their fathers are, they also know their father's relatives. Humans maintain preferential bonds with their in-laws.

Thus, humans have created a nested set of genealogical groups. As young males and females moved into other human groups, they carried these family ties with them, extending the bonds of kinship and alleviating inter-group conflicts.

Norenzayan and Shariff (2008) note:

"Cultural evolution, driven by between-group competition for resources and habitats, has favored large groups. However, large groups, which until recently lacked institutionalized social-monitoring mechanisms, are vulnerable to collapse because of high rates of freeloading (Gintis, et al., 2003). If unwavering and pervasive belief in moralizing gods buffered against such freeloading, then belief in such gods should be more likely in in larger human groups where the threat of freeloading is most acute."

We can't know the specific social rules our remote ancestors lived by, or when they first came into existence. We can, however, get a hint of the diversity of moral and ethical systems that must have existed around the world by looking at today's foraging peoples.The small hunter-gatherer bands of Zhu/twasi of the Kalahari Desert region have a well developed cosmology and set of beliefs, but their approach to setting rules of conduct for individuals and the group is based on practical reality, not divine edict. When asked about where their rules of behavior come from, a member of the group will answer that, "it's custom", or "that is the way it has always been done." There is little concept of ownership amongst these desert dwellers as we think of the term in western cultures. Being nomads who carry on their backs all their worldly possessions, the Zhu/twasi do not have a sense of private property - of "mine vs. yours." Handcrafted items are exchanged freely and with regularity - this open exchange being an important component in cementing cooperation among members of a group and between groups. A group that inhabits a particular range consists of a family core, the k"ausi, that belong to that particular territory. This type of ownership is hereditary. If one Zhu/twasi group enters the resource area of another group, custom dictates that they ask permission to gather food or, especially, water. Permission is almost never refused because of kin ties, but reciprocity is expected. Family decisions are based on consensus, and more weight is given to experience and wisdom than to gender when making a decision. Both men and women can be healers, going into trances to enter the spirit world where they seek to drive out the source of affliction in a group member taken ill. Women have the principle role in rearing young children, but fathers display great affection for their offspring, playing with them and lavishing them with physical attention. Acts of violence (e.g., murder, rape) between group members, while not unheard of, are rare. The extended family group uses shame and ridicule to keep individuals from acting in a selfish manner.

Aboriginal Australians tend toward patrilocal (male dominated) societies. Their moral system is based on their intimate link to the natural world which supplies all their needs. Daily life for the aborigines is a continuation of their creation story. In the remote past, during a period which has been translated into western languages as "The Dreamtime", the spirit ancestors caused the world to come into being and, as these ancestral spirits moved over the face of the Earth they "sang" into existence all of the natural features we see around us today - the rocks, hills, lakes, rivers, plants, animals, and people. When the

time of creation was complete, the spirits merged with the natural forms they created, and dwell there still. From these stories the aborigines have assumed the obligation to respect and care for the natural world as they respect and care for each other. In the words of Jim Barripang custodian of the Golpa Tribe's territory and traditions (Voight and Drury, 1998):

"***Aborigine can't make law. It come from long time ago; from the First Time. It can never change; always the same. Our culture can never change, our Law can never change. Only people can change. They born... they die. But the law stays the same. Each person is responsible for Law; for culture."***

Sometimes rules of behavior are ascribed to the gods and set out in myths; sometimes they are the edicts of rulers and priestesses; sometimes the origins of any given rule may be lost to memory. Many authoritarian religions impose specific rules of conduct on their followers. These include: the Shariya (Law) in Islam; the "Laws of Moses" in conservative Judaism and Christianity; Papal decrees for modern Catholics; or revelations of the President of the Church of Latter Day Saints. Tradition and belief hold that these rules are handed down by God through the agency of one or more prophets/ authorities. Along with the imposed rules comes the implied or explicit threat of punishment for disobedience. Sometimes this punishment is meted out immediately by religious authorities; at other times the punishment is deferred to an *afterlife*, and sometimes a major calamity (e.g., a hurricane) is claimed to be punishment for either individual or group transgressions. Other religions and traditions set more generalized expectations for behavior (e.g., "the Way" of Confucianism) and leave it up to individual adherents to find their own moral path and balance within the context of their social group or community.

