Divinity and Maximal Greatness

Daniel J. Hill

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Divinity and Maximal Greatness stands in the notable tradition of perfect-being theology. The book thoughtfully explicates the concept of divinity in terms of the notion of maximal greatness – a being is divine if and only if he is maximally great.

Daniel J. Hill elucidates maximal greatness and the properties in which it consists: omnipotence, omniscience, perfect goodness, beauty, and sempiternity. He analyses each attribute, and argues that each is possibly exemplified. In particular, he provides new analyses of omnipotence and omniscience that avoid the philosophical pitfalls discussed in the literature. Moreover, he posits that every divine being not only has full foreknowledge of what one will freely do, but also has middle knowledge of what one would have freely done in non-actual circumstances. He argues that all the divine attributes may be possessed together by a being: a divine being may be omnipotent and yet impeccable and so unable to sin, for example. Further, although it is impossible for him to sin, a divine being is nevertheless praiseworthy for not sinning, and freely refrains from sinning. Daniel J. Hill also claims that every divine being is maximally beautiful, omnipresent, and everlasting. Without presuming that there is a divine being, he seeks to elucidate what such a being would be like.

This rigorous exploration of divinity and maximal greatness represents the highest standards of scholarship and will be welcomed by specialists in the fields of philosophy, theology, and religion.

Daniel J. Hill teaches philosophy at the Universities of Liverpool and Manchester. His interests are logic, metaphysics, and philosophy of religion. He is author of the forthcoming *Christian Philosophy: A–Z*.

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To my wife, Sarah

Many women do noble things, but you surpass them all.

(Proverbs 31: 29)

Contents

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My design at this time [is] to endeavor, by God's help, to exhibit and set forth the greatness, gloriousness, and transcendent excellency of the God who made us, and whom we worship and adore.

(Jonathan Edwards, 'God's Excellencies' , in Edwards 1992: 416)

1 Introduction

Aim of this work

One of the aims of philosophy is to analyse concepts. In particular, one of the aims of philosophy of religion is to analyse religious concepts. The most important concepts of the three great Western religions – Judaism, Christianity, and Islam – are those concepts clustered as a family round the concept of God. Other concepts in this family are the concept of the property of being divine and the concept of theism. In this work I shall try to analyse the concept of *divinity*. This book is within the tradition of perfect-being theology. Perfect-being theology claims that the key to analysing concepts of this family lies in another family of concepts, clustered around the concept of *perfection*. Among other concepts in this family is that of *maximal greatness*, or being as great as possible. The claim of perfect-being theology may be made explicit in various ways, depending on whether it is construed as a metaphysical or as a semantic thesis, and which precise concepts or words we are taking as analysandum and analysans. Usually it is framed in terms of the word 'God' or the being God. I shall, however, not discuss the more common versions, first, because I wish to avoid the ambiguity of the word 'God', which may be taken as a name for a being or as a definite description or as an indefinite description or as a title-term, and, secondly, because I wish not to seem to presume that there is a divine being, or even that it is possible that there be a divine being, and, thirdly, because I do not wish to seem to presume that there is, or could be, at most one divine being.

Different possible theses

So, the claim may be construed:

(I) as a semantic thesis,

(a) that the meaning of the word 'divinity' is *absolute perfection*,[1]

(b) that the meaning of the word 'divinity' is *maximal greatness*,[2]

1 Italicization of a phrase is meant to represent the meaning of that phrase (cf. Alston 1964: 11).

2 The upholder of either Ia or Ib should not be taken to be committed to the view that *every* occurrence of the word 'divinity' means *absolute perfection* or *maximal greatness*, as appropriate. If one talks about 'the academic subject, divinity' one may mean no more than that the intended object of the

(II) as a metaphysical thesis,

(a) that a necessary and sufficient condition for being divine is being absolutely perfect,[3]

(b) that a necessary and sufficient condition for being divine is being maximally great.

To me it seems plausible that each semantic thesis will imply the corresponding metaphysical thesis, but not conversely.

The semantic theses

I shall not defend either of the semantic theses in this work, since each is difficult to prove. Let us consider their advantages and disadvantages. On the *semantic* version, 'divinity' is defined as meaning *maximal greatness* or *absolute perfection*. Suppose we then define 'a theist' as *someone that believes that there is at least one divine being*. This is a good definition, since there are many radical theists, such as process theists or feminist theists, that are excluded by the usual definitions of 'a theist'. For instance, if one defines 'a theist' as meaning *someone who believes that there exists a being having pure, limitless, intentional power* (cf. Swinburne 1994: 151), then somebody who calls himself or herself 'a theist', but denies that a being of limitless power exists, will not be a theist, yet such a person might well think that there is an absolutely perfect or maximally great being; he or she might think merely either that limitless power is not a great-making property or that the maximally great being is maximally powerful but not limitlessly so. I submit that this inclusiveness is an advantage of this sort of perfect-being theology (i.e. the definition of 'a theist' as *someone who believes that there exists a maximally great being* or as *someone that believes that there exists an absolutely perfect being*). Furthermore, I know of no other attempted definition of 'divinity' or 'theism' etc. that has such broad inclusive power. On the other hand, a difficult enduring problem with *semantic* perfect-being theology is that someone that calls himself or herself 'a theist', but denies that there is a maximally great being, is not counted as a theist. Such a person might deny that it makes sense to talk about greatness *simpliciter*: i.e., he or she might claim that if one says that x is greater than y, one is speaking of x's being a greater F than y for some sortal F. This is indeed a problem for the *semantic* version of perfect-being theology, but it is not a problem for the *metaphysical*

academic study is divine (i.e. absolutely perfect or maximally great, as appropriate). One does not mean that the academic discipline itself is absolutely perfect or maximally great.

3 Even here we are not free from controversy: some will see a difference between asserting, on the one hand, that divinity is the same property as absolute perfection or maximal greatness, and, on the other hand, asserting that being absolutely perfect or maximally great is a necessary and sufficient condition for being divine. I am inclined to agree that there is a difference: it seems to me that there is a difference between the property of being the only even prime number and the property of being both the half and the square root of a single number, though these two properties share a single extension. My problem is that what leads me to this inclination also leads me to the inclination that there is a difference between divinity, on the one hand, and each of absolute perfection and maximal greatness, on the other. So I restrict myself to defending the thesis that each is a necessary condition for the other.

version of perfect-being theology, because that allows for the property of divinity to be conceptualized in any number of actual ways. Furthermore, although I do not want to get caught up in independent questions in the philosophy of language, it seems plausible to me that to claim that 'divinity' means *absolute perfection* or *maximal greatness* would involve a commitment to certain psychological claims, e.g. that most people using the word 'divinity' intended one to think of *absolute perfection* or *maximal greatness*, or, at least, that a certain number of competent language users did. I think that these psychological claims are difficult to defend, however, though I myself find them plausible. Instead, I shall be interested in the metaphysical theses.

The metaphysical theses

Which of the metaphysical theses shall I be defending? I have left the options relatively broad: to speak merely of necessary and sufficient conditions leaves it open as to whether the property of being divine is identical with the property of being maximally great (or the property of being absolutely perfect) or whether it is merely co-extensive with it.[4] I shall now turn to the analysans. I offered two alternative analyses of the analysandum: the first in terms of absolute perfection, perhaps historically the more important, and the latter in terms of maximal greatness, a concept used a good deal by contemporary analytic philosophers of religion. The difference between these two is that absolute perfection is the conjunction of great-making properties so as to give an overall level of greatness higher than every other level, whether or not that combination is actually possible; in brief, absolute perfection is the property of being the greatest being. On the other hand, I take maximal greatness to be the property of being a *possible* being than which there is no *possible* greater one; that is, of having the class of properties that gives the highest *possible* value. The difference can best be brought out by means of an example. Suppose that being able to do every action ('omnipotence', as traditionally defined) is a property that contributes to absolute perfection. Suppose further that being unable to do an evil action ('impeccability' as traditionally defined) is also a property that contributes to absolute perfection. It is not possible that at a given time something could possess both of these properties. It follows that it is not possible that at a given time something could be absolutely perfect. Maximal greatness, however, means the possession of as many valuable properties as compossible, *ceteris paribus*. Hence we have here two natural candidates for contributing to maximal greatness:

(i) being omnipotent (as traditionally defined), but not being impeccable (as traditionally defined);
(ii) being impeccable (as traditionally defined), but not being omnipotent (as traditionally defined).

4 One property is co-extensive with another if, necessarily, everything that possesses one of them possesses the other.

There is a third natural option here:

(iii) being omnipotent (as traditionally defined) and being impeccable (as traditionally defined);

this is not a candidate for maximal greatness, since it is not a possible conjunction.[5] It is also possible that the less natural option, expressed by the following, should contribute more to greatness than that expressed by i or by ii:

(iv) being neither omnipotent nor impeccable. [6]

For instance, if possession of the property of being omnipotent implied possession of the property of being really quite peccable,[7] and if possession of the property of being impeccable implied possession of the property of being really quite impotent, then it might be better to be nearly omnipotent and nearly impeccable rather than wholly one and not very much the other. The discovery of which of the conditions expressed by i, ii and iv confers the most greatness and, hence, which actually makes for maximal greatness, *ceteris paribus*, is not a trivial matter, but the three mentioned faiths, insofar as they have addressed the problem at all, have usually held that it is ii.

It might seem as if I have defined maximal greatness in such a way that it is by definition possibly exemplified. To see that this is not so, consider the question of whether there is a maximally great natural number.[8] For every natural number there is a greater natural number, hence there is no maximally great natural number. Analogously, there could fail to be a maximally great being, on the assumption that there is such a relation as *being greater than*, if and only if for every possible being there is a greater. I hope to describe the notion of maximal greatness in this work in such a way that it seems possible that there be at least one being than which there is no greater, i.e. that there be a maximally great being.

Why should anybody believe that this concept of maximal greatness holds the key to that of the divine? Well, I think almost everyone would assent to the propositions expressed by the following sentences:

(1.1) Every divine being is absolutely perfect.

or:

(1.2) Every divine being is maximally great.

and:

(1.3) Nothing could be greater than a divine being.

There is scriptural justification for this general line of thought: 'Great is the Lord and most worthy of praise; his greatness no-one can fathom',[9] 'Praise him

5 I try later to show that omnipotence is in fact compatible with impeccability (as traditionally defined), but that the above understanding of 'omnipotence' will have to be revised.

6 I am grateful to James Heather for forcing me to take this option seriously.

7 It may be objected that peccability does not come in degrees, but we can imagine various beings that can do evil in more or fewer ways.

8 Here I am using 'great' in the traditional mathematical sense, not the theological sense.

9 Psalm 145: 3 (Holy Bible, New International Version, London: Hodder and Stoughton, 1984). Unless otherwise stated, all quotations from the Bible are taken from this edition.

for his surpassing greatness'.[10] As previously noted, there are some that would deny that there is such a general property as that of greatness *simpliciter*. In this work I attempt to convince them otherwise, by providing various examples and thought experiments.

Rival theories

Before going on to expound the metaphysical thesis that a being is divine if and only if he is maximally great, I shall briefly canvass some other options.[11]

Creator of all

Another natural view is that a being is divine if and only if he is the creator of everything else, or, more weakly, if and only if he is the creator of every other concrete particular. This idea is often linked with the idea that a being is divine if and only if he exercises providential care over every other concrete particular. Aquinas writes:

> Because therefore God is not known to us in His nature, but is made known to use from His operations or effects, we can name Him from these, as said in a1; hence this name *God* is a name of operation so far as relates to the source of its meaning. For this name is imposed from His universal providence over all things; since all who speak of God intend to name God as exercising providence over all [. . .] But taken from this operation, this name *God* is imposed to signify the divine nature.
>
> (Aquinas 1920: Ia.Q13.a8.respondeo)[12]

It is plausible that every conceptually possible divine being is also creator (directly or indirectly) of every other concrete particular, and that every conceptually possible divine being exercises providential care over every other concrete particular.[13] I do not agree, however, that the converse is true in either case. I deny that every conceptually possible being that is creator of every other concrete particular is divine, and I deny that every conceptually possible being that exercises providential care over every other concrete particular is divine. This is because, whether or not it is metaphysically possible,[14] it certainly seems conceptually possible that

10 Psalm 150: 2.

11 Here and throughout this work I follow tradition in using masculine pronouns to refer to divine beings. I do not, of course, mean to commit myself thereby to the belief that any divine being is male.

12 I am grateful to an anonymous Routledge referee for directing me to this text.

13 There is a problem here over the apparent possibility of there being more than one divine being. According to the traditional Christian doctrine of the Trinity (which I accept) there are three divine beings, each of whom is (arguably) co-creator of everything non-divine, but none of whom is created by the others. The problem is that the articulation of this truth depends on a different notion of divinity from *being the creator of everything else*, since it is not true that the Father is creator of everything else, since he did not create the Son. We have to say that he is the creator of everything non-divine, which leaves us asking what 'non-divine' means.

14 See below for a discussion of the different sorts of necessity and possibility.

there be a being that created every other concrete particular and yet was not divine. The being might, for example, be very powerful, very knowledgeable, and very kind, but not all-powerful, all-knowing, and perfectly good. In that case, it is conceptually possible that there be a greater being than he, and, therefore, he would not be divine. Similarly, whether or not it is metaphysically possible, it is conceptually possible that there be a being that exercised providential control over every other concrete particular and yet was not divine. Again, for example, the being's powers might fall just short of omnipotence, omniscience, and perfect goodness. As before, it is conceptually possible that there be a greater being than he, and, therefore, he would not be divine. It follows that the concept of divinity is not equivalent to the concept of universal creation or the concept of universal providence, since some beings fall under the latter concepts that do not fall under the concept of divinity. It follows that neither the concept of universal creation nor the concept of universal providence suffices to analyse the concept of divinity.[15]

Being itself

Another suggestion for analysing the concept of divinity is to suggest that a being is divine if and only if he is 'being itself' or 'the ground of all being'. The idea that a being is divine if and only if he is being itself can also be derived from Aquinas:

> *I answer that*, This name he who is, is most properly applied to God, for three reasons: – First, because of its signification. For it does not signify form, but simply existence itself. Hence since the existence of God is His essence itself, which can be said of no other (Q3.a4), it is clear that among other names this one specially denominates God, for everything is denominated by its form. Secondly, on account of its universality. [. . .] Now by any other name some mode of substance is determined, whereas this name he who is, determines no mode of being, but is indeterminate to all; and therefore it denominates the *infinite ocean of substance*. Thirdly, from its consignification, for it signifies present existence; and this above all properly applies to God, whose existence knows not past or future.
>
> (Aquinas 1920: Ia.q13.a11.respondeo [italics original])

I shall discuss suggestions arising from this in greater depth below, when I tackle the doctrine of divine simplicity, but let me merely say for now that the suggestion that every divine being is being itself seems to me clearly to imply the claim that every divine being is an abstract object of a certain kind, a property, and that this claim seems to me clearly false. It seems to me clearly possible that there be a greater being than an abstract object; indeed, every concrete being seems to me greater than every abstract object.

15 Richard Swinburne put it to me (personal communication) that an advantage of an analysis of the concept of divinity in terms of the concept *being the creator of every (non-divine) concrete particular* rather than in terms of maximal greatness is that it is much easier to argue that the concept *being the creator of every (non-divine) concrete particular* is instantiated. This may well be right, but I think that it is not necessary to be rational that one have arguments for one's belief in the instantiation of the concept of maximal greatness (cf. Plantinga 2000).

As for the suggestion that every divine being is the 'ground of all being', it is often hard to see how or whether this is intended to be different in meaning from 'being itself'. I certainly accept that every divine being is the ground of all being in the sense that every divine being is a concrete particular that is causally responsible for the existence of every non-divine being. I reject, however, any understanding of 'ground of all being' that has the implication that every divine being is a merely abstract entity. Further, I suspect that every reasonable interpretation of the phrase 'ground of all being' that does not have this implication boils down to the sense that I do accept.

Scripturalism

It is also sometimes suggested by adherents of a particular religion that one should get one's concept of the divine from that religion's sacred text alone. For example, some Christians claim that one's concept of the divine should be drawn entirely from the Bible. The problem with this line is that the Bible never explicitly defines (the Greek or Hebrew equivalents of) any of the terms 'God', 'divine', and 'divinity'. It is sometimes responded that the Bible implicitly defines these terms. I think that, in one sense, this is quite right – some verses of Scripture do seem to imply that every divine being is maximally great: 'Great is the Lord, and most worthy of praise' (Psalm 48: 1) and "'To whom will you compare me? Or who is my equal?" says the Holy One' (Isaiah 40: 25). The problem is that Scripture does not seem quite so clearly to affirm the converse, that every maximally great being is divine. In addition, one must of course distinguish between the properties ascribed in Scripture to a divine being that are not part of the divine nature (such as, for example, the property of having created Adam, and the property of having called Moses), and those ascribed to a divine being that *are* part of the divine nature (such as, for example, omnipotence, omniscience, and perfect goodness). The problem is that one must distinguish these using reason and intuition; Scripture itself does not distinguish them for us. So, I think that perfect-being theology offers the best hope for analysing the concept of divinity.

Greatness

What, then, is greatness? Technically speaking, the relation of *being greater than* is a strict partial order[16] on the class of all possible beings.[17] It is *a strict partial*

16 Also known as a 'sharp' or 'strong' partial order.

17 Some people object to defining relations on proper classes (i.e. classes that are not sets). I note first that I am not intending to express any ontological commitment when I speak of the 'class' of all possible beings. Secondly, if one were to allow only *concreta* as possible beings (i.e. if one ruled out *abstracta*), which I am not minded to do, then it might well be that the class of all possible beings would be a set as well. (This would depend on one's views on transworld identity.) Thirdly, although if one lets in *abstracta* one will not have a set of all possible beings, one should just construe my talk of the relation of *x*'s *being greater than y* as defining a linguistic expression, briefly '$y<x$', and outlining the conditions for its truth.

order because it is a binary relation that satisfies the following two conditions for every three possible individuals, *x*, *y*, and *z*:

asymmetry: if *x* is greater than *y* then *y* is not greater than *x*;[18]
transitivity: if *x* is greater than *y*, and *y* is greater than *z*, then *x* is greater than *z*.

It is not a strict *total* order because it fails to satisfy the following condition:

trichotomy: exactly one of the conditions expressed by i–iii holds:

(i) *x* is greater than *y*;
(ii) *y* is greater than *x*;
(iii) *x* is the same individual as *y*.

Clearly at most one of the conditions expressed by i–iii holds, but it may be that none of the conditions expressed by i–iii holds. This is to say that it may be that two distinct possible individuals are incommensurable, or are equally great. This is intuitively correct: it may be that neither of Beethoven and Rembrandt is greater than the other, and that neither of Einstein and Shakespeare is greater than the other. The ordered class does, I shall argue, have one further property, however: it has at least one maximal member. A member, *a*, of a class is *maximal*, if and only if there is no member greater than *a*. The claim of *metaphysical* perfect being theology is that any maximal member is divine, and any divine being *is maximal with respect to greatness*, or '*maximally great*', for short.[19] I have deliberately not made it clear whether the class has a greatest member. A possible individual, *a*, is *the greatest member* of a class if and only if *a* is greater than every other member of the class. There can be at most one greatest member of any given class, since if there were more than one greatest member, each would be greater than each of the others, which would violate the *asymmetry* requirement above. The reason I have left this unclear is that here different theories can use the metaphysics and logical structure of perfect-being theology. For instance, one might say that every divine being is maximally great and, moreover, that every divine being is greater than every other possible individual, therefore there can be at most one divine being, who is the greatest being. Or one might want to say that there is more than one divine being, and that each is equally great as each of the others, and that therefore there is no greatest being, merely several maximally great beings. This is why I shall not discuss explicitly the question of whether there is a greatest possible being, but merely the question of whether there is a maximally great being.

When I say that the relation *being greater than* is a relation on the class of all possible beings, by 'beings' I mean *entities* in the most general sense of 'entities', which would include abstract objects (such as properties). This proposal would, then, include people as theists that think that possibly, at least, a divine being is somehow abstract, and that the property of being abstract is greater than or as

18 This condition is called 'anti-symmetry' by some. Compare Machover (1996: Definition 2.3.7.(i)). What I call 'anti-symmetry' Machover calls 'weak anti-symmetry'.

19 By *a*'s being 'maximal with respect to' a particular property I mean that nothing possesses that property more than *a*. So to say that *a* is 'maximal with respect to greatness' is to say that nothing is greater than *a*.

great as the property of being concrete,[20] since these people could assent to the proposition that every divine being is the greatest possible being or a maximally great being. It would also be in keeping with Anselm, the first Christian theologian to make detailed use of the idea of greatness in relation to the divine, who explicitly compares, with respect to greatness, the divine being himself and the idea of a divine being, concluding that the first is greater than the second (Anselm of Canterbury 1995: 99–100).

I do not have to legislate on transworld identity. I do not have to pronounce on whether a being, *a*, in some world, *W*, and a being, *b*, in some different world, *W′*, are the same being in different possible worlds or different beings, if, for example, they are exactly alike apart from the fact that *a* creates Adam and *b* creates a different human instead. All that matters is that each is divine if and only if he is maximally great. This is another advantage to discussing whether there is a maximally great being rather than a greatest being: in the latter case someone might claim that *a* and *b* are distinct possible beings, yet neither is greater than the other, hence there is no greatest possible being. I shall not be restricting my attention to beings at any particular index, such as a time, place, or possible world, however. This allows me to consider omnitemporal properties and essential properties. So, I may say, for instance, that a being that is powerful only some of the time is not as great as one that is powerful all the time, and a being that is essentially morally good is greater than one that is only contingently morally good. If the reader prefers, he or she may think of beings at a particular index, as long as he or she allows them to have properties expressed by locutions of the form '*F*-at-a-different-index'.[21]

Great-making properties

Maximal greatness supervenes on other properties. I shall appeal to several thought experiments and examples to show that we ordinarily think that properties such as power, knowledge, goodness, beauty, life, etc., are great-making properties. A property, *F*, is *great-making* if and only if an object, *a*, that has *F* is greater than every object, *b*, like *a* in all particulars save that *b* lacks *F* and any properties whose possession is implied by the possession of *F*. I write 'every' because there may be many such beings rather than a single one that is like *a* in all particulars save in the lacking of *F* and any properties whose possession is implied by the possession of *F*, and it is necessary for *F* to be a great-making property that its possession make its possessor greater than every other such being. For example, one might consider whether the property of knowing exactly a thousand propositions was a great-making property.[22] But clearly it is not: suppose that *a* knows exactly a

20 Or, while being less great in itself, its possession implies the possession of properties that are greater than the ones whose possession is implied by possession of the property of being concrete.

21 I use '*F*' and '*G*' as variables ranging over properties, following popular usage. Quine, who does not believe in properties as distinct from sets, dislikes this usage since it tends to promote confusion with '*F*' and '*G*' as schematic letters. I have given in to the popular usage, but am careful not to confuse the variables I use with schematic letters. See, e.g., Willard Van Orman Quine, 'The Variable', in Parikh (1975), reprinted in Quine (1976 : 272–282).

22 I owe this point to James Heather, to whom I am grateful.

thousand propositions and consider a being that is exactly like *a*, but does not know exactly a thousand propositions. How many propositions does this being know? Clearly the answer could be 'more than a thousand', and it could also be 'fewer than a thousand'. But while *a* will be greater than an otherwise exactly similar being, *b*, that knows fewer than a thousand propositions, *a* will be less great than an otherwise exactly similar being, *c*, that knows more than a thousand propositions. So, the property of knowing exactly a thousand propositions is not a great-making property.

One would expect a maximally great being to have every great-making property, *ceteris paribus*. Anselm explains the concept of a great-making property by taking the example of wisdom:

> It is better to be wise than not-wise. For although a just person who is not wise seems to be better than a wise person who is not just, it is not better in an unqualified sense to be not-wise than to be wise. Indeed, whatever is not-wise in an unqualified sense, insofar as it is not-wise, is less than what is wise, since everything that is not-wise would be better if it were wise. Similarly, it is in every respect better to be true than not, that is, than not-true, and just than not-just, and living than not-living.
>
> (Anselm of Canterbury 1995: 28)

Some great-making properties are scaling, others are not. A property, *F*, is *scaling* or *degreed* if and only if it is possible that each of two distinct entities should be *F* and yet one should have a greater degree or level of *F* than the other. Another way of looking at this is to say that with each scaling property, *F*, is associated a relation, which will be expressed by a locution of the form '*possesses more of F than*'. Thus the property of *being great* itself is scaling: associated with it is the relation of *being greater than*; this relation is the main concern of this work. Another example would be the property of *being powerful*. It is possible that each of two entities should be powerful and yet one should be more powerful than the other. In other words, associated with the property of *being powerful* is the relation of *being more powerful than*.

Some properties are not scaling: *being a concrete object* is one. It is not possible that each of two distinct entities should be a concrete object and yet one should be more of a concrete object than the other. In other words, there is no (non-trivial) relation of *being more of a concrete object than* associated with the property of *being a concrete object*. Yet I think *being a concrete object* is still a great-making property, so every divine being is a concrete object.[23]

Some scaling properties may be possessed *maximally*. Where *F* is a scaling property, a being has *F* maximally if and only if it is not possible that there be

23 It might be objected that every property is trivially scaling in the sense that for each property it is logically possible that it be lacked (a degree of 0) and logically possible that it be possessed (a degree of 1). This would be a very uninteresting use of 'scaling', however. The relation associated with the property would also be uninteresting. Moreover, it would obscure an important distinction: the distinction between having a temporal duration of 0 seconds (the duration of an instant) and having no temporal duration at all (abstract objects have no temporal duration). This is similar to the distinction between a point's having 0 cm of length and, say, a spirit's having no length at all.

a being that has more *F*. Let us call a scaling property that a being may have maximally '*a maximality property*', bearing in mind that it is the individual, not the property, that has the property of maximality. Formally, a scaling property, *F*, is a maximality property if and only if it is possible that there be a being, *x*, that has *F* to such a degree that there is no possible being that has more *F* than *x*. [24]

There are some scaling properties, such as size, in the set-theoretic sense of *cardinality* (which roughly equates with *number of members*), that cannot be possessed maximally. Let us call such a scaling property '*a non-maximality property*'. For example, for every possible set there is always a bigger possible set.[25]

There are also some scaling great-making properties that are such that a being may have them *optimally*. If *F* is a scaling great-making property a being, *x*, has *F optimally* if and only if nothing could be greater than *x* in virtue of having more or less *F*. Let us call a great-making property that a being can have optimally '*an optimality property*'. Formally, a scaling great-making property, *F*, is an optimality property if and only if there is some possible being, *x*, that has *F*, and it is not possible that there be a being, *y*, that is both exactly like *x* in all respects, save that *x* has more *F* than *y* or *vice versa*, and greater than *x*. For many optimality properties anything optimal will also be maximal, and conversely. More formally, there is a scaling great-making property, *F*, such that any object, *x*, is optimally *F* if and only if *x* is maximally *F*. Let us call such a scaling great-making property '*a maxi-optimality property*'.[26]

Some scaling great-making properties that are both maximality properties and optimality properties are not maxi-optimality properties, however. An example of this might well be lenience.[27] It is not obvious whether lenience is a maximality property (or even that it is a great-making property); I suggest tentatively, however, that it is possible to be infinitely lenient, and that anything infinitely lenient would be maximally lenient. Nevertheless, I contend that it is possible to be *too* lenient, i.e. that a maximally lenient being would not be optimally lenient. In other words, if there are three beings, *a*, *b*, and *c*, each exactly like each of the others except that *a* is hardly lenient at all, *b* is very lenient but could be more so, and *c* is maximally lenient, then I think that in this case *b* would be greater than both *a* and *c*. I think this because it seems to me that an infinitely lenient being would be less great than some very lenient, but not infinitely lenient, being. It is great, I think, to be lenient, and a more lenient being is greater than a less lenient being – up to a point, the point of being optimally lenient. We do not need to establish now exactly where that point is, but it seems that too much lenience implies not enough justice, and that being optimally lenient is compatible with being maximally (or optimally) just. So, although lenience is a maximality property and an optimality property, it is not a maxi-optimality property. I shall call such a scaling great-making property,

24 Note that every non-scaling property could be thought of as a maximality property in a trivial way, since it is impossible that one thing have it more than another. To avoid this trivial consequence, I have stipulated that only a scaling property may be a maximality property.

25 This holds even if the set is infinite.

26 Trivially, greatness is itself a maxi-optimality property.

27 I am grateful to James Heather for this example.

for the sake of a name, '*a duality property*', from its dual nature, having a distinct optimal level and maximal level.

There are also some scaling properties that are neither optimality properties nor maximality properties, i.e. they are such that nothing has them maximally and nothing has them optimally either. Let us call such a scaling property (which does not have to be a great-making property) '*an open property*', for the sake of a name. An example of an open property would again be size, in the set-theoretic sense, as given above. There is no optimal size *tout court*, though there may well be an optimal size with respect to a friendly seminar. If any open property is great-making we have a problem. It would seem, in that case, that there is, and could be, no divine being because for each possible object there would always be another possible object that is greater. Suppose size, in this set-theoretic sense, had been a great-making property (it isn't), then there would have been no divine being because for every possible object there would have been always another possible object that was bigger, and thereby, greater. Hence there would have been no maximally great being and, therefore, no divine being.

So our strategy for delineating the concept of being divine is as follows:

(i) determine what are the great-making properties;
(ii) determine which great-making properties are scaling;
(iii) determine which scaling great-making properties are optimality properties;
(iv) determine which optimality properties are maxi-optimality properties and which duality properties.

How do we calculate the greatness of a being? The greatness of a being is given by a function from the number and sort and degree or level of its properties. It is necessary to consider the sort because it is not the case that all great-making properties are on a par: some confer more greatness than others. Rough guidelines for the comparison of two objects, x and y, with respect to the greatness relation, are as follows:

- If x possesses more great-making properties than y then x is, *ceteris paribus*, greater than y.
- If x possesses great-making properties that confer more greatness than y then x is, *ceteris paribus*, greater than y.
- If, for every scaling great-making property, F, x possesses more of F than y then x is, *ceteris paribus*, greater than y.
- If, for every optimality property, F, x is closer to having F optimally than y is, then x is, *ceteris paribus*, greater than y.

The reader may wonder why all this is necessary. It would be easy to say that a being, x, is maximally great if and only if:

(i) If F is a great-making property then x has F.
(ii) If F is an optimality property then x has F optimally.
(iii) There is no open great-making property.

The problem with i–iii above is that it is the recipe for absolute perfection, which we rejected above, rather than for maximal greatness. It may be that there are

some great-making properties whose co-instantiation is impossible, or some great-making properties all of which it is not possible to possess maximally or optimally. If this is the case then no being will satisfy i–iii above, i.e. no being will be absolutely perfect, yet it is still possible, for all we know, that there be a maximally great being. Earlier we looked at the example of omnipotence and impeccability; I claimed that one might think that in order to be absolutely perfect a being would have to be both omnipotent (as traditionally defined) and impeccable (as traditionally defined); this, however, is impossible, and so absolute perfection, on this view, would be impossible. Another example might be: the virtues of teachableness and omniscience. An omniscient being cannot be taught anything and a teachable being is not omniscient.[28] Again, it may be that maximal prudence and maximal generosity, or maximal discretion and maximal valour, are incompatible. I aim in this work to show that problems of this type do not show that it is impossible that there be a maximally great being, even if they show that there could be no absolutely perfect one. My claim is that, if I have done this, I have shown that the concept of divinity is coherent, and that the divine nature is unified by the simple concept of maximal greatness.

Which properties are great-making?

How do we recognize which properties are great-making properties? As I mentioned above, I think that thought experiments are a useful way of proceeding here. Nelson Pike has some useful comments on the methodology of perfect-being theology:

> If something is alive and conscious, that is a reason for preserving it. Consider the following exchange: A small boy drops a live frog in his mother's pulverizer. Father reprimands him: 'You ought not to have done that.' The boy calls for an explanation. Father replies: 'That was a living, conscious thing.' Father's reply may not be conclusive – there may be overriding reasons for destroying the frog. But father's reply is at least relevant as backing for his reprimand. That the frog was a living, conscious being is a good reason for not destroying it. Now consider the parallel exchange for the quality non-conscious. The boy drops his mother's watch in the pulverizer. Father reprimands him: 'You ought not to have done that.' The boy calls for an explanation. Father replies: 'That was a non-conscious thing.' This reply is absurd. That the watch was useful, beautiful, his mother's favourite, etc., would be relevant things to mention when grounding the reprimand, but the quality non-conscious is not a value-making feature of things. It is not a feature that makes a thing such that it ought to be preserved.
>
> (Pike 1970: 136)

Pike admits that it is not always easy to tell what is greater than something else:

28 I pass over here the problem that an omniscient being could be taught at each moment what time it is.

> I think it must be admitted that the kind of value-judgement that we are here encountering is very difficult to understand. At a dog show, the judge rules that this beagle is a better beagle than that beagle. At the end of the show he is asked to make cross-type judgements, e.g., he is asked to decide whether this beagle is a better *dog* than that spaniel. But no one would ask the judge at a dog show to decide whether this beagle is a better *object* than, e.g., a kitchen dish. How could such a judgement be made? Yet, this sort of judgement is regularly made by us in everyday life. A dog-lover judges that his dog is a more valuable object than a kitchen dish – he spends his money on his dog and eats from a tin plate. If the house is burning down, he saves the dog and pays no attention to the dish. This is so even if the commercial value of the dog is considerably less than the commercial value of the dish. Consider the case where it is one's child in the burning house. One judges that the child is better (more valuable) than the dish. This is not to say that the child is a better *child* than the dish – the dish is not a contestant in that competition.
>
> (Pike 1970: 141)

So we have intuitions about which properties are great-making properties, and we can excite those intuitions by thought experiments. As Tom Morris writes:

> To begin to fill out this conception of the divine, to employ the full method of perfect being theology, we need to begin to consult our value intuitions. What properties can we intuitively recognize as great-making properties, and what clusters of properties can be seen likewise to correspond to a high value, or an exalted metaphysical stature? It is part of the method of perfect being theology to consult our intuitions on these matters. [. . .] Our construction of an Anselmian conception of God is fueled by our value intuitions and by our modal intuitions – our intuitions concerning what is possible and impossible. But because intuitions are correctable, and because our intuitions are typically not comprehensive, that is to say, because we do not typically have intuitions clearly leading us on every issue relevant to attaining a full conception of deity which might arise, the method of perfect being theology is not in principle cut off from creative interaction with other methods for conceiving of God.
>
> (Morris 1991: 38–41)

So I shall now consider my intuitions about which properties are great-making properties. I shall start by taking the suggestion of Morris that:

> In one representative example of an ascending order of discovery concerning the various aspects of his greatness in metaphysical stature, God can be conceived of in this way as:
>
> (i) conscious (a minded being capable of and engaged in states of thought and awareness);
> (ii) a conscious free agent (a being capable of free action);
> (iii) a thoroughly benevolent, conscious agent;
> (iv) a thoroughly benevolent, conscious agent with significant knowledge;

(v) a thoroughly benevolent, conscious agent with significant knowledge and power;
(vi) a thoroughly benevolent, conscious agent with unlimited knowledge and power, who is the creative source of all else;
(vii) a thoroughly benevolent, conscious agent with unlimited knowledge and power, who is the necessarily existent, ontologically independent creative source of all else.

(Morris 1991: 39–40.)