Bering (2006) reports on a study of college undergraduates. Three groups of students were told that they would be taking a computerized test of spatial intelligence. They were also told that, due to a glitch in the computer program, the correct answer to a question might randomly appear on the screen. If this happened, students were asked to press the space bar immediately to clear the screen. In addition, one group was told a story about a graduate student involved in the study who had died suddenly, and who's ghost had been seen in the testing room. A second group was given a simple memorial statement about the grad student; while the third group was not told anything. In the test, students who were told the ghost story pressed the space bar significantly faster than students in the other groups. Similar tests with people of all ages document that if people <u>believe</u> they are being watched, they will be less likely to cheat on a task.. Even a picture of a pair of eyes placed in a room is enough to act as a deterrent to cheating – and the eyes don't even have to be human.

The benefit that belief in an involved deity brings in curbing individuals' natural inclination to cheat or freeload, can easily turn negative. It's a small step from the belief that "God will punish me if I do wrong" to "if I do no wrong, God will not punish me." The problem with this apparently minor semantic change is that if misfortune does occur, it is taken as a sign that someone has done some unknown wrong. The Biblical Old Testament is replete with stories rationalizing the recurring conquests and defeats of the Hebrews as a failure to have lived up to the expectations of their God.

Neuropsychologist, James W. Prescott (1975) examined attributes related to violence in 49 traditional cultures as well as 20th Century Americans. He found that societies which give their infants the greatest amount of physical affection, and those which accept or tolerate premarital sexual freedom for young people have less theft and violence among adults. Cultures which inflict pain on infants and condemn premarital and extramarital sex are much more likely to: practice slavery, polygyny, and wife purchase; experience interpersonal violence (including rape); demean women; substitute drugs and alcohol for sexual pleasure; and believe that pain helps build strong moral character. Rigid values of monogamy,

chastity, and virginity strongly correlate with high levels of physical violence in a society. Cultures practicing physical affection tend to have more open and accepting religious beliefs. Cultures which engage in regular physical punishment of children and shun physical affection between adults are much more likely to worship an angry, punishing deity. Social networks researcher, Jaime Settle, and colleagues at the University of California at San Diego, found that American teens with a variant of a dopamine receptor gene, known as *DRD4-R7*, were significantly more likely than others to describe themselves as "liberal" (2010). This gene variant has been associated with novelty seeking and liberals are viewed as being more progressive and more receptive to new ideas. A critical mediating factor in this tendency, however, was the number of friends a teen reported – loners were more likely to be politically conservative than their novelty seeking peers. Thus, there is a suggestion that moral world views may have at least a small genetic component.

In the end, however, all moral codes ever spoken or written have come from the minds and hands of human beings. Regardless of the divine inspiration we may choose to assign to any set of moral principles, we make up the rules our society needs for any set of circumstances. Through play and exploration, our young learn aspects of moral behavior. Another way we learn is to watch the behaviors of the adults in our lives, following the adage, "actions speak louder than words."

In a modern, pluralistic society it is possible to have multiple moral viewpoints and behaviors - all valid. There is often broad latitude in interpretation of the rules and their applicability to meet the expectations of the culture within which the religious community resides. A set of rules that are valid and necessary in one age may become unwieldy or inappropriate as a society and its composition changes. This means that our specific moral codes will change over time as the nature and complexity of our social organizations changes. For examples of the evolution of moral systems and modern religions from earlier traditions, see The Great Transformation by Karen Armstrong (2006). Our globe-girdling communication and economic entanglements bring challenges to modern human societies that were wholly unanticipated just two decades ago. Modern technology which brings us cyber-warfare, identity theft, genetic modification of food, genome mapping and gene therapy requires that we constantly come up with new rules and means of enforcement that our species is not well prepared to do.

A further definition of morality goes beyond the pragmatic and refers to an idealized code of conduct, one which would be embraced in preference to alternatives by all rational people. However, people rarely behave rationally, at least not for very long, nor have we ever been able to escape our cultural imprinting. Interestingly, all the world's major religions of the present day promote a consistent moral doctrine. We know this doctrine as ***The Golden Rule*** - "what you don't want others to do to you, don't do to them." As the great Rabbi Hillel, a contemporary of Jesus of Nazareth, noted: "This is the entire Law, all the rest is commentary." The Golden Rule neither prescribes nor proscribes specific actions. Rather, it calls upon individuals to understand how their actions affect others, and to determine how best to work for the good of the group. The Golden Rule calls for respect, not fear, of others and for the ways they meet common human needs and aspirations. This ideal moral doctrine, while easy to state, has proven incredibly difficult for any society to implement. Unlike every day moral systems, the Golden Rule must be embraced by each individual as an inherently right form of behavior; it cannot be imposed or coerced by outside authority. While the Golden Rule admonishes us not to fear others, our basic human nature drives a fear response to people who are not part of our kin group. Often, adherence to the explicit rules of a faith tradition conflicts with actions that would be expected under the Golden Rule in the world of diverse cultures and traditions.

Identity - Individual and Group

The section on the great questions demonstrated the psychological need of all humans for an express identity. In early foraging societies, this identity was provided by the social group, the extended family, the tribe. The world for an individual in these groups was greatly proscribed – the hills and valleys, or a strip of coastline within 5 or 6 days' walk, and only those closely related groups of people who inhabited them. Maintaining a tightly knit group has a strong evolutionary basis. Individuals are more likely to behave altruistically toward those with whom they have the closest ties, thus protecting a common gene pool. The greater the difference of one group from another in terms of behaviors and physical appearance, the more these "others" are perceived as a threat. For our ancestors, strangers could destabilize the close-knit group structure. They represented competition for the group's food and water resources. They might also be perceived as being a potential threat to physical safety. Close kin groups, those with whom mates were exchanged on a regular basis, represented very little threat, and could even be called upon for aid in times of need (drought, famine, conflict). Language, customs, body adornment (tattoos, jewelery), clothing style, hair style, all served to distinguish friend from foe. Someone outside the kin group who spoke differently, had different physical features, wore different ornaments and dress, or worshiped different deities, was a competitor for food or mates. The simple expedient was to chase such strangers away, or even kill them. This is the way ***homo sapiens*** behaved for 95% of our history.

In ancient cultures there was no distinction made between religious identity and social group identity, because there would be a uniformity of beliefs across the local community or group. Whatever the stories, the legends, the questions and explanations, and beliefs of the family group, they filled out the world view of each group member and became woven into their sense of self. Nor did early humans have alternative social groups to give them identity, as we do today. Shared rituals, dress/ornaments, incantations, and stories (myths) strongly supported both individual and group identity. "I am a member of the Bear Clan." "We are the children of the Mother Goddess." The shaman - or intercessor with the spirit world - served all equally.

Personal identity is an individual phenomenon, just as group identity is limited to the group. As groups get larger, they split, often subtly, into multiple groups. These groups may share broad traits (beliefs, rituals, dress) in common, but develop their own unique "local" identity by which members identify and interact with each other. Norenzayan and Shariff (2008) in their overview of the origin and evolution of religious prosociality, comment that "stricter" religious sects tend to have higher levels of attendance and greater monetary contributions (even if followers have lower incomes) than less strict sects. They also quote from one study of religious and secular communes in 19th Century America. The religious communes studied imposed twice as many costly requirements on their members (in social terms) than secular ones. These requirements included: food taboos and fasts, and constraints on material possessions, marriage, sex, and contact with the outside world. In short, religious communes required that their members derive their individual identities solely from membership in the commune. The religious communes tended to have significantly greater longevity, regardless of religious or philosophical doctrine, than the secular ones. While the results of this study show only correlation, not causality, they are highly suggestive of the power of identity as a "glue" for holding groups together. Stark (2008), in his survey of religion in America, found that "strict churches that require members to live according to certain moral rules are popular because their members are more committed to the church's success." Members of strict churches (bans on pornography, abortion, and premarital sex) report better attendance, more tithing, and more friends from within the congregation. Willing acceptance of these strict rules had to with more than just the social contract between the group and each member. If you have one dominant source for your personal identity, you will hold a strong allegiance to that group, regardless of the demands made on you. If you have two or more groups to feed your