Anselm himself offers a slightly briefer list:

> For the supreme essence must not at all be said to be any of those things to which something that is not what they are is superior; and, as reason teaches, he absolutely must be said to be any of those things to which whatever is not what they are is inferior. He must therefore be living, wise, powerful and all-powerful, true, just, happy, eternal, and whatever similarly it is absolutely better to be than not to be.
>
> (Anselm of Canterbury 1995: 29)

Morris justifies his list thus:

> This representative list of seven stages of development in the elaboration of an Anselmian conception of God was constructed quite simply. First, it is agreed by many people that a being capable of conscious awareness is of greater intrinsic value or metaphysical stature than a thing with no such capacity, a rock for example. But then, it would be even greater not to be just a passive perceiver of things, or a conscious being confined to its own thoughts, but rather to be a conscious being capable of acting out its values and intentions into the world. And if to be an agent is good in itself, then to be an agent whose agency is thoroughly characterized by morally good or benevolent intentions is even better. Likewise, it is better for such an agent to have significant knowledge and power rather than to be extremely limited in these respects; and, finally, it would seem to be greater still to suffer no limits in these areas. Ultimately, a being unlimited in power and knowledge who was the source of all other beings would seem to be superior to one who, for all his excellence, was just one among other independent beings. And, at the limit of our conceptions, it would seem to be the greatest possible status to be such a being, exalted in all other respects, whose foothold in reality was so firm that it is impossible that the being not exist. Each level in our schematic ascent thus represents a development in our conception of greatness appropriate for the greatest possible being, which is God.
>
> (Morris 1991: 40.)

These lists will provide us with a good starting-point for the exploration of the property of divinity.

First, I think that it is greater to be a concrete particular than an abstract object. Anselm would agree with this in that he claims that a concretely existing divine being is greater than one existing in the mind alone. One might think that the

superiority of *concreta* to *abstracta* is due to the fact that only the former are able to exert causal influence, and that it is greater to be able to exert causal influence than not to be able so to do. I think this is true, but perhaps not the whole truth; this raises the question of what the difference is between *abstracta* and *concreta*. Many think that the difference is just this: *concreta* are all and only those things such that it is metaphysically possible that they exert causal influence. *Abstracta* may then be defined as those existing things that are not *concreta*. If this view is right then clearly the statement above is the whole truth. I do not wish to pronounce on this matter, so I shall say merely that the superiority of *concreta* to *abstracta* is due *at least* to the fact that only the former are able to exert causal influence. On the other hand, some philosophers do not believe that abstract objects exist at all: for example, Richard Swinburne says that they are fictional entities (Swinburne 1994: 7). In this case there is no decision to be made: the theist must conceive of every divine being as a *concretum*, since everything that exists is a *concretum*. Somebody might claim that *abstracta* and *concreta* are incomparable. We might appease such a person by merely restricting our domain of quantification: by claiming that a divine being is the greatest possible *concretum*. (Conceivably, somebody might want also to claim that the idea of a divine being, whilst incomparable with a divine being itself, is the greatest possible *abstractum*.[29])

We also want to say that every divine being is a particular as opposed to a universal. Again, philosophers differ over whether universals exist, what the difference is between universals and particulars, and how the distinction between these two relates to the distinction between *abstracta* and *concreta*. Some philosophers believe in tropes, regarding them as abstract particulars. On the other hand, perhaps particularly Platonistic philosophers think of properties, for instance, as concrete universals, with the property of goodness, say, exerting causal power over people.[30] Whatever the truth of the purely metaphysical debate, it seems that it is greater to be a particular than a universal. Again, it might be that someone would deny this and say that particulars and universals are incomparable as regards greatness. One could then respond, as before, by restricting the domain of quantification and saying that every divine being is a maximally great particular. (Conceivably, somebody might want also to claim that the property of divinity, while incomparable with a divine being itself, is a maximally great *universal*.)

Next, I wish to claim that every divine being is living and conscious. I think that Pike's thought experiment about the frog, the watch, and the pulverizer makes well the point that it is greater to be living and conscious than to be non-living or non-conscious. Furthermore, the fear that many people have of dying or losing consciousness is further evidence that people think that it is greater to be living and conscious than to be non-living or non-conscious. People fear these states

29 'On the contrary, it [the idea of God] is utterly clear and distinct, and contains in itself more objective reality than any other idea; hence there is no idea which is in itself truer or less liable to be suspected of falsehood. This idea of a supremely perfect and infinite being is, I say, true in the highest degree' (Descartes 1996: 31). Descartes would want, I think, to say that the idea of a divine being is the greatest possible idea; I do not think that he would want to say that it is incomparable with a divine being itself, since he also has a version of an ontological argument.

30 Perhaps Hugh Rice (2000) and John Leslie (1979) are such philosophers.

themselves, not just the pain of moving into these states; witness the fear of death of people even if they are assured that they will die painlessly. Similar considerations apply to agency and personhood. We can imagine that Pike's thought experiment would work equally well with the properties of being a person or being an agent. It is greater to be an agent (a being capable of action, to follow Morris's definition) than a being incapable of action. Likewise, it is greater to be a person than to be a non-person. It is much more difficult to define exactly what a person is, and it may be that the property of being a person supervenes on other great-making properties, but it seems clear that, whether superveniently or non-superveniently, it is greater to be a person than a non-person. Nor does it seem as if these properties pose any particular problems: most of those we intuitively think of as theists (some philosophers prejudge the issue by defining 'theism' as *belief in a personal, conscious, creator* – with certain qualities) would accept that every divine being is conscious, alive, a person and an agent, nor do there seem, thus far forth, to be any philosophical problems arising.

It should be noted, however, that some people think that there is more than one divine being. This is where I hope that concentrating on the property of divinity, strictly speaking, rather than on the object or objects that instantiate that property, may help. I think all should agree that the property of divinity is such that whatever instantiates it is a person. If this is too strong, we may modify it by introducing the notion of derivative personhood, and saying that something that is composed of persons may be loosely said to be personal in a derivative sense, perhaps analogously to the legal view that companies are persons. In this case, we may say that the property of divinity is such that whatever instantiates it is a person in a derivative or non-derivative way. I do not want to commit myself to this, but it should be noted that there may be resources available for those that wish to pursue this path. For ease of writing, I may occasionally write of God, when, strictly speaking, I should be writing of the property of divinity.

I also claim that every divine being has maximal epistemic greatness: no divine being is surpassable in knowledge (in content or in manner of knowing). I think power is also a great-making property, such that no divine being may be surpassed in power by any other possible being. I also want to claim that every divine being is perfectly morally good and maximally beautiful – that nothing can possibly exceed a divine being in moral or aesthetic value. I also wish to claim that every divine being is 'omnipresent' or not restricted as to where he may exercise his power or as to about where he is knowledgeable. Finally, I also wish to claim that possession of divinity implies metaphysically necessary existence and metaphysically essential possession of maximal greatness, and, hence, metaphysically essential possession of the great-making properties so far described. In other words, nothing that exists only by metaphysical contingency, or that has by metaphysical contingency one or more of the great-making properties so far described, is – or could be – divine. The intuition underlying this is that a being that exists of metaphysical necessity has a greater grip on reality than a being that exists of mere metaphysical contingency, and a being that possesses its properties of metaphysical necessity has a greater grip on them than a being that possesses them merely by metaphysical contingency.

It seems intuitively unsatisfactory to say that a divine being exists but might not have existed, or that a being is divine but might not have been. All these just-mentioned attributions are, however, the subject of great philosophical controversy. The burden of this book is to deal with that controversy in expounding these attributions and defending them against philosophical criticism. I shall leave most of the discussion for subsequent chapters, but for now I shall pause to explain what I mean by 'metaphysical necessity'.

Necessity and possibility

The words 'necessity', 'possibility', 'implication', 'entailment' and their derivatives are used in various senses in philosophical discourse, and I believe that these different senses have led to some confusion.

I shall start with logic. It is easier to approach the issue here in terms of some artificial language containing variables, function symbols, predicate symbols, truth-functional connectives, and quantifiers. We can define on this language functions, called 'valuations', that map:

(i) each of the variables to a member of some class, called 'the domain of discourse';[31]
(ii) each function symbol to an appropriate operation on the domain of discourse;[32]
(iii) each predicate symbol to an appropriate relation on the universe of discourse.

The only other restriction thus far is that every valuation must map the equality predicate symbol (if there is one) to the identity relation on the domain of discourse. So, for every atomic proposition, i.e. a predication of a property or relation of one or more individuals, there is a function that maps it to truth and a function that maps it to falsity, unless it is a predication of identity (an equation) of the form expressed by:

(1.4) $t = t$

where 't' is some term.[33]

It might be objected here that what I have described is the fact that there is no atomic *sentence*, other than an equation, such that it is mapped to one and the same proposition by every function that obeys the laws of logic. I reply that it should be borne in mind that my explanation was in terms of an artificial language principally for the sake of easy exposition. If we take a proposition predicating a property of an individual, logic does not tell us anything about the property, unless the property is that of identity. For instance, it is not a law of logic that *being greater than* is a transitive and asymmetric relation. Nor does logic tell us the extension of the

31 Usually it is insisted that the domain of discourse be a set, but this will not work for formal set theory, in which the domain of discourse is the proper class of all sets.

32 By 'appropriate' here and in iii I mean *of the same degree as*; in other words a binary predicate symbol must be mapped to a binary relation, a ternary function symbol to a ternary operation etc. That is to say, in general an n-ary function symbol must be mapped to an n-ary operation, and an n-ary predicate symbol must be mapped to an n-ary relation.

33 Please note that this assumes that there are no empty terms.

property. Similarly, logic does not tell one anything of the individuals referred to in the proposition, unless the individuals are referred to by the same designator, in which case logic tells one that they are identical, since it is a convention that a designator cannot change its reference. So for any particular case the laws of logic do not dictate that a predication of a property is true or that it is false, unless the property is the identity relation: in which case, a proposition expressed by a sentence of the form (1.4) is mapped to truth by every function. Compound propositions are defined in the usual way: a negation is mapped to truth if and only if the proposition it negates is mapped to falsehood, a conjunction is mapped to truth if and only if each conjunct is mapped to truth, a disjunction is mapped to truth if and only if at least one disjunct is mapped to truth, a conditional is mapped to truth if and only if either the antecedent is mapped to falsity or the consequent to truth, a biconditional is mapped to truth if and only if its left-hand side is mapped to the same truth-value as its right-hand side, a universal quantification is mapped to truth if and only if the quantified proposition is mapped to truth for every individual in the domain of discourse, an existential quantification is mapped to truth if and only if the quantified proposition is mapped to truth for some individual in the domain of discourse.

A proposition is said to be *necessarily true* if it is mapped to truth by every function. *Every* function? Here we find the different sorts of necessity. A proposition is said to be *logically necessary* or *logically true* if and only if it is mapped to truth by every function that obeys the laws of logic, i.e. the above stipulations.[34] A proposition is said to be *conceptually* necessary if and only if it is mapped to truth by every function that obeys the laws concerning concepts. What are these laws? They are what are discovered by philosophers engaged in conceptual analysis. For example, the sentence 'If one knows a proposition it is true' expresses a conceptually necessary truth, since the concept of knowledge includes that of truth. A proposition is said to be *metaphysically* necessary[35] if and only if it is mapped to truth by every function that obeys the above stipulations and that obeys the (other) laws of metaphysics (precisely what these are is a matter of debate among metaphysicians).[36] A proposition is said to be *nomologically* or *physically* necessary if and only if it is mapped to truth by every function that does not represent a contravention of the laws of nature. Finally, there is a trivial analogue: *material* necessity. A proposition is said to be *materially* necessary if and only if it is mapped to truth by every function that represents the world as it actually

34 The phrase 'the laws of logic' is sometimes used in other senses too, e.g. sometimes any theorem of the predicate calculus is called 'a law of logic', and sometimes only the laws of identity, non-contradiction, and excluded middle are called 'laws of logic'. Note that, on my definition, truths of mathematics, arithmetic or set theory are not logically necessary. C. I. Lewis at first used this sense of necessity (Lewis 1918). He later took necessity as a primitive notion (Lewis and Langford 1959). See the brief discussion in Kneale and Kneale (1962).

35 By 'metaphysically necessary' I mean what Plantinga calls 'necessary in the broadly logical sense' (1974: 2). Regrettably, most authors write just 'logically necessary' to mean what I mean by 'metaphysically necessary'. This has caused some confusion.

36 It is a separate debate as to which of these notions of necessity is the most fundamental. See, e.g., Swinburne (1994: 96–122).

is. In other words, material necessity is *truth*.[37] There are many other senses of necessity that can be defined, for instance *accidental necessity*. Precisely what this is will exercise us greatly below, but it may roughly be defined as follows: a proposition is *accidentally necessary* for a person if and only if it is mapped to truth by every function that obeys the stipulation of what is in that person's control (if a proposition is such that I cannot make it false then every function maps it to truth).

Many other notions are definable in terms of necessity. A proposition is said to be *necessarily false* or *impossible* if every function obeying certain stipulations maps it to falsity. For instance, a proposition is logically necessarily false if every function that obeys the laws of logic maps it to falsity. A proposition is *contingent* if it is neither necessarily true nor necessarily false.[38] For instance, a proposition is logically contingent if and only if some function that obeys the laws of logic maps it to truth and some function that obeys the laws of logic maps it to falsity. A proposition is *possibly true* or *possible* if it is necessarily true or contingent. For instance, a proposition is logically possible if and only if some function that obeys the laws of logic maps it to truth. A proposition is *possibly false* if it is necessarily false or contingent. For instance, a proposition is logically possibly false if and only if some function that obeys the laws of logic maps it to falsity.

Many relations between propositions are also definable in these terms. One proposition *implies* another if it is necessarily the case that if the first is true so is the second. For instance, one proposition logically implies another if and only if no function that obeys the laws of logic maps the first to truth and the second to falsity. Two propositions are *equivalent* if and only if each implies the other. For example, two propositions are logically equivalent if no function that obeys the laws of logic maps them to differing truth-values. A set of propositions is *satisfiable* if and only if it is possible that all of its members be true. For example, a set of propositions is logically satisfiable if and only if some function that obeys the laws of logic maps all of its members to truth. A set of propositions is *unsatisfiable* if it is not possible that all of its members be true. For instance, a set of propositions is logically unsatisfiable if and only if no function that obeys the laws of logic maps all the members of the set to truth.[39]

Finally, I distinguish, unlike most authors,[40] between implication and entailment. A set of propositions *entails* a proposition if it is not possible that each of the set be true and the entailed proposition false. It will be obvious that there is a close

37 It might seem as if this notion is too trivial to mention, but it is technically useful and certain other widely used concepts of materiality, e.g. material implication, are definable in terms of it.

38 Some authors say that a proposition is contingent if and only if it is true and not necessarily true.

39 I use 'satisfiable' and 'unsatisfiable' to denote properties of sets of propositions. I use 'compossible' and 'incompossible' to denote relations between propositions. I therefore use sentences of the form '*p* and *q* are compossible' to mean that it is possible that both propositions are true. For example, *p* and *q* are logically compossible if and only if some function that obeys the laws of logic maps them both to truth. I use 'consistent', 'inconsistent' and 'contradictory' as syntactic terms. Hence they play no role here. Many authors do not follow this convention, but I take my lead from Machover (1996: Warning 7.8.2).

40 But like Flew (1979: 'implication').

relation between implication and entailment; a (finite) set of propositions entails a proposition if and only if the conjunction of the propositions in the set implies the entailed proposition. For example, a set of propositions logically entails a proposition if and only if there is no function that obeys the laws of logic that maps all of the propositions in the entailing set to truth and the entailed proposition to falsity. An argument is *valid* if and only if the set of the premisses of the argument entails the conclusion. For example, an argument is logically valid if and only if there is no function that obeys the laws of logic that maps all of the premisses to truth and the conclusion to falsity.[41]

What follows from all of this? It follows that no atomic proposition (i.e. bare predication of a property or a relation of one or more individuals) that is not an equation is logically necessarily true or necessarily false, i.e. every atomic proposition that is not an equation is logically contingent. It follows also that no two distinct atomic propositions that are not equations are logically equivalent, and no atomic proposition that is not an equation logically implies a distinct atomic proposition that is not an equation, i.e. all atomic propositions are logically compossible. No set of atomic propositions that are not equations logically entails an atomic proposition that is not an equation and is distinct from each of the propositions in the entailing set. Finally, then, no argument is logically valid if its premisses are atomic propositions that are not equations and its conclusion is an atomic proposition that is not an equation and is distinct from each of the premisses.

In particular, we must note that the proposition expressed by the following sentence is logically contingent (like all statements asserting the existence of a particular individual):

(1.5) A divine being exists.[42]

Finally before moving on, we should note that although the derivative concepts are usually couched only in logical terms, they may be couched in any of the other terms that we came across in our discussion of necessity. For instance, *p* accidentally implies *q* if and only if it is accidentally necessary that if *p* obtains then *q* obtains.

To say that necessary existence is a great-making property does not, however, imply that existence itself is a great-making property. It is true that if something exists necessarily it exists in the actual world, but it is not the case that everything whose possession is implied by possession of a great-making property is itself a great-making property. Further, endorsement of the view that necessary existence is a great-making property does not imply endorsement of the ontological argument for the existence of a divine being or the ontological argument for the necessary existence of a divine being. Nor does it imply that existence is a property rather than a predicate – merely that necessary existence is a property.

41 Most philosophers work with only one sense of 'valid', usually corresponding to metaphysically valid. I think it important to specify the difference senses of 'valid'. Confusion has been caused by some people's taking a given argument to be (logically) invalid and others taking it to be (metaphysically) valid without specifying the senses of 'valid' at issue. Again, some use 'valid' as a syntactic term. I am here using it as a semantic term.

42 I do believe that the proposition expressed by (1.5) is *metaphysically* necessary, but even the ontological argument cannot establish the existence of God by pure *logic*, so it is logically contingent.

Simplicity

The reader may be wondering why I have not yet treated the doctrine of divine simplicity. I have left it till last because I do not agree with it, and wanted to expound first the doctrines that I affirm before moving on to those that I deny.

The doctrine of divine simplicity comes in various degrees of strength. The strongest version holds that there is no composition at all in any divine being, so not only are there no spatial or temporal parts to a divine being, but the substance–attribute distinction does not hold either. So there is no distinction between a divine being and any property that he might possess, or between him and existence. Aquinas, like most mediaevals, held this strong version of the doctrine:

> For God, we said, is not composed of extended parts, since he is not a body; nor of form and matter; nor does he differ from his own nature; nor his nature from his existence; nor can one distinguish in him genus and difference; nor substance and accidents. It is clear then that there is no way in which God is composite, and he must be altogether simple. [. . .] Now God is form itself, indeed existence itself; so he can in no way be composite.
>
> (Aquinas 1963: Ia.3.7)

This doctrine is extremely counter-intuitive, for it has the consequence that every divine being is a property. We saw above, however, that it is better to hold that every divine being is a substance rather than an attribute, since if x is a substance and y is a property then x is greater than y, *ceteris paribus*. (Even if the simplicity theorist holds that every divine being is a substance as well, there is still the problem that every divine being is a property too – is it possible to be both a substance and a property?)

Slightly less counter-intuitive is the modified doctrine that preserves the distinction between existence and essence, such that every divine being is distinct from his existence, but identical with his essence, which is a single property, since every property he possesses (and is identical with) is identical with every property he possesses (and is identical with). This is still too much to swallow, however, since it still insists, counter-intuitively, that every divine being is a property. A more moderate form of divine simplicity is that, while every divine being is indeed distinct from his essence, and distinct from every property he possesses, every property he possesses is identical with every property he possesses. This is still counter-intuitive, however: it has the consequence that omnipotence is the same property as omniscience, for example. It seems quite easy for us to imagine a being that is omniscient and yet not omnipotent, however. Our imaginations may, of course, be faulty in this regard, but we are owed an argument by the simplicity theorist as to why it is not possible that an omniscient being be limited in power. The simplicity theorist may reply by moving to a still more moderate version of the doctrine: the view that the properties that every divine being possesses are distinct one from another, but the divine being's possession of each property that he possesses does not vary from property to property. A slight variation on this is to hold that the instantiation of one property in a divine being is the same as the instantiation of another property in him. The doctrine that every divine being is outside time (see

discussion in Chapter 7) is also a version of divine simplicity, since it is often motivated by a denial of any temporal parts in a divine being.

Katherin Rogers claims that the problems with the doctrine of divine simplicity are mitigated if one thinks of every divine being as pure act rather than as a property (Rogers 2000: 27). But surely the correct conclusion for the defender of divine simplicity to draw is that every divine being is both act and property, which conclusion merely compounds the problems. In any case, it is not clear that regarding every divine being as pure act is much more plausible. It is hard to see that pure act could also be a person and a loving creator. The notion of free creatorship is even more difficult to reconcile with this idea of simplicity: one intuitively thinks that every divine being is perfectly free, and so is free to create and free to refrain from creating. But if a divine being has the property of creating then it seems as if he must create, since he will, in that case, according to the doctrine of divine simplicity, be identical with this property, and, thus, be necessarily identical with it. (I here appeal to the principle that all identities are (metaphysically) necessary.) It is hard to see that claiming that every divine being is an act rather than a property will help matters here: if every divine being is identical with his act of creation, it still seems as if every divine being must create. It seems to me preferable to believe in the contingency of creation rather than the absolute simplicity of a divine being if, as I have argued, one must choose.

Miller's criticism

The Anselmian line of argument mentioned above is not free from criticism. Some philosophers claim that they cannot make sense of the idea of greatness *simpliciter*. This claim seems to me, however, to be undercut by the fact that almost everybody would save a human rather than an inanimate object from a burning house. This fact seems to me to reflect the value that we, perhaps unconsciously, place on human life.

The Anselmian line has, however, been criticized from another angle. Barry Miller has attacked the claim of the perfect-being theologian that a divine being is on the same scale as every non-divine being. He suggests an alternative conception of divinity:

> [T]he alternative was to consider the possibility of the greatest being as not restricted to lying *on* any scale whatever – not even at the summit – but as that to which the items on the scale merely *point* or that towards which they merely tend to converge without ever actually doing so. In other words, what should at least have been considered was the possibility of the greatest *F* not being the final member in a series of members that were *F* to an increasing degree, not belonging to the series at all, but lying completely *outside* it. In that case, the greatest *F* would not be a maximum or limit *simpliciter* in an ordered series of *F*s, as Anselmians understand it to be. Rather, it would be the limit *case* of such a series.
>
> (Miller 1996: 4)

This passage is most confusing: if something, x, does not belong to the series of things that have F then x itself does not have F; in what respect, then, is it being compared with those things that do have F? In addition, if F is a degreed property and x has F then it follows that there is some degree to which x has F. Finally, Miller misunderstands the notion of a limit case:

> A basic difference between a limit simpliciter and a limit case is that the former differs merely in degree from that of which it is a limit simpliciter, whereas the latter differs absolutely from that of which it is a limit case: the limit *simpliciter* of an F is an F, whereas the limit *case* of an F is decidedly not an F.
>
> (Miller 1996: 7)

Each of the examples that Miller adduces to substantiate his definition is faulty. His first example is that 0 km/s is a lower limit case for speed whereas there is no lower limit *simpliciter*, since 0 km/s 'is not a speed at all'. This is wrong in every respect. First, 0 km/s is a speed: there is an important difference between something that has a speed of 0 km/s and something that has no speed. Non-physical things, such as divine beings and abstract objects, have no speed, whereas a physical thing perfectly at rest would have a speed of 0 km/s. It follows that 0 km/s is a lower limit *simpliciter* for speed, since it is impossible to travel more slowly than 0 km/s.[43] Miller's second example is that of a 'zero-place predicable'. Miller claims that these are lower limit cases and not lower limits *simpliciter* for the series ⟨. . . , 4-place predicable, 3-place predicable, 2-place predicable, 1-place predicable⟩. Here Miller asserts that the 1-place predicable is the limit *simpliciter* of the series, but that the 0-place predicable is the limit *case* of the series, of which he says 'although different in kind from the series' members, it is that towards which those members do point' (Miller 1996: 8). Miller does not explain in what sense the members of the series point to it, nor how they point to something that is not a member of the same series. What gives Miller's point its initial plausibility is that 0 is the limit *simpliciter* of the sequence ⟨. . . , 4, 3, 2, 1, 0⟩. A predicable or predicate is, in fact, an entity that contains 0 or more gaps such that if names or other referring expressions are placed in all the gaps the result is a declarative sentence. It follows that a declarative sentence is itself a 0-place predicate, since it contains 0 gaps and if these gaps are filled with names or other referring expressions (if nothing is done, in other words) we have a declarative sentence (i.e. nothing happens). Hence the 0-place predicate or predicable *is*, contrary to Miller's assertion, a limit *simpliciter* for the sequence ⟨. . . , 4-place predicable, 3-place predicable, 2-place predicable, . . . ⟩.

Miller then gives the examples of the point, which he says is the limit case of the line, and the line, which he says is the limit case of the surface. Again, each of these is defective. A point is a line of length 0 units, and a line is a surface of 0 units breadth. Hence these are actually limits *simpliciter*, rather than limit cases.

43 It might be claimed that someone travelling backwards would be travelling less than 0 km/s in a particular direction, but we are here discussing speed in general, not speed in any particular direction.

Miller's final example is his only one that is mathematically correct. This example is that the circle is the limit case of the polygon. Miller is correct that the circle is not a polygon, though sometimes people wrongly claim that a circle is a polygon with infinitely many sides (a circle actually has no sides). What does it mean, then, to say that the circle is the limit case of the polygon? Several equivalent definitions can be given, but the easiest is as follows:

(D1.1) The circle is the limiting case of the regular polygon in that as the number of sides of the polygon tends to infinity so the ratio of the length of the perimeter of the polygon to the length of the diameter tends to what it is in a circle – π.

To be more exact:

(D1.2) The circle is the limiting case of the regular polygon in that, for every real number, $\epsilon > 0$, there is a natural number, N, such that for any n-sided regular polygon, P, with $n > N$, it is the case that $|\pi - (p(P)/d(P))| < \epsilon$, where $p(P)$ is the length of the perimeter of P and $d(P)$ is the length of the diameter (i.e. twice the length of the radius) of P.

The problem here is that this, the correct mathematical concept of a limiting case, will not support Miller's point. First, note that we need to be able to compare the circle and the polygons in some respect. This we do by comparing the length of the perimeter in each case with the length of the diameter in that case. This ratio is a real number. The set of real numbers is totally ordered by the familiar relation of greater than or equal to, and we can say that for every polygon this ratio is less than π, whereas for every circle it is equal to π. In order for this to apply to the case of a divine being, we must say that he may be compared with other beings, and this must be (in the context) with respect to greatness. This comparison undermines Miller's whole aim: to show that no divine being is comparable with any non-divine being. Secondly, what Miller's point amounts to with respect to divinity is the claim that one may get as close as one likes to divinity with respect to greatness, but it is never possible for one quite to get there. More formally, his claim amounts to the view that for any positive difference of greatness you please there is a non-divine being whose greatness differs by less than that degree from the greatness of a divine being. It is this, and not perfect-being theology, that belittles the divine. Indeed, I think that there is an infinite gap in greatness between a divine being and any actual non-divine being. I must admit, however, that it is not clear that there is such a gap between a divine being and any possible non-divine being. Consider, for example, the possible being that is maximally powerful, perfectly good, omnipresent, and so on, but fails to be omniscient, and so fails to be divine, in that he has forgotten how many hairs are on my head, although he knows everything else (apart from propositions knowledge of which would imply knowledge of how many hairs are on my head). Is this being infinitely less great than a divine being? It seems not. At this point, the reader may protest that if one takes the greatness of a divine being, which is infinite, and subtracts the tiny degree of greatness afforded by knowing how many hairs are on my head, one is left with the same infinite degree of greatness as one started with. The problem with this argument is that it

assumes that greatness follows cardinal ordering when it comes to infinite degrees of greatness. This is not so, however. Indeed, a better mathematical model would be ordinal ordering. In other words, if, for example, each of two beings, *a* and *b*, knows infinitely many propositions, but *a* knows everything that *b* knows and one extra proposition, then *a* is, *ceteris paribus*, greater than *b*, even though each of them is, *ceteris paribus*, infinitely great. The relation of *being greater than* is sensitive to differences even among infinite degrees.

Not only do all of Miller's examples fail to support his point, but the point itself is fundamentally flawed. It is true that there is a distinction, when we have a degreed property, *F*, and a class, *S*, of beings possessing the property, between something that possesses *F* more than anything in *S* – an upper bound for *S* – and a member of *S* such that nothing in *S* possesses *F* more than it – a maximal member of *S*. Miller's point amounts to the suggestion that we should think of every divine being as an upper bound for the class of beings with great-making properties, rather than as a maximal member of this class. This suggestion is, however, doubly problematic: Miller is committed to denying that any divine being is a member of the class of beings with great-making properties, and, therefore, he is committed to denying that any divine being is great. This point seems to me unacceptable; Miller is able to support it only by reference to his idea that when a divine being is said to be 'great' he is so said only analogically, and so cannot be included in the class of beings with great-making properties. A detailed consideration of the merits of an analogical, as opposed to univocal, approach to religious language is beyond the scope of this book; for now, I must content myself with merely remarking that Miller's point amounts to the implausible suggestion that no divine being is great, where 'great' means what it means when we use it of others. The second problem with Miller's point is that he needs to claim that every divine being is comparable with other beings in order that he might be a limit case of the sequence of great beings. But in what respect might a divine being be comparable with them apart from greatness? Miller must surely say that every divine being is a limit case with respect to greatness; this implies that every divine being is greater than every other possible being. Miller may deny that any divine being is in the class of beings with great-making properties by denying that any divine being is a 'being' in the same way as a non-divine being, but he cannot claim that no divine being is great without foregoing the very method of comparison on which his 'limit-case' claim rests.

Even if this successfully deals with these just-mentioned philosophical problems, however, I cannot avoid those that begin to arise when we consider omniscience, or maximal knowledge – problems both of the internal consistency of this attribute and of its consistency with perfect freedom. I shall now turn to consider omniscience in the next chapter.

2 Omniscience

I have argued in Chapter 1 for the view that the possession of maximal greatness is a necessary and sufficient condition for the possession of divinity; I unpacked this as the view that every divine being there may be has, *ceteris paribus*, every great-making property to the optimal level. I think that *knowledge* is one great-making property: we mostly think that knowledge is a good thing – we want more of it, and consider it the sort of thing that we would like to be possessed by any children we have. In addition, we are, I think, inclined to admire the knowledgeable, and pity the ignorant – else why are there so many knowledge contests in the media? It might be responded that we desire knowledge only as a means to further ends, such as getting a job, getting money, impressing people etc. I think, however, that there are enough people that apparently devote their lives to knowledge as an end in itself to make this seem counter-intuitive.

I do not mean to suggest that it is merely the *quantity* rather than also the *type* of knowledge that confers greatness. I do think it is clear that, *ceteris paribus*, the more knowledge the better, i.e. that a being with more knowledge is greater, *ceteris paribus*, than a being with less knowledge. Nevertheless, it may be that a being with less, but more important, knowledge, is greater than a being with more, but less important, knowledge. This is not a trivial qualification, but, since we are suggesting that a divine being knows everything, it follows immediately that he knows everything important. Hence the issue of types of knowledge may be put on one side for the purposes of this discussion.[1]

The above considerations lead me to suggest that knowledge is a great-making quality, and, hence, that a maximally great being should have it optimally, provided this is compatible with possessing optimally the other great-making properties. It seems also that knowledge is a maxi-optimality property, i.e. that anything that has optimal knowledge will have maximal knowledge, and conversely. There are

1 It could not be put to one side if there were strong arguments that certain types of knowledge were incompatible with divinity. For instance, some Neoplatonists suggested that it was beneath the dignity of the divine to be concerned with such mundane matters as life on Earth. I do not think that this is a strong argument; it perhaps rests on the implausible premiss that the knower is like the known. Or perhaps it rests on the premiss that life on Earth is mutable and a divine being is immutable. I do not accept, however, that any divine being is immutable in the strong way that would be required for this argument.

other related properties, such as *perfect rationality*, i.e. making the correct decisions based on the information and desires that one has, that any maximally great being will also have. Since, however, these are not philosophically problematic, I shall turn to the definition, and the coherence or possibility of omniscience, both internally, and together with other attributes whose possession seems to follow, *ceteris paribus*, from being a maximally great being.

Definition of omniscience

Knowledge of what is possibly known

The simplest approach to answering the question 'What does "omniscience" mean?' is to give an etymological definition of the word: 'omniscience' means *knowledge of everything*. But is this coherent? Can a divine being know literally *everything*? Could a divine being *know* that $2+2=5$? Clearly not. It's not possible that anybody – even a divine being – know something that is false. So, clearly, we want to say rather that every divine being knows everything that is knowable or everything that may possibly be known. This then excludes everything that is false. Is *this* conception of maximal knowledge possibly instantiated?

'O Lord, you have searched me and you know me' says the Psalmist.[2] Every divine being knows each of us intimately, more, and better, than our parents, partners, and children know each of us. This is the kind of knowledge expressed by the French with their verb 'connaître', and that philosophers call 'direct knowledge', or 'knowledge by acquaintance'. The nature of this form of knowledge is hotly debated, but whatever precisely it amounts to, a divine being has it. I do not want to discuss in detail that kind of knowledge, however, since it seems relatively unproblematic from a philosophical point of view; instead, I should like to begin by focusing on the type of knowledge that has received most attention from philosophers, that of knowledge as warranted true belief, i.e. knowledge of truths, rather than of people, places, or events. This is the kind of knowledge that the French express by their verb 'savoir'. Is it possible to have every piece of this kind of knowledge? This question is equivalent to the question 'Is the class of all warranted true beliefs co-tenable?'.[3] I shall not discuss warrant here, since it appears to be something that is situation-relevant (a belief may be warranted in one situation, but not in another), and shall concentrate on the question of whether the class of all true propositions is co-believable. By 'the class is co-believable' here I mean merely that all members of the class may be believed simultaneously by one individual.[4]

2 Psalm 139: 1.

3 I speak of the 'class' of all true beliefs rather than the 'set' of all true beliefs, because it is plausible that the collection of true beliefs cannot form a set, as I shall remark below.

4 I use the word 'simultaneously' here, but do not wish to beg the question of whether divine beings are in time. Rather, I wish merely to rule out the possibility of a thing's being omniscient in virtue of believing all the truths over time, but never believing at any one point all truths together.

Propositions

I shall use the word 'proposition' for an instance of whatever it is that one believes, i.e. I shall take a proposition to be an object of belief. I shall also assume that every proposition is true or is false. I distinguish propositions from sentences. I shall mean by 'a sentence' *a grammatically well-formed expression of a certain sort composed of words*.[5] For example, Lewis Carroll's words 'All mimsy were the borogoves, And the mome raths outgrabe' do not constitute a sentence of English because not all of them are English words;[6] similarly 'joins by feel black is pleases' is not an English sentence because the words it contains are not combined according to the rules of English grammar. There are sentences that do not express propositions, however: 'Do you come here often?', 'Come back and see my etchings' (which may, of course, be a proposition in a non-philosophical sense) or 'No way, José!' (which may, of course, be a non-propositional response to a non-philosophical proposition).

Sometimes we use sentences that *ordinarily* express propositions not to express propositions; e.g. when we say 'The rain in Spain falls mainly on the plain' so as to test our vowels, we do not express a proposition, any more than does a foreigner that reads out an English text without meaning anything by it. On the other hand, when an English speaker says 'Snow is white' and a French speaker says 'La neige est blanche' they have uttered different sentences, but, in some way, still said the same thing. We account for this by saying that both sentences express the same proposition. We might also compare 'two different ways of saying the same thing' in one language, e.g. saying 'There is a God' and 'God exists'. These are different sentences, but they express the same proposition. I shall make use of this distinction between sentences and propositions later. So, the intuitive definition of omniscience is:

(2.1) For every being, x, if x is omniscient then for every proposition, p, if p is true then x knows p.