personal identity, then you are more likely to move your allegiance to the group(s) whose social contract is more favorable to you as an individual.

People can also be drawn together if their chosen beliefs and ritual practices are at odds with the larger community they live in and they are viewed discriminatorily. European Jews, following the Roman period and the final destruction of their temple in Jerusalem, were singled out for abuse by both secular and religious authorities because they refused to give up or modify their rituals and beliefs. By holding to these beliefs and practices, the Jews were able to retain a strong sense of group and individual identity in spite of various pogroms over the centuries that sought their extermination. Because of this strong sense of identity, Judaism today remains one of the world's great religions. Native American peoples have also sought recently to reclaim the belief systems and practices of their ancestors as a way of establishing a unique identity within modern 21st Century American society.

Ritual is a powerful tool for maintaining social cohesion and stability, and for promoting a strong group identity. Groups with highly ritualized practices (churches, the military, fraternal organizations) generate considerable loyalty among their adherents. For the better part of a century, American public school children have been required to recite the Pledge to the Flag daily under the assumption that this will inspire loyalty to the country. In early Christian churches, only members who had undergone the long period of indoctrination and exorcism leading to baptism could partake of the Eucharist meal or enter Paradise (Brock and Parker, 2008).

Ritual practices have also been used to exclude outsiders, those who have not been initiated, reinforcing our innate xenophobia, the fear of people who are somehow different from "us". Seventy millennia ago, being able to distinguish between group members and outsiders was highly advantageous as it protected a specific set of genetic characteristics and a finite set of physical resources. However, in an age of global trade and the ability to wage global war with weapons of mass destruction, this tendency toward xenophobia is not only counterproductive, it's downright dangerous. Humans have come up with some remarkable systems for controlling behavior so that we can live and work together in large communities (religion being one example) - but we haven't yet left our basic primate natures behind.

In modern times, the shared identity provided by religious affiliation is one of the strongest forces in peoples' lives. Individuals identify with the rituals of communal prayer, meditation, fasting, pilgrimages, liturgical music and art, and the reciting of sacred texts. Prayer, not only in church services, but before civic meetings, or at the dinner table, also serves to strengthen group identity – a statement that "we share the same beliefs and words." Conversely, religious rituals can also promote xenophobia, especially when they promote and reinforce the "us vs. them" mentality. The more a faith tradition defines and clings to a rigid and authoritarian doctrine, then the more other faith traditions - with different doctrines and beliefs - are viewed as threatening. How can one be assured of having the absolute truth if you have to acknowledge the existence (and possible validity) of competing truths?

For centuries, the Catholic Church enforced a rigid adherence to orthodoxy and absolute authority of pope and priesthood. Executions of "heretics", defined as anyone who held theological views different than the entrenched leadership, were commonplace. Even when the Crusades introduced Europe to the Islamic world, and when trade with distant lands brought travelers into contact with "exotic" belief systems, the Christian church authoritatively declared these beliefs to be false. In 1455, Pope Nicholas V issued a Papal Bull, ***Romanus Pontifex***, which gave to King Alphonso V of Portugal the right "to invade, search out capture, vanquish, and subdue all Saracens and pagans whatsoever, and other enemies of Christ wheresoever placed" and to take "all movable and immovable goods whatsoever held and possessed by them and to reduce their persons to perpetual slavery, and to apply and appropriate to himself and his successors... and to convert them to his and their use and profit."