Arguments against omniscience

The divine Liar

There are some arguments that might suggest that omniscience is impossible, such as the claim that there can be no omniscient being because the proposition expressed by the following sentence is true:

(2.2) No omniscient being knows the proposition expressed by this sentence.[7]

The proposition expressed by the above sentence is true, so the claim goes, since, if it were not true, then an omniscient being *would* know it, which would imply its truth. Hence, goes the objection, the sentence expresses a truth. This is a very

5 One might have a grammar that provides for well-formedness for clauses and phrases as well as for sentences.

6 This is from the poem 'Jabberwocky' in Carroll (1872).

7 Compare Grim (1963: 267) for a similar example.

difficult argument, but it is merely a theistic version of the 'Liar paradox'. It is formally no different from the counter-argument:

(2.3) Either this sentence does not express a true proposition or there is no omniscient being.

Suppose (2.3) does not express a truth, then it follows that neither disjunct is true, and, in particular, that the first disjunct is not true, and, hence, that it is not true that it does not express a truth. This contradiction (allegedly) shows that (2.3) expresses a truth and, since this implies that the first disjunct is not true, it follows that the second disjunct is true.

I cannot offer a full treatment of the Liar here, but it seems to me that (2.3) and (2.2) do not express truths. The argument against omniscience is, however, blocked because they do not express falsehoods either. Neither succeeds in expressing any proposition. They certainly have a meaning and we could translate the sentences into other natural languages, but they do not express anything with a truth value. Why not? I follow Bertrand Russell's solution of denying that there is any such property as truth *simpliciter*; this was also the solution adopted by Tarski to the formal counterpart of the Liar.[8] This solution involves instead suggesting that there is an infinite hierarchy of truth properties. Propositions that involve no alethic properties , i.e. properties from this infinite hierarchy, are of degree 0; propositions that involve a property such as that expressed by '$true_0$' are of degree 1; propositions that involve a property such as that expressed by '$true_1$' are of degree 2, and so on. A proposition of degree 0 is $true_0$ if and only if it is true in the intuitive sense of the word 'true', and a proposition of degree 0 is $false_0$ if and only if it is false in the intuitive sense of the word 'false'. There is no property of truth *simpliciter*, so predicates such as 'true' (with no subscript) fail to express a property.

So, the following sentence does not express a proposition at level 0 or one at level 1 or one at level 2 . . .

(2.3) Either this sentence does not express a true proposition or there is no omniscient being.

(2.3) fails to express a proposition at level 0 or one at level 1 or one at level 2 . . . because it contains the locution 'true' which does not express a property of level 0 or one of level 1 or . . .

The objector might try:

(2.4) Either this sentence does not express a $true_0$ proposition or there is no omniscient being.

The objector must suppose that the second disjunct is $true_n$, where 'n' stands in place of the appropriate numeral.[9] The first disjunct claims that the sentence does not express a proposition that is $true_0$. This is, intuitively, true since we have said that the disjunct cannot express a proposition that is $true_0$ since it includes

8 See Quine (1976: 8) for a very brief summary. Russell's solution may be found in Whitehead and Russell (1927 : II.Viii). Tarski's hierarchy of languages may be found in 'The Concept of Truth in Formalized Languages' in Tarski (1956). See also Tarski (1944).

9 Note that 'n' is not a variable here, but merely a schematic letter, standing in place of whatever numeral it would be.

the predicate '$true_0$'. It may seem as if paradox threatens, but it does not: the objector needs to maintain, for a paradox, that if the first disjunct does not express a proposition that is $true_0$ then it does express one that is $true_0$ after all. This does not follow, however. What follows is that it expresses one that is $true_{n+1}$. This yields no paradox. Of course, it is no use the objector's trying to regroup with:

(2.5) Either this sentence does not express a $true_1$ proposition or there is no omniscient being.

Again, the objector must suppose that the second disjunct is $true_n$, where 'n' stands in place of the appropriate numeral, and the proposition expressed by the proposition as a whole will be $true_{n+1}$, or $true_2$ if n=0. Once again, paradox is averted.

Now let us turn our attention to:

(2.2) No omniscient being knows the proposition expressed by this sentence.

What is it to know a true proposition? It is warrantedly to believe it. What is it to believe a proposition? It is to think that proposition true. Since, however, there is no single property of truth, there can be no single belief relation either: there is $belief_0$ when one thinks that a proposition is $true_0$, $belief_1$ when one thinks that a proposition is $true_1$, etc. Likewise, there is no single knowledge relation: there is $knowledge_0$ when one warrantedly thinks a proposition is $true_0$ when it is $true_0$, $knowledge_1$ when one warrantedly thinks that a proposition is $true_1$ when it is $true_1$, etc. It follows that (2.2) expresses no proposition at all, since it attempts to involve the non-existent relation of knowledge *simpliciter*. The objector may try to regroup with the following:

(2.6) No omniscient being $knows_0$ the proposition expressed by this sentence.

Again, however, no conclusion can be derived as to the non-existence of an omniscient being since (2.6) does not express a $truth_0$; in fact it expresses a $truth_1$ and is $known_1$, not $known_0$, by every omniscient being.

No set of truths objection

Another argument in the literature is that of Patrick Grim that the doctrine of omniscience is incoherent because there is no set of all truths for a divine being to know (Plantinga and Grim 1993). Grim summarizes his argument thus:

> The basic argument against a set of all truths is as follows: Suppose there *were* a set T of all truths, and consider all subsets of T – all members of the power set $\mathbb{P}T$. To each element of this power set will correspond a truth. To each set of the power set, for example, a particular truth T_1 either will or will not belong as a member. In either case we will have a truth: that T_1 is a member of that set, or that it is not.
>
> There will then be at least as many truths as there are elements of the power set $\mathbb{P}T$. But by Cantor's power set theorem we know that the power set of any set will be larger than the original. There will then be *more* truths than there are members of T, and for *any* set of truths T there will be some truth left out. There can be no set of all truths.
>
> (Plantinga and Grim 1993: 267).

Since there is no property of truth *simpliciter*, as we have concluded, there is no set of all truths, as, if there were, there would be the property of being a member of that set, which would be equivalent to the property of being true *simpliciter*.

Is there a set of all propositions that are $true_0$? Certainly Grim's argument appears unable to get a hold here. Suppose there is a set, T_0, of all propositions that are $true_0$. Then consider all subsets of T_0 – all members of the power set $\mathbb{P}T_0$. To each element of this power set will correspond a truth. To each member set of the power set, for example, a particular truth, t_0, either will or will not belong as a member. In either case we will have a truth: that t_0 is a member of that set, or that it is not. So far, all is in line with Grim's argument. Grim, however, is unable to carry his argument through, as neither the proposition that t_0 is a member of that set nor the proposition that t_0 is not a member of that set is $true_0$ and so neither is a candidate for membership of T_0.

In fact, it seems that there is no set of all propositions that are $true_0$. The argument is as follows:[10] for every set, S, there is the proposition that S is indeed a set. Such a proposition is intuitively true and, apparently, is $true_0$ since there are no semantic properties involved in the proposition. But if there were a set of such propositions there would be a set of all sets since there would be at least as many propositions as sets.[11] But there is no set of all sets, as, if there were, there would exist the paradoxical set of all sets that are not members of themselves.[12]

So, it seems that there is no set of all propositions that are $true_0$, but it is not clear that the doctrine of omniscience requires that there be such a *set*. Grim claims that in order to formulate omniscience we need to say:

(2.1) For every being, x, if x is omniscient then for every proposition, p, if p is true then x knows p.

In the above sentence 'p' is a variable ranging over propositions, so, Grim claims, we need to have a set as the domain of the quantifier 'every'. As Alvin Plantinga replies, however, there is no good reason to suppose this to be so (Plantinga and Grim 1993). Indeed, formal set theory has the domain of its quantifiers as a proper class. It might seem that we do not need a quantifier in our formulation. We could try the following:

(2.1′) For every being, x, if x is omniscient then every instance of the following schema is true: If ϕ then x knows that ϕ.

Here 'ϕ' is a dummy sentence letter, not a variable. The problem with (2.1′), however, is that there are propositions that are not expressible in natural language. This is easy to see: every natural language has a finite vocabulary. Although a sentence may be arbitrarily long, it also must be finite. Hence, the set of possible sentences is denumerable. The set of true propositions is indenumerable, however; this may be proved directly, using the Cantorian-style arguments that Grim employs, or indirectly, by pointing out that there are indenumerably many sets, and, for every set, a true proposition that it is indeed a set.

10 The argument would not go through in other set theories than ZF: for example, Quine's NF.

11 This is true if the axiom of replacement in Zermelo–Fraenkel set theory is true.

12 This follows if the axiom of separation in Zermelo–Fraenkel set theory is true.

So, it seems that we have no good argument against omniscience. Nevertheless, our definition has got much more complicated. We can no longer say:

(2.1) For every being, x, if x is omniscient then for every proposition, p, if p is true then x knows p.

We cannot say this because there is no such property as truth *simpliciter*, so we shall have to say that every instance of the following schema is true:

(2.7) For every being, x, if x is omniscient then for every proposition, p, if p is $true_n$ then x $knows_n$ p, and if p is $false_n$ then x does not $believe_n$ p.[13]

For simplicity's sake, in what follows I shall ignore the orders of propositions and subscript numerals, but the reader should add them in mentally if worried.

Argument from indexicals

Having dealt with Grim's objections concerning the internal consistency of the notion of omniscience, I should now acknowledge that most of the objections in the literature are for the incompossibility of omniscience and other attributes characteristic of a maximally great being. One of these objections is the argument that omniscience and free will are incompatible. I shall turn to this in the next chapter, so I shall now consider another argument, or, rather, family of arguments. These arguments aim to show that omniscience is incompatible with timelessness or aspatiality or personhood. What they have in common is an appeal to the indexicality of language. Indexicals are words such as 'now', 'today', 'yesterday', 'tomorrow', 'present', 'past', 'future', 'current', 'last', 'next', 'here', 'there', 'away', 'I', 'you', 'we', 'this', 'that', and phrases involving one or more of these words. I shall concentrate only on single-word indexicals here. These are words that can have a reference only in a context. Other expressions have a reference even when there is no context. For instance, 'the Queen of the UK in 2004 in α' (where 'α' names the actual world) refers to Elizabeth Windsor. She is the referent of the expression in whatever context one uses it as a referring expression. Usually various parts of this expression are not explicitly stated, but understood from the context, so, for instance, if the actual world is the only possible world under discussion then 'in α' will usually be omitted; likewise, if the only time under discussion is 2004, and the only place the UK, then the expression will be shortened to 'the Queen'. The expression may occur in a sentence such as:

(2.8) Elizabeth Windsor might not have been the Queen.

Here the expression 'the Queen' is not being used as a referring expression. Hence (2.8) expresses a truth. It may also occur in the following sentence, however:

(2.9) The Queen might not have been Elizabeth Windsor.

Here (2.9) expresses a falsehood, because here 'the Queen' *is* being used as a referring expression.

13 Here, again, '*n*' is not a variable, but a schematic letter, which will be replaced by specific numerals for specific instances of the schema.

The point here is that 'the Queen of the UK in 2004 in α' refers to the same object in all times, places, and possible worlds, no matter who the utterer. It is context-insensitive. As opposed to these expressions that refer even out of context, we have indexicals, which refer only in a context. For instance, the word 'now' by itself does not refer to anything. But if one gives it a context, e.g. embedded in an utterance at 11:00 on 11 November AD 1918, then it has a reference, viz. 11:00 on 11 November AD 1918. It will readily be seen that 'now' changes its reference from moment to moment, 'here' from place to place, and 'I' from person to person. Hence 'now' does not have a reference unless it has a context of a time, 'here' does not have a reference unless it has a context of a place, and 'I' does not have a reference unless it has a context of a person, e.g. an utterer. Worse still, some indexicals, e.g. 'this', do not seem to have even a clearly defined meaning.

Kretzmann's first argument

Norman Kretzmann argues against the compossibility of omniscience and immutability thus:

(2.10) A perfect being is not subject to change.

(2.11) A perfect being knows everything.

(2.12) A being that knows everything always knows what time it is.

(2.13) A being that always knows what time it is is subject to change.

(2.14) A perfect being is subject to change.

(2.15) A perfect being is not a perfect being.

(2.16) There is no perfect being.[14]

The first thing to note about Kretzmann's argument is that it does not, contrary to what he thinks (Yourgrau 1990: 235–246), logically establish the conclusion that omniscience and immutability are incompatible. Why not? Kretzmann has not shown that the two attributes may not be co-exemplified in a timeless world. Kretzmann has not shown that (2.12) is necessarily true.[15] One might also think that Kretzmann's argument fails because there is a world that contains merely one instant of time, and hence no change. It seems to me very difficult, however, to suppose that it is possible that there be merely one instant of time, since instants are boundaries of periods of time, and, if time is linear, any finite period of time will have two boundaries (cf. Swinburne 1994: 74). If time is circular then it seems that there will be one period of time that has no boundaries. Either way, the existence of only one instant of time seems impossible. Nevertheless, Kretzmann, if he is to have a demonstrably valid argument, needs, as an additional premiss, the proposition expressed by:

14 See Kretzmann (1966), reprinted in Yourgrau (1990: 235–246). I have changed the numbering of his sentences in order to fit it in with mine. For simplicity, I shall sometimes use here Kretzmann's term 'perfect being', even though 'maximally great being' would be more accurate.

15 I am cautious here because I do think that time is (metaphysically) necessary. Nevertheless, the onus is on Kretzmann to show this or, at least, that necessarily if there is a perfect being there is time.

(2.17) Necessarily, there is more than one instant of time.

He could, however, construct an argument against theism (which does, of course, state that there actually is a perfect being) from the class {(2.10), (2.11), (2.17)}. How should the theist respond?

Ross's reply

Some theists, e.g. James Ross, claim that the argument is incoherent, owing to the notion of relative time. Ross says that since time, according to relativity theory, is relative to certain frameworks, it makes no sense to say that a divine being knows what time it is *simpliciter*. He ends by saying 'Where is God to know the time? The whole project is cosmologically incoherent.'[16] I make two remarks in response to this: first, it seems that the relativity of time is a metaphysically contingent fact – it might have been otherwise – and, hence, Kretzmann's argument would go through unchallenged in metaphysically possible worlds where time is not relative. Secondly, I think George Schlesinger's response to Ross is apt: every omniscient being must know the time everywhere (cf. Schlesinger 1988: 7).

Coburn's argument

Many theists hold that every divine being is outside time. Robert Coburn came up with a very similar argument to Kretzmann's for the conclusion that omniscience and timelessness are incompatible. Retaining Kretzmann's assumption – our (2.17) – that time exists, I have schematized Coburn's argument thus (Coburn 1963; cf. Gale 1991: 65):

(2.18) It is now 11:45.

(2.19) The proposition expressed by (2.18) is true.

(2.20) For every divine being, if he is timeless he does not know the proposition expressed by (2.18).

Therefore,

(2.21) For every divine being, if he is timeless he is not omniscient.

Coburn's argument is relevantly similar to Kretzmann's original argument because if a divine being is timeless he is not subject to change, so, if he both is timeless and knows what time it is, then Kretzmann's original argument will fail. Some theists, however, accept Coburn's argument and respond by giving up timelessness and immutability and saying that every divine being is in time and has constantly changing knowledge. I believe that this response is actually correct, and that the denial of divine immutability (in the strong sense implied by divine timelessness) is both necessary for other reasons and not serious; the property of divine immutability that is great-making is that of immutability of *character*. Nevertheless, it is premature to give up divine timelessness and total immutability just because of Coburn's argument. Another argument waiting in the wings will show us why.

16 J. R. Ross, review of Anthony Kenny, *God of the Philosophers*, *Journal of Philosophy*, 1982, 413.

Helm's argument

Paul Helm gives the following argument in an attempt to expose the unsound reasoning underlying Coburn's argument (Helm 1988: 44):

(2.22) There is a book here.

(2.23) The proposition expressed by (2.22) is true.

(2.24) If a divine being is spaceless then he does not know the proposition expressed by (2.22).

Therefore,

(2.25) If a divine being is spaceless then he is not omniscient.

Similar remarks to those on time apply: first, note again that the argument does not show that omniscience and spacelessness are incompatible. Consider a possible world where there is no space. There omniscience and spacelessness may well be co-exemplified. But, again, the argument may be turned to one from premisses (2.23), (2.24), and:

(2.26) There is space.

This argument leads in a demonstrably valid way to the conclusion that there is no perfect being. Secondly, it seems very difficult for Kretzmann to argue that (2.26) is a necessary truth or from:

(2.27) There exists a being.

to (2.26).

Few theists want to maintain that every divine being is in space. To be on the safe side, however, I shall turn to a final argument, which I hope will convince theists that the solution of abandoning timelessness (and perhaps abandoning spacelessness) is premature.

Kretzmann's second argument

This argument is also taken from Norman Kretzmann's paper 'Omniscience and Immutability' (Kretzmann 1966; repr. Yourgrau 1990: 235–246); it forms a coda to it. It is odd that Kretzmann devotes eleven pages to showing that omniscience and immutability are incompatible, when he devotes only sixteen lines to showing that omniscience and individuality are incompatible. This is surprising because obviously the doctrine of a divine being's individuality is more fundamental to the views of a theist than is the doctrine of immutability. An argument showing that omniscience and immutability are incompatible is a source of discomfort, an argument showing that omniscience and individuality are incompatible is a source of panic.

Kretzmann's argument may again be put briefly thus (I put it in the first-person merely for reasons of perspicuity, not out of delusions of divinity):

(2.28) I am Daniel Hill.

(2.29) The proposition that I express by uttering (2.28) is true.

(2.30) For every divine being, if he is distinct from me, he does not know the proposition that I express by uttering (2.28).

Therefore,

(2.31) For every divine being, if he is distinct from me, he is not omniscient.

The parallel remarks to those I made on the arguments concerning timelessness and spacelessness apply here, but are not quite identical. First, the argument does not prove straightaway the incompatibility of omniscience and individuality. Consider the possible world where nothing exists bar one divine being: there they are co-exemplified. Here we hit an unexpected problem peculiar to Christianity, however. There is an argument due originally to Richard of St Victor, and lately associated with Robert Adams and Richard Swinburne, that holds that it is not metaphysically possible that there be only one divine individual. This is because a divine individual is perfectly loving and needs some other divine individual to love and with whom to love a third, distinct, divine individual. Hence there must be exactly three distinct divine persons.[17] Each of the divine persons is a distinct centre of action and consciousness, and so each would believe the proposition expressed by the relevant sentence of the form:

(2.32) I am the Son (Father, Spirit), not the Father (Spirit, Son), nor the Holy Spirit (Son, Father).

And surely we want to say that each of the three persons knows which person he is. So it seems as if there is no possible world containing exactly one perfect or maximally great being, and hence it seems as if an extension of Kretzmann's argument may show the incompatibility of divine individuality and omniscience after all. Extra premisses are needed, however, in order to make the argument logically valid, and in order clearly to reject the view that there could have been only one divine being (and obviously Jews and Moslems affirm that there is only one divine being), and to reject the doctrine of pantheism, i.e. the belief that God is everything, which is formally equivalent to the belief that only one divine being exists and absolutely nothing else, if one maintains the transitivity and symmetry of identity.

Responses

There are three basic responses one can make to these arguments:

(i) that there are no irreducibly indexical propositions to be known;
(ii) that there are irreducibly indexical propositions and every divine being knows every such proposition;
(iii) that there are irreducibly indexical propositions but that no being knows every such proposition.

17 Swinburne asserts that there is 'overriding reason' for a first divine individual to bring about a second and a third, but that there is no overriding reason to bring about a fourth. It follows from Swinburne's conception of divine agency that a divine individual will act on any overriding reason, but can bring about a divine individual only for an overriding reason. So there are exactly three divine individuals (Swinburne 1994: 170–180). I use 'person' and 'individual' interchangeably here, since the difference between these concepts is not at issue here.

I'll start by analysing the first way. Let us examine Kretzmann's argument against the compossibility of omniscience and individuality in more detail. First, let us consider the proposition I express by:

(2.28) I am Daniel Hill.

(2.28) expresses a truth, when I utter it, since I am Daniel Hill. Why cannot a divine being know the expressed proposition? Certainly it is natural for me to say:

(2.33) Every divine being knows that I am Daniel Hill.

This is because, as Hector-Neri Castañeda has argued (Castañeda 1967; repr. Castañeda 1999) usually indexicals in *oratio obliqua* (reported speech or attributions of propositional attitudes) take their reference from the speaker (or believer, as appropriate). The situation is even more confused with nested *oratio obliqua*; compare an example such as:

(2.34) John said that Philip had told him that he had bought a new car

In this example 'he' most naturally refers to Philip, not John, but 'him' most naturally refers to John, not Philip.

Now, it would be natural for you to say:

(2.35) Every divine being knows that you are Daniel Hill.

The question is this, however: 'Does every divine being know exactly what I know?' To answer this we shall have to look in turn at what I know and what every divine being knows.

Indexical knowledge

I know the proposition expressed by:

(2.36) Daniel Hill is Daniel Hill.

The proposition expressed by (2.36) is not news, however; you know the expressed proposition, as do many others: family, friends, and every divine being. At the very least, those that have stopped to consider the matter know it. These may, in fact, be few in number, but every divine being and I are among them.[18] But I also know something else. Imagine, similarly to the example that Kretzmann himself gives, that I have amnesia. The name 'Daniel Hill' rings vague bells; I'm pretty sure it is the name of *somebody*. Happily, my amnesia has not totally destroyed my knowledge of the law of identity and I reason that (2.36) expresses a truth and believe it. Then the doctor says to me, 'But you are Daniel Hill', and I come to hold a new, different, belief, viz. in the proposition expressed by (2.28) above. It seems clear that this belief is different, for before the doctor's bombshell I have not answered to my name, and I have not thought the note 'Daniel Hill to give seminar tomorrow' a cause for concern. Now I am in a panic, and leap out of my chair when I hear the name 'Daniel' called. Imagine that I were given a questionnaire before

18 Some philosophers think that one believes *p* only if one occurrently believes *p* or has occurrently believed *p* (and not forgotten it). Others think that one believes *p* if one has a disposition to assent to *p* were one to give it consideration. I shall not pronounce on this issue here.

the bad news sunk in. I should have written 'No' or 'Not sure' by questions such as 'Are you Daniel Hill?' or 'Are you giving a paper tomorrow?'. After the doctor's word in my ear, however, I find myself writing 'Yes' – or something stronger – to these questions. Could one reasonably claim that I did believe that I was Daniel Hill if I denied it repeatedly and sincerely many times? (Indeed, someone that accepts the hotly disputed Cartesian thesis of the transparency of the mind, that my beliefs about my beliefs are not false, is committed to the view that I didn't believe what I believed myself not to believe.) So surely (2.28) and (2.36) express different propositions. Similar arguments apply to propositions such as that expressed by:

(2.37) The philosopher of religion whose 31st birthday was on 21/10/2003 is Daniel Hill.

I need to know that I am the philosopher of religion whose 31st birthday was on 21/10/2003 in order for knowledge of the proposition expressed by (2.37) to issue in the sorts of response that the knowledge of the proposition expressed by (2.28) elicits. So there is no name or non-indexical definite description that may replace 'I' in a sentence like (2.28) and still express the same proposition. There seems, then, to be no relevant proposition not involving indexicals for a divine being to believe.

Parallel arguments

It will readily be seen that parallel arguments may be constructed for other indexicals. Thus I may utter now (at 21:30) the following sentence:

(2.38) Now is 21:30.[19]

Even though 21:30 is now, this utterance still does not express the same proposition as that expressed by:

(2.39) 21:30 is 21:30.

We can see this because I might know the proposition expressed by the second, but not the first, if, for example, I have lost track of time.

Similarly, consider the proposition one would express by the following sentence uttered at SE830220 (by the Ordnance Survey grid reference system):

(2.40) Here is SE830220.

One would not express the same proposition as one would express by:

(2.41) SE830220 is SE830220.

We may see this from the fact that I might know the proposition expressed by (2.41) but not that expressed by (2.40), since I might forget that I am at SE830220 in my excitement at being in the (officially) most boring part of the UK.[20]

19 It would be more idiomatic to say 'It's now 21:30', but a less idiomatic form brings out more clearly the parallel with 'I am Daniel Hill'. We do say idiomatically 'Now is the time for action, not words', so it is perfectly correct to use 'now' to refer to the present moment.

20 'A field in North Lincolnshire is the most featureless part of the UK, according to a new Ordnance Survey (OS) map. The square kilometre on the outskirts of the village of Ousefleet, near Scunthorpe, has nothing in it except a single electricity pylon and some overhanging cable. Grid

An attempted indexical solution

We might well concede that no indexical sentence expresses the same proposition as any non-indexical sentence. We might, however, try and construct an equivalent for many indexicals that would still preserve an indexical element, but one that we might hope to be less pernicious. So one might interpret (2.38) as expressing the same proposition as:

(2.42) *This* time is 21:30.

Likewise (2.40) might be claimed to express the same proposition as:

(2.43) *This* place is SE830220.

Finally, (2.28) might be thought to express the same proposition as:

(2.44) *This* person is Daniel Hill.

This strategy, however, seems to fail, as an example adapted from David Lewis and David Kaplan will show.[21] Continue the supposition that I am in hospital, suffering from amnesia. I may know what I look like from pictures still up with my photograph and the caption 'Lost. Have you seen this man?'. I might, then, look unawares in a mirror and say 'You are Daniel Hill' pointing at my reflection, without realizing that it is my reflection. I might also say 'That person is Daniel Hill' or 'This person is Daniel Hill'.[22] So, in this situation I believe of myself the proposition that this person is Daniel Hill, yet I do not believe the proposition expressed by (2.28). It follows that (2.28) is not equivalent, after all, with (2.44).[23]

Wierenga's solution

I have presented the argument that it is impossible that an omniscient being know the proposition that I know when I know that I am Daniel Hill. But if we suppose it is possible for an omniscient being distinct from me to know this, it would still be impossible for him to express his knowledge. He cannot express it by saying 'I am Daniel Hill', for this would express a falsehood. But neither can he express it by saying 'He is Daniel Hill', 'Daniel Hill is Daniel Hill', 'You are Daniel Hill', or 'That person is Daniel Hill', since each of these expresses a different proposition from the one that I express when I say 'I am Daniel Hill'. Each of these may be seen to be different because I might believe the proposition expressed by each without believing the proposition expressed by 'I am Daniel Hill'. This can be seen

reference SE830220 on map 112 is as near as cartographers can find to a completely blank square among the 320,000 in the widely-used Landranger map series': from the BBC Web site at http://news.bbc.co.uk/1/hi/england/1600225.stm. I take it that 'SE830220' denotes an area of land rather than a square on a map.

21 I am grateful to Hugh Rice for pointing this out to me.

22 This last is easier to imagine if I am pointing towards the mirror to show someone else that is further from the mirror than I in the same direction. Or imagine that I have a picture of myself in my hand, but do not realize that it is a picture of myself. I might then point to the picture and say 'This person is Daniel Hill'.

23 Lewis's example may be found in Lewis (1979: 543, §XIV; repr. Lewis 1983*b*: 156). Lewis refers to David Kaplan's then unpublished manuscript, 'Demonstratives'. This has since been published in Almog *et al.* (1989: Chapter 17 p. 533).

in the amnesia cases already discussed, where I might catch sight of myself in a mirror but not realize that it is a mirror and identify (e.g. from a photograph) the person I see (who is, unknown to me, myself) as Daniel Hill. The strangeness of a divine being's being unable to express his knowledge is further evidence, though not terribly strong evidence, for the impossibility of a divine being's having such knowledge.[24] Nevertheless, it is very important to make clear that one could 'hang tough' and insist that every divine being does know the proposition I express by:

(2.28) I am Daniel Hill.

One could stubbornly maintain that Kretzmann has not shown that this is impossible; at most he has shown that there is no natural language expression that a divine being could use to express his knowledge, which is a different matter. This strategy is adopted by Edward Wierenga (1989: 52–53). Wierenga offers a technical definition of belief in propositions of the form expressed by (2.28) where 'I' refers to the believer, and points out that Kretzmann's conclusion does not follow from his technical definition.[25].

Castañeda's solution

Another attempted solution was put forward by Hector-Neri Castañeda. He suggested that the following principle, which he called 'Principle P', was true and solved the problem:

(2.45) If a sentence of the form '*X* knows that a person *Y* knows that . . . ' formulates a true statement, the person *X* knows the statement formulated by the clause filling the blank '. . . '.

(Castañeda 1967: 207)

Although Castañeda calls this principle 'perfectly trivial' (Castañeda 1967: 207), it seems to me false.[26] In fact, a very similar principle was discussed and rejected by William of Ockham in his commentary on Peter Lombard's *Sentences* (Ockham 1979: I.199).[27] It is also interesting that rephrasing the principle with a propositional variable leaves it as definitely false:

(2.45′) For every person, *X*, and for every person, *Y*, and for every proposition, *P*, if *X* knows that *Y* knows *P*, then *X* knows *P*.

We could take as a substitute for the propositional variable '*p*' 'the Taniyama–Shimura theorem'. I know, on the basis of reliable testimony, that Andrew Wiles

24 It may be thought that, whether the divine being knows it or not, there is a problem for omnipotence in the fact that I can express a proposition that a divine being cannot express. This is not much more difficult than the problem that I can do an action not performed by an omnipotent being. These, and similar problems, are solved in Chapter 5.

25 I shall not, in what follows, adopt this last-resort strategy. Rather, I shall see if a convincing definition of omniscience can be offered even if it is impossible for any being distinct from me to know the proposition I'd express by (2.28).

26 As it does to Richard Swinburne, who discusses it in Swinburne (1993: 169).

27 I am grateful to Dr George Gereby for this reference and helpful discussion on this point.

knows the Taniyama–Shimura theorem. I do not know this proposition, however; I don't even believe it, as I don't know what it is, though I believe that it is true.

Although there are clearly many cases where application of Castañeda's principle yields a truth, I do not think it does in every case. For instance, suppose that *X* is ignorant of the fact that knowledge implies truth. Then *X* may well not believe the proposition expressed by the embedded sentence that fills the blank '. . . '.[28] Arguably, even if *X* knows that knowledge implies truth, there is no reason to suppose that *X* will make the relevant deduction – that the embedded sentence that fills the blank '. . . ' expresses a truth. Note also that Castañeda's principle requires a certain view of warrant. For instance, suppose that knowledge requires clarity and distinctness, as Descartes thought, then Castañeda's principle will not work: there is no sound inference from '*X* perceives clearly and distinctly that *Y* perceives clearly and distinctly that . . . ' to '*X* perceives clearly and distinctly that . . . '.

Another problem with Castañeda's principle is that it trades on the ambiguity created by indicators and quasi-indicators. If it contains indexicals, the embedded sentence that Castañeda represents by '. . . ' may be ambiguous and could express each of (at least) two different propositions. Consider the following sentence:

(2.46) John knows that Bill knows that he is hurt.

In (2.46) the embedded sentence 'he is hurt' could express any of the propositions (which may not *all* be distinct, but of which at least *some* are distinct) expressed by the following sentences:

(2.47) John is hurt.

(2.48) Bill is hurt.

(2.49) I am hurt (where John is the subject of the proposition).

(2.50) I am hurt (where Bill is the subject of the proposition).

(2.51) You are hurt (where John is the subject of the proposition).

It is therefore misleading of Castañeda to write of *the* statement formulated by the clause filling the blank '. . . '. It may be true that *in each context* the embedded sentence will express only one proposition, but I think that the superficial plausibility of the principle comes from the fact that the inference seems to hold good when a non-indexical proposition is expressed,[29] though it does not hold good when an indexical proposition is expressed. We do not normally distinguish between these two propositions; it is only in the problem cases of amnesiacs and so on that we are forced to. The difference is brought out, however, if we construe (2.46) with

28 Could such a person, *X*, *know* that *Y* knows that . . . ? Why not? Suppose *X* has it on reliable testimony that *Y* knows that . . . , then why should the fact that *X* is mistaken on the conditions for knowledge stop *X* from knowing that *Y* knows that . . . ? It is certainly unreasonable to insist that one have completely accurate knowledge of, or even beliefs about, the truth conditions of what one knows, as otherwise few would have any knowledge of causation, for example, or indeed knowledge itself, since the conditions for this (in particular of the justification/warrant element) are as hotly debated as anything in philosophy.

29 In which case 'he' is what Peter Geach calls 'a pronoun of laziness', not an indexical at all (Geach 1967: 630).

the 'he' referring to John. Bill may utter to John, who is in hospital recovering but suffering from amnesia, the sentence (2.47), and John may then know that Bill knows that John is hurt, which we should naturally express by (2.46). Nevertheless, he will not thereby know the proposition he would express by (2.49), for he does not know that he is John, and may not know that he is hurt, having had painkillers. On the other hand, Bill may utter to John the sentence (2.51), and John may then know that Bill knows that he is hurt, which is just what (2.46) says. Nevertheless John will not thereby know the proposition he would express by (2.47), as he does not know that he is John. I mention this to show that even Castañeda's principle will license only an inference from the admitted fact that every divine being knows that Daniel Hill knows that Daniel Hill is Daniel Hill, to the equally admitted fact that every divine being knows that Daniel Hill is Daniel Hill.

Patrick Grim also gives a plausible counterexample to Castañeda's principle:

> Consider first a case in which an individual McQ knows, on quite general grounds, that:
>
> (2.52) The shortest spy knows that he (himself) is a spy.
>
> Genuine spying, after all, would require at least some measure of premeditation. Suppose also, however, that *I* am a spy, and – unbeknownst even to me, perhaps – I am the shortest in my profession. On Castañeda's view, it appears that McQ would know in virtue of knowing (2.52) what I know in virtue of knowing (2.53):
>
> (2.53) I am a spy.
>
> For what I know in knowing that I am a spy, Castañeda maintains, is captured *in situ* by the subordinate clause 'he (himself) is a spy' of (2.52). By principle (P), McQ knows what is expressed in that clause in virtue of knowing (2.52). But this is at least strongly counter-intuitive. For McQ may well know that:
>
> (2.52) The shortest spy knows that he (himself) is a spy.
>
> and yet not know what I know. What I know, after all, is that I am a spy. McQ, although fully cognizant of (2.52), may not know that – he may not know that I am a spy – just as he may not know that I am the shortest spy. McQ, then, although he knows (2.52), does not know what I know in knowing (2.53). I am safe in my deception.
>
> (Grim 1985: 165–166)[30]

It seems that Castañeda's 'Principle P' is not true.

Swinburne's definition

Richard Swinburne accepts that it is impossible for a being distinct from me to know what I know when I know that I am Daniel Hill. But Swinburne thinks that it is wrong to make something impossible a necessary condition of omniscience. Thus, he puts forward a different definition: 'Let us say rather that a being is omniscient

30 I have changed Grim's numbering and corrected an error in punctuation.

if he knows at each time all true propositions which it is logically possible that he entertain then' (Swinburne 1993: 172).[31] The problem with this line is that it falls foul of a point parallel to one raised by Alvin Plantinga about omnipotence (Plantinga 1967: 170).[32] What about stones, for instance? Stones know nothing, yet it arguably is not metaphysically possible for a stone to entertain any proposition. Hence every stone is omniscient. Or one may consider a Plantinga-style counter-example especially contrived to refute this definition: for example, Patrick Grim's McIg. Grim writes:

> Consider in this light a being Necessary McIg, essentially such that he knows only that he is conscious. McIg, on the definition Bringsjord offers,[33] would qualify as omniscient. Worse still, consider any being which is essentially such that it is non-conscious – here a boulder qualifies, perhaps, or tomato juice or the Pacific Ocean. For any such being Bringsjord's definition would hold, and we'd be committed to the omniscience of tomato juice.
>
> (Grim 1990: 275)

Alternatively, one may make the example a bit sharper by discussing a being, call him 'McStupid', that always knows who he is, but knows nothing else. It follows that this being knows only one proposition, viz. the one that he would express by:

(2.54) I am McStupid.

This proposition, as we have seen, Swinburne would admit every divine being does not know. But, since the restriction we placed on McStupid was one of metaphysical necessity, McStupid qualifies as omniscient under the new definition. Not only that, but this being knows something that it seems no divine being knows. Yet surely it is crazy to think that a being that knows only one out of infinitely many true propositions should count as omniscient. So the problem remains. Even if Swinburne were to reject the possibility of a being such as McStupid, which would lay him open to counter-objections concerning every divine being's metaphysically necessary ignorance of the proposition expressed by (2.54), the problem would remain because of essentially ignorant beings such as sticks and stones. Even if Swinburne were to replace 'being' in his definition with 'knower' to rule out sticks and stones, thus, 'A knower is omniscient if he knows at each time all true propositions which it is logically possible that he entertain then', there would still be a problem: on this definition our essential ignorance of the divine nature does not count towards our non-omniscience. In other words, there are various true propositions about the divine nature that we do not and cannot know, since we are essentially finite. Nevertheless, every divine being knows every such proposition. Since it is metaphysically impossible for us to know these propositions, however, these propositions do not count towards our failure to be omniscient. This, however, seems intuitively wrong. It seems as if these propositions count very much towards our failure to be omniscient. So, I conclude that Swinburne's definition fails.

31 Swinburne means by 'logically possible' what I mean by 'metaphysically possible'.

32 I discuss this kind of example in detail in Chapter 5.

33 Bringsjord's definition is similar to Swinburne's in the relevant respect.

Knowledge of a proposition for every fact

Another way to try to solve the problem would be to say that, for each fact, every divine being has at least one belief corresponding to that fact. So, granted that (2.28) and (2.36) correspond to one and the same fact, it is not necessary in order that he be omniscient that every divine being know the propositions expressed by each of (2.28) and (2.36). It would be necessary for omniscience that a being know only one of them. The problem with this suggestion is that such a being need not know who he was, as David Lewis's story of the two gods makes clear:

> Consider the case of the two gods. They inhabit a certain possible world, and they know exactly which world it is. Therefore they know every proposition that is true at their world. Insofar as knowledge is a propositional attitude, they are omniscient. Still I can imagine them to suffer ignorance: neither one knows which of the two he is. They are not exactly alike. One lives on top of the tallest mountain and throws down manna; the other lives on top of the coldest mountain and throws down thunderbolts. Neither one knows whether he lives on the tallest mountain or on the coldest mountain; nor whether he throws manna or thunderbolts.
>
> (Lewis 1979; repr. Lewis 1983*b*: 139)

Since several propositions correspond to the one fact, *the god on the tallest mountain's throwing down manna*, it is not necessary that each god know each corresponding proposition. In fact, each god may be omniscient if he knows just one proposition corresponding to the fact, e.g. the proposition that the god on the tallest mountain throws down manna. But then the god on the tallest mountain does not need to know the proposition that he would express by '*I* throw down manna', nor would the god on the coldest mountain need to know the proposition that he would express by '*He* throws down manna'. But it is intuitively unsatisfactory that an omniscient being need not know who he is or what he is doing from the first-person perspective.[34]

How could we combat this? It will not do to combine this definition with Swinburne's one about metaphysical possibility, yielding:

(2.55) A being is omniscient if and only if

(i) for every fact the being knows a proposition corresponding to that fact,

and

(ii). the being knows all that it is metaphysically possible for him to know.

34 It might be claimed that no divine being has a distinctive perspective, but this seems strange. Why could a divine being not think of himself using the concept expressed by 'I'? Certainly in Scripture, God describes himself using the word 'I' or equivalent many times. In any case, this suggestion will not deal with indexicals such as 'now'. If a divine being is in time then he has to be able to use the concept of 'now', else he will be ignorant. This fact might be used as an argument for atemporality, but the price of claiming that no divine being can think of himself using the concept expressed by 'I' is too high a price to pay.

Although this ensures that every divine being knows who he is, it will not do, because we can define a metaphysically possible being, McPedant, for whom it is metaphysically necessary that he know exactly one proposition corresponding to each fact. McPedant will come out as omniscient on this definition, even though intuitively he is not.

We could just say that every divine being knows all true propositions other than those that have indexicals carrying references to persons other than himself, or places or times where he is not, but this has an *ad hoc* flavour about it, even though it may be logically secure. (It would, in fact, be quite difficult to specify, since the proposition that I might express talking to a divine being by 'We exist' would make reference to a person other than the divine being – myself.) Or one could say that every divine being has at least enough knowledge in order to fulfil his intentions, on the grounds that in order for his desires to be put into practice by his omnipotence, it is necessary that they be guided by knowledge. This approach seems too weak and vague, however.

Open propositions

Another attempt to solve the problem is to define 'open propositions'.[35] These are ordered pairs whose first co-ordinate is a thing and the second an incomplete sense.[36] So both I and every divine being believe of me that that person is Daniel Hill. I am the first co-ordinate of the ordered pair, the sense of '( ) is Daniel Hill' is the second. There is no problem with either every divine being's or my knowing both co-ordinates of the ordered pair. This cannot be put forward as a general theory of knowledge, however. I know the proposition expressed by the following sentence:

(2.56) Santa Claus does not exist.

It is not the case, however, that I know of Santa Claus that he does not exist. So it must be put forward as a supplement to the general theory, as Perry says.

Suppose again that I have amnesia. I believe the proposition expressed by

(2.36) Daniel Hill is Daniel Hill.

I do not, however, believe that expressed by:

(2.28) I am Daniel Hill.

On this analysis, however, I believe of me that that person is Daniel Hill, both before and after the doctor breaks the sad news. But this seems wrong: there is surely a change in my beliefs, else how do we explain the sudden change in my action from indolence to activity, from complacency to panic? John Perry explains it by claiming that one's thoughts do not change; rather what changes is the sense one entertains when apprehending the thought. So, Perry would say,

35 This proposal was broached by Perry (1977; repr. Yourgrau 1990: 50–70, esp. pp. 57 and 68). Perry does not use the phrase 'open proposition'. Note that there is a printing error on p. 55; 'today' in the second indented line of the third paragraph should read 'yesterday'.

36 'Sense' is here used, following John Perry, in the Fregean meaning of 'sense' (Yourgrau 1990: 51).

when I recover from amnesia I apprehend the same thought as before, but by entertaining a different sense. But suppose in my amnesiac state I actually believe the proposition expressed by:

(2.57) I am not Daniel Hill.

It follows that I apprehend the thought:

(2.58) ⟨Daniel Hill, incomplete sense of '( ) is not Daniel Hill'⟩.

But I still believe the proposition expressed by:

(2.36) Daniel Hill is Daniel Hill.

So I apprehend the thought:

(2.59) ⟨Daniel Hill, incomplete sense of '( ) is Daniel Hill'⟩.[37]

Perry is explicit that, on his view, one may believe a thought and its negation.[38] I think that Perry's view is consistent, but that it is implausible to claim that there is no change in thoughts apprehended, merely in the senses entertained. Nevertheless, this is another possible refutation of Kretzmann's argument – to claim that God apprehends all true thoughts, but does not do so by entertaining every possible sense.

It might be counter-argued that a maximally great being must not only apprehend every true thought but also do so under every possible sense – that a maximally great being must represent reality to himself in every correct way. A more telling objection is that surely a being, in order to be maximally great, must apprehend every true thought under every appropriate sense. For example, it is not enough for maximal cognitive excellence that a divine being, G, apprehend the thought that he is G solely under the sense 'G is G', he must also apprehend it under the sense 'I am G'. It would be no consolation that he satisfied the definition of 'omniscience' if he didn't even know who he was. So, I conclude that Perry's strategy is too weak to solve the problem. Of course, Perry's strategy may be supplemented in the following way:

(2.60) For every being, x, if x is omniscient then for every proposition, p, and for every sense, S, if it is possible for x to know p under S then x does know p under S.

The main problem with this is that it threatens to let back in the McIg counterexample. One will then have to revise the definition to:

37 It might be objected that here I actually apprehend the normal 'closed' proposition, rather than the 'open' one. Apart from the difficulty of distinguishing when a sentence corresponds to an open and when to a closed proposition, may I not think of Daniel Hill other than by using the word 'I'? Suppose I saw my name written on a register in the hospital, and formed the belief of the person there referred to that he was Daniel Hill, would that not suffice for believing (2.59)? One may even imagine my being shown photographs of myself, perhaps in a bid to stir my memory, without my realizing that they are of me. I might think of the person pictured that he was Daniel Hill. Again, would that not be sufficient for believing (2.59) on this account?

38 By 'a thought and its negation' I mean here to follow Perry: 'Here we take the negation of a thought consisting of a certain object and incomplete sense, to be the thought consisting of the same object, and the negation of the incomplete sense' (Yourgrau 1990: 69–70).

(2.61) For every being, *x*, if *x* is omniscient then for every proposition, *p*, there is some sense under which *x* knows *p*, and for every sense, *S*, if it is possible for *x* to know *p* under *S* then *x* does know *p* under *S*.

This will still, however, allow a revised version of the McIg counterexample: a being, McWho, that knows every proposition but for whom it is impossible to know any proposition under an indexical sense. McWho does not, therefore, know who he is, for he knows himself solely under the sense 'McWho' and not under the sense 'I'.

Jonathan Kvanvig takes a roughly similar line (1986: 47–71). He holds that in amnesia cases, when I have forgotten who I am I may indirectly grasp the sense of (2.28), but do not directly grasp it. When I have remembered who I am I directly grasp the proposition. Kvanvig claims that every omniscient being knows every proposition, but that no being apart from me can *directly* grasp a proposition of the form expressed by (2.28). Kvanvig further recognizes the problem of McIg, and claims that every divine being must have, in addition to omniscience, the separate property of 'maximal cognitive excellence' (1986: 71). Kvanvig also says that:

> Since grasping is a type of mental act, it will be relevant to the doctrine of omnipotence, not omniscience. And, since grasping directly all of what an omniscient being believes is a logically impossible task, such a being need not be able to perform such tasks in order to be omnipotent.
>
> (Kvanvig 1986: 71)

It still seems to me, however, that when I have amnesia I cease to grasp the proposition expressed by (2.28) in any way, rather than just ceasing to grasp it directly. So, I do not accept either Perry's or Kvanvig's solution.

The meta-level solution

Philosophers have long worried over how the following sentence can seem, as it does, incapable of imparting any information:

(2.62) Hesperus is Hesperus.

whereas this next sentence does appear to give us new information:

(2.63) Hesperus is Phosphorus.

The worry is caused by the fact that, since Hesperus is Phosphorus, the propositions expressed by (2.62) and (2.63) are necessarily alike in truth value. (Each is true in exactly those possible worlds in which Hesperus/Phosphorus exists.) Similarly, when I utter the following sentence, it seems incapable of imparting any information:

(2.64) I am I.

On the other hand, when I utter (2.28) it does seem to give information:

(2.28) I am Daniel Hill.

Again, the worry would be caused by the fact that, since I am Daniel Hill, the propositions expressed by (2.64) and (2.28) necessarily have the same truth value.

(Each is true in exactly those possible worlds in which I/Daniel exists.) If we compare these truths to higher-order truths about concepts, however, we may see a difference. The following sentence is uninformative:

(2.65) The same thing falls under the concept *Hesperus* as falls under the concept *Hesperus*.

On the other hand, (2.66) is informative:

(2.66) The same thing falls under the concept *Hesperus* as falls under the concept *Phosphorus*.

Here, the difference in informativeness is easily explained: the truth conditions of the expressed propositions are different – the proposition expressed by (2.65) is true in every possible world in which the concept *Hesperus* exists,[39] and the proposition expressed by (2.66) is true in a smaller set of possible worlds – those in which the same thing falls under the two concepts.

So, the argument would go, we should consider the higher-level proposition expressed by:

(2.67) The same thing falls under the concept *I*, if grasped by Daniel Hill, as falls under the concept *I*, if grasped by Daniel Hill.

and that expressed by:

(2.68) The same thing falls under the concept *I*, if grasped by Daniel Hill, as falls under the concept *Daniel Hill*.

Now, if (2.64) expresses the same proposition as (2.67) and (2.28) expresses the same proposition as (2.68) then we appear to have solved our problem, for every divine being can surely know the proposition expressed by (2.67) and that expressed by (2.68).

Before we consider this question, however, there is need of clarification: I formulated (2.65), (2.66), (2.67), and (2.68) in terms of concepts and 'falling under' rather than in the more usual terms of names and reference. This was because it might be possible to think of myself without using a name, if names are merely linguistic items that are part of the expression of thought rather than part of thought itself.

So, does (2.64) express the same proposition (when uttered by me) as (2.67), and does (2.28) express the same proposition (when uttered by me) as (2.68)? It seems possible for me to believe the proposition expressed by (2.64) without believing the proposition expressed by (2.67). I may have no views on concepts, or I might not even believe that there are such things. Devastatingly, however, it is certainly possible for me to believe the proposition expressed by (2.68) without believing the supposedly equivalent proposition that I express by (2.28). Imagine, once more, that I have amnesia and do not know who I am. I may still believe the proposition expressed by (2.68) even though I do not believe the proposition that

39 Some might add 'and in which something falls under the concept', but I think the expressed proposition will be trivially true in a world in which the concept *Hesperus* exists but nothing falls under it.

I should express by (2.28). This objection shows that a meta-level solution gets no further than any of the others so far considered.

What is a belief?

Perhaps our discussion so far has been hampered by inattention to what it is to have a belief. So, I suggest that if *x* understands the content of a proposition – that is, grasps the sense and reference of its elements, and the role that any quantifiers and operators play – and *x* assents to the content, then *x* believes the proposition. The problem is, however, that it looks as if nobody distinct from me can grasp the sense of 'I' when I use it in the sentence:

(2.28) I am Daniel Hill.

Almost everybody can grasp the reference of 'I' when used by me, of course; but grasping its sense is a different matter. Note that the sense of a word is different from its dictionary definition; almost everyone can know the dictionary definition of 'I', but knowing this alone is not sufficient for grasping its sense.

Relativity of truth

One is tempted in exasperation to say, when asked whether an omniscient being can know what I know when I know that I am Daniel Hill, 'Of course not – it's not true for the omniscient being!'. The spirit behind this approach is that indexical propositions are true at some times and false at others, true at some places and false at others, true for some people and false for others. If this approach could be made to work then it would solve all our problems. I fear, however, that it cannot be made to work: the notion of relative truth – truth for you, but not for me – I find baffling. In particular, if someone says to me that it's true today but not yesterday that something has a particular property, I want to say that it is absolutely true that the thing has the property today and absolutely false that the thing had the property yesterday. I cannot understand what relative truth is if it does not thus collapse into absolute truth, and so fear that this approach cannot help us.

Hoffman and Rosenkrantz's solution

Hoffman and Rosenkrantz attempt to solve the problem by relativizing their definition to propositions that either 'can be grasped by different individuals' or 'can be grasped by' the putatively omniscient being alone (Hoffman and Rosenkrantz 2002: 124). So, a formal version of this part of their definition would be:

(2.69) For every being, *x*, if *x* is omniscient then for every proposition, *p*, if *p* is graspable by different individuals or graspable by *x* alone then *x* knows *p*. (cf. Hoffman and Rosenkrantz 2002: 124)

This solution will not work, however. Consider the proposition that I express at SE830220:

(2.40) Here is SE830220.

This is graspable by many different individuals – all that are here with me at SE830220 – but, arguably, not by any divine being, since every divine being is spaceless. Or consider:

(2.70) We are sitting here.

The proposition that I express by this sentence is graspable by all those that are sitting here. No divine being, however, is sitting here. It follows that Hoffman and Rosenkrantz's definition is wrong.

Plantinga's solution

Another solution is to use Alvin Plantinga's definition of 'omniscience':

(2.71) For every being, *x*, if *x* is omniscient then for every proposition, *p*, *x* knows whether or not *p* is true.

The problem with this is that there might be irrational beings that know that a proposition is false and yet believe it anyway. So, we shall need to add an extra clause to rule this out:

(2.72) For every being, *x*, if *x* is omniscient then for every proposition, *p*, *x* knows whether or not *p* is true, and if *p* is false then *x* does not believe *p*.

But then the extra clause 'for every proposition, *p*, *x* believes *p*' is conspicuous by its absence. This definition allows for a being to know the truth value of every proposition and yet perversely withhold belief from it. It might be counter-argued that if one knows that a proposition is true then one believes it. This is not true, however. Indeed, our very argument affords the counter-example: every divine being knows the truth value of the proposition I express by 'I am Daniel Hill' and yet no divine being knows the proposition.

I may know the truth value of a proposition without even understanding its meaning, let alone believing it or knowing it. For example, I know the truth value of the Taniyama-Shimura Theorem (the word 'theorem' in fact gives away its truth value), yet I do not understand it or believe the proposition itself, much less know it. It might be countered that I cannot possibly know the truth value of a proposition without knowing the proposition itself, but this seems wrong – surely if I have it on reliable testimony that something is true I may be said to know that it is true. For example, God might tell me that every proposition expressed by the Bible is true. I then know that the first proposition expressed by the Bible is true, even though I may not know what the proposition is and so cannot be said to believe it, let alone know it. It might be thought that this approach cannot be maintained globally: an omniscient being will know not only the truth value of the first proposition expressed by the Bible but also the truth value of the proposition *The first proposition expressed by the Bible is the proposition that in the beginning God created the heavens and the earth*. But here my argument merely applies at one stage further back: a being, to be omniscient, must know the truth value of the proposition *The first proposition expressed by the Bible is the proposition*

that in the beginning God created the heavens and the earth, but, again, need not understand or believe *that* proposition, never mind know it. The intuition is that I could know the truth value of every proposition by having God, say, give me a list of proposition names and the corresponding truth values.[40] Just knowing the contents of this list, however, would not make me omniscient, since I might not know any of the propositions that are named on the list. This is easier to see if we consider a restricted version of omniscience: suppose I am told that the Bible expresses exactly *n* propositions and that every proposition expressed by the Bible is true, then it would not necessarily be correct to call me 'omniscient with respect to what the Bible teaches' since I might not even understand what it teaches, let alone know it. All I know is that, for every proposition expressed by the Bible, that the truth value of that proposition is truth. One might as well say that I know everything that God believes just because I know the truth value of everything that he believes (truth).

No propositions

A more extreme proposal is to do away with propositions altogether, and to think of believers as veridically related to facts,[41] or complexes of events or properties instantiated in substances. I think that there is no problem with both me and every divine being's being veridically related to the fact that I am Daniel Hill or that it is now 21:30 or that here is SE830220, though we may have difficulty specifying in words what the facts are without reintroducing the very element that we are trying to eliminate. I think there is no problem because I think that indexicality is a feature of our representation about the world, and not a feature of the world itself. On this view, however, there is no change in relation when I learn that I am Daniel Hill, since there is only one Daniel Hill out there in the world;[42] it is not the case that there are two persons – Daniel Hill and I – and I suddenly start to relate to both when previously I had been relating only to the first. Consequently, it seems to me that there is only one fact: it is not the case that there is one fact, *Daniel Hill's being Daniel Hill*, and another fact, *my being Daniel Hill*, and I suddenly start relating to the second fact where previously I had been relating only to the first. But in real life there is a change when amnesiacs remember who they are, and this theory ought to explain it. Surely the change is in beliefs. Where else (other than Perry's 'sense') could it be? Consider the questionnaire thought-experiment again: what better evidence could there be for the view that I believe that I am not Daniel Hill

40 Of course, there are more propositions than there are names in any given language, but we are just developing an intuition here.

41 One may be related to a fact in at least two relevant ways, parallel to the two ways one may be actively related to a proposition:

(i) believing it;
(ii) disbelieving it.

My use of the word 'veridically' here is designed to include the parallel of (i) and exclude that of (ii).

42 There may be other people called 'Daniel Hill', of course.

before t_1, and then at t_2 I believe that I am Daniel Hill, than that at t_1 I sincerely answer the question 'Are you Daniel Hill?' with the word 'No' and afterwards I sincerely answer the same question with the word 'Yes'? In addition, I take myself beforehand to believe that I am not Daniel Hill, and afterwards to believe that I am Daniel Hill. How can anyone really deny a change in belief without entirely abandoning our intuitive conception of what it is to have a belief?

One might respond that we believe propositions, but that every divine being is veridically related to facts rather than propositions. This idea was first broached (in a different context) by William Alston (1987). This is to claim that no divine being has beliefs, and thus either to interpret 'omniscience' in an analogical sense, or to deny that omniscience, as strictly defined, is necessary for divinity. Why should anyone wish to claim that no divine being has beliefs? One might well think that beliefs are representations of facts,[43] and are tied to particular points of view on reality. But why should a maximally great being need to represent things to himself? Why should a maximally great being's contact with reality be mediated through the concepts and references and senses that are necessary for finite beings like us to grasp reality? Would it not be more fitting for a maximally great being directly to intuit the whole of reality unmediated, without its having to be encoded and broken up into propositional chunks? One might well think that it is preferable to think of divine beings as cognizing reality without any representations or encoding – to view a divine being's knowledge, as H. H. Price put it in a more general context, as 'simply the situation in which some entity or some fact is directly present to consciousness' (1934: 229). But in this case our problem seems to disappear. No divine being knows any propositions, because every divine being directly 'perceives' reality. I use the word 'perceives' because there does seem to be an analogy between this direct acquaintance with facts and the way that we perceive objects: neither involves propositions. We do not perceive propositions, and our perceptions of things are not propositionally structured.[44] This view would be able to explain why no divine being knows indexical propositions of the sort discussed. Furthermore, it would show that there is, in particular, one very important aspect of reality that every divine being will directly cognize, viz. the truth-maker or falsehood-maker of each proposition. So every divine being will know the truth of each true proposition and the falsehood of each false one. This is, in a sense, a return to the direct knowledge by acquaintance that we considered at the beginning of this chapter in the context of persons etc. The suggestion is that every divine being has the same sort of direct knowledge of truth-makers and falsehood-makers that he has of events, substances, including persons,[45] and the

43 Since one is not confined to believing things about the actual world, beliefs may also be representations of *possible* facts, i.e. things that might have been facts, but actually are not, and even of *impossible* facts, i.e. the instantiation of properties in particulars that could not possibly possess them etc.

44 It's true that we do say 'You have been in Afghanistan, I perceive' (Sherlock Holmes to Dr Watson in *A Study in Scarlet*), but I think that this is a shorthand for 'I believe, from my perception, that you have been in Afghanistan'.

45 This is not a great metaphysical claim. If you do not believe that persons are substances, then delete 'including' and add 'and'.

instantiation of properties and relations. The acquaintance of each divine being extends over both particulars and the instantiation of universals. Further, it does not seem as if there is any practical benefit that any divine being will lack as a result of not knowing propositions: it seems that each divine being's abilities will be just as if he had maximal propositional knowledge (assuming such is possible). So a formal definition of omniscience on the version under consideration would be:

(2.73) $(\forall x)(\forall y)$(If x is omniscient then x knows y)

where 'y' ranges over facts. (We should also add a clause saying that none of a divine being's cognitions are of things that are not facts.)

The question still arises, however, as to whether this is sufficient to solve the problem. The definition does not seem too strong, but is it too weak? For example, the definition mandates that G perceive the fact that G exists, and the fact that G is identical with G, where 'G' names an arbitrary divine being. It does not, however, mandate that G perceive the fact that he exists or that he is identical with G – for there are no such indexical facts. So it looks as if, on this definition, it is still possible that a being – call him 'Fred' – be divine and, hence, omniscient and not know who he is. It might be responded that Fred will perceive the fact that the proposition that he would express by the following sentence is true:

(2.74) I am Fred.

This has already been dealt with, however, in David Lewis's story of the two gods up a mountain. Fred will indeed cognize the truth of the expressed proposition, but it still doesn't follow that he knows who he is. Fred won't grasp the sense of the proposition, since, on this view, divine beings don't grasp any senses. Fred will indeed cognize the fact to which the proposition expressed by (2.74) corresponds. This fact, however, is merely the same fact as that to which the proposition expressed by the following sentence corresponds:

(2.75) Fred is Fred.

Fred will cognize, of course, the rightness of the answer 'Fred' in response to the question 'Who are you?' addressed to him, but even that doesn't imply that he knows who he is. So the definition is too weak, since Fred qualifies as omniscient under this definition, though intuitively he is not.

Lewis's account

How does David Lewis solve the problem of the gods that he himself raises? He suggests that we construe the objects of belief, and, hence, knowledge, as properties rather than propositions (Lewis 1979; repr. Lewis 1983*b*: 133–159).[46] Lewis thinks that every belief is a self-ascription of a property. Thus, when I believe that I am over six feet tall, I self-ascribe the property of being over six feet tall. When I believe that Paris is the capital of France I self-ascribe the property of living in

46 I am grateful to Hugh Rice, Joseph Jedwab and Nick Bostrom for (separately) drawing my attention to this.

a possible world in which Paris is the capital of France. It will readily be seen that for every proposition there is a property. The question of whether to every proposition there corresponds a *distinct* property is a different one; the answer depends on what one thinks a property is. Lewis thinks that properties are sets of *possibilia* and that propositions are sets of possible worlds. On this understanding there does indeed correspond to every proposition a distinct property, since to every set of possible worlds there corresponds the property of inhabiting one of those worlds, i.e. the set of things that exist in those worlds. (This is different from the proposition, since a possible world is not a set of inhabitants.) The question next arises as to whether there corresponds to every property a distinct proposition, i.e. a distinct set of possible worlds. Lewis answers in the negative. The reason for this is that there are properties that are possessed by some, but not all, things in a world, or by some things in some world and some things in another world, such that there is no set of possible worlds all of and only whose inhabitants have the property in question. So Lewis puts forward his idea as a replacement for the idea that the object of belief is a proposition. What would be the correct definition of 'omniscience' following Lewis's thought? It would surely be this:

(D2.1) For every being, x, x is omniscient if and only if, for every property, F, x warrantedly self-ascribes F if and only if x possesses F.[47]

Does this definition avoid the problem of being too strong? Is it possible for a being to satisfy it? It seems so. But, it will be objected, what about the problem that we have been considering? I believe all the time that Daniel Hill is Daniel Hill; this corresponds to my self-ascribing the property *inhabiting a world in which Daniel Hill is Daniel Hill*. Many other actual beings, including every omniscient being, self-ascribe this same property. When I do not have amnesia I believe the proposition I'd express by:

(2.28) I am Daniel Hill.

This corresponds to my self-ascribing the property *being Daniel Hill*. No omniscient being self-ascribes this property, since no omniscient being possesses this property. Here we come across the genius of the Lewisian definition: the definition accommodates our intuition that in some sense no one else can truly believe what I believe when I believe that I'm Daniel Hill, yet this does not count against omniscience. It introduces relativity, but relativity concerning the possession of properties, rather than truth. In other words, Lewis does not allow any relativity among propositions, since they are sets of possible worlds, among which the actual world is either absolutely a member or absolutely not a member. Clearly, however, there is relativity concerning the possession of properties: it makes no sense to ask whether a property is absolutely possessed or not; one needs to ask, 'possessed by what?'.[48]

The objection will then be reformulated: granted that the Lewisian definition may still be satisfied even if an omniscient being does not self-ascribe the properties

47 'Warrantedly' is added to rule out lucky guesses etc. (cf. Hughes 1989: 126).

48 Of course one may talk of a property's being 'absolutely possessed' in the sense of 'possessed by something or other', but that is a different usage of 'absolutely'.

that I self-ascribe, does an omniscient being know everything that I know? After all, on Lewis's theory, my knowledge that I am Daniel Hill is my self-ascription of the property of being Daniel Hill. Since no omniscient being self-ascribes the property of being Daniel Hill it seems that no omniscient being has the knowledge that I have. It could be argued that Lewis's theory just brings it out more blatantly that omniscience is impossible. It does seem, however, that this attack has less intuitive force with regard to Lewis's definition than its predecessor had with regard to the more traditional definition. The reason is that when I ask 'Why does no omniscient being know what I know when I know that I am Daniel Hill?' no substantive answer can be given – one stammers in response merely that it is impossible. But why is it impossible? No reply can be given on the traditional account. Lewis explains why it is impossible on his theory – no being can know what is false and so no omniscient being can self-ascribe a property that he does not have, such as the property of being Daniel Hill.

At this point, the objection will probably become that the definition is too weak. We should note, first, that previous objections do not apply here: every omniscient being must know who he is. For example, an arbitrary divine being, G, to be omniscient, must self-ascribe the property *being G*. Nor, of course, is there any problem in his so doing. But how does Lewis's theory cope with amnesia cases? It appears to cope well. For example, consider my belief in the proposition expressed by:

(2.36) Daniel Hill is Daniel Hill.

This comes out as being my self-ascription of the property *living in a world in which Daniel Hill is Daniel Hill*, which is clearly different from the property *being Daniel Hill*, which corresponds to my belief in the proposition I express by:

(2.28) I am Daniel Hill.

Now, an omniscient being must *in some sense* know that I am Daniel Hill, even if he does not know exactly what I know when I know that I am Daniel Hill. On Lewis's theory, an omniscient being will indeed self-ascribe the property of living in a possible world in which I am Daniel Hill. But since, necessarily, if I exist then I am Daniel Hill, that set is just the set of possible worlds in which I/Daniel exists, which is just the set of possible worlds in which Daniel Hill is Daniel Hill. The problem here is that on Lewis's theory there appears to be no difference between belief held by someone other than me that I am Daniel Hill and that person's believing that Daniel Hill exists. Further, one might think that it was possible to believe that Daniel exists without believing that D. J. Hill exists: one might imagine somebody's being introduced to me as 'Daniel' and thus coming to believe that Daniel existed without knowing that I am D. J. Hill, and, consequently, without believing that D. J. Hill existed. On Lewis's theory, believing that Daniel exists is the same as believing that D. J. Hill exists, since in each case one ascribes to oneself the property of inhabiting a possible world of the set in each of which Daniel/D. J. Hill exists – one and the same set of possible worlds. Even more counter-intuitively, although it seems that one might know that Daniel is over six feet tall, without knowing that the eldest son of Tim in α is over six feet tall (where

'α' denotes the actual world), on Lewis's theory this turns out to be impossible, since if one self-ascribes the property of living in a world in which Daniel is over six feet tall one self-ascribes the property of living in a world in which the eldest son of Tim in α is over six feet tall, since, necessarily, I am the eldest son of Tim in α.

How does Lewis's account deal with other indexicals than the word 'I'? How, for example, does Lewis deal with 'now'? Again, I and almost everyone else (including every omniscient being) believe the proposition expressed by:

(2.39) 21:30 is 21:30.

This corresponds to my self-ascribing the property *inhabiting a world in which 21:30 is 21:30*. I now believe (since I have not lost track of time) – or one of my time-slices now believes, since it has not lost track of time – the proposition I'd now express by:

(2.38) Now is 21:30.

This corresponds to self-ascribing the property *being at 21:30*. Belief in the proposition expressed by (2.38) is self-locating belief: it locates the believer in time, just as self-ascription of *being at 21:30* does. Every omniscient being in time believes at the moment – or his current time-slice believes – the proposition expressed by (2.38); that is, every omniscient being in time currently self-ascribes – or his current time-slice self-ascribes – the property *being at 21:30*. What about omniscient beings that are outside time? They will not self-ascribe *being at 21:30* since they do not have the property in question, being outside time. If they were to self-ascribe it they would be mistaken.

How does Lewis's theory deal with 'here'? I believe the proposition expressed by:

(2.41) SE830220 is SE830220.

In other words, I – or my current time-slice – self-ascribes the property *inhabiting a world in which SE830220 is SE830220*. Again, others apart from me know this too. In particular, every omniscient being knows the proposition expressed by (2.41); that is, every omniscient being self-ascribes the property *inhabiting a world in which SE830220 is SE830220*. When I know where I am, I also know the proposition that I'd express now – or my current time-slice would express – by:

(2.40) Here is SE830220.

This corresponds to my self-ascribing the property *being at SE830220*. What about omniscient beings that are outside space? They will not self-ascribe the property *being at SE830220* because they will not possess it, being outside space. If they were to self-ascribe it they would be mistaken.

It might be thought at first that a curious feature of Lewis's idea is that it deals with the first-person indexical only. That is, it deals with the difference we intuitively sense between the proposition I express by 'I am Daniel Hill' and the proposition expressed by 'Daniel Hill is Daniel Hill'. Yet it does not, as it stands, deal with the difference we intuitively sense between the proposition someone expresses to me by 'You are Daniel Hill' and the proposition expressed by 'Daniel

Hill is Daniel Hill'. This poses a problem, since it would allow to be omniscient a being that lacked what we should intuitively count as important knowledge. For example, we should not want a being to count as omniscient if, when thinking of me, he did not know the proposition he would then express by:

(2.76) You are Daniel Hill.

We have spent a lot of time worrying that our definitions might allow to be omniscient a being that does not know who he is; but the risk now is that a being might qualify as omniscient without knowing who anyone else is. It might seem at first as if one could adapt our Lewisian definition quite easily:

(D2.2) For every being, x, x is omniscient if and only if, for every property, F, and for every being, y, x warrantedly ascribes F to y if and only if y possesses F.

This will not do because it still allows x to be omniscient even if he ascribes every property I have to me/Daniel without realizing that I am Daniel Hill. In other words, for every property, F, that I possess, x warrantedly believes the proposition expressed by the sentence:

(2.77) Daniel Hill is F.

He does not, however, even when addressing me, believe the proposition expressed by the sentence:

(2.78) You are F.

Hence he still fails, intuitively, to be omniscient. Lewis's account can, however, be extended to cover this. Lewis says that:

> A subject ascribes property X to individual Y under description Z if and only if (1) the subject bears the relation Z uniquely to Y, and (2) the subject self-ascribes the property of bearing relation Z uniquely to something that has property X. Now for belief *de re*. Up to a point it is obvious what to say. To ascribe property X to individual Y *simpliciter* – to believe *de re* of Y that Y has X – is to ascribe X to Y under some suitable description of Y. It remains to ask what makes a description "suitable". [. . .] Here is my proposal. A subject ascribes property X to individual Y if and only if the subject ascribes the property X to the individual Y under some description Z such that either (1) Z captures the essence of Y, or (2) Z is a relation of acquaintance that the subject bears to Y.
>
> (Lewis 1979: 539–542)

This suggests a second definition of omniscience for the Lewisian:

(D2.3) For every being, x, x is omniscient if and only if for every being, y, and for every property, F, and for every description, Z, if Z captures the essence of y or Z is a relation of acquaintance that x bears to y, then X ascribes F to y under Z if and only if y has F.

Here again the relativity of the definition is safely contained: what is relative is that different individuals will bear different relations of acquaintance to an object, which is harmless. This definition will also deal with all problem cases like (2.78),

since 'you' always presupposes some relation of acquaintance (or knowledge of an essence). Our original problem case of (2.28) is still dealt with under this revised definition since, as Lewis remarks, 'identity is a relation of acquaintance par excellence' (1979: 543).

The definition will not, however, on Lewis's understanding of properties, mandate that every omniscient being know that Daniel Hill is D. J. Hill. As far as I can see, though, one would not have to accept Lewis's view that a proposition is a set of possible worlds or his view that a property is a set of possible beings to benefit from his idea that properties, not propositions, are the objects or contents of beliefs. Indeed, I do not see why someone that wants to use this defence needs to accept even the weaker extensionalist account of properties and propositions. I do think that Lewis's theory can be easily adapted to get round these restrictions and that it does genuinely afford the resources for a successful definition of omniscience. This, then, is one way in which the theist may block the argument against omniscience from indexicals. Nevertheless, I shall continue my inquiry to see if there is another solution that does not require the slightly counter-intuitive idea that properties, not propositions, are the objects of beliefs.[49]

Epistemic greatness

At this point let us stop and take stock. Why did we make the claim that every divine being is omniscient? We made this claim because we thought that every divine being was maximally great and that knowledge was a great-making property. This suggests that the property that we want every divine being to have is *maximal epistemic greatness*. Why has discussion focussed on omniscience rather than on this property? Simply because they were assumed to be co-extensive, perhaps even the same property. If some aspects of omniscience did not confer greatness on the possessor they would be of no interest to us. So, let us suppose that 'omniscience' denotes the property of having maximal epistemic greatness. This is in fact what Plantinga suggests in a discussion with Patrick Grim:

> Omniscience [. . .] should be thought of as a maximal degree of knowledge, or better, as maximal perfection with respect to knowledge. Historically, this perfection has often been understood in such a way that a being x is omniscient only if for every proposition p, x knows whether p is true. (I understand it that way myself.) This of course involves quantification over all propositions. Now you suggest that there is a problem here: we can't quantify over all propositions, because Cantorian arguments show that there aren't any propositionally universal propositions (propositions about all propositions – 'universal propositions' for short), and also aren't any properties had by all and only propositions. (Note, by the way, that each of these conclusions is itself a universal proposition.) But suppose you are right: what we have, then, is a difficulty, not for omniscience as such, but for one way of explicating

49 One could always define omniscience in particular, as opposed to knowledge in general, as having properties for its objects, but this still seems to me rather counter-intuitive.