It was only in the mid-1500s C.E., when members of the clergy themselves became incensed with the secular excesses of the church, that centralized church authority was finally broken. However, the Protestant Reformation served only to replace one authoritarian system with multiple ones, each seeking to control the beliefs and actions of a devoted group of followers and to denigrate non-Christians.

Some cultures chose a path other than proselytization. In the 15th Century C. E., the Chinese Ming Dynasty launched seven voyages of trade and exploration under Admiral Zheng He with the goal of establishing trade with and cataloging the diverse cultures around the Indian Ocean and the southern Pacific (Viviano, 2005). Following these encounters, the Ming imperial courts chose to take their land into isolation, and most records of these voyages were destroyed as the empire fell into decline. The Chinese cultural identity was preserved by closing off contact with the outside world.

Given the plethora of religious traditions, beliefs, and practices that have occurred across the globe over the breadth of human history, it is clear that there has never been one singular Right Way or Truth. Each culture has defined for itself what is meaningful, and the people of that culture have established their personal identities accordingly.

Community and Social Stability

One of the most significant benefits of religion for people, regardless of belief system, is the sense of community cohesion and support. Humans after all are a highly socialized species of animal. We thrive in association with family and friends, and suffer when isolated. Research by staff of the Duke University Center for Spirituality, Theology, and Health bears directly on this point. People with strong religious beliefs and regular church attendance were shown in one study to have lower blood pressure, stronger immune systems, lower mortality rates from cancer and heart disease, and slower mental decline when diagnosed with Alzheimer's Disease. Regular church goers also recovered faster from depression and were less likely to become seriously depressed (Koenig, 2007). Clearly, organized religion provides measurable benefits in some people' lives.

However, another study by this same group of researchers looked at 748 patients undergoing percutaneous coronary intervention or elective catheterization in nine medical centers in the U.S. In the study, 371 patients were prayed for and 377 received no prayer (at least no prayer from the assigned intercessors in this study). The findings indicated no difference for those prayed for (vs. not prayed for) on the likelihood of in-hospital major adverse cardiovascular events. Similarly, the investigators concluded that neither distant intercessory prayer nor touch therapy had discernible effects on: the rate of healing after surgery; 6-month readmission rates, or death; or 6-month major adverse cardiovascular events (Krucoff, et al., 2005) . In other words, unsolicited intercessory prayer doesn't work. The true value of religion apparently lies in the sense of shared community, and positive mental attitude that it fosters, and not intercession with the supernatural.

Many social factors can affect the health of an individual, and institutions beyond an organized religion or church can play a comparable role in providing a sense of community. Several studies have found that people who hold multiple social roles tend to exhibit better physical or mental health, although these effects are not necessarily consistent across different socio-economic or ethnic groups, and can vary by gender as well. The nature of the various roles is an important determinant of any health benefit (see for example: House, et al., 1988). Certain types of employment also have a strong influence on health, as does marriage (although to a lesser degree). Parenthood is not an independent measure of health status and must be considered along with factors such as marriage status or financial security. The pattern seems to be, the more connected we are, the more comfortable we are in our social roles; and the more

we feel financially secure, the less stressed we are. Certainly the medical profession knows that reduced stress is an important contributor to good health.

Putting it all Together

Religion seems to be an unavoidable consequence of those evolved traits that provided survival advantages for modern humans. Belief in supernatural causation of natural phenomena, and assignment of human (or animal) characteristics to the supernatural forces were a logical outgrowth of the increased size and complexity of the modern human brain. With the development of complex symbolic thought (and speech), imagination, curiosity, pattern seeking ability, and agent detection, "religious" thought would be a predictable outcome. It is hard to conceive that the human brain's ability to achieve a transcendental state conferred a survival or reproductive advantage on our early ancestors. After all, going into trances or imbibing psychoactive substances is not a normal state of being. Nor would all members of a family or tribal group participate in the process - someone has to stand watch. Beliefs and rituals do not stave off predators in the night or enhance food gathering abilities. Rather, the ability of the human mind to achieve a transcendental state on occasion must simply have been a coincidental by-product of our highly evolved brains and sensory organs.

The functions served by religion correspond to needs that define us as human beings. We wouldn't be human if we didn't question the world around us, and our place in it. We wouldn't be human if we could survive easily without a stable social group. We wouldn't be human if we didn't occasionally push the envelope of acceptable behavior, or implore the forces controlling the world to make our personal wishes come true.

Religion provides for many human needs, but often our religious beliefs prevent us from confronting who we really are. We cannot escape our roots. We can change our names, our place of residence, our jobs, even our religious affiliation; but we can't change the reality that we are just an evolved primate. Look at our closest simian relatives; we differ from them in quantitative, not qualitative, ways. This is also confirmed by comparison of the human genome with those of the great apes. Our supposedly "modern" thought processes and actions, whether as individuals or groups, are built on 5 million years of evolved behaviors.

For nearly 60,000 of the past 70,000 years ***homo sapiens*** lived by following a foraging lifestyle. Religious beliefs and practices then likely fell within the range of belief systems expressed by present day foraging groups. It can be supposed that the earliest humans regarded the supernatural in much the same way that aboriginal Australians, the Zhu Twasi of southern Africa, or the BaMbuti of central Africa do even today. For these people, every tree, flower, hill, stream, and lake is inhabited by an ancestral spirit - a deity from the time of creation who still keeps watch over the world. Far from being "primitive" or un-enlightened, these ancient belief systems show great depth of thought and complexity. Specialization of abilities in early foraging groups would have included healers and shamen along with hunters, basket makers, potters, etc. The ability of these shamen to access the spiritual realm through trances made them the go-betweens and intercessors with the supernatural forces.

The move from hunting and gathering to an economy based on settled agriculture did not occur suddenly, but was affected by a slow transition over the course of several millennia at several centers around the globe (Balter, 2007). As religions became integrated with civic authority - a result of the gradual development of towns and cities - the role of the religious leader changed as well. The intercessor with the divine became a priest; the temple priest/priestess became a guide to ritual practices,

no longer providing a linkage through their person directly with the divine (J. Campbell, 1988). Rituals became codified in scriptural texts once writing developed and belief systems grew into organized religions. Ritual practices included: sacrifice to, and appeasement of, the spirits or gods; prayer and requests for personal intercession; ritual washing; and communion with, or consuming of, the god-spirit itself. As the sizes of human groups increased, religion as an institution – with rituals, specified belief systems, and even a priest class devoted to maintaining religious traditions – became advantageous as a tool for enforcing the "social contract" between individuals and society. Supernatural authority was passed on to secular authority in the form of a king or other ruler. Thus, moral codes in the form of laws became explicitly associated with the wishes of the divine.

Religions are never static; they evolve and take on the character of the cultures which adopt them. Joseph Campbell (1988) also points out the recurrence of mythic elements and themes across time and across cultures. Judaism and early Christianity drew mythic elements and themes from other, older Mediterranean and Near East traditions. The creation myth in Genesis 1 draws from the Sumerian *Enuma Elish.* The tale of Moses in the Old Testament parallels the legends surrounding King Sargon of Akkad. Virgin birth, immaculate conception, death and resurrection are found both in the story of Jesus and in some of the first millennium B.C.E. stories associated with the Persian God Mithras. Figurative consumption of the flesh and blood of the deity is an outgrowth of the idea that eating specific animals or their organs will confer special powers and abilities. Throughout most of human history there were as many different gods as there were cultures to conceive of them. The idea of a singular god is a relative newcomer on the human scene. One of the earliest conceptions was the abortive venture into monotheism by the ancient Egyptians under New Kingdom Pharoah Akhenaton, a.k.a. Amenhotep IV (1352 - 1336 B.C.E.). The early Hebrews acknowledged polytheism - the legends restated in the books of Genesis and Exodus talk of "elohim" (gods in the plural sense), and of having "no other god before me." A truly monotheistic concept does not appear in Biblical texts until the 6th Century B.C.E. with the Book of Second Isaiah. Islam incorporated into the rituals of the Haj the icons and practices from earlier pagan beliefs found in the Arabian Peninsula. Hinduism repeatedly has absorbed other belief systems into its practices. Monks sent out to bring Christianity to the forest peoples of northern Europe were encouraged to reconsecrate pagan holy places and temples as Christian churches, and to adopt local deities as Christian Saints (e.g., Ireland's Saint Brigit was once a Celtic goddess). Many African Christians have created a blend Christian doctrine and traditional ancestor worship along with other aspects of ancient animist belief systems. The basic concepts of Buddhism have been modified with the trappings of earlier belief systems in Tibet and elsewhere. Scriptural texts written to address social conditions at a specific point in history may have little relevance to a later era.