> omniscience, one way of saying what this maximal perfection with respect to knowledge is. A person who agrees with you will then be obliged to explain this maximal perfection in some other way; but she won't be obliged, at any rate just by these considerations, to give up the notion of omniscience itself.
>
> (Plantinga and Grim 1993: 291)

We have seen reason to doubt that the precise way in which Plantinga unpacks the more general definition works, but Plantinga is right to distinguish between the general definition and a specific unpacking of it. Below, I shall try to present a better way of unpacking it.

A first way of unpacking it might be that of maximal knowledge: a being, *x*, is maximally knowledgeable if and only if there is no possible being that knows all that it knows and something more. For example, there is no possible being that knows all that a divine being knows and more. This definition is, however, too weak. Recall McStupid – the possible being that knows only the proposition he would express by the following sentence:

(2.54) I am McStupid.

There is no being that knows all that McStupid knows and more. This is because, by our argument so far, no being distinct from McStupid can know the proposition that he expresses by (2.54), and McStupid, while he does know that proposition, is metaphysically incapable of knowing anything else. So McStupid comes out, wrongly, as omniscient on this definition too.

One way to deal with a Plantinga-style McStupid example is to extend perfect-being theology from the concept of divinity as a whole to the concepts of the individual attributes that divinity includes, and to define omniscience as *the class of beliefs that confers the most greatness* in which not only the truth, but also the importance, of beliefs will count towards how much greatness the class confers.

First, we should beware of too easy an attempt to unpack maximal epistemic greatness: to say that a being is omniscient if there is no more knowledgeable being possible, with 'more knowledgeable' interpreted as 'knowing a greater proportion of the propositions that are actually true'. The divine being that is alone in a spaceless and timeless world (if this be possible – as we saw, Swinburne denies it, because of his views on the Trinity) knows all of the true propositions in that world, and so one might think that only such a being can be omniscient. It looks as if in other situations proportions are going to break down, because as soon as one has more than one believer there is an infinite class of propositions that each divine individual, even in a spaceless and timeless world, will apparently fail to know. To see this, take any sentence, *S*, that expresses a truth; create, using the name of any other individual, an indexical sentence of the following form, with the individual's name replacing '*A*':

(2.79) I am *A*;

and then conjoin (2.79) and *S* into a new, compound, sentence.

If *A* believes the proposition expressed by this new sentence then *A*'s belief will be true, but the divine individual in question will apparently not be able to know

this proposition. Since there are infinitely many propositions there will be infinitely many propositions that each divine individual will apparently fail to know.[50]

Is it possible, then, that a being possess the property of maximal epistemic greatness? Here again we need to draw a distinction similar to the more general one that we drew between maximal greatness and absolute perfection. We are not considering greatness on an abstract scale, rather we are comparing possible beings and seeing if there is a possible being than which it is not possible that there be a greater being. So here we are not considering epistemic greatness on an abstract scale, but rather we are comparing possible beings and seeing if there is a possible being than which it is not possible that there be an epistemically greater being. Now, let us consider the possible being – call him 'Alf' – that knows every non-indexical truth but believes nothing else. Could there be an epistemically greater being than Alf? Yes. There could be a being – call him 'Bert' – that had no false beliefs, and knew everything that Alf knew, i.e. that knew every non-indexical truth, and that knew at every time, t_1, the proposition he would express then by uttering the relevant sentence of the form:

(2.80) It is now t_1.

Bert also knows, at every time, t_1, for every earlier time, t_{1-n}, the proposition he would express at t_1 by saying the relevant sentence of the form:

(2.81) It was t_{1-n}.

Bert also knows, at every time, t_1, for every later time, t_{1+n}, the proposition he would express at t_1 by uttering the relevant sentence of the form:

(2.82) It will be t_{1+n}.

In fact, Bert knows at every time, for every time, whether that time is past, present or future, and by how much. Bert also knows at every time, for every event, whether that event is past, present or future, and by how much. Finally, Bert knows every true Boolean compound that can be formed from the truths he knows.[51]

Could there be a being epistemically greater than Bert? Yes. There could be a being – call him 'Charlie' – that had no false beliefs, knew everything that Bert knew, and that believed at every place, P, the proposition he would express there by saying the relevant sentence of the form:

(2.83) P is here.[52]

Charlie also knows, at every place, P, for every other place, Q, the proposition he would express at P by uttering the relevant sentence of the form:

(2.84) Q is there.

Charlie also knows, at every place, P, for every place, Q_1, to the left (right) of P, the proposition he would express at P by uttering the relevant sentence of the form:

50 To see that there are infinitely many truths, consider that truths about the numbers are necessary truths, so, for every number n, there is always the true proposition asserting that n is a number.

51 This is, of course, recursive.

52 A place can be specified by an ordered triple of spatial co-ordinates (which would specify a point), or a set of ordered triples (which would – or, at least, could – specify a line, an area, or a volume).

(2.85) Q_1 is to the left (right) of here.

Charlie also knows, at every place, P, for every place, Q_2, above (below) P, the proposition he would express at P by uttering the relevant sentence of the form:

(2.86) Q_2 is above (below) here.

Charlie also knows, at every place, P, for every place, Q_3, in front of (behind) P, the proposition he would express at P by uttering the relevant sentence of the form:

(2.87) Q_3 is in front of (behind) here.

Charlie also knows rather complicated propositions such as that he would express by:

(2.88) To get to Q_4 from here one must proceed forwards with a 35-degree left incline and ascending upwards by one metre in every 17.

In short, Charlie knows, at every place, P, for every place, Q_5, related in spatial relation R to P, the proposition he'd express at P by uttering the relevant sentence of the form:

(2.89) Q_5 stands in spatial relation R to here.

Charlie not only knows where every place is, but knows for every event and individual, where that event and individual is. Finally, Charlie knows every true Boolean compound that can be formed from the truths he knows.

Could there be a being epistemically greater than Charlie? Yes. There could be a being – call him 'Dave' – that had no false beliefs and knew everything that Charlie knew and knew the proposition that he would express by:

(2.90) I am Dave.

Dave also knows for every proposition ascribing him existence, or a property, F, or a relation, R, with the members of any set, S, the propositions he would express by saying the relevant sentences of the form:

(2.91) I exist.

(2.92) I am F.

(2.93) I am in relation R with the members of S.

Finally, Dave knows every true Boolean compound that can be formed from the truths he knows.

Could there be a being epistemically greater than Dave? Yes. There could be a being – call him 'Ernie' – that had no false beliefs and knew everything that Dave knew and knew, for every object, x, that was near to him the proposition that he'd express by the relevant sentence of the form:

(2.94) This is x.

Ernie also knows, for every object, y, that is far from him the proposition that he'd express by the relevant sentence of the form:

(2.95) That is y.

Ernie also knows every true Boolean compound that can be formed from the truths he knows.

The problem that arises here is that it might seem as if every divine being will have to be in space as well as in time, since Charlie knows more than Bert or Alf. This is not the case, however. Epistemic greatness is not simply given by a function from the number of propositions one knows, but depends crucially on one's circumstances. Clearly if there were no space or (if possible) no time then a being that had Charlie or Bert's beliefs would be mistaken, and so less great in that respect than a being that lacked the beliefs in question.

Note that our definition, then, does not settle the question of whether an omniscient being can and does know what I know when I know that I am Daniel Hill. Suppose it is possible for a being distinct from me to know what I know when I know that I am Daniel Hill, then a being that does have that piece of knowledge will be greater, *ceteris paribus*, than a being that lacks it. In that case we should expect an omniscient being to know for every being, x, what x knows when x knows propositions that he would express by the relevant sentence of the form:

(2.96) I am x.

On the other hand, if, as I have tentatively conceded, it is not possible for a being distinct from me to know what I know when I know that I am Daniel Hill, then it will not be necessary that a being distinct from me know this in order to be omniscient. (Note that even if it is possible that I know something that an omniscient being does not, it doesn't follow that I know more than an omniscient being, since although I know that I am Daniel Hill, every omniscient being knows that he is not Daniel Hill.) So, our definition of omniscience is compatible with both a positive and a negative answer to the question of whether an omniscient being knows what I know when I know that I am Daniel Hill.

Similarly, if it is possible for an atemporal being to know what time it is, then an omniscient atemporal being will know what time it is. On the other hand, if it is impossible for an atemporal being to know what time it is, then it will not be necessary to know what time it is in order to be omniscient. Note that even if it is possible that a temporal being know something that an atemporal omniscient being does not, it doesn't follow that the temporal being knows more than an omniscient being, since although the temporal being knows what time it is, every atemporal omniscient being knows that he is atemporal. So our definition of omniscience is compatible with both a positive and a negative answer to the question of whether an omniscient being knows what time it is.

It is tempting to think that if we compare two beings, an atemporal being that knows that he is atemporal and a temporal being that knows both that he is temporal and what time it is, then the temporal being is epistemically greater, *ceteris paribus*, than the atemporal being. There is, however, no intrinsic epistemic defect in the atemporal being – if an omniscient atemporal being *per impossibile* were to be in time he would know what time it was. An atemporal being may still be exercising his epistemic powers as much as they can be, even though if he were *per impossibile* in time, he would know much more through the same exercise of the same powers. We are trying to rank the beings themselves in virtue of their epistemic powers, not trying to rank their situations according to how much or little they permit the operation of epistemic powers.

A new definition of omniscience

I shall now attempt to make the foregoing more formal. Let me offer the following definition to flesh out what has been so far suggested:

(D2.4) For every being, x, x is omniscient if and only if, for every type of belief state, B, if x is in a token of B then x's token of B has as object a true proposition, and if x is not in a token of B then if x were in a token of B then x's token of B would have as object a false proposition.

What is the point of this definition? The point is that epistemic greatness depends on the mental states, in particular the belief states, of the beings in question. How do we individuate belief states? This is a difficult question, but I suggest that what belief states have in common is not so much their physical or mental structure as their functional role – after all, every divine being is a purely immaterial entity and it seems, whether or not we are examples, that there could be purely physical believers. So I individuate belief states with reference to their functional role. Mental state M_1 is a belief of the same (relevant) type as mental state M_2 if and only if they fulfil the same function. What is the function of a belief? I suggest that the function of a belief is to combine with desires to produce actions. So my desire to survive combines with my belief that eating will help me survive to produce my action of eating. If this seems inappropriate for a divine being then consider this example: a divine being's belief that Adam is a sinner will combine with his desire to punish every sinner to produce the action of punishing Adam.

Now, in particular circumstances particular belief states have as their objects particular propositions. So, for example, suppose I am in a token of the belief state, B_1, that corresponds to the meaning of a sentence of the form:

(2.97) It is now t.

The proposition that my token of B_1 will have for its object depends on the circumstances; in particular, it depends on what time it is (by the reference of 'now'). I may stay in the same belief state or, at least, have tokens of the same belief state for a long time. For example, I may begin by holding a token of B_1 before t and carry on holding it – or another token of B_1 – after t because I have lost track of time. In this case, my belief state will start off having as its object a false proposition, then at t it will have as its object a true one, and then it will have as its object another false one. So we cannot evaluate the epistemic greatness of belief states without taking into account their circumstances. What aspect of the circumstances do we want to take into account? Merely whether the circumstances match the belief state to a true proposition or to a false proposition. So if a being is to be omniscient, clearly each of his belief states must have as an object a true proposition, i.e. none of them may have as an object a false proposition. This is necessary, but not sufficient, for omniscience.

We also need to ensure that our being is not missing out on any belief states that he ought to have. Which are these? Clearly he ought to have all and only those belief states that would have as objects true propositions, if he had them in his circumstances. So we specify that 'if x is not in a token of B then, if x were in a

token of *B*, with every other circumstance remaining the same, then *x*'s token of *B* would have a falsehood as object'. This ensures that a putatively maximally epistemically great set of beliefs is not missing out any beliefs that would increase the believer's greatness in the circumstances. This clearly corresponds to the intuitive understanding of 'omniscience': for what more could one ask in an omniscient being than that he be in all and only those belief states that would have as objects true propositions in his circumstances? So it is not too weak – McIg and all his colleagues will not be maximally epistemically great because there are lots of belief states that, if they had them, would increase their epistemic greatness.

It might be responded here that McIg could not have any other belief states by definition. This is correct, but the point is that he could not have any other belief states not because they would have as objects false propositions, but because he is directly defined in that way. A divine being, on the other hand, cannot have any other belief states because they would have as objects false propositions. This difference may be brought out more formally by saying that if McIg were, *per impossibile*, to be in the belief state that corresponds to the English sentence '$1 + 1 = 2$' or to the English sentence 'No contradiction is true', his token belief state would have a true proposition as object. (Here we need subjunctive conditionals that may be non-vacuously true or may be false even if the antecedent is necessarily false.) The fact that McIg is not in such a belief state shows that he is not omniscient. Anything that meets the definition put forward would certainly know who he was, since if a being, for example McIg or Charlie, did not know who he was then there would clearly be a possible belief state, for example the belief state corresponding to the English sentence 'I am McIg' or the one corresponding to the English sentence 'I am Charlie', that was lacked by the being and was such that, if the being had a token of it, that token would have a truth as its object. Hence McIg and Charlie are not omniscient. Nor would Charlie be omniscient if his limitations were essential to him.

Note that we are going to need subjunctive conditionals that may be non-vacuously true or that may be false even if the antecedent is necessarily false, even apart from the outlandish cases of McIg etc. It may well be that we humans are essentially finite and so essentially incapable of having true beliefs about the infiniteness of the divine nature, or even about some parts of higher mathematics. So we have to say that if *per impossibile* we were to have such belief states they would have truths as their objects.

The definition is not too strong, either, since there clearly can be a being that will satisfy this – consider my belief state that corresponds to the meaning of the sentence, 'I am Daniel'. Suppose an omniscient being had a belief state of this sort. Which proposition would it have as an object? A false one, of course, and so a being distinct from me that had this belief state would be, *ceteris paribus*, epistemically less great than one that lacked it. So it seems that this more substantive definition spells out in more detail the intuitive concept of maximal epistemic greatness that we were trying to capture.

Qualia

Suppose that every divine being is omniscient in the way just defined, then it is possible that he will not know what I know when I know that I am Daniel Hill. Is there anything else that could escape the knowledge of an omniscient being? I know what it's like to sin, to fail, to live in Britain, to be ignorant, to be imperfect, etc. Does every divine being know what these are like? There is a strong temptation to say 'No'. The intuition behind this negative answer comes from work in the philosophy of mind, especially work done by Frank Jackson, who, in his paper 'Epiphenomenal Qualia', gives us the example of Black-and-White Mary:

> Mary is a brilliant scientist who is, for whatever reason, forced to investigate the world from a black and white room *via* a black and white television monitor. She specializes in the neurophysiology of vision and acquires, let us suppose, all the physical information there is to obtain when we see ripe tomatoes, or the sky, and use terms like 'red', 'blue', and so on. [. . .] What will happen when Mary is released from her black and white room or is given a color television monitor? Will she *learn* anything or not? It just seems obvious that she will learn something about the world and our visual experience of it. But then it is inescapable that her previous knowledge was incomplete. But she had *all* the physical information. *Ergo* there is more to have than that, and Physicalism is false.
>
> (Jackson 1982; repr. Lycan 1990: 471)[53]

How does this relate to omniscience? Well, the moral that some readers have wanted to draw from Jackson's story is that propositional knowledge is not enough: one may know all the propositions about experiences without knowing what they are like. So, by this argument, our definition of 'omniscience' would be incomplete; we should need to add a further clause to the definition:

(D2.5) For every being, x, x is omniscient only if, for every experience, E, x knows what it is like to have that experience.[54]

Here another argument comes into play: why does Black-and-White Mary not know what it's like to see red while she is in the black and white room? After all, the example does not stipulate that she has *no* knowledge of what it's like to have an experience. The suggestion is made that it is impossible to have knowledge of what it's like to have a particular experience without having that particular experience. Since it is (see Chapter 6) impossible for a divine being to sin, and it is also impossible for a divine being to fail, it will, by this argument, be impossible for a divine being to know what it is like to sin or what it is like to fail.

To respond to this argument, let us examine in turn its two key premisses: that knowledge of what an experience is like is not propositional and that it may be gained only by having the experience.

53 It ought to be mentioned that Jackson has changed his mind since 1982 and has now rejected his own argument.

54 We'd also need to add a clause excluding from omniscience beings with false views on what something is like.

First, it should be noted that it is difficult to know how finely experiences should be individuated. For example, is there just one experience of failure, or is there a separate experience of failure at chess and one of failure at backgammon? Is your experience of failure at chess different from mine? Is my experience of failure at chess different today from what it was yesterday? In some cases experiences can be very finely individuated: how the room looks to me is different if my angle of vision changes by only a few degrees. Wine buffs can tell apart different vineyards by the smell and taste of a glass of wine; we can recognize each others' voices even by comparison with quite similar ones. Different instances of experiencing different things can yield qualitatively identical experiences, as when we say that something 'smells exactly like cherries'. Note that, on the face of it, a proposition is expressed by the sentence:

(2.98) It smells exactly like cherries.

If a divine being is omniscient then he will know the proposition expressed by (2.98). Knowing this will not help, however, if the being does not know what cherries smell like. It seems, however, that, just as before, the way out is provided by an indexical sentence. Imagine if one asked 'What do cherries smell like?' and one received an answer, one could just further press the point with 'What does *that* smell like?' One way to bring this questioning to an end is with a demonstrative 'It smells like *this*'. At this point one would normally seek to recreate in the perceiver the experience that one is using for comparison. This will not work in the case of a divine being, because it would be impossible for us to create in such a being the experience of feeling a failure or of feeling sinful. Nevertheless, if all lies open before the eyes of a divine being then such a divine being will surely be able to 'see into' our minds and 'see' our experiences. But what of experiences that no human will ever have, e.g. smelling the primeval soup? Every divine being knows every possible experiential state that every being could be in. It might be responded 'How can a divine being know a state that never has existed and never will exist?'. One counter-response is to claim that these feelings exist as *abstracta* even when there are no examples of them in actual existence. In other words, that property of the experience of smelling the primeval soup in virtue of which the experience is what it is exists as an abstract object. Furthermore, every divine being knows which state is correlated with which primary properties of the object that would produce the state.

Jackson takes his argument to refute physicalism, which he understands as the thesis that 'all (correct) information is physical information' (1982; repr. Lycan 1990: 469). Suppose that Jackson's argument succeeds; then it is still possible for a divine being to know non-physical information. Suppose, for example, that there are non-physical properties that such things as the experience of seeing something red have. These non-physical properties will not be discoverable by the natural sciences since, by definition, these do not attend to any non-physical phenomena that there may be. Nevertheless, a divine being will be able to attend to them in virtue of his supra-physical perception. So there is no reason to suppose that a divine being will be ignorant of these properties. Of course, if Jackson's argument

fails and we have no reason to think that there are non-physical properties, then it seems even more clear that every divine being could know what it is like to feel failure, and to feel sinful, since such feelings will be physical and knowable to the natural scientist.

I suggest that there is no reason to think that a divine being would be ignorant of what anything is like, since he is acquainted with the abstract properties that particular experiences instantiate.

Conclusion

I have claimed that it is possible for a being to be maximally epistemically great. I have argued that it is possible for a being to be omniscient, on a particular understanding of omniscience, even if he cannot know certain propositions, such as the one I express by 'I am Daniel Hill'. I have also argued that it is possible for a being to know what every experience is like even if it is impossible for the being actually to have some experiences.

We must now turn to consideration of whether it is possible for a being to know the future, in particular whether it is possible for a being to know what another being will freely do in the future.

3 Omniscience and freedom

The methodology of perfect-being theology led us to the conclusion that, since a divine being is a maximally great being, a divine being is, among other things, conscious: that is, a 'minded being capable of and engaged in states of thought and awareness' (Morris 1991: 39), amongst which thoughts and states are usually held to be states at least in some way similar to our beliefs.

Divine beings are also held to be free, since the property of freedom (like the property of having knowledge) is held to be a great-making property, whose possession confers on the possessor 'some measure of value, or greatness, or metaphysical stature, regardless of external circumstances' (Morris 1991: 35). Furthermore, only beings that possess, among others, these properties, may be divine. That is to say, any being that fails to possess one or more of these properties is not divine. Furthermore, the question arises as to whether a divine individual is *essentially* omniscient. Richard Swinburne has an interesting argument for this contention; he argues for the view that divine individuals lack thisness, and are constituted as the particular individual beings they are by their (monadic and intra-divine relational) properties alone.[1] It follows that a being that is divine is essentially divine, and hence possesses essentially the great-making properties in virtue of the possession of which he is divine. Recall that to say that *x* essentially possesses a certain property is to say that *x* could not exist without exemplifying the property. Hence an individual that is actually divine does not just actually possess the requisite great-making properties, but also essentially possesses them. Indeed, I think that an individual that is actually divine necessarily possesses the great-making properties. To say that *x* necessarily possesses a certain property is to say that it is not possible that the property not be possessed by *x*, in other words, *x* necessarily exists and essentially possesses the property.

Here is what Swinburne has to say on the matter:

> If, as on the thisness-view, one thinks of a divine individual as one who has his essential properties such as power and knowledge which are distinct from

1 *Thisness* ('*haecceitas*') is 'that in virtue of which an individual is the individual that it is: its individuating essence making it this object or person' (Blackburn 1994: s.v. 'haecceity'). Swinburne adds the clarification that thisness is whatever it is that distinguishes individuals that are not distinguished by their (general) properties (1994: 34–38).

> him, the question arises as to why it is that he retains that power, and what guarantees the efficacy of his actions. And if one thinks of a divine individual as a person who has knowledge, the question arises as to why it is that he never makes a mistake, what guarantees that knowledge always comes to him. And above all, the question arises as to why it is this individual who is in charge of the universe rather than some other possible individual. Of course one may answer these questions by saying that a divine individual just is a being of the required sort, and it is a metaphysically necessary truth that that particular one is in charge of the universe. These are ultimate facts. And indeed there have to be some ultimate facts. But the fewer ultimate facts we postulate, the simpler our account of the underlying nature of the world; and simplicity [. . .] is evidence of truth.
>
> (Swinburne 1994: 166–167)

I find Swinburne's argument persuasive, and his conclusion is certainly in agreement with the mainstream of the theistic tradition. So I shall here be concerned to defend the view that every divine being is essentially omniscient, i.e. that for every being, x, if x is a divine being then x is essentially omniscient. I shall not need the stronger contention that if x is divine then x is necessarily omniscient, though I think it true. Before moving on to issues of freedom and foreknowledge I shall very briefly discuss an argument of Chris Hughes for the conclusion that essential omniscience is impossible.

Hughes's argument

Chris Hughes argues that, if Anselm had not existed, it would have been impossible for any divine being to know the proposition, which would have been true in that eventuality, that Anselm did not exist (Hughes 1998). Hughes's reasoning is that if Anselm had not existed it would have been impossible to grasp the proposition that he did not exist since this proposition involves the concept of Anselm, which could not have been grasped if Anselm had not existed.[2] I suggest in response that a divine being could have grasped the proposition through his acquaintance with the abstract entity that is the property *being Anselm*. Hughes will probably reply that this property is contingent and exists if and only if Anselm exists. I deny this, and claim that the property would have existed unexemplified if Anselm had not existed. Further, I claim that a divine being, through his acquaintance with the abstract entity that is the property, could and would have known that it was unexemplified and, thus, could and would have known that Anselm did not exist.[3]

2 Hughes points out that his argument is only against essential omniscience, not against contingent omniscience (1998: 375).

3 It seems that there is a difference between the proposition that Anselm does not exist and the proposition that the property *being Anselm* is unexemplified, since one may believe the first and not believe the second.

Freedom and foreknowledge

In the previous chapter we examined the question of whether the doctrine of omniscience was self-consistent or consistent with other fundamental doctrines such as the doctrine of the individuality of a divine being. I shall now examine whether it is consistent with other claims we may wish to make about the world, in particular with the claim that some future actions, human or divine, are free. I think that freedom is incompatible with determinism; I adhere to a libertarian conception of free will. I shall discuss and briefly defend this conception of freedom in Chapter 6. For now, I must ask that the reader work with the conception of freedom that I am using – a conception that excludes the possibility of a free action's being determined. Readers that do not share my libertarian convictions will not of course think that there is any tension between freedom and foreknowledge in any case. My view is that an agent, S, freely performs an action, A, if and only if S is not ultimately caused to perform A by anything 'outside' S.[4]

The more common libertarian view is, roughly, that an agent, S, freely performs an action, A, if and only if S 'could have' refrained from performing A. The 'could have' is variously explicated, sometimes with additional conditions such as 'all prior states being the same'. Even though I think this view wrong, it will suffice for present purposes, since it is very counter-intuitive to think that one's ability to do otherwise precludes divine foreknowledge, even if this ability to do otherwise is not necessary for freedom. (Note that a condition such as 'all prior states being the same' may become very important in the discussion.) Many philosophers have claimed that divine foreknowledge is incompatible with human (and divine) freedom. I shall term a philosopher of this persuasion 'an incompatibilist'. Others have denied this claim. I shall call a philosopher of this persuasion 'a compatibilist'. These terms are fairly common in the literature, but they should *not* be confused with the usage of the term 'incompatibilist' to mean *one that denies that free will and determinism are compatible*. Confusingly, many compatibilists in our sense are incompatibilists in the other sense.[5]

The argument against the consistency of omniscience and free will depends on the claims that omniscience at a time, t_1, implies not just knowledge of all true propositions about the present (t_1) and past (t_{1-n}, for every positive n), but also of all true propositions about the future (t_{1+n}, for every positive n), and that there are now true propositions about future free actions. I shall assume for the majority of this chapter that every divine being is in time; this makes exposition easier, but I shall also discuss the view that no divine being is in time in Chapter 7.

4 I shall leave my use of 'outside' intuitive and vague for the moment, pending the clarification in Chapter 6.

5 Alvin Plantinga (1986), for example, is a compatibilist in our sense but an incompatibilist in the other sense. To make matters more confusing, sometimes anybody that denies that freedom understood in the libertarian manner is compatible with divine foreknowledge is called 'an incompatibilist', even if the person does not think the libertarian conception correct. Thus Paul Helm (1988) is sometimes called 'an incompatibilist' because he thinks freedom as understood by libertarians is incompatible with divine foreknowledge, though he is a compatibilist in the other sense.

I think that all philosophical arguments designed to show the inconsistency of foreknowledge and free will may be divided into two types. Each type depends on the fact that a divine being's foreknowledge, being total and infallible, represents a link of the strongest kind between the past and the future. Either the argument runs from the 'fixity' of the past to the 'fixity' of the future via this link, or it runs from the 'openness' of the future to the 'openness' of the past, and concludes, via a *modus tollens*, that the future is not open.

Setting up the arguments

Recall that the proposition expressed by the following sentence is logically contingent (like all statements asserting the existence of something particular):

(3.1) There exists an omniscient being.

Nevertheless, (3.1) can be used as a premiss in our arguments concerning freedom and foreknowledge, at least if unpacked a little:

(A) There exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x believes at t_1 the proposition expressed by (B).

(B) Paul will eat a tuna sandwich at t_2.

It is not necessary for present purposes to add that if p is true then x believes it, since (B) provides us with an example of a proposition reporting a future free action. In fact, the proposition expressed by (A) is stronger than necessary in one way. All that is necessary to set up the argument would be to say that the being believed the proposition expressed by (B) at t_1, and that if he believed the proposition expressed by (B) at t_1 then the proposition expressed by (B) is true. Strictly speaking, however, we should add a proposition explaining that:

(3.2) If it is true that Paul will eat a tuna sandwich at t_2 then Paul will eat a tuna sandwich at t_2.

I shall take this for granted, for simplicity's sake, however, and proceed to consider the arguments in detail.

Arguments for the incompatibility of freedom and foreknowledge

Argument from accidental necessity

Here is an argument of the first type, from the 'fixity' of the past to the 'fixity' of the future, based on one put forward by Paul Helm (personal communication; cf. Helm 1988: 98). I have adapted it to include the premisses I have just outlined:

(A) There exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x believes at t_1 the proposition expressed by (B).

(B) Paul eats a tuna sandwich at t_2.[6]

6 t_2 is here understood to be later than t_1. 'Eats' in (B) and 'believes' in (A) are understood to be

(3.3) The proposition expressed by (A) logically implies the proposition expressed by (B).

(3.4) The proposition expressed by (A) is accidentally necessary from t_1.

(3.5) For every proposition, p, and every proposition, q, if p logically implies q and p is accidentally necessary, then q is accidentally necessary.

Therefore,

(3.6) The proposition expressed by (B) is accidentally necessary from t_1.

It follows from this, claims Helm, that (B) does not report a free action at t_2, since free actions are accidentally contingent. Since this is only an example, it follows that none of us has any free will, i.e. every action we perform we could not have refrained from.[7]

Note that this argument is logically valid. Its soundness depends in part on whether the proposition expressed by (3.5) is true, i.e. whether accidental necessity is closed under logical implication. (A class, A, of propositions is *closed under*, or *closed with respect to*, logical implication if every proposition logically implied by a member of A is itself a member of A.) This question of whether accidental necessity is closed under logical implication will exercise us greatly below.

Other versions of the argument rely on the principle that accidental necessity is closed under *metaphysical* implication, but we do not need to consider these versions separately since if one proposition implies another in any standard sense of 'implies',[8] then the first proposition logically implies the second. So I shall consider only arguments in terms of logical implication, in order to prevent the discussion's becoming unwieldy.

Accidental necessity

In order to determine the truth of the claim that accidental necessity is closed under logical implication, we ought to look a little more closely at what accidental necessity is.

Helm clearly needs a sense of 'accidental necessity' that might be thought to accrue to propositions about the past just in virtue of their being about the past, and, if it accrued to a proposition describing a future action, would be inconsistent with that action's being free. W. S. Anglin gives eight different definitions of 'accidental necessity' (1990: 85–86). I think his seventh definition would be of most assistance to Helm here, that of accidental necessity as causal independence, in which the necessity operator is interpreted as 'it is outside our present causal control that . . . ' (Anglin 1990: 86). Richard Swinburne also offers an apparently causal definition:

tenseless. It is to be understood that (B) truly reports a putatively free (in the sense previously discussed) action at t_2.

7 As stated above, I do not in fact think that it is a necessary condition of having free will with respect to an action that one be able to refrain from that action. Nevertheless, this approximation will suffice for present purposes.

8 Excepting relevance logics and 'epistemic implication'.

> A statement *p* is accidentally necessary at a time *t* if and only if *p* is true and it is not coherent to suppose that any agent by his action at *t* can make *p* false, although it is coherent to suppose that at some other time an agent could make *p* false.[9]
>
> (Swinburne 1994: 116)

I here do not accept the last clause of Swinburne's definition, as I should like it to be the case that if a proposition is logically necessary then it is accidentally necessary too. This accords with what Plantinga says in 'On Ockham's Way Out':

> [We] should revise our definition of accidental necessity to say that a proposition is (now) accidentally necessary if it is true and also such that it entails that it is not (now) within anyone's power (not even God's) to cause it to be false. And perhaps we could then see the relevant asymmetry between past and future as the fact that true propositions strictly about the past – unlike their counterparts about the future – are accidentally necessary in this new sense.
>
> (Plantinga 1986; repr. Fischer 1989: 206)

Let us, then, adopt the following definition: a proposition, *p*, is accidentally necessary for an agent, *S*, at a time, *t*, if and only if

(i) *p* is true;

and

(ii) it is not within *S*'s power to cause at *t* it to be the case that *p* is false.[10]

Someone may wonder why my definition is agent-relative. W. S. Anglin answers a similar objection very well (his 'fixity' is another, but similar, interpretation of 'accidental necessity'):

> According to the special theory of relativity, the same event, with all the same intrinsic properties, can be a past event in one frame of reference and a future event in another frame of reference. 'Fixity' is not an intrinsic property of events but rather a relation between an event and an agent who has no control over the event. With respect to such an agent the event is fixed.
>
> (Anglin 1990: 87)

Note that we claim that a proposition is accidentally necessary only if it is true. This is because the incompatibilist (and most compatibilists, too) want to claim that accidental necessity *is* closed under logical implication. This claim will totally fail if one thinks that false propositions may be accidentally necessary, as one could then trivially show that all propositions were accidentally necessary, since a logically necessarily false proposition logically implies every proposition,

9 Swinburne's distinction between statements and propositions does not matter for present purposes.

10 It may be objected that 'within *S*'s power' is vague or imprecise. Most of the defenders of this argument think that backwards causation is metaphysically impossible (and most of them call this 'logical impossibility'). I do not write 'metaphysically impossible', however, but the vague 'within *S*'s power' because some defenders of the argument may think that backwards causation is metaphysically possible, but nomologically impossible, i.e. impossible given the laws of nature. Others yet may think that it is within the laws of nature, but not within human power, or not within human power yet (e.g. not until we develop a time machine). I wish to accommodate Helm's argument to the broadest possible support before trying to refute it.

and it is not within anyone's power to cause a logically necessary falsehood to be false.

Further, this conception of accidental necessity will meet Helm's requirements: it will accrue to any proposition about the past just in case

(i) it is true;

and

(ii). it is not within anyone's power now to cause it to be false (as Helm believes about the proposition expressed by (A) above).

It will be inconsistent with freedom if it is a metaphysically necessary condition of my freely doing an action, *e*, at a time, *t*, that it be within my power at *t* to cause *e*'s non-occurrence. Alternatively put, it is a metaphysically necessary condition of my freely doing an action, *e*, at a time, *t*, that it be within my power at *t* to cause the proposition reporting my doing *e* to be false.

Argument from the fixity of the past

Of course, there are versions of the argument that one finds in the literature that do not use the term 'accidental necessity'. For example (cf. Fischer 1989: 8):

(A) There exists a being, *x*, such that for every proposition, *p*, if *x* believes *p* then *p* is true, and such that *x* believes at t_1 the proposition expressed by (B).

(B) Paul eats a tuna sandwich at t_2.

(3.3) The proposition expressed by (A) logically implies the proposition expressed by (B).

(3.7) It is not within Paul's power at t_2 to cause the proposition expressed by (A) to be false.

(3.8) For every agent, *x*, every time, *t*, every proposition, *p*, and every proposition, *q*, if *p* logically implies *q* then, if it is not within *x*'s power at *t* to cause *p* to be false then it is not within *x*'s power at *t* to cause *q* to be false.

Therefore,

(3.9) It is not within Paul's power at t_2 to cause the proposition expressed by (B) to be false.[11]

This argument is not significantly different from the ones involving accidental necessity. Indeed, to say that one lacks the power to make a proposition false is one way of unpacking the notion of accidental necessity.

11 It will be noted that I have written of causing propositions to be true or false. This usage might be objected to on several grounds. One is that one might think (as I hinted in the introduction) that propositions are not causally accessible to us – they are *abstracta* and thus cannot be caused to be anything. If the reader prefers, he or she may rephrase the entire discussion of this chapter in terms of bringing about states of affairs instead.