Religious symbols and practices only make sense in terms of the culture in which they grow. The "Lamb of God" is incomprehensible to people who have never seen sheep. The "Kingdom of God" is meaningless to people who've never experienced a monarchy. "Sacred cows" mean something different to Hindus and African pastoralists.

Nearly all humans have the capacity to achieve transcendental states, and indeed, people in many cultures, from First Peoples to Hindus to Buddhists actively seek the experience. Other religions discourage their members from practicing mysticism and direct contact with the divine outside of a controlled group experience. These tend to be the authoritarian traditions found in Christianity, Judaism, or Islam. For these faith traditions the ideas of personal revelation - of competing interpretations of scriptural texts - of multiple possible "truths" - cannot be tolerated. To do so would risk schism and questioning of doctrine. Certainly it would weaken centralized authority and the promises it has made to its adherents. As Elaine Pagels (2003) notes eloquently when commenting on the multiple and competing sects of early Christianity:

"***This act of choice - which the term <u>heresy</u> originally meant - leads back to the problem that orthodoxy was invented to solve: How can we tell truth from lies? What is genuine, and connects us with one another and reality, and what is shallow, self-serving or evil? Anyone who has seen foolishness, sentimentality, delusion, or murderous rage disguised as God's truth knows that there is no easy answer to the problem that the ancients called discernment of spirits. Orthodoxy tends to distrust our capacity to make such discriminations and insists on making them for us. Given the notorious human capacity for self-deception, we can, to an extent, thank the church for this. Many of us, wishing to be spared hard work, gladly accept what tradition teaches."***

Rationalists in the 17th and 18th Centuries rejected the concept of a personal god and embraced the previously heretical notion that the goal of human life should be happiness. By the end of the 19th Century, thought-leaders such as Nietzsche and Freud predicted that traditional religion would disappear as the world of science unraveled the mysteries of the universe. Clearly that has not happened. In 21st Century America 90% of the population professes some form of religious belief. What is the staying power of religion in the human experience? Why is it still such a dominant force in the lives of people? The simple answer is that the multiple, interconnected functions of religion are as important in peoples' lives today as they were to our ancestors. Religion is, at its heart, a response to fear - fear of the unknown, fear of death, fear of strangers, fear of uncertainty, fear of loneliness. We are bombarded by electronic images from all around the world and across the street which, if viewed uncritically, can convince us that humanity is headed into chaos. The larger world with its complexity is a terrifying place to many.

People gravitate toward faith traditions and churches which support and promote their learned biases and values. Deism, the idea of an uninvolved god is embraced more by intellectuals who see the divine as surpassing human comprehension. Theism is embraced by those who want a more approachable god with whom they can have a personal relationship. Those who are the most fearful – regardless of the nature of that fear – will gravitate toward the more authoritarian faith traditions. They want to know that someone is in charge, that someone cares about them personally, and that someone will watch over their family and friends, punishing transgressors. In return, these people will embrace whatever beliefs, rituals, and practices are necessary to assure the good graces of the divine. Fearful of complexity and the pace of modern life? Longing for simple black and white rules? Then a fundamentalist faith (Christian, Jewish, Muslim, or Hindu – the flavor matters less than the fervor) is for you. Always questioning and searching for your own answers? Comfortable with ambiguity and diversity of viewpoints? Then, you might want to try Buddhism, the Quakers, Unitarian Universalism, or Confucianism. Like being part of the right group and willing to let others wrestle with the fine points of theology? You might feel most comfortable in a mainstream Protestant or Catholic congregation.

A problem arises when the purposes of religion - the functions it serves in human lives - get out of balance. Religion promotes individual and group identity, community stability, and proper norms of behavior. On the plus side, belonging to, and being accepted by, a group improves health and the quality of life, and also addresses some of our most basic psychological needs as a species. However, identifying strongly with one group often makes people see themselves as "better" than others - classic xenophobia. A continuing tension exists between strengthening community and individual identity and the call to respect all people and their varied belief systems. Given that everything is about **<u>me</u>**, why should I take the time to learn about others, their needs and interests? How does that benefit ***me***? Even

when I know that others are looking out for my interests, isn't that the way it should be? Why should I reciprocate, especially when I might be inconvenienced?

Religion is beneficial when it:

- promotes questioning and imagination - in a safe, supportive community;
- recognizes the importance of ALL rituals in human life, not just those of one distinct group;
- recognizes the needs which all humans have in common;
- recognizes and affirms multiple truths; and
- promotes common values and ways for all people, from all traditions, to come together.

Religion becomes dangerous when:

- a set of beliefs become ossified;
- ritual and imposed doctrine/practice become a primary source of individual identity;
- external authority becomes more important than internal reflection and exploration;
- differences (beliefs, rituals) are emphasized over similarities - driving xenophobia; and
- one faith tradition tries to impose its beliefs and practices on people outside that tradition.

Many faith traditions (extinct as well as current) have promoted themselves as being in possession of the absolute TRUTH, or of the final revelation of the divine. These traditions consider themselves to be the chosen people of their deity. All others, by exclusion, are either lost, or heretics, or evil, or some other pejorative. Of course, if one steps back and looks at the great panoply of religions that have come and gone, it is clear that there are no universal beliefs, and no universal truths.

How does promotion of an absolute truth threaten peace and social justice? As noted earlier in this discussion, all of the functional elements of religion are interrelated. If one group considers that they are in possession of the absolute truth, then all claims to the truth by practitioners of other traditions must be rejected as false. “If I accept that your truth may be valid, then it weakens the absoluteness of my truth - and that threatens my very identity.” In this world view, only one set of answers to the great questions, and only one set of rituals for interceding with the divine can be correct. Thus, only one set of prayers, rituals, symbols, and texts can be accepted. Only one explanation of the natural world is correct. This is one reason why, in the age of Science, a majority of humans still cling to superstition (with some even calling for their superstitions to be taught as science in the public schools). All other practices and beliefs, to the extent that they differ, are blasphemous. Further, in conservative traditions, only one interpretation of the sacred texts and scriptures can be accepted as correct - usually the interpretation of the current authority figure for that faith group. For adherents of a strict faith tradition, only those who demonstrate allegiance to that tradition’s beliefs and practices can be accepted as part of the community. Discrimination against outsiders is tolerated, and may even be promoted - this in spite of the fact that the founders of nearly all the world’s major denominations called for embracing all people as equals.

Certainly our primate brains often lead us to seek the comfort of a close group identity and the exclusion of "others". But at the same time, our human brain, with its large pre-frontal cortex, the seat of moral and ethical thought, allows us the opportunity to move away from these more primitive behavioral responses and to embrace the wondrous diversity of the world around us. We are given a choice as to the shape religion should take in guiding our lives. The only close-to-universal moral principle (a.k.a. ***truth***) comes in the form that we recognize as "***The Golden Rule".*** This is the moral kernel that sits at the center of all the world's major religious traditions. It is a truth that, if practiced sincerely and fully, would result in universal respect for people, their values and traditions, their hopes, and their beliefs.

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