Reductio from openness of the future

Finally, as mentioned earlier, the literature features several versions that run the argument backwards and start from the 'openness' of the future (Pike 1965; repr. Fischer 1989: 63):

(A) There exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x believes at t_1 the proposition expressed by (B).

(B) Paul eats a tuna sandwich at t_2.

(3.3) The proposition expressed by (A) logically implies the proposition expressed by (B).

(3.10) It is within Paul's power at t_2 to cause the proposition expressed by (B) to be false.

(3.11) For every agent, x, every time, t, every proposition, p, and every proposition, q, if p logically implies q then, if it is within x's power at t to cause q to be false, then it is within x's power at t to cause p to be false.

Therefore,

(3.12) It is within Paul's power at t_2 to cause the proposition expressed by (A) to be false.

But the argument is supposed to be a *reductio ad absurdum*, and the incompatibilist rejects as absurd the consequence that it is within Paul's power at t_2 to cause the proposition expressed by (A) to be false. In consequence, the incompatibilist claims that we must reject the premiss expressed by (3.10) and say that it is not within Paul's power to cause the proposition expressed by (B) to be false.

Power closure principles

Rejecting the premiss expressed by (3.10) is not the only option, however. Another is to reject the power closure principle:

(3.11) For every agent, x, every time, t, every proposition, p, and every proposition, q, if p logically implies q then, if it is within x's power at t to cause q to be false, then it is within x's power at t to cause p to be false.

In fact, there are many such principles, and so I shall now consider some versions of various power closure principles. I shall deal only with the principles concerned with the closure of power or powerlessness under *logical* implication, since these are the most plausible principles. I shall start with some obviously false principles, and then work up to the more difficult cases. The reader should understand that each of the principles discussed below is supposed to hold for every proposition, p, and every proposition, q:

(3.13) If

(i) one has the power to cause p to be true;

and

(ii) *p* logically implies *q*;

then

(iii) one has the power to cause *q* to be true.

(3.14) If

(i) one has the power to cause *p* to be false;

and

(ii) *p* logically implies *q*;

then

(iii) one has the power to cause *q* to be false.[12]

These principles are false, as *q* might be a logically necessary truth. A logically necessary truth is implied by every proposition and no one has the power to cause a logically necessary truth to be true or to be false. (Moreover, a logically necessary truth is implied by every proposition on *every* standard reading of 'implies'.[13])

Note that the following principle:

(3.15) If

(i) one has the power to cause *p* to be true;

and

(ii) *q* logically implies *p*;

then

(iii) one has the power to cause *q* to be true.

is logically equivalent to (3.14) above, since the power to cause *p* to be true is the same as the power to cause *not-p* to be false.[14]

Similarly, I do not separately discuss:

(3.16) If

(i) one has the power to cause *p* to be false;

and

(ii) *q* logically implies *p*;

12 It may seem at first that having the power to cause *p* to be true implies having the power to cause *p* to be false. I do not think that this is true, and it is demonstrable that having the power to do something such that, were one to do it, *p* would be true, does not imply having the power to do something such that, were one to do it, *p* would be false, as *p* might be necessarily true.

13 Again, excepting relevance logics and 'epistemic implication'.

14 It might be objected that the power to cause *p* to be true is not the same as, but merely logically equivalent to, the power to cause *not-p* to be false. It might then further be objected that to say that if one has a certain power one has every power logically equivalent to that power is merely to beg the question when one is discussing power closure principles. I am not sure what exactly it would mean to say that two *powers* were logically equivalent, presumably it would mean that they were such that it is logically necessary that if one exercised one, one exercised the other. But then it doesn't seem as if the power closure principle that the inference uses begs the question, since it is the powers rather than the propositions that are equivalent. It does not follow from the above that if one has the power to cause some proposition, *p*, to be true, one also has the power to cause *not-not-p* and *not-not-not-not-p*, etc. to be true.

then

(iii). one has the power to cause q to be false.

The reason is that this is logically equivalent to (3.13).

Various weaker versions of each principle have been put forward:

(3.17) If

(i) one has the power to bring it about that p is true;

and

(ii) p implies q;

then

(iii) one has the power to bring it about that q is true.

(3.18) If

(i) one has the power to bring it about that p is false;

and

(ii) p implies q;

then

(iii) one has the power to bring it about that q is false.

The relation of 'bringing it about that' has excited considerable discussion in the literature.[15] Debate has raged over whether bringing it about that p is the case is the same relation as causing p to be the case, or whether it is, rather, the same relation as *counterfactual power over p* (i.e. the power to do something such that, were one to do it, p would be true). It seems to me that, however we *precisely* formulate the notion, the intuition is that nobody has the power to bring it about that a logically necessary truth is true. This very intuition then shows that there is a difference between bringing about a truth and having counterfactual power over it.[16] In any case, the propositions expressed by (3.17) and (3.18) are false.

Let us turn, then, to the notion of counterfactual power.

(3.19) If

(i) one has the power to do something such that, were one to do it, p would be true;

and

(ii) p implies q;

then

(iii) one has the power to do something such that, were one to do it, q would be true.[17]

15 See Hasker (1989 : 104–115); Zagzebski (1991: 106–115); Philip L. Quinn, 'Plantinga on Foreknowledge and Freedom', in Tomberlin and van Inwagen (1985: 284); Talbott (1986: 458); Basinger (1987: 334); Purtill (1988: 186); Freddoso (1982).

16 The intuition, however, also underlines the fact that 'counterfactual power over' p may not be a very good name for the power to do something such that, were one to do it, p would be true.

17 As far as I have been able to ascertain, the first occurrence of a distinction among the three

Nobody has the power to do something such that, were he or she to do it, a logically impossible proposition would be true. So this principle is correct, since even if *q* is a logically necessary truth in (3.19) then one still has the power to do something such that, were one to do it, *q* would be true. Indeed each of us has this power and exercises it daily. One should not, however, be tempted to embrace the partner of (3.19) above:

(3.20) If

(i) one has the power to do something such that, were one to do it, *p* would be false;

and

(ii) *p* implies *q*;

then

(iii) one has the power to do something such that, were one to do it, *q* would be false.

This principle is false; for example, there is nothing that anyone can do such that, were he or she to do it, a necessary truth would be false, yet a necessary truth is logically implied by every proposition.

We have found one correct power closure principle for counterfactual power, but what about causal power and 'bringing it about that'? One might consider the following refinements of the preceding principles:

(3.21) If

(i) one has the power to cause *p* to be true;

and

(ii) *p* implies *q*;

and

(iii) *q* is a logically contingent proposition;

then

(iv) one has the power to cause *q* to be true.

(3.22) If

(i) one has the power to cause *p* to be false;

and

(ii) *p* implies *q*;

and

(iii) *q* is a logically contingent proposition;

then

(iv) one has the power to cause *q* to be false.

---

conceptions of causal power, bringing it about that, and counterfactual power, was in Saunders (1966).

(3.23) If

(i) one has the power to bring it about that p is true;

and

(ii) p logically implies q;

and

(iii) q is a logically contingent proposition;

then

(iv) one has the power to bring it about that q is true.

(3.24) If

(i) one has the power to bring it about that p is false;

and

(ii) p logically implies q;

and

(iii) q is a logically contingent proposition;

then

(iv) one has the power to bring it about that q is false.

Each of these principles is false. To take Philip Quinn's original counter-example, which he proposed for (3.21) and (3.23), but which in fact will apply to all of the above: let p be the proposition expressed by 'Neil Armstrong walks on the moon', and let q be the proposition expressed by 'There is a moon' (Tomberlin and van Inwagen 1985: 284). (This example is also used by Thomas Talbott (1986: 458).) Neil Armstrong had the power to cause p to be true, the power to bring it about that p was true, the power to bring it about that p was false, and the power to cause p to be false; but he never had the power to bring it about that q was true, the power to cause q to be true, the power to cause q to be false, or the power to bring it about that q is false, even though p logically implies q.[18]

Another way of avoiding the problem of logically necessary truths that also avoids the Armstrong-on-the-moon example is to modify the principle thus:

(3.25) If

(i) one has the power to cause p to be true;

and

(ii) p logically implies q;

and

(iii) q is false;

then

(iv) one has the power to cause q to be true.

18 To make the logical implication clear, treat 'Neil Armstrong walks on the moon' as short for 'There is an x such that x is the moon and Neil Armstrong walks on x'.

(3.26) If

(i) one has the power to bring it about that *p* is true;

and

(ii) *p* logically implies *q*;

and

(iii) *q* is false;

then

(iv) one has the power to bring it about that *q* is true. (Hasker 1989: 112)

These principles are not correct. Consider the proposition expressed by:

(3.27) Daniel Hill fathers a child.

I have the power to bring it about that the proposition expressed by (3.27) is true, though it is actually false. Furthermore, it seems plausible to me that one has the power to bring about the truth of a conjunction if one has the power to bring about the truth of one conjunct while the other conjunct is already true.[19] It is certain, in any case, that if one has the power to bring about the truth of *p* then one has the power to do something such that, were one to do it, the conjunction of *p* with any proposition that was already true would be true, and it seems reasonable to add that one also has the power actually to bring this about. But we know that the proposition expressed by the following sentence is true:

(3.28) If Daniel Hill fathers a child then every divine being blesses the child fathered by Daniel Hill.

We know that this is true because we know that every divine being is maximally loving. Or, at the very least, we know that every divine being blesses every human being and we know that any child fathered by Daniel Hill is a human being.[20] So, if I have – as I do – the power to bring about the truth of the proposition expressed by (3.27) then I have the power to bring about the truth of the conjunction of the proposition expressed by (3.27) with the proposition expressed by (3.28):

(3.29) Daniel Hill fathers a child, and if Daniel Hill fathers a child then every divine being blesses the child fathered by Daniel Hill.

But clearly (3.29) logically implies the proposition expressed by:

(3.30) Every divine being blesses the child fathered by Daniel Hill.

19 The incompatibilist arguer will have to cede this point, I think: 'I am writing' is logically equivalent to the conjunction 'I am writing and if I am writing then I am writing'. By the principle that power is closed under logical equivalence – upon which principle (or similar) the incompatibilist's argument is based – if I have the power to make 'I am writing' true then I have the power to make 'I am writing and if I am writing then I am writing' true. Obviously I have the power to make 'I am writing true', so I have the power to make the whole conjunction true. It seems implausible to restrict this just to conjunctions one of whose conjuncts is a logically necessary truth.

20 If you believe that every divine being blesses only the elect then please include my child among the elect – at least for the purposes of this example. It may be replied that every divine being also punishes us. I do not deny this, but I insist that every human is also greatly blessed by every divine being. Indeed, punishment can itself be a blessing.

Now, according to Hasker's principle, (3.26), if I have the power to bring about the proposition expressed by (3.29) – as I do – and the proposition expressed by (3.29) logically implies the proposition expressed by (3.30) – as it does – and the proposition expressed by (3.30) is false – as it is, since I have not fathered a child – then I have the power to bring it about that the proposition expressed by (3.30) is true. But I deny this. I don't have the power to bring it about that any divine being blesses anybody – the blessing of a divine being is freely (though necessarily) given, and cannot be brought about or caused by any finite human agent.[21] Indeed, the argument, it seems to me, would work just as well with the propositions expressed by the following sentences:

(3.31) Daniel Hill fathers a child, and if Daniel Hill fathers a child then Daniel's wife lovingly helps raise the child fathered by Daniel Hill.

(3.32) Daniel's wife lovingly helps raise the child fathered by Daniel Hill.

I have the power to bring it about that the proposition expressed by (3.31) is true because the second conjunct is already true – my wife has pledged lovingly to help raise any child that I were to father. But then, according to Hasker's power principle under discussion, I have the power to bring it about that the proposition expressed by (3.32) is true. But this seems to me wrong. I don't think I have the power to bring it about that my wife lovingly helps raise a child. Her help is freely given, not brought about by me. It follows that Hasker's principle, (3.26), is wrong.

Hasker affirms that on his definition of 'bring it about that' I do have the power to bring it about that the proposition expressed by (3.32) and the proposition expressed by (3.30) is true.[22] His definition is as follows:

(D3.1) For every agent, x, and every proposition, p, x brings it about that p is true if and only if there is a proposition, q, such that x causes q to be true and the conjunction of q with the history of the world prior to the time q is about implies p and it is not the case that on its own the history of the world prior to the time q is about implies p, and it is not the case that p would still have been true had q been false. (Cf. (BA_4) in Hasker (1995; repr. Hasker, Basinger and Dekker 2000: 178).)

This definition is of no help to us, however, because we need to know what to include under 'history of the world', and this is the whole subject of the hard fact–soft fact debate. For example, do I have the power now to bring about the truth of the proposition expressed by the following sentence?

(3.33) James correctly guessed yesterday that I should freely work today.

According to the definition (D3.1), in order for me to have the power to bring about the truth of the proposition expressed by (3.33) it must be that the proposition expressed by (3.33) is not part of the 'history of the world' before today. Since this, as just mentioned, raises the whole hard fact–soft fact controversy, Hasker's definition cannot be used as an *uncontroversial* means of settling anything, even unrelated questions such as whether I have the power to bring it about that the

21 This argument is slightly similar to one given by Linda Zagzebski in Zagzebski (1991: 113–114).

22 William Hasker, personal communication, 4 February 2004.

proposition expressed by (3.32) is true. So I fall back on my intuition that I lack the power to bring it about that the proposition expressed by (3.32) is true and that I also lack the power to bring it about that the proposition expressed by (3.30) is true. Hasker disputes this intuition, however, claiming that I do have the power to bring it about that the proposition expressed by (3.32) is true, and, indeed, that I have the power to bring it about that the proposition expressed by (3.30) is true. He compares my sinning and points out that I have the power to bring it about that every divine being is displeased with me.[23] This does not seem to me analogous, however. I agree with Hasker that I have the power to bring it about that every divine being is in a certain *state*, such as the state of displeasure. I do not think, however, that I have the power to bring it about that any divine being perform any *action*, such as punishing me or blessing my child. These actions are freely, even if necessarily, performed in response to my action of sinning or of fathering a child, but they are not *brought about* by those actions.

It seems a good deal less controversial that the version of Hasker's principle in terms of causation, (3.25), is false. It seems even clearer that I cannot *cause* a divine being to bless my child, or even cause my wife lovingly to help raise my child. So it seems even clearer that an example of this sort will refute (3.25).[24]

Alfred Freddoso once suggested (but no longer endorses) the following principle to avoid the problems:

(3.34) If

(i) one has the power to bring it about that *p* is true;

and

(ii) *p* is logically equivalent to *q*;

then

(iii) one has the power to bring it about that *q* is true. (Freddoso 1982: 64)[25]

I note that if one identifies a proposition with a set of logically possible worlds, as does David Lewis (Lewis 1973*b*), then it follows that *p* and *q*, if logically equivalent propositions, are identical, and that (3.34) is true. I think Lewis's analysis wrong, however.

I shall slightly adapt my previous examples:

(3.35) Daniel Hill fathers a child, and Daniel Hill fathers a child if and only if every divine being blesses the child fathered by Daniel Hill.

(3.36) Daniel Hill fathers a child, and Daniel Hill fathers a child if and only if Daniel's wife lovingly helps raise the child fathered by Daniel Hill.

23 William Hasker, personal communication, 4 February 2004.

24 It does seem to me less clear that I have the power to *cause* a conjunction to be true if one conjunct is already true, and, in particular, it seems to me unclear that I have the power to *cause* to be true the proposition expressed by (3.29) or that expressed by (3.31). Nevertheless, I think that the defender of (3.25) will have to grant this, and so the examples will refute the principle.

25 There are obvious variants of (3.34) in terms of causation and counterfactual power.

Each of (3.35) and (3.36) expresses a falsehood because I have not fathered a child. Nevertheless, it is within my power to bring it about that the propositions expressed by each are true: the second conjunct is already true, since if I were to father a child every divine being would bless and my wife would lovingly help raise the child I should father, and, clearly, it is impossible for them to bless or lovingly help raise my child if I have not fathered one. Since it is within my power to make the propositions expressed by each of the first conjuncts true it is within my power to make the propositions expressed by the conjunctions as a whole true. But the proposition expressed by (3.35) is logically equivalent to that expressed by:

(3.37) Every divine being blesses the child fathered by Daniel Hill, and Daniel Hill fathers a child if and only if every divine being blesses the child fathered by Daniel Hill.

Similarly, the proposition expressed by (3.36) is logically equivalent to that expressed by:

(3.38) Daniel's wife lovingly helps raise the child fathered by Daniel Hill, and Daniel Hill fathers a child if and only if Daniel's wife lovingly helps raise the child fathered by Daniel Hill.

So by principle (3.34) I have the power to bring it about that the propositions expressed by (3.37) and by (3.38) are true. This, it seems to me, is wrong. I don't think I do have the power to bring it about that either proposition is true. The second conjunct of each proposition is a biconditional that is already true, thanks to the fact that every divine being necessarily blesses every human being, and thanks to my wife's unconditional offer lovingly to help raise any child I might father. I cannot, therefore, bring about the truth of the second conjunct of either proposition. But nor can I bring about the truth of the first conjunct of either proposition: I cannot bring it about that a divine being blesses any child I might father or even that my wife lovingly helps raise any child that I might father. Their love is freely given, not brought about by me. Again, the version of principle (3.34) in terms of causation seems even more clearly wrong; it seems even clearer that I cannot *cause* a divine being to bless any child I might father, and fairly clear that I cannot *cause* even my wife lovingly to help raise any child I might father.

Thomas Talbott, followed by William Hasker, has suggested a modification of (3.34) as follows:

(3.39) If

(i) one has the power to bring it about that p is true;

and

(ii) one has the power to bring it about that p is false;

and

(iii) p is equivalent to q;

then

(iv) one has the power to bring it about that q is true. (Talbott 1986: 458; cf. Hasker 1989: 109.)

It should be clear that this alteration will not suffice to defeat the counter-examples:

(3.35) Daniel Hill fathers a child, and Daniel Hill fathers a child if and only if every divine being blesses the child fathered by Daniel Hill.

(3.36) Daniel Hill fathers a child, and Daniel Hill fathers a child if and only if Daniel's wife lovingly helps to raise the child fathered by Daniel Hill.

I have the power to bring it about that the propositions expressed by (3.35) and (3.36) are true and the power to bring it about that they are (i.e. remain) false. This is because I have the power to bring it about that the first conjunct is true and I have the power to bring it about that the first conjunct is (i.e. remains) false. It follows that the principle is false.

Let me summarize our conclusions thus far. (3.13), (3.14), (3.17), (3.18), (3.20), (3.21), (3.22), (3.23), (3.24), (3.25), (3.26), (3.34) and (3.39) are each false. In other words, neither causal power, nor the relation of bringing it about that, is closed under logical equivalence (or anything weaker). The only principle we have upheld is (3.19), which states that counterfactual power is closed under logical implication. Nevertheless, the following remarks of Thomas Flint seem to me correct:

> If two propositions are logically equivalent and I have power over the truth of one of them (i.e., its truth is up to me), then it does seem clear that the truth of the other one is within my power as well; what does not seem clear is that I need to have power in the same sense of 'power' over the second as over the first. Suppose I have causal power over the truth of one of two logically equivalent propositions; is it not sufficient that I have counterfactual power over the other? Is that not enough for me to say that each of them is such that its truth is up to me?
>
> (Flint 1991; cf. Hasker 1989: 109)

I think Flint is correct, but his remarks lend no comfort to the incompatibilist since, I claim, there is no absurdity in claiming that we have counterfactual power over every divine being's past beliefs. I shall defend this claim in detail below.

Arguments from fixity of the past again

I mentioned above that there were two sorts of argument for the conclusion that infallible and total foreknowledge was incompatible with freedom (conceived of as incompatible with determinism). We have examined the power closure principles that underlie arguments that move, for a *reductio*, from the 'openness' of the future to the 'openness' of the past. The other sort of argument moves from the 'fixity' of the past to the 'fixity' of the future. This accordingly depends, as we saw in the argument concluding in (3.9), on *powerlessness* closure principles. There we had a principle that played an important part in the argument:

(3.8) For every agent, x, every time, t, every proposition, p, and every proposition, q, if p logically implies q then, if it is not within x's power at t to cause p to be false, then it is not within x's power at t to cause q to be false.

Tightening it up, by adding a clause specifying that p is true, we get:

(3.40) If

(i) p is true;

and

(ii) p implies q;

and

(iii) it is *not* within one's power to cause p to be false;

then

(iv) it is *not* within one's power to cause q to be false.

This should be familiar – it is essentially the same as Hasker's (false) principle (3.25) above. In other words, every *powerlessness* closure principle is logically equivalent to some *power* closure principle. So I shall not bother to discuss any more individual versions of powerlessness closure principles; we may immediately conclude that they are all false, except ones concerned with *counterfactual* powerlessness.

Let us then consider the argument in terms of counterfactual powerlessness using the one true powerlessness closure principle we have found:

(A) There exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x believes at t_1 the proposition expressed by (B).

(B) Paul eats a tuna sandwich at t_2.

(3.3) The proposition expressed by (A) logically implies the proposition expressed by (B).

(3.41) It is not within Paul's power at t_2 to do something such that, were he to do it, the proposition expressed by (A) would be false.

(3.42) For every agent, x, every time, t, every proposition, p, and every proposition, q, if p logically implies q then, if it is not within x's power at t to do something such that, were x to do it, p would be false, then it is not within x's power at t to do something such that, were x to do it, q would be false.

Therefore,

(3.43) It is not within Paul's power at t_2 to do something such that, were he to do it, the proposition expressed by (B) would be false.

How should one respond to this argument? It is logically valid, and we are agreed that the counterfactual powerlessness closure principle (3.42) is correct, so the argument seems to leave only the option of accepting the conclusion and the corollary that we have no free will (since we are understanding freedom in the libertarian manner), the option of rejecting the proposition expressed by (3.41), and the option of rejecting the proposition expressed by (A).

Denial of total divine foreknowledge

One way of denying the proposition expressed by (A) would be to deny that the being, x, does believe at t_1 the proposition expressed by (B). This would amount to denial of total divine foreknowledge, but would allow for the preservation of the infallibility of divine belief. The proposition about Paul is only an example, so one would have to claim that no infallible being had any beliefs at any given time about any future free action, i.e. any free action after that time, whether the action be done by a human or by a divine being. This is what Richard Swinburne does in *The Coherence of Theism* and *The Christian God*:

> But it seems to me more satisfactory to [. . .] define God's omniscience accordingly, not as knowledge at each period of time, of all true propositions, but as knowledge of all propositions that it is logically possible that he entertain then and that, if entertained by God then, are true, and that it is logically possible for God to know then without the possibility of error.
>
> (Swinburne 1994: 133; cf. Swinburne 1993: 172–183)

Swinburne notes that his proposal is drastic, a point not often enough realized by philosophers and theologians that follow his lead:[26]

> God, if he is necessarily and eternally perfectly free, must be ignorant of his own future actions – except in so far as his perfect goodness [. . .] constrains him to act in certain ways. And since he is omnipotent, and thus able to make any difference he chooses to the future, he must in general be ignorant of that future.
>
> (Swinburne 1994: 134)

So it seems that, if we are to preserve the omnipotence and infallibility of every divine being, then we must admit that every divine being has hardly *any* non-trivial beliefs about the future, since even the belief that there will be something non-divine tomorrow is one that a divine being could make false by annihilating everything else.[27] It seems as if all we are left with as possible beliefs for a divine being are that he will exist tomorrow and that he will not do evil tomorrow, and similar beliefs about his necessary actions, and all the beliefs that the set of these entails. It seems odd to admit that humans have more true beliefs about the future than a divine being does. It also seems odd to admit that no divine being knows, or even has a view about, whether the universe will exist tomorrow. Every divine being could, of course, know the *probability* that there will be a universe tomorrow, and presumably this probability will be high, but no divine being has a view about the simple question of whether or not there will be a universe tomorrow. He will

26 Daniel Strange tells me (personal communication) that the theologian Clark Pinnock wishes to hold that it is impossible that God foreknow with certainty free human actions, but that God may foreknow everything else with certainty.

27 Paul Helm suggested to me in a personal communication that every divine being may have various trivial beliefs of the form expressed by 'If there is a universe tomorrow I shall sustain it'. This may well be so (assuming that it is metaphysically necessary that every divine being sustain any universe that there be), but are these beliefs in conditionals actually beliefs about the *future*?

of course know what his own intention at that precise moment (or shortly before) is, but he will not know for certain whether or not he will change his mind.[28]

A major objection to this view is that it naturally imperils the possibility of prophecy, which is usually understood to include the infallible prediction under divine inspiration of future events. William Hasker, who is well aware of this objection, gives three responses. First he says that 'a great many' prophecies are *conditional*, and that 'a conditional prophecy requires no detailed foreknowledge of what will actually happen' (Hasker 1989: 194). It is true that some prophecies are conditional, but even the condition may be unknowable, on this theory, to any divine being. For instance, Jeremiah 38 reports the prophet Jeremiah as prophesying that if Zedekiah does not surrender to the Babylonians Jerusalem will be sacked (Jeremiah 38: 18).[29] This prophecy is explicitly conditional (and, in fact, the antecedent is fulfilled), but the condition depends, apparently, on the free will of the Babylonians. So, on Hasker's view, even this condition is unknowable for any divine being. Secondly, Hasker says that many prophecies are 'predictions based on foresight drawn from existing trends and tendencies' (Hasker 1989: 194). It is clear that on Hasker's theory these predictions cannot be infallible, and as Swinburne points out, no divine being can base predictions of *his own* actions on 'foresight drawn from existing trends and tendencies', for he is perfectly free, and so, where there is no moral or rational distinction among actions, every divine being is at perfect liberty to choose what he likes; hence there are no trends or tendencies in this case that he may use for the drawing of foresight (Swinburne 1993: 177). Thirdly, Hasker says that many prophecies are of 'things that are foreknown because it is God's purpose to bring them about' (Hasker 1989: 195). Again, as Swinburne also points out, the knowledge represented by these prophecies is not available to any divine being, as he might change his purpose (Swinburne 1994: 134). If Hasker denies that a divine being can change his set purpose then he is denying every divine being a freedom that he attributes to humans, and this sits ill with his other theological and philosophical views.

In any case, there are direct Scriptural texts that affirm that every divine being knows the future:

> See, the former things have taken place, and new things I declare; before they spring into being I announce them to you.
>
> (Isaiah 42: 9)

and:

> Who then is like me? Let him proclaim it. Let him declare and lay out before me what has happened since I established my ancient people, and what is yet to come – yes, let him foretell what will come.
>
> (Isaiah 44: 7)

and:

28 The burden of this paragraph is not concerned with a problem for this view of omniscience *per se*, but with a problem for the view of divinity of which this view of omniscience forms a part.

29 Note that Jeremiah also prophesies in Jeremiah 38: 17 what would have happened had Zedekiah surrendered – this idea is discussed in detail in Chapter 4.

> Therefore I told you these things long ago; before they happened I announced them to you so that you could not say, 'My idols did them; my wooden image and metal god ordained them.' You have heard these things; look at them all. Will you not admit them? 'From now on I will tell you of new things, of hidden things unknown to you.'
>
> (Isaiah 48: 5–6)

I do not claim that these texts settle the matter. All I claim is that they are most naturally taken as affirming that every divine being has foreknowledge of the future. It is no use responding that the texts do not speak explicitly of future free actions, since, as we have seen, the claim that no divine being knows any future free actions implies an affirmation that every divine being knows almost nothing about the future.[30] So Swinburne and Hasker have some work to do explaining the above texts. They might well respond that they are driven to their position by the force of the argument that we have encountered. In order to evaluate whether they really are forced to this response, let us return to the argument for incompatibilism and see what other options are available.

Atemporalist response

Another response is to claim that no omniscient being has *fore*knowledge by affirming that every omniscient being is outside time. In this case, the proposition expressed by (A) will fail, as the second conjunct will be false:

(A) There exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x believes at t_1 the proposition expressed by (B).

Paul Helm has claimed that postulating that every omniscient being timelessly knows what is future for me, say, still rules out there being any free actions[31]:

> If it is proper to speak of God's knowledge in this timeless way, then from the point in time of the temporal agent God knows beforehand. If he knows beforehand that p then it was true yesterday that God knows that p. But this knowledge is past, and hence unchangeable, and so necessary. What it entails, the action that is foreknown, is likewise necessary. Hence there cannot be free will, even if God's knowledge of human actions is timeless.
>
> (Helm 1988: 101)

Helm acknowledges that postulating the timelessness of every divine being means that one may reject as unsound the argument for (3.43). One may reject this as unsound because the proposition expressed by (A) is false. Helm, however, thinks that one may develop a sound argument using a variant on (A):

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30 In any case, there do appear to be a fair number of direct prophecies of future and (apparently) free actions in the Bible. Most famously, there is Christ's prediction of Peter's denial (Matthew 26: 34, Mark 14: 30, Luke 22: 34, John 13: 38). See also Acts 2: 23, where foreknowledge is explicitly mentioned (in the New International Version, along with 'set purpose').

31 Again, we continue to understand 'free' in the libertarian manner as being inconsistent with determinism.

(A′) There is a time, t_1, such that the following claim expresses a truth at t_1: there exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x timelessly believes the proposition that Paul eats a tuna sandwich at t_2, which is later than t_1.

The argument that Helm thinks sound is:

(A′) There is a time, t_1, such that the following claim expresses a truth at t_1: there exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x timelessly believes the proposition that Paul eats a tuna sandwich at t_2, which is later than t_1.

(B) Paul eats a tuna sandwich at t_2.

(3.44) The proposition expressed by (A′) logically implies the proposition expressed by (B).

(3.45) It is not within Paul's power at t_2 to do something such that, were he to do it, the proposition expressed by (A′) would be false.

(3.42) For every agent, x, every time, t, every proposition, p, and every proposition, q, if p logically implies q then, if it is not within x's power at t to do something such that, were x to do it, p would be false, then it is not within x's power at t to do something such that, were x to do it, q would be false.

Therefore,

(3.43) It is not within Paul's power at t_2 to do something such that, were he to do it, the proposition expressed by (B) would be false.

Why, however, should one think that the revised premiss, (A′), is relevantly different from the following premiss?

(A″) There is a time, t_1, such that the following claim expresses a truth at t_1: Paul eats a tuna sandwich at t_2, which is later than t_1.

The argument here would be (A″) and:

(B) Paul eats a tuna sandwich at t_2.

(3.46) The proposition expressed by (A″) logically implies the proposition expressed by (B).

(3.47) It is not within Paul's power at t_2 to do something such that, were he to do it, the proposition expressed by (A″) would be false.

(3.42) For every agent, x, every time, t, every proposition, p, and every proposition, q, if p logically implies q then, if it is not within x's power at t to do something such that, were x to do it, p would be false, then it is not within x's power at t to do something such that, were x to do it, q would be false.

Therefore,

(3.43) It is not within Paul's power at t_2 to do something such that, were he to do it, the proposition expressed by (B) would be false.

In particular, it is hard to see why one should think that the proposition expressed by (A″) or the proposition expressed by (A′) is outside Paul's control. So I conclude that Helm's objection fails, and that timelessness would be a good way to answer the problem of freedom and foreknowledge. The Christian, Jewish, and Islamic traditions, however, have, as mentioned above, strong traditions of the actuality of prophecy. If these are taken seriously then the problem re-emerges. We should then have a revised version of (A) in something like the following form:

(A‴) There exists a being, x, such that for every proposition, p, if x prophesies p then p is true, and such that x prophesies at t_1 the proposition that Paul eats a tuna sandwich at t_2.

This will yield the old problem after all. So postulating that every divine being is timeless, but can speak in time through prophecy, will not solve the problem either.

Denial of divine infallibility

One could adopt a different strategy, and affirm that every divine being has total forebelief, i.e. that every divine being has beliefs about whether Paul will eat a tuna sandwich tomorrow etc., but deny the clause in (A) above that affirms that if a divine being believes p then p is true. To claim that sometimes a divine being is mistaken is, however, in sharp contrast to the witness of the Scriptures, as well as to our intuitions:

> God is not a man, that he should lie, nor a son of man, that he should change his mind. Does he speak and then not act? Does he promise and not fulfil?
>
> (Numbers 23: 19)

and:

> Let God be true, and every man a liar. As it is written: 'So that you may be proved right when you speak and prevail when you judge.'
>
> (Romans 3: 4, quoting Psalm 51: 4)

Elegantly simple are the words of Psalm 119, 'All your words are true' (Psalm 119: 160), and of Proverbs 30, 'Every word of God is flawless' (Proverbs 30: 5a).

No true future contingents

Philosophical motivation for denying that divine belief in a proposition implies its truth is sometimes provided by the suggestion that no future contingent proposition is true. Arthur Prior suggested that all future contingent propositions are false (Prior 1962). (It should be noted that Prior also put forward elsewhere the view that future contingent propositions have a third truth value (Prior 1953).) Prior writes:

> [N]either 'It will be the case that *p*' nor 'It will be the case that not *p*' is strictly speaking true. What Thomas says is that neither of them is true *determinate*;

> and what this appears to mean is that though they somehow share truth and falsehood between them, neither is as yet definitely attached to either proposition rather than the other. I don't myself now think – though I once did – that this complication is necessary; it is enough to distinguish (as Thomas did not) between the form 'It will be that it is not the case that *p*' (which commits one to the futurition of not-*p*) and the form 'It is not the case that it will be that *p*' (which could also be true if it is simply as yet undetermined whether it is *p* or not-*p* that the future holds).
>
> (Prior 1962; repr. Prior 1968: 38–39)

On the assumption that Prior is committed to the view that sentences of the form 'It is not the case that *p*' are true only if the corresponding sentence of the form *p* is false, Prior is here endorsing the falsehood of all propositions reporting future free actions. (It is possible that Prior was denying that propositions reporting future free actions have *any* truth value.)

If future contingents are neither true nor false then it may be that an omniscient being can have beliefs about future free actions, but if they are all false then it looks as if no divine being can have any beliefs about future free actions. Some philosophers have taken the different tack of denying that there are any contingent propositions about the future, in which case, presumably, no divine being has any beliefs about future free actions. Peter Geach deploys a strategy of this sort when he argues that statements apparently about future contingent events are actually about 'present tendencies' (1977). All these strategies run counter both to our intuitions and to the biblical texts quoted above. These strategies are very much last resorts for the case when all other attempts to preserve the compatibility between freedom and foreknowledge fail. Since I shall try to show that other attempts do not fail, I shall not discuss these strategies further.

Control over the past

If all these strategies for denying the truth of the proposition expressed by (A) fail, then what is left for the person that thinks freedom and foreknowledge are compatible? The only other course, if one accepts that counterfactual powerlessness is closed under logical implication – i.e. the principle expressed by (3.42) – and the truth of the proposition expressed by (A), is to deny (3.41), i.e. to deny that the proposition expressed by (A) is beyond one's counterfactual power. One way to do this is to deny that the material conditional in the proposition expressed by (A) is beyond one's counterfactual power. In other words, one could maintain that it is in one's power to do something such that, were one to do it, the conditional linking a divine being's beliefs to truth ('for every proposition, *p*, if *x* believes *p* then *p* is true') would be false, i.e. it is in one's power to do something such that, were one to do it, a divine being would hold a false belief.

One could point out that none of the above Scriptural texts has clear modal force,[32] and that all one is claiming is that one *has the power* to do something

32 Compare, though, Hebrews 6: 18, which says that 'it is impossible for God to lie'. The context

such that, were one to do it, a divine being would be mistaken, but, *as it happens*, one does not exercise this power, and so no divine being *is actually* mistaken. It is strongly counter-intuitive, however, to think that a human could even *have* the power to do something such that, if one did it, a divine being would be wrong, or to think, more generally, that a divine being could *possibly* be mistaken in any way.

Suppose the compatibilist does argue that a divine being *could* have been wrong but *actually* isn't. We are then left with the amazing coincidence that, although each of us *has the power* with any of our free decisions to do something such that, were one to do it, a divine being would be wrong, it just so happens that all of us choose not to exercise this power, and choose to do what the divine being had guessed beforehand. This would be a pretty incredible fluke, though it is metaphysically possible.

It is true that for a being that knew all our psychological makeup it would not be too difficult correctly to predict a free action, since, it seems reasonable to believe, we humans are usually inclined, at least slightly, one way or another when choosing freely; in other words the probability of our freely taking a particular course of action as opposed to our freely not taking it is usually not exactly 0.5. Nevertheless, if determinism is false, we are inclined only ever probabilistically, and so there would always be a strictly positive probability that the divine being might be mistaken. When we take the product of all the probabilities of the divine being's being correct we find that the probability of his being *always* correct is astronomically small, though strictly positive (i.e. greater than 0).

The problem gets worse. Where there is no rational or moral reason for a divine being to act one way rather than another it seems as if no probability greater or lesser than 0.5 can be given to the divine being's choosing to act one way rather than not so to act.[33] Hence, a divine being's beliefs about his own future actions (where he has an open choice) would be just blind guesses. The compatibilist might respond that every divine being would know his own intentions, but this reply merely pushes the debate further back. The question now becomes whether a divine being could foreknow his own intentions, given that intending is a mental act. In addition, as Richard Swinburne points out, blind guesses, even if they happen to be correct, do not qualify as knowledge (Swinburne 1993: 177). And no doubt a guess based on a probability of 0.50001 does not count as knowledge either. So it seems as if the strategy of attributing to one the power to do something such that, were one to do it, a divine being's beliefs would be mistaken, also denies them status as knowledge.

God's existence a soft fact?

There are other ways that one could follow in denying that the proposition expressed by (A) is out of one's counterfactual control, however. Rather than claim that one

suggests that it is also impossible for God to be mistaken.

33 What I mean is that either the probability is 0.5 or one may not assign any probability here.

has the power to do something such that, were one to do it, a divine being would have held a false belief, one may claim that one has the power to do something such that, were one to do it, a being that is actually divine would not have been divine. This is the strategy suggested by a paper of Marilyn McCord Adams, 'Is the Existence of God a "Hard" Fact?' (1967; repr. Fischer 1989: 74–85).[34] Pike's paper, to which Adams is responding, claims, however, that, for every being, x, if x is divine, x is essentially divine. If this is correct then Adams's suggestion implies that one has the power to do something such that, were one to do it, a being that actually was divine not only would not have been divine, but would not even have existed.

It seems wildly counter-intuitive to think of ourselves as having the power to bestow or withhold divinity on or from beings by our free actions, and even more counter-intuitive to think of ourselves as having the power to bestow or withhold *existence* on or from beings by our free actions. Adams accepts this latter consequence as a *reductio ad absurdum* of the idea of essential divinity; the point I am trying to make is that it is by no means clear that we should reject the idea of essential divinity rather than Adams's suggestion.

Although Adams's suggestion is highly counter-intuitive, her motivation for it is both interesting in its own right and also serves as motivation for some versions of the final possible response to the argument, viz. claiming that the proposition expressed by (A) is under Paul's control at t_1, in virtue of the fact that every divine being's past beliefs are under Paul's control at t_1. Adams motivates her strategy in a way that I can best illustrate by pointing to a parallel with similar arguments to the incompatibilist argument. Suppose I correctly guess at t_1 that Paul will eat a tuna sandwich at t_2. Then the following sentence expresses a truth:

(3.48) There exists a being, x, such that x correctly believes at t_1 the proposition that Paul eats a tuna sandwich at t_2.

The proposition expressed by (3.48) expresses a truth because I am such a being. Yet the proposition expressed by (3.48) logically implies the proposition expressed by:

(B) Paul eats a tuna sandwich at t_2.

Hence, by (3.42), the principle of transfer of counterfactual powerlessness under logical implication, if the proposition expressed by (3.48) is outside Paul's control, so is the proposition expressed by (B). Intuitively, the proposition expressed by (B) is in Paul's control, so the proposition expressed by (3.48) is too. And indeed it is.[35] But how can it be that the proposition expressed by (3.48), which apparently reports a fact about t_1, is in Paul's control at t_2? The answer usually given in

34 Adams is cautious in her paper; she claims merely that Pike has given no reason to suppose that it is outside one's power to do something such that, were one to do it, a being would not have been divine.

35 Fatalists argue that (3.48) is true and outside Paul's counterfactual control and that, therefore, Paul does not freely eat his sandwich. Space precludes a detailed treatment of this argument, but it seems intuitively too strong to claim, merely on account of the fact that sentences about these actions expressed true propositions in the past, that no action can be free. It seems intuitively more plausible to suppose that in fact (3.48) is under Paul's counterfactual power.

the literature is that the proposition expressed by (3.48) reports 'a fact that is not wholly about t_2', but rather one that 'is partly about t_1 and partly about t_2'. This is because the proposition expressed by (3.48) is made true partly by something that happens at t_1 and partly by something that happens at t_2. This kind of fact is called 'a soft fact' in the literature, as opposed to 'a hard fact'.[36] The claim is then made that hard facts about the past are out of one's power, although it may be that some soft facts about the past are in one's power (Adams 1967; repr. Fischer 1989: 75). Adams's novel approach is to suggest that the *divinity* of a being at t_1 is a soft fact, but the same strategy has been used more frequently to argue that a divine being's *having a particular belief* at t_1 that Paul will eat a tuna sandwich at t_2 is a soft fact, just as my having a correct belief at t_1 that Paul will eat a tuna sandwich at t_2 is a soft fact. Having noted above the implausibility of claiming that we have the power to bestow or withhold divinity, let alone existence, on individuals, I shall confine my discussion to the second strategy mentioned, which, together with Adams's strategy, has acquired the name 'Ockhamism', and has aroused considerable discussion in the literature.[37] Unfortunately, there is little consensus even on how to *define* the hard fact–soft fact distinction. Adams and others use a version of the 'implication' definition: if the existence of the fact, f, at t_1 implies the existence of a fact, f', at a different (later, in this context) time, then f is a soft fact (Adams 1967; repr. Fischer 1989: 75–76).[38] Nevertheless, it seems to me preferable to think of the proposition expressed by (A) as asserting a relation between events at t_1 and events at t_2, rather than as reporting 'a fact partly about t_1 and partly about t_2'. It is my belief that a fact is a composite of events or the instantiation of properties or relations in particulars; I do not accept the analysis of facts as *about* times.[39] I think, then, that a hard fact is one that is composed of events or the instantiation of properties or relations in particulars that all obtain at one time, and a soft fact is one that is composed of events or the instantiation of properties or relations in particulars that do not all obtain at one time.[40] It is

36 The terms 'hard fact' and 'soft fact' were first introduced into the literature in the context of this discussion by Nelson Pike (Pike 1966). Pike makes it clear that he did not coin these terms, but he does not say from where he takes them. The distinction itself goes back to William of Ockham (Ockham 1969; cf. Fischer 1989: 32).

37 John Martin Fischer talks of 'hard-type soft facts' Fischer 1986*a*; cf. Fischer 1989). William Hasker writes: 'A colleague suggested to me that besides hard facts and soft facts, there may also be facts sunny-side up. But why stop there? Why not scrambled facts, poached facts, and even facts Benedict?' (Hasker 1989: 92). William Alston writes: 'At the March 1984 Pacific Regional meeting of the Society of Christian Philosophers, Pike presented a discussion of Fischer's paper, which was responded to by Marilyn Adams and Fischer, so that the conferees were treated to hearing Adams on Pike on Fischer on Adams on Pike, and Fischer on Pike on Fischer on Adams on Pike. "Enough!" you may well cry. And yet the beat goes on' (Alston 1985; repr. Fischer 1989: 258–273). I shall try not to prolong the beat unnecessarily here.

38 It is not even clear as to how 'implies' here is to be taken. If a temporal divine being exists of metaphysical necessity and if 'implies' is to be taken metaphysically (as many of the participants in the debate believe), then every fact is soft (since every fact will metaphysically imply the later existence of a divine being). If it is to be taken logically, then one way of describing a fact – e.g. the proposition expressed by (A) – will have logical implications lacked by other descriptions – e.g. the proposition expressed by 'Yahweh believes that . . . ' – of the same fact.

39 I am grateful to Mark Sainsbury for leading me to believe this.

40 This definition has the consequence that a fact about things that are outside time – numbers,

clear that knowledge is best viewed as a composite of the event of the knower's believing p at t_1 and of the obtaining of the event or the instantiation of properties or relations in particulars in virtue of which p is true at t_2 (in our example), and, perhaps, some atemporal relation (e.g. correspondence) between them. It seems hard, however, to decompose someone's *believing* the proposition expressed by (B) into two events: even if one's belief is true, its truth is something conceptually external to the belief itself. So, consider the proposition expressed by the second conjunct of (A):

(A) There exists a being, x, such that for every proposition, p, if x believes p then p is true, and such that x believes at t_1 the proposition expressed by (B).

In other words, consider the proposition expressed by the following sentence:

(3.49) x believes at t_1 the proposition expressed by (B).

The proposition expressed by (3.49) is a proposition that reports an event at t_1, namely the believing by x of the proposition expressed by (B). This event does not take place at t_2, since in that case it would not be a case of *fore*belief. Hence it must take place wholly at t_1, and is, therefore, a hard fact; the proposition expressed by (3.49) is therefore 'about' t_1, as one would naturally suppose. Pike's own response, I think, would be to bypass the discussion of hard facts and soft facts and claim directly that one cannot do something such that, were one to do it, someone would have believed in the past something different from what he actually did believe in the past.[41] I shall follow this route, and consider the final suggestion that the proposition expressed by (A) is in Paul's counterfactual control at t_2, in virtue of its being in his power to do something such that, were he to do it, x would not have believed at t_1 that Paul would eat a tuna sandwich at t_2.

Counterfactual power over the past

It seems to me that, for the theist that believes that humans have free will (conceived of in the libertarian manner), there is no other viable option than to espouse some sort of power over the past. On the other hand, I maintain that the philosopher that wishes to show that divine foreknowledge is incompatible with human or divine freedom ought first to show that power over the past is impossible. I mean that the incompatibilist will have to disprove the view that it is metaphysically possible for Paul to do something at t_2 such that, were he to do it, x would not have believed at t_1 what x did in actual fact believe at t_1, viz. that Paul would eat a tuna sandwich at t_2.

Most of the argument in the general literature on power over the past has, in fact, been devoted to showing not that counterfactual power over the past is impossible, but rather than *causal* power over the past is impossible, or, at least, that we do

perhaps – is a soft fact. This consequence will not make any difference to our current discussion.

41 Pike did respond to Adams's paper, but, as far as I know, the discussion has not been published. Pike does not mention the hard facts–soft facts issue in Pike (1970). I think, however, that one can guess at his response from what he writes in reply to Saunders's concerns in Pike (1966).

not have it. If these arguments work then they do not show that counterfactual power over the past is impossible, but if they do not work against causal power then they certainly will not work against counterfactual power. I do not know of any intuitively convincing arguments that backwards causation is impossible, but, nevertheless, I do tentatively hold to the view that it is impossible. So I shall defend counterfactual power over the past against objections that I shall adapt from the literature against backward causation.

It is worth noting, however, some developments concerning the question of whether backwards causation is *physically* possible. Kurt Gödel has proved that there are cosmological solutions to Einstein's gravitational equations such that

> [B]y making a round trip on a rocket ship in a sufficiently wide curve, it is possible in these worlds to travel into any region of the past, present, and future, and back again, exactly as it is possible in other worlds to travel to distant parts of space.
>
> (Kurt Gödel, 'A Remark about the Relationship between Relativity Theory and Idealistic Philosophy', Schilpp 1959 : 560; repr. Yourgrau 1990: 264).[42]

Indeed, Gödel says that *our* world could have been of that sort. Towards the other end of the scale, physicists speculate that backwards causation might take place on the quantum level. Richard Feynmann, for example, postulated that a positron could be viewed as an electron travelling back in time (1949; cf. Stenger 1995: 145–155).

On the other hand, William Anglin notes that the Second Law of Thermodynamics appears to rule out backwards causation. He responds, however, by pointing out that

(i) backwards causation is still *metaphysically* possible, since the Law is a statistical generalisation, not a metaphysical truth,

and

(ii) the Law applies only to physical substances, and divine beings are not physical (Anglin 1990: 89–90).

It should be borne in mind that the burden of proof is on the incompatibilist that is trying to prove that divine foreknowledge and freedom are incompatible to show that power over the past is impossible. The burden of proof does not lie on the compatibilist that is merely resisting the incompatibilist's argument to show that power over the past is possible.[43] The question immediately arises as to *why* anyone might think that Paul does not have the power at t_2 to do something such that, were he to do it, a divine being would have believed at t_1 a proposition different from the one he actually believed at t_1. In other words, just what is wrong with power over the past? Richard Swinburne has the following argument with reference to backwards causation:

42 Gödel's mathematical paper is Gödel (1949); cf. Yourgrau (1990: 263).

43 Compare Plantinga's comments about the burden of proof and his distinction between 'theodicy' and 'defence' in discussion of the problem of evil in, e. g., Plantinga (1949: 192). Of course there may be some compatibilists that are positively arguing that we *do* have power over the past.

> Causation in a circle is not logically possible. If *A* causes *B*, *B* cannot cause *A* (or cause anything which by a longer circle causes *A*). For what causes what is logically contingent – 'anything can produce anything' wrote Hume. Let us put the point in this way: a sufficiently powerful being could, it is logically possible, alter the laws of nature in such a way that some event had, instead of its normal effect at a certain time, one incompatible with that normal effect. So if causation in a circle were logically possible and *A* caused *B* and *B* caused *A*, a sufficiently powerful being at the moment of *B*'s occurrence could have altered the laws of nature so that *B* caused not-*A*; in which case *A* would have (indirectly) caused *A* not to occur – which is absurd. So since manifestly the future is causally affectible, the past is not. It follows that backwards causation is impossible – causes cannot be later than their effects. It follows too that simultaneous causation is impossible.
>
> (Swinburne 1994: 82)

Swinburne's argument is, in fact, easily seen to be adaptable against counterfactual power over the past too.[44] Suppose an agent, S_2, at a time, t_2, has the power to perform an action, A_2, such that, were he to perform A_2, there would not have existed at an earlier time, t_1, an agent, S_1, that did actually exist at t_1.[45] It is metaphysically possible that S_1 bring it about at t_1 that S_2 perform A_2 at t_2 (even if only by an omnipotent being's changing the laws of nature) and hence, so the argument goes, it is metaphysically possible that S_1 do something such that, were he to do it, he would not have existed to do it. But this is contradictory, and, since anything that allows for the possibility of a contradiction must itself be absurd, we conclude that power over the past is itself absurd. (Note that if all power were retrospective the above argument would not apply.) The so-called 'grandfather paradox' relating to time travel (a species of power over the past) has caught hold of a similar intuition; were time travel possible I could travel back in time and kill my grandfather before he met my grandmother, thus ensuring my own non-existence. But this is absurd, and so time travel is not metaphysically possible.

So, to plug this back into our example: the incompatibilist's argument runs thus – it is not metaphysically possible that a divine being foreknow at t_1 that Paul will freely eat a tuna sandwich at t_2, for it is metaphysically possible for the divine being to bring it about at t_1 that Paul should *not* eat a tuna sandwich at t_2, and it would be absurd for both Paul to have the power to do something (refrain from eating) such that, if he were to do it, the divine being would not have had the belief that he did have, and also the divine being to have the power to bring it about that Paul did not do the action in question (refrain from eating). Hence it is, so the argument goes, impossible infallibly to foreknow future free actions.

44 I do not mean to suggest that Swinburne would actually endorse this adaptation, though he does not, in fact, accept that we have power over the past.

45 This might sound outlandish, but all it would necessitate would be S_2's having counterfactual power over an act of procreation at or before t_1, and there seems no reason to treat such actions differently from other actions. In any case, the argument would work just as well in terms of an event's non-occurrence at t_1 rather than an agent's non-existence at t_1.

My response here is as follows: suppose that Paul actually does eat a tuna sandwich at t_2. It is metaphysically impossible for it to be true *both* that Paul eats a tuna sandwich at t_2 *and* that it is not the case that Paul eats a tuna sandwich at t_2. This implies that no divine being *does* bring it about that it is not the case that Paul eats a tuna sandwich at t_2 in the given situation. It does *not* imply, however, that no divine being *has the power* in the given situation to bring it about that it is not the case that Paul eats a tuna sandwich at t_2. If the divine being were to have exercised that power then Paul wouldn't have eaten the sandwich and so the divine being wouldn't have foreknown that he would. Giving a divine being foreknowledge adds no extra metaphysical difficulty; no divine being is capable of bringing about a logical falsehood on (almost) any theory. Hence I conclude that the incompatibilist has failed to establish his or her point; it is metaphysically possible for a divine being to bring it about that it is not the case that Paul eats a tuna sandwich at t_2, but given that Paul does eat the sandwich, it follows that no divine being *does* bring this about. All bar universal possibilists should assent to this, whether or not they believe in power over the past.

Another way of presenting the same response is this – the incompatibilist's argument relies, for its *reductio*, on the following fallacious argument:

(3.50) ϕ

(3.51) $\Diamond\neg\phi$

Therefore,

(3.52) $\Diamond(\phi \,\&\, \neg\phi)$

Roughly, the incompatibilist claims that because the defender of power over the past is committed to something's existence and to the possibility of that thing's non-existence being brought about, he or she is thereby committed to the possibility of the thing's both existing and not existing. Let us look a bit more precisely at the adapted version of Swinburne's argument: it claims that if an agent, S_2, at a time, t_2, has the power to perform an action, A_2, such that, were he to perform A_2, there would not have existed at an earlier time, t_1, an agent, S_1, that did actually exist at t_1, then it would be metaphysically possible for S_1 to bring it about that S_2 perform A_2, which is absurd, since it implies that S_1 has the power to do something such that, were he to do it, he would never have existed.

Now, to say that it is metaphysically possible for S_1 to bring it about that S_2 perform A_2 is to say that in some accessible metaphysically possible world S_1 does bring it about that S_2 perform A_2. But why should that world be a world in which it is true that if S_2 were to perform A_2 then S_1 would never have existed? It clearly is not metaphysically possible *both* for S_2 to perform an action, A_2, such that, were he to perform it, S_1 would never have existed *and* for S_1 to bring it about that S_2 perform A_2, but this fact does not imply that it is metaphysically impossible that S_1 bring it about that S_2 perform A_2. It does of course imply that *if* S_2 exercises his power to perform an action, A_2, such that, were he to perform it, then S_1 would not have existed, *then* S_1 *does* not bring it about that S_2 perform A_2. There is no metaphysically possible world in which both S_1 brings it about that S_2 perform

A_2 and S_2 performs an action, A_2, such that, were he to perform it, S_1 would not have existed. But since there is no metaphysically possible world in which a metaphysical impossibility obtains, this is not surprising. It is metaphysically impossible *both* that you bring it about that Paul have a tuna sandwich tomorrow *and* that I bring it about that it is not the case that Paul have a tuna sandwich tomorrow. So why should it be strange that it is not metaphysically possible for both S_1 to bring it about that S_2 perform A_2 and S_2 to perform an action, A_2, such that, were he to perform it, S_1 would not have existed? I conclude that to say that power over the past is metaphysically possible does not imply that it is metaphysically possible to bring about a metaphysically impossible state of affairs, even though for each event, e, of some collection whose conjunction cannot be brought about it may be metaphysically possible for some agent or other to bring about e:

(3.53) $\neg(p)(q)[(\Diamond p \,\&\, \Diamond q) \rightarrow \Diamond(p \,\&\, q)]$

It is possible that Tony Blair be Prime Minister and it is possible that it not be the case that Tony Blair is Prime Minister but it's not possible *both* that Tony Blair be Prime Minister *and* that it not be the case that Tony Blair is Prime Minister. Swinburne may reply that 'whatever allows for the possibility of a contradiction is itself contradictory'[46], but the contradiction is ruled out by the laws of logic and by the metaphysical law that nobody has the power to do something such that, were he or she to do it, a contradiction would be true. There is no requirement on a theory explicitly to rule out impossibilities already implicitly ruled out by the laws of logic and metaphysics.[47]

Another alleged problem with backwards causation is that it is allegedly impossible on the causal theory of time. The causal theory of time is often interpreted as follows:

> [The] future at an instant t is any period such that it is [metaphysically] possible that an agent can causally affect (the whole of) it by an action beginning at t; the past is any period such that it is [metaphysically] possible that by acting during it an agent can causally affect (the whole of) any state of affairs beginning at t.
>
> (Swinburne 1994: 81)

This objection could be adapted against the idea that we have power over the past thus: the future at an instant, t, is any period such that it is metaphysically possible that an agent have power over the whole of it by an action beginning at t; the past at an instant, t, is any period such that it is metaphysically possible that by acting during it an agent can have power over the whole of any state of affairs beginning at t.

The causal theory of time is not the only theory on the market, so I shall here merely offer two suggestions as to how one might try to hold on to both the (extended) causal theory of time and power over the past, if one so desired. First,

46 Richard Swinburne, personal communication

47 I am grateful to James Heather for suggesting to me the response outlined here.

one could say that the future, from the point of view of a time, *t*, is the longest period of time, *T*, such that in the *majority* of their actions performed during *T* agents cannot have power over events at *t*; and one could say that the past is the longest period of time over the *majority* of the events during which agents cannot have power in their actions performed at *t*.[48] Anglin's comments on backwards causation are very helpful on this point:

> [Note] that the case of God's foreknowledge need be the only case of backward causation. Every other case could be of the regular forwards kind. Thus there is really no reason to worry that the distinction between past and future might become 'blurred'. Furthermore, God does not have to 'exercise reverse causation' at all frequently. Indeed, why would God have to exercise reverse causation more than once? Why could he not simply wait until the end of Time and then make it have been the case that he always knew what he will then know (at the end of Time) simply from having observed it? Of course, it may be that there is no 'end of Time'. In some possible worlds persons go on exercising libertarian free will forever. Yet even in these worlds it would suffice for God's having foreknowledge if once every 10^{1000} years he brought it about that he previously knew everything he had observed up until the end of that 10^{1000} year period. One case of backwards causation every 10^{1000} years would hardly suffice to blur the distinction between past and future.
>
> (Anglin 1990: 90–91)

Secondly, those that think it would blur the distinction could still use the basic idea if they thought that every divine being were outside time. Then we should have our normal power over the future and power over what is outside time, the beliefs held by every divine being about events inside time. Further, there would be power from outside time over events inside time, as, for example, a divine being informed his prophet of what is future to him or her. Suppose that the temporal terminus of the second exercise of power (from the atemporal divine being to the temporal world) is temporally prior to the temporal origin of the first exercise of power (from the temporal world to the atemporal divine being). It follows that we have a case of *indirect* power over the past.[49] It does not follow that we have any cases of *direct* power over the past. We may therefore define the future at a time, *t*, thus: the future at an instant, *t*, is the longest period of time by acting during which it is metaphysically impossible to have *direct* power over events at *t*. We may define the past at a time, *t*, thus: the past at an instant, *t*, is the longest period of time over events during which it is metaphysically impossible to have *direct*

48 I write 'the longest' because tomorrow is a period of time such that, on this view, in the majority of actions performed in it agents cannot have power over events now. The future is more than tomorrow, however. Likewise, yesterday is a period of time, on this view, over the majority of events during which agents acting now cannot have power. But the past is more than yesterday. Note that these definitions depend on Hume's principle (which I accept) that it is metaphysically possible that anything contingent have power over anything else contingent. If one did not accept Hume's principle then one would have to rework the definitions somewhat.

49 This sense of 'indirect power' is not connected with 'indirect actualization' discussed in Chapter 5.

power at *t*. Thus we have clear notions of the past and the future for humans. In addition, we see that no atemporal being has a future, for every agent at every time may have direct counterfactual power over every divine being's beliefs, and no divine being has a past, for every divine being has direct power over every event at every temporal location, on this theory. So this is one possible move for the causal theorist of time that is happy to affirm that every divine being is atemporal.

In any case, these definitions not only have problems with 'soft facts' such as the fact that a certain sentence, *Q*, expresses at *t* a true proposition, but also they will be dismissed as begging the question by the compatibilist. The compatibilist may well claim that the causal theory of time gives a perfectly good understanding of pastness and futurity, and that an attempt to revise this to exclude the possibility of counterfactual power over the past (i.e. as well as causal power over the past) is mere stipulation with no argument to support it.

Consequences

What are the consequences of affirming counterfactual power over the past in the case of power over a divine being's beliefs (or indirect counterfactual power in the case of a prophet's beliefs)? First, it enables every divine being to exercise providential care over his creation. No divine being is surprised by anything that happens, but, on the contrary, has already adapted his plan to take into account our free actions. (Note that one should split up a divine being's plans into various logical parts. A divine being may tailor each logical part to match what he foresees will happen after some of the other particular parts of his plans have been fulfilled in time.)[50] It has been frequently claimed in the literature that foreknowledge by itself is useless to any divine being; it does not give any providential advantage. This rests on the assumption that an omniscient being's foreknowledge is all, logically, of a piece, but it is not obviously impossible for a divine being to act on one part of his foreknowledge and thereby cause something to happen in the future that he, in logical consequence, foreknows to be about to happen. Here one part of his foreknowledge would be logically subsequent to another. For example, a divine being, when performing an action, could take into account events that happen after that action, e.g. post–factum prayers. So my wife could pray this evening for my writing to have gone well, every divine being would hear her prayer yesterday, and help me with my preparation accordingly. This does not imply, of course, that we may pray the incoherent prayer of asking a divine being to *change* the past. Rather it is partly because we pray post factum that the past is what it is.

Nor is divine foreknowledge achieved at the expense of divine moral goodness: one may deny that any divine being is in any way the primary or secondary cause of moral evil, though he will, of course, be its permitter. We may also attribute moral responsibility to those that exercise free will, since we conceive of this in a libertarian manner, rather than have to attribute it to those that are caused

50 It seems that, to avoid circular causation or an infinite causal regress (but perhaps this is acceptable here), at least one logical part of a divine being's decree will not depend on the foreknown consequences of other logical parts.

to decide to do what they decide to do by a divine being, and thus are no more responsible than we would think somebody was that was being manipulated by an evil neurosurgeon.

Conclusion

In conclusion, in this chapter I have considered in detail the arguments for the incompatibility of divine foreknowledge and divine or human freedom. In particular, I have undertaken a detailed analysis of the power closure principles that were seen to underlie all such arguments.

I have exposed as incorrect all such principles, except only some principles concerning counterfactual power. I then examined various strategies to respond to the revised argument for incompatibilism. I concluded that the compatibilist that wishes to claim that freedom and foreknowledge *are* compatible ought to claim that we have counterfactual power over the past. I claimed in consequence that the philosopher that wishes to show that foreknowledge and freedom are incompatible must show that counterfactual power over the past is not possible. I attempted to show that this has not been done. So it is my view that the compatibility of foreknowledge and freedom is innocent until proven guilty, and that unless it is shown to be such, the theist ought not to hesitate to affirm that her or his God, who 'knows everything' (1 John 3: 20b), and is 'perfect in knowledge' (Job 37: 16), makes 'known the end from the beginning, from ancient times, what is still to come' (Isaiah 46: 10).

4 Middle knowledge

I have argued that every divine being is omniscient under a new definition of omniscience. I have answered one objection, the objection from indexicals, which alleges that no being can be omniscient because omniscience implies the knowledge of certain indexical truths – for example, the truth known by me when I know that I am Daniel Hill – and that knowledge of all these truths is impossible. I have also argued that every divine being knows every truth about the future, including those reporting the occurrence of future free actions. Other truths that it might be expected that a divine being know are counterfactual truths: that is, truths about what would have happened, would be happening, or would happen (i.e. in the future) in certain non-actual circumstances. Here are three examples:

(4.1) If the match had been struck (though it wasn't) it would have lit.

(4.2) If the match were being struck (though it isn't being) it would be lighting.

(4.3) If the match were to be struck (though it won't be) it would light.

Compare (4.1), (4.2), and (4.3) with the following:

(4.4) If the match was struck it lit.

(4.5) If the match is being struck it is lighting.[1]

(4.6) If the match is struck it will light.[2]

What is the relevant difference between these two sets of sentences? The members of the second set, (4.4)–(4.6), express material conditionals. These conditionals are false if the antecedent is true and the consequent false, otherwise they are true. They are 'trivially' true if the antecedent is false. So if the match was not struck then the proposition expressed by (4.4) is trivially true, whether or not it lit. If the match is not being struck then the proposition expressed by (4.5) is trivially true, whether or not it is lighting. Finally, if the match will not be struck then the proposition expressed by (4.6) is trivially true, whether or not it will light. On the other hand, the members of the first set, (4.1)–(4.3), express subjunctive conditionals and are not trivially true if the antecedent is false. How do we determine whether (4.1)–(4.3) express truths or falsehoods?

1 Here I use the present continuous ('is being') rather than the simple present to emphasize the difference with (4.6).

2 Some might object that this should read 'If the match will be struck it will light', but this is not English idiom.

Possible world semantics

The standard semantics for subjunctive conditionals has been developed by David Lewis (1973a) and Robert Stalnaker ('A Theory of Conditionals' in Rescher 1968: 98–122). Roughly, the theory is as follows: we consider the nearest (metaphysically) possible worlds in which the antecedent is true and then we see whether the consequent is also true in those worlds. If it is then the conditional as a whole is true (in the actual world). What determines nearness to the actual world? It is partly a matter of past history, and partly a matter of having similar laws of nature. There is disagreement over whether there must be a unique closest world, or whether it is possible for there to be several worlds that are joint closest, or, indeed, whether it is possible that for every world there be a closer one. The most inclusive position we can take is to follow the lead of David Lewis and claim that a counterfactual conditional is true if and only if either the antecedent is false of logical necessity or there is a possible world in which both antecedent and consequent hold and that is closer to the actual world than any world in which the antecedent but not the consequent holds. On this view the proposition may be true in all three cases: if there is a unique closest world, if there are several equally close worlds, and if for every world there is a closer one.[3] In what follows I shall just speak loosely of 'the closest possible worlds' to avoid circumlocutions. So in the examples in hand: what makes the proposition expressed by (4.1) true is that in the closest possible worlds in which the match has been struck it has lit. There are, of course, possible worlds in which the match has been struck but has not lit; it might have been prevented from lighting by a force 10 gale or it might have been a dud. These are remote possibilities in the situation envisaged. (They are not remote to other situations, of course; suppose that I had been given a dud, then the proposition expressed by (4.1) would have been false. Likewise, suppose that I were trying to light it in a severe gale then the proposition expressed by (4.1) would have been false. But these suppositions are in turn far from the actual situation, in which I have a box of good matches and a windless day.) Again, there might have been different laws of nature such that struck matches did not light, but this is a remote possibility. In other words, the possible worlds in which the actual laws of nature hold are, obviously, a lot closer to the actual world than those worlds in which the actual laws of nature do not hold.

Likewise, what makes the proposition expressed by (4.2) true is that in the closest possible worlds in which the match is being struck it is lighting, and what makes the proposition expressed by (4.3) true is that in the closest possible worlds in which the match will be struck it will light.

Counterfactuals of freedom

These counterfactuals were easy to evaluate because they depended on the well-known law of nature that, *ceteris paribus*, struck matches light. How about

3 Cf. Plantinga (1974: 174–175). Further discussion of nearness may also be found in Lewis (1981) and Stalnaker (1984); cf. Lewis (1986 : 22).

counterfactuals where there are no laws? Consider the proposition expressed by the following sentence:

(4.7) If James were offered a free choice of a million pounds he would freely accept.

Here no law of nature, nor any other law for that matter, is involved. It's not causally or nomically impossible that James freely turn down the money. Yet it seems to me that the proposition expressed by (4.7) is true: in the closest possible worlds in which James is offered a free choice of a million pounds he freely accepts the offer. Moreover, since he would be free to accept it and free to turn it down, the truth of the proposition expressed by (4.7) would be in his hands. If he were freely to turn it down the proposition expressed by (4.7) would have been false. But, again, the worlds in which he does freely turn it down are rather remote. Note that the proposition expressed by (4.7) is different from that expressed by the following sentence:

(4.8) If James were offered a free choice of a million pounds he would probably freely accept.

The proposition expressed by (4.7) asserts that had a certain situation been actual (James's being offered a free choice of a million pounds) a certain other situation would have been actual (James's freely accepting it). The proposition expressed by (4.8) asserts that had a certain situation been actual (James's being offered a free choice of a million pounds) then very likely a certain other situation would have been actual (James's freely accepting it), i.e. in most of the possible worlds in which James is offered a free choice of a million pounds he freely accepts. This does not by itself, however, tell us what would have happened had James been offered a free choice of the money, i.e. it does not tell us that the possible worlds in which he freely accepts the money are closer than those in which he does not; it merely tells us that there are (intuitively) more possible worlds in which he freely accepts than ones in which he does not. That these are different propositions can be seen from the fact that the proposition expressed by the following sentence is not self-contradictory:

(4.9) If James were offered a free choice of a million pounds he would freely accept even though it's objectively unlikely that he do so.

(4.9) may sound odd, but if we consider the case of the superstitious gambler we can see that in fact it is perfectly consistent. The superstitious gambler says:

(4.10) It's objectively unlikely that if you threw the die it would land on a 1, but I think it would land on a 1 anyway.

This is perfectly consistent. Indeed, the gambler may be right. In fact, we are all committed to something similar:

(4.11) It's objectively unlikely, for each one of the six numbers, that if you threw the die it would land on that particular number, but nevertheless there is one number on which it would land.

If six of us took a superstitious view, one for each number represented on the die, then obviously one of us would be right. The objective unlikelihood consists in the fact that there are five times as many possible worlds in which the die is cast and it does not come down on a 1 as there are possible worlds in which it does come down on a 1, and likewise for each of the other numbers represented on the die.[4] So it is possible consistently to think that, if the die were cast, though it is objectively unlikely that it would land on a 1, it would do so. Indeed, we could test this subjunctive conditional by actually throwing the die and seeing on what it lands. It seems to me that our doing this, though, could not affect the truth value of the conditional itself. The superstitious gambler that believes the proposition expressed by (4.10) would not, I think, say that he or she had become right when the die was cast and did come down on a 1. I think he or she would say that he or she had been right all along. Further, I think that he or she would have been right even if the die had never been cast. In other words, I don't think it was the casting of the die that made him or her right, even made him or her always have been right. So it seems to me that there are truths about what would have happened in certain non-actual circumstances. There are two sorts of such truths: truths about non-free agents, which truths are determined by causal laws, and truths about free agents, which truths are not determined by any laws, but only by the free choice of the agents.[5] The first set of truths poses no problem for any divine being. Since every divine being will know all the causal laws, every divine being will know how every non-free thing would have behaved in any non-actual circumstance.[6] What about the second set of truths? Should one think that every divine being has this knowledge?

Scriptural justification

Two Bible passages have been used within the Christian tradition to argue for a positive answer:

> When David learned that Saul was plotting against him, he said to Abiathar the priest, 'Bring the ephod'. David said, 'O Lord, God of Israel, your servant has heard definitely that Saul plans to come to Keilah and destroy the town on account of me. Will the citizens of Keilah surrender me to him? Will Saul come down, as your servant has heard? O Lord, God of Israel, tell your servant'. And the Lord said, 'He will'. Again David asked, 'Will the citizens of Keilah

4 There is a complication here. There are infinitely many possible worlds in which the die is cast, and so there are infinitely many possible worlds in which it comes down on a 1. Nevertheless, there seems to me a tolerably clear intuitive sense in which for every possible world in which it comes down on a 1 there are five in which it does not. There is no *intuitive* sense in which for every possible world in which it comes down on any of the other five numbers there are another five possible worlds in which it comes down on a 1.

5 What matters is whether the agent is free in the non-actual world under consideration. Thus there are truths about what agents that are actually not free would have done if they had been free. So people in captivity say 'If I were not in captivity I'd be having a long, hot, bath' etc.

6 There is a complication here: every divine being would have to know that no divine being would change the laws of nature in the envisaged non-actual circumstances.

> surrender me and my men to Saul?' And the Lord said, 'They will'. So David and his men, about six hundred in number, left Keilah and kept moving from place to place. When Saul was told that David had escaped from Keilah, he did not go there.
>
> (1 Samuel 23: 9–13)

In this passage we read that God says to David that Saul will come down to Keilah and that the citizens of Keilah will surrender David to Saul. But then David leaves Keilah, so that Saul does *not* come down to Keilah and the citizens do *not* hand him over to them. It might seem at first as if God is telling an untruth here, but a moment's reflection shows that David is not seeking merely to know the future. Rather, he is seeking to know what to do: should he stay or should he go? In order to come to the best decision about what to do he needs to know what would happen were he to make the decision to stay and what would happen were he to make the decision to go. Clearly there is an implicit 'If I were to stay' clause in his question. He is asking whether Saul would come down if he were to stay. It is this question that God answers affirmatively. But we know that Saul does not come down since David does not stay, so God was in effect affirming the proposition expressed by the following sentence:

(4.12) If you were to stay in Keilah, Saul would come down.

It appears as if God knows the proposition expressed by (4.12). It is plausible that if David had stayed in Keilah, Saul would have *freely* gone down.[7] This is because his action in going down would have been sinful in the circumstances – to murder David. Clearly God could not have determined him to go down in these circumstances. Since the text seems to assume that Saul would be morally responsible for going down we may assume that it would have been a free action. It follows that God, since he is omniscient, knew not only the proposition expressed by (4.12), but also that expressed by the following sentence:

(4.13) If you were to stay in Keilah, Saul would freely come down.

Here is the second passage:

> Then Jesus began to denounce the cities in which most of his miracles had been performed, because they did not repent. 'Woe to you, Korazin! Woe to you, Bethsaida! If the miracles that were performed in you had been performed in Tyre and Sidon, they would have repented long ago in sackcloth and ashes. But I tell you, it will be more bearable for Tyre and Sidon on the day of judgment than for you. And you, Capernaum, will you be lifted up to the skies? No, you will go down to the depths. If the miracles that were performed in you had been performed in Sodom, it would have remained to this day. But I tell you that it will be more bearable for Sodom on the day of judgment than for you.'
>
> (Matthew 11: 20–24)

Here Jesus affirms the proposition expressed by:

7 We continue to think of freedom after the libertarian manner.

(4.14) If the miracles that were performed in Tyre and Sidon had been performed in Korazin and Bethsaida (though they were not), the inhabitants of Tyre and Sidon would have repented.

Repentance is usually thought of as a free action.[8] This is because 'repentance' that is determined by another is usually considered worthless and not even true repentance at all. It follows that Jesus also believed the proposition expressed by:

(4.15) If the miracles that were performed in Tyre and Sidon had been performed in Korazin and Bethsaida (though they were not), the inhabitants of Tyre and Sidon would have freely repented.

Molinism

So it appears that the Bible attributes to divine beings the knowledge of propositions expressed by counterfactual conditionals of the following forms:

(4.16) If *x* had been in circumstances *C*, then *x* would have freely performed action *A*.

(4.17) If *x* were (now) in circumstances *C*, then *x* would be freely performing action *A*.

(4.18) If *x* were to be in circumstances *C*, then *x* would freely perform action *A*.

Furthermore, if there are true propositions of the sort that (4.16)–(4.18) seem to express, then one would expect an omniscient being to know them, at least if they are knowable in principle. The view that every omniscient being has knowledge of such truths, i.e. true counterfactuals of freedom, is called 'Molinism'. This is after Luis de Molina, who in the sixteenth-century discovered the doctrine that now bears his name.[9] Molinism may be defined more precisely as the belief in the proposition expressed by the following sentence:

(D4.1) For every agent, *x*, and every set of circumstances, *C*, if *x* were given a free choice in *C*, then, for every being, *y*, if *y* is divine, then *y* knows what *x* would freely do, if *x* were in *C*.

Let us put more formally the view that there must be true propositions of the sort that (4.16)–(4.18) seem to express. First we note that Molinists are committed to believing the proposition expressed by the following sentence:

(4.19) For every agent, *x*, and every set of circumstances, *C*, if *x* were given a free choice in *C*, there is some action, *A*, such that *x* would freely perform *A* in *C*.[10]

This is motivated in part by the Principle of Conditional Bivalence. This principle states that every proposition expressed by a (well-formed) sentence of the following form has a truth value:

8 Again, we continue to think of freedom after the libertarian manner.

9 For the only piece of Molina's theology that has been translated into English, see de Molina (1988).

10 One might intuitively think that one could do nothing in *C*. I classify this here as the action of refraining from every positive action in *C*.

(4.20) If it were the case that ϕ, then it would be the case that ψ.[11]

Many counter-examples have been proposed against this principle; the most famous perhaps are those given by Quine:

(4.21) If Bizet and Verdi had been compatriots, Bizet would have been Italian.

(4.22) If Bizet and Verdi had been compatriots, Verdi would have been French. (Quine 1982: 23)

The idea is that these cannot both be true – as then, if they had been compatriots, Bizet would have been (just) Italian, and Verdi (just) French, and so they would not have been compatriots after all – and it is arbitrary to say that only one of them is true. These are therefore put forward as counter-examples to the principle that every instance of (4.20) has a truth value, i.e. as counter-examples to the Principle of Conditional Bivalence. But are they in fact good counter-examples? One may be tempted at first to dismiss (4.21) and (4.22) as irrelevant to the Molinist since these do not concern free actions. This would be a mistake, I think, since (4.21) and (4.22) may be adapted to cover free actions:

(4.23) If Bizet and Verdi had been compatriots, Bizet would have freely become Italian.

(4.24) If Bizet and Verdi had been compatriots, Verdi would have freely become French.

Which of (4.23) and (4.24) expresses a true proposition? Bizet spent 'perhaps the happiest years of his life' in Rome.[12] Verdi spent some years in Paris, but it does not seem that they were preferable to his years in Italy. So my guess is that (4.23) expresses a true proposition. This is just a guess because we humans have very limited knowledge of what others would have done had circumstances been different. Nevertheless, since there is nothing incoherent about claiming that only one of (4.23) and (4.24) expresses a true proposition, there is nothing incoherent in claiming that every divine being knows the proposition in question.[13] Of course, (4.23) and (4.24) do not express quite the same propositions as (4.21) and (4.22), since the latter allow for the composers to have been born in different countries from the ones in which they in fact were. But here the argument that I have just given returns at a stage further back, i.e. relative to Bizet's and Verdi's parents. Facts are in shorter supply here for us twenty-first century humans, but, again, there is no incoherence in holding that every divine being knows which of (4.21) and (4.22) expresses a truth. So I conclude that there is no reason why a Molinist should not hold to the full-blooded Principle of Conditional Bivalence (4.20), though, again, it is not necessary that a Molinist should do so.

There have been objections raised to the idea that every divine being knows the propositions that (4.16)–(4.18) seem to express. Some allow that these propositions

11 I take the name 'Principle of Conditional Bivalence' from Gaskin (1993: 422). Gaskin's formulation is, however, different from mine. Note that I write 'ϕ' and 'ψ' as schematic letters standing in place of sentences. They are not variables.

12 According to http://www.arena.it/eng/front/documentiING/bio/bizet.htm.

13 I assume here that it was possible in the nineteenth century to change nationalities, though I do not assume that it was easy.

are true but claim that they are unknowable. Others maintain that there are no such propositions; others still maintain that there are such propositions, but that none of them is true: each of these strategies involves denying the proposition expressed by (4.19).

Philosophical objections

The grounding objection

One major objection to Molinism is the so-called 'grounding objection'. This objection involves a denial of the proposition expressed by (4.19) based on the idea that every contingent truth needs something to ground its truth.

One version holds that every contingent truth is caused to be true by some agent (cf. Adams 1991: 344; Hasker 1989: 40–41). I see no reason to believe this dogma, and it, suspiciously, implies that the proposition expressed by the following sentence is necessarily false:

(4.25) No agent causes any contingent proposition to be true.

This is suspicious because it is much too quick: I agree that the proposition expressed by (4.25) is metaphysically necessarily false, but I think it is false in virtue of the metaphysically necessary existence of a divine being and the metaphysically essential exercise of some power or other by a divine being. But this line of argument, on the other hand, reaches the same conclusion from the mere assumption that every contingent truth is caused to be true by some agent.

The more general idea is often expressed as the idea that every truth needs a 'truth-maker'. The technical definition of a truth-maker is as follows:

(4.26) For every being, x, x is a truth-maker for a proposition, p, if and only if it is necessarily the case that if x exists then p is true.

Note that this definition does not imply that there is at most one truth-maker for each truth. For example, let us consider the proposition expressed by:

(4.27) Daniel exists.

An obvious truth-maker for this proposition is I myself. Necessarily, if I exist then the proposition is true. Let us now consider the proposition expressed by:

(4.28) Something exists.

Again, necessarily, if I exist then the proposition is true. But also, necessarily, if Tony Blair exists then the proposition is true. Note that the converse holds in neither case: the proposition expressed by (4.28) would have been true even if neither I nor Tony Blair had existed. Obviously it is not just existential propositions that have truth-makers. Consider, for example, the proposition expressed by:

(4.29) Daniel types.

Necessarily, if the event of my typing exists (which surely it does, since I am in fact typing) then the proposition expressed by (4.29) is true. Simpler propositions that describe the obtaining of states rather than the occurrence of events also have truth-makers:

(4.30) Daniel is tall.

Philosophers that believe in tropes, i.e. particular instantiations of properties, will think that the trope of my tallness is a truth-maker for the proposition expressed by (4.30). Others may think that the fact of my tallness or state of affairs of my being tall is a truth-maker for the proposition expressed by (4.30). This last intuition is what undergirds the correspondence theory of truth: the theory that every true proposition is true in virtue of corresponding with a fact. This seems to me the most promising defence of the idea that every proposition needs a truth-maker, as it deals with some otherwise troublesome cases:

(4.31) Nothing exists.

What, by its existence, could make the false proposition expressed by (4.31) true? *Ex hypothesi* nothing could do so, as its very existence would render the proposition expressed by (4.31) false. One might well conclude that therefore the proposition expressed by (4.31) is necessarily false, yet this seems too quick, at least if we qualify (4.31) as follows:

(4.32) No concrete particular exists.

One has the intuition that this might have been true, at least if one leaves aside the metaphysically necessary existence of every divine being. Yet what could have made it true? The only thing that could have made it true would have been an abstract entity, such as the fact of no concrete particular's existing.

Now, it is alleged by critics of Molinism that whereas normal, material, conditionals and counterfactuals pertaining to law-like behaviour have truth-makers, counterfactuals of freedom do not. So, for example, consider the proposition expressed by:

(4.4) If the match was struck, it lit.

This conditional is true if its antecedent is false or its consequent true. So, one obvious truth-maker for it is the event of the match's lighting: necessarily, if the event of the match's lighting exists, then the proposition expressed by (4.4) is true. Consider, further, the proposition expressed by:

(4.1) If the match had been struck (though it wasn't) it would have lit.

We agreed that the proposition expressed by (4.1) was true. What is its truth-maker? Clearly, the match's having lit would be a truth-maker for it, as, necessarily, if the match's having lit existed then the proposition expressed by (4.1) would be true. The problem is, however, that the match's having lit doesn't exist (we may suppose). Nor can we say that the fact of the match's not having been struck is the truth-maker. This would indeed be a truth-maker for the proposition expressed by (4.4), since that proposition is (trivially) true if its antecedent is false, i.e. if the match was not struck. The counterfactual conditional expressed by (4.1), however, is not trivially true if its antecedent is false. So the match's not having lit is not a truth-maker for the proposition expressed by (4.1), for it is not necessarily the case that if the fact of the match's not having been struck obtains then the proposition expressed by (4.1) is true. So what could be the truth-maker for the proposition

expressed by (4.1)? Typically, it is held to be the law that if matches are struck (under normal conditions) they light. The objection to Molinism now becomes that there is no law to ground the counterfactuals of freedom, nor is there any truth-maker of any other sort for them. It follows that there is no truth-maker of any sort at all for them, and, according to the objection, that therefore they cannot be true.

But why can there not be a truth-maker of the abstract sort, such as a fact? Consider, for example, the proposition expressed by:

(4.7) If James were offered a free choice of a million pounds, he would freely accept.

There is no law of nature or of psychology that says that the proposition expressed by (4.7) is true. Nevertheless, why may we not say that there is a fact, the fact of James's being such that were he offered a free choice of a million pounds he would freely accept it, that grounds the truth of the proposition expressed by (4.7)? Indeed, why may philosophers that believe in tropes not say that there exists the particular instantiation in James of the property *being such as to accept freely in the event of being offered a free choice of a million pounds*? It might be claimed that these facts cannot be detected by normal empirical methods of research. But this is a weak criticism: surely we could test the proposition expressed by (4.7) to some extent by offering James a free choice of a million pounds and seeing whether he accepts. It will certainly be impossible empirically to prove that he is acting freely (since we cannot rule out the possibility that a non-physical being is determining him to accept), but then this consideration would apply to a straightforward categorical assertion of the sort expressed by the following sentence:

(4.33) When I asked my wife to marry me she freely accepted.

It is very important to me that the proposition expressed by (4.33) is true. (4.33) expresses a normal categorical assertion; it is true if when I asked my wife she did freely accept. I do believe that the proposition expressed by (4.33) is true, though I do not think that there is any empirical way of ascertaining whether or not my wife accepted freely.

It might also be replied that the proposition expressed by (4.7) cannot be true if James does not exist, for then the trope of James's instantiating the property *being such as to accept freely in the event of being offered a free choice of a million pounds* does not exist, and the fact of James's having that property does not obtain either. Even if James does not exist, though, James's essence does exist. James's essence is the set of properties that he has essentially and that it is not possible that anything distinct from him has.[14] James is the unique instantiation of his essence, since he is the one entity that actually possesses every property in the set. Why may we not say that James's essence contains the property *being such in α as to accept freely in the event of being offered a free choice of a million pounds*, where 'α' names the actual world? It then follows that if James's essence is instantiated

14 This definition is modelled on, though slightly different from, Plantinga's definition in Plantinga (1974: 70–72, 187).

in α – if James exists in the actual world, in other words – then it will be true that James would freely accept if offered a free choice of a million pounds (whether or not he is actually offered the money). It may be responded that if this is right then necessarily James's essence contains the property *being such in α as to accept freely in the event of being offered a free choice of a million pounds*, and, hence, James is not free in α to refrain from accepting the offer since whenever his essence is instantiated, so is the property *being such in α as to accept freely in the event of being offered a free choice of a million pounds*. The problem with this line of argument is that James also has the property *being such in W as to decline freely in the event of being offered a free choice of a million pounds*, where '*W*' names some non-actual possible world. So James is free to decline the million pounds since he does decline it in some possible world and he is not forced by anything else to accept it in the actual world, yet in the actual world he would not freely decline it if he were offered it.

So I suggest that truth-makers for the counterfactuals are the states of affairs consisting in the containing by the essences belonging to actual or possible free persons of properties named by phrases of the form:

(4.34) Person *S*'s being such in world *W* that *S* would freely perform action *A* if given a free choice in circumstances *C*.

The fact that these states of affairs may not be empirically discernible seems to me irrelevant.

Finally, it could be responded that there does not need to be for every truth a corresponding fact or even for every truth a truth-maker. It might be claimed that true counterfactuals of freedom are true, but not true in virtue of anything. After all, even the claim I have advanced that they are all true in virtue of corresponding facts merely shifts the question to 'In virtue of what do these facts obtain?' (to which I answer that they do not obtain in virtue of anything). If this line of response (to claim that facts obtain, but do not obtain in virtue of anything) is permissible, it is perhaps also permissible to claim that true counterfactuals of freedom are true, but not true in virtue of anything.

Hasker's argument

Hasker claims that:

> [I]t is the *agent named in the counterfactual* who brings it about that the counterfactual is true. More precisely, it is the agent who brings this about *in those possible worlds in which the antecedent is true*.
>
> (Hasker 1989: 40; italics original)

I deny this claim, as suggested above. I think that no agent brings it about that the counterfactuals of freedom are true. I think the confusion here lies in the fact that the agent's performance of the action described in the consequent of the counterfactual is a truth-maker, on the technical definition we have been discussing, for the counterfactual. For example, if James is offered a free choice

of a million pounds his free acceptance of the offer is, on the technical definition we have been discussing, a truth-maker for the proposition expressed by:

(4.7) If James were offered a free choice of a million pounds he would freely accept.

This is because the existence of the action of James's freely accepting the money metaphysically implies the truth of the proposition. But it does not follow that James thereby brings it about that the proposition expressed by (4.7) is true. After all, we agreed that I was a truth-maker for the proposition expressed by:

(4.28) Something exists.

Yet it would be absurd to say that I brought it about that the proposition expressed by (4.28) was true since it was true before I was on the scene[15] and since if I were not to exist the proposition expressed by (4.28) would still be true. The same goes, however, for the proposition expressed by (4.7): this was, I claim, true before James freely accepted the money[16] and would have been true if the money had not been offered. The reasoning behind this last claim is that, if we suppose that the money is offered in the actual world, the counterfactual still holds true in the closest possible world in which the money is *not* offered.

Hasker does have an argument for his claim that the subjects of true counterfactuals of freedom bring about their truth. His argument, applied to my example, is that James does have the power if offered a free choice of the money to bring about the truth of the proposition expressed by:

(4.35) James is offered a free choice of a million pounds and freely accepts it.

He has the power to bring about the truth of the proposition expressed by (4.35) because the first conjunct is already true and he has the power to bring it about that the second conjunct is true, and, thereby, that the whole conjunction is true. Hasker now employs his power entailment principle:

(4.36) If

(i) one has the power to bring it about that p is true;

and

(ii) p logically implies q;

and

(iii) q is false;

then

(iv) one has the power to bring it about that q is true. (Hasker 1989: 49)

Since the proposition expressed by (4.35) logically implies that expressed by (4.7) if Hasker's 'power entailment principle' is correct, then it follows that James has the power to bring it about that the proposition expressed by (4.7) is true. The discussion in Chapter 3 concluded, however, that this principle was false. So Hasker's

15 Assuming, for the moment, that propositions are true at times, which assumption I doubt.

16 Still assuming that propositions are true at times.

argument fails, and we are left with our conclusion that we do not have causal power over the counterfactuals of freedom about us, and we cannot bring about their truth. Nevertheless, we do have power of some sort over them: counterfactual power. James has the power to do something such that, were he to do it, the proposition expressed by (4.7) would be false and, of course, assuming that it is true, the power to do something such that, were he to do it, it would be true. But this is philosophically unproblematic. I conclude that Hasker has not identified any problem with Molinism.

Kenny's objection

Anthony Kenny raises the following objection to Molinism:

> The difficulty is simply that if it is to be possible for God to know which world he is actualizing, then his middle knowledge must be logically prior to his decision to actualize; whereas if middle knowledge is to have an object, the actualization must already have taken place. As long as it is undetermined which action an individual human being will take, it is undetermined which possible world is the actual world – undetermined not just epistemologically, but metaphysically. And as long as it is undetermined which world is actual, it is undetermined which counterfactuals about human free behaviour are true.
>
> (Kenny 1979: 71)

Kenny's claim 'whereas if middle knowledge is to have an object, the actualization must already have taken place' is where the argument goes astray. Let us consider again the proposition expressed by:

(4.7) If James were offered a free choice of a million pounds he would freely accept.

The proposition expressed by (4.7) is true independently of the existence of James. So it is perfectly possible that a divine being know it without having created James – indeed, even if he were never to create James. This is not to say, of course, that the proposition expressed by (4.7) is necessarily true, for it is in James's power to do something such that, were he to do it, it would be false. So the truth of counterfactuals of freedom does not presuppose the actualization of their antecedents, their consequents, or even the creation of the individuals that they concern. I conclude that Kenny's objection fails.

Helm's objection

Some philosophers claim that Molinism is inconsistent. For example, Paul Helm writes:

> God could not 'steer' the course of events in this fashion [i.e. using middle knowledge], given that all the while the individuals in the actualized universe have indeterministic freedom. For the circumstances never ensure one deter-

> minate freely-chosen outcome; they provide only the conditions for the free choice of one of several outcomes.
>
> (Helm 1993: 59)

Helm is right when he points out that 'the circumstances do not ensure one determinate freely-chosen outcome' – libertarians usually think that if the circumstances do ensure one outcome then that outcome is not freely chosen.[17] This does not disprove Molinism, however. Indeed, Molinists, being libertarians, usually insist on this point. But how, then, does a divine being 'steer' the course of events? It is not the circumstances alone that ensure the one outcome, but the union of the circumstances *together with* the counterfactuals of freedom. Since every divine being knows for every time what the circumstances are at that time and what counterfactuals of freedom hold at that time, every divine being knows for every set of circumstances what every free agent would freely do in those circumstances. But why does the fact that the union of the circumstances together with the counterfactuals of freedom ensures the one outcome not remove the freedom of the agent? It does not remove the freedom of the agent because, although the circumstances are not within the agent's power (unless the agent has brought them about or specifically permitted them), the counterfactuals describing what the agent would freely do in those circumstances *are* within the agent's power. Thus, for example, the proposition expressed by (4.7) definitely *is* in James's power:

(4.7) If James were offered a free choice of a million pounds he would freely accept.

If, supposing he were offered a free choice of a million pounds, James were freely to decline it, he would thereby do something such that the proposition expressed by (4.7) would be false. It is in James's power freely to decline the offer, should one be made, hence it is in his power to do something such that, were he to do it, the proposition expressed by (4.7) would have been false. In other words, the proposition expressed by (4.7) is under James's counterfactual power.[18] It should be clear, then, that there is no inconsistency between Molinism and libertarianism (the first is, in fact, a sub-theory of the second): it is within James's power to accept the million pounds and it is within James's power to reject the million pounds. If James were to accept then he would, thereby, do something such that, if he were to do it, the proposition expressed by (4.7) would be true, and, if he were to reject the offer, he would, thereby, do something such that, if he did it, the proposition expressed by (4.7) would be false. In this example we are assuming that the proposition expressed by (4.7) is actually true, which means that were James offered a free choice of a million pounds he would not exercise his power

17 I do not think this is universally true – I can freely determine circumstances that will then ensure that I do something. Since my original determination of the circumstances is free, so is my subsequent ensured action. I shall discuss this further in Chapter 6.

18 Some may claim that the proposition expressed by (4.7) is under James's causal power, but I am sceptical that James has the power actually to *cause* this proposition to be false. Others will claim that James has the power to bring it about that this proposition be false. I am agnostic on this point, but shall try to keep my assumptions as weak as possible – all Molinists will admit that the proposition expressed by (4.7) is under James's counterfactual power.

freely to reject it, but would, instead, exercise his power freely to accept it. So I conclude that Helm's attack on Molinism does not succeed.

The uses of middle knowledge

Freedom and Foreknowledge

Molinism gives us some insight into how a divine being might foreknow free actions. For example, every divine being foreknows the proposition expressed by:

(B) Paul eats a tuna sandwich at t_2.

(Recall that we are supposing that (B) expresses a true proposition about an event that is free according to the libertarian conception of freedom.) How does a divine being foreknow such a proposition? The Molinist suggestion is that a divine being foreknows it by inference from his knowledge of the propositions expressed by the following two sentences:

(4.37) If Paul were in circumstances of a certain sort, C_2, at t_2, then he would freely eat a tuna sandwich at t_2.

(4.38) Paul will be in circumstances of sort C_2 at t_2.

This raises the question of how a divine being will know at a time before $t_2 - t_1$, say – that Paul will be in circumstances of sort C_2 at t_2. Here there are two options:

(i) the divine being himself (directly or via secondary means) brings it about that Paul will be in circumstances of sort C_2 at t_2;
(ii) he permits another being, x, freely to bring it about that Paul will be in circumstances of sort C_2 at t_2.

In case i, our divine being knows at t_1 that Paul will be in circumstances of sort C_2 at t_2 in virtue of knowing his own intentions at t_1, knowing his own omnipotence, and knowing that it is impossible for him to change his mind, none of which instances of knowledge is an instance of *fore*knowledge.[19] In case ii, the argument iterates. Our divine being knows that x will freely bring it about that Paul will be in circumstances of sort C_2 at t_2, in virtue of knowing the propositions expressed by sentences of the following form:

(4.39) If x were in circumstances of a certain sort, C_1, at t_1, x would freely bring it about that Paul would be in circumstances of sort C_2 at t_2.

(4.40) x is in circumstances of sort C_1 at t_1.

So, at every time, t, every divine being knows, for every subsequent time, $t + n$, every proposition about that time in virtue of knowing, first, his own intentions at t, secondly, that circumstances of a particular sort, C, obtain at t, and, thirdly,

19 For Molina, the claim that it is impossible for a divine being to change his mind follows immediately from his belief that every divine being is outside time. One can, however, argue that no divine being can change his mind from other premisses, such as the fact that there can be no reason for a divine being's changing his mind, since he cannot gain any more relevant information, and the fact that he is always perfectly rational. It follows that any divine change of mind would be down to whim or caprice, but these can play no part in the divine life.

what would happen at $t+n$ – in particular, what every free agent, S, would freely do at $t+n$ – if C obtained at t – in particular, if S were in C at t. Of course, not every agent will exist at every time before $t+n$, but this is not a problem: for every time, t, every divine being will be able to work out, thanks to his knowledge of his own intentions, his knowledge of the circumstances, C, that obtain at t, and his knowledge of how every agent that exists at t will freely have an impact on C, what will happen to C over time. Consequently, for every subsequent time, $t+n$, every divine agent will know what circumstances, $C+n$, will obtain at $t+n$ and how every agent that will exist at $t+n$ will freely have an impact on $C+n$. It should be clear, then, that Molinism provides an answer to the question of how a divine being knows the future.

Creation and providence

It seems plausible at first that every divine being will want to create a world with the minimum of evil. That is, every divine being will want to create a world with the minimum of suffering and with the minimum of morally wrong actions performed. It is plausible, however, that a world containing free agents that occasionally perform morally wrong actions is better than a world containing only determined agents that are determined never to do wrong. This is because free will (which we continue to conceive of in the libertarian manner) is a good thing and, in particular, a world containing agents that freely choose to do good and, especially, freely choose to love and worship the divine being that created them, is better than a world in which all the agents are determined to do good, and determined to love and worship their creator.[20] But how does our divine being know which world to create? If no divine being knew any counterfactuals of freedom then creation would be like a 'lucky dip': no divine being could infallibly *know* when creating, how the world would turn out. For example, suppose that our divine being has the choice between creating Adam and McAdam. How can he decide which to create? At this point someone may respond that he can know thanks to his foreknowledge. This suggestion, however, misses the mark: it makes no sense to say that our divine being foreknows that McAdam will do enormously great evil and so creates Adam but not McAdam. This makes no sense because if McAdam is not created after all, then he does not exist after all, and so he cannot do enormously great evil after all, and so cannot be foreknown to be doing enormously great evil. Now it may be that without middle knowledge our divine being can know propositions expressed by sentences such as the following:

(4.41) If McAdam were to exist he would probably do enormously great evil.

Knowledge of the proposition expressed by (4.41) might well incline our divine being to create Adam rather than McAdam, but he could not be certain that he were actualizing the better state of affairs. His gamble would probably pay off, but it might not do so. It is perfectly possible that Adam turn out to do even greater evil

20 As hinted in Chapter 3, I do not think it is possible to determine someone to love one, so I should rather write 'determined to "love" and "worship" their creator'.

than McAdam was likely to do. In this situation our divine being would just have to rue his gamble. He would not have been irrational, of course: he would have made the best decision he could based on the knowledge he possessed, but, because his knowledge was only of probabilities rather than certainties, there was always the chance that things would backfire. If every divine being has middle knowledge, on the other hand, then he will know propositions such as those expressed by the following sentences:

(4.42) If McAdam were to exist he would freely do enormously great evil.

(4.43) If Adam were to exist he would freely do moderately great evil.

So, thanks to his middle knowledge of the propositions expressed by (4.42) and (4.43), our divine being is guaranteed to have made the right decision: creation of Adam rather than McAdam. The implications of Molinism for our view of divine providence are vast and obvious.

'Neo-Molinism'

Greg Boyd, a defender of the 'openness view' that we encountered in Chapter 3, has recently begun labelling open theism 'neo-Molinism':

> I shall argue that the view that has come to be labeled *open theism* could perhaps more accurately be labeled *neo-Molinism*. In essence it differs from the classical Molinist position only in that it expands God's middle knowledge to include 'might-counterfactuals'.
>
> (Beilby and Eddy 2001: 144)

Boyd sets out the so-called 'neo-Molinist' position as follows:

> Between God's pre-creational knowledge of all logical possibilities and God's pre-creational knowledge of what will come to pass is God's 'middle knowledge' of what free agents *might or might not do* in certain situations as well as of what free agents *would do* in other situations. If it is true that agent X might or might not do *y* in situation *z*, it is false that agent X would do *y* in situation *z*, and vice versa.
>
> (Beilby and Eddy 2001: 146)

We note first that Boyd intends his theory to be an expansion of Molinism. He seems to think that 'classical' Molinists do not accept that every divine being also knows every true 'might-counterfactual'. But what is a 'might-counterfactual'? Here are three 'might-counterfactuals':

(4.44) If the match had been struck (though it wasn't) it might have lit.

(4.45) If the match were being struck (though it isn't being) it might be lighting.

(4.46) If the match were to be struck (though it won't be) it might light.

What propositions do (4.44)–(4.46) express? It seems to me that each expresses the same proposition as its opposite number in the following list:

(4.47) If the match had been struck (though it wasn't) it is possible that it would have lit.

(4.48) If the match were being struck (though it isn't being) it is possible that it would be lighting.

(4.49) If the match were to be struck (though it won't be) it is possible that it would light.

In other words, each of (4.47)–(4.49), and, therefore (I claim), each of (4.44)–(4.46), expresses the claim that had something been the case (though it wasn't) something else would have been possible. But why does Boyd think that Molinists claim that no divine being knows these propositions expressed by (4.44)–(4.46)? In fact, I know of no theist at all that claims that a divine being is ignorant of the propositions expressed by (4.44)–(4.46). Molinists do not mention divine knowledge of the propositions expressed by (4.44)–(4.46) for precisely this reason – it is uncontroversial. So Boyd is certainly not offering us more than Molinism.

In fact, Boyd is offering us considerably less than Molinism. He writes 'If it is true that agent X might or might not do *y* in situation *z*, it is false that agent X would do *y* in situation *z*, and vice versa' (Beilby and Eddy 2001: 146). Boyd seems to think that the proposition expressed by:

(4.50) Agent *X* might (freely) perform *y* in situation *z* and agent *X* might (freely) refrain from performing *y* in situation *z*.

implies the proposition expressed by:

(4.51) It is not the case that agent *X* would (freely) perform *y* were *X* given a free choice in situation *z*.

This is not correct, however. The proposition expressed by (4.50) is the same as that expressed by:

(4.52) It is possible that agent *X* freely perform *y* in situation *z* and it is possible that agent *X* freely refrain from performing *y* in situation *z*.[21]

In fact, almost every Molinist believes the proposition expressed by (4.52) because almost every Molinist takes the truth of the proposition expressed by (4.52) as a necessary condition for freedom.[22] After all, all that the proposition expressed by (4.52) states is that there is an accessible possible world in which *X* freely performs *y* in *z* and that there is another accessible possible world in which *X* freely refrains from performing *y* in *z*. How is this supposed to imply the proposition expressed by (4.51)? Boyd will reply, I think, that the conjunction of the proposition expressed

21 It is possible that Boyd is reading 'might' in (4.50) as an epistemic 'might', i.e. as indicating our ignorance of what *X* would do. He has given us no argument, however, for the claim that every divine being shares our ignorance, and, of course, Molinists are committed to denying that the proposition expressed by (4.50) under the epistemic reading of 'might' is true if divine beings are also under consideration – i.e. Molinists are committed to affirming that every divine being knows for every agent and for every set of circumstances what that agent would freely do if given a free choice in those circumstances.

22 Here I diverge from the mainline of Molinism, for it does not seem to me that the truth of the proposition expressed by (4.52) is a necessary condition for freedom. Nevertheless, for the purposes of this chapter, there is no harm in taking it to be such. See Chapter 6 for further discussion.

by (4.52), taken together with the proposition expressed by the following sentence, is necessarily false:

(4.53) Agent X would (freely) perform y were X in circumstances z.

In other words, Boyd would state that the proposition expressed by (4.52) and that expressed by (4.53) are incompossible. This is not true, however. The two propositions are perfectly compossible: if agent X were in z then X would freely perform y even though it would be perfectly possible for X freely to refrain from performing y. In other words, it is possible for X to perform y in z even if, were X in z, X would refrain from performing y. Boyd will probably reply by insisting that if it is possible for agent X freely to refrain from performing y in z, as the proposition expressed by (4.52) states, then there is a possible world in which X freely does refrain from performing y in z, and in that world the proposition expressed by (4.53) is false and that expressed by (4.51) is true. This is correct, but not to the point: nobody has claimed that the proposition expressed by (4.53) is true *in that world*. Rather, it is claimed to be true *in this, the actual, world*. Boyd has given us no reason to doubt the Molinist's claim that both the proposition expressed by (4.50) – i.e. that which is, I claim, expressed by (4.52) – and the proposition expressed by (4.53) are true in the actual world.

Boyd also claims that the proposition expressed by:

(4.51) It is not the case that agent X would (freely) perform y were X in situation z.

implies that expressed by:

(4.50) Agent X might (freely) perform y in situation z and agent X might (freely) refrain from performing y in situation z.

This is even wider of the mark. Clearly, the proposition expressed by (4.51) would be true if X were compelled to refrain from y in situation z, though in that situation the proposition expressed by (4.50) would not be true.

We should note finally, however, that Boyd thinks that the proposition expressed by (4.50) is equivalent to that expressed by (4.51). In other words, since Boyd thinks that there are many true propositions expressed by sentences of the form (4.50) (Beilby and Eddy 2001), it follows that he thinks that there are many true propositions expressed by sentences of the form (4.51). But of course, by his own argument, Boyd must think that there are many propositions expressed by sentences of the form:

(4.54) It is not the case that agent X would freely refrain from doing y were X in situation z.

Boyd does not think this because he is a determinist; on the contrary, he is a libertarian (Beilby and Eddy 2001: 13–47). It follows, then, that Boyd thinks that there are many cases of possible free actions in which there is no truth of the matter about what the free agent would do. In other words, Boyd is committed to belief in the proposition expressed by the following sentence:

(4.55) For some agent, X, and some set of circumstances, C, and for every action, y, it is not true that, if X were given a free choice in C, X would freely

refrain from performing *y*, and it is not true that, if *X* were given a free choice in *C*, *X* would freely perform *y*.[23]

This shows, however, that Boyd is not a Molinist at all. This is because, as we saw, Molinists are committed to the view that:

(4.19) For every agent, *x*, and every set of circumstances, *C*, if *x* were given a free choice in *C*, there is some action, *A*, such that *x* would freely perform *A* in *C*.

Boyd is therefore not a Molinist, and it is misleading to associate the name 'neo-Molinism' with his position.

Conclusion

There are many more arguments that one could consider concerning middle knowledge. I shall not debate these at length, however, as Thomas Flint has already written a book-length defence of Molinism (Flint 1998). I shall merely, in conclusion, record my conviction that none of the attacks on Molinism works, so that I believe that there are true counterfactuals of freedom, and that every divine being knows all of them. Furthermore, every divine being is able to use this knowledge in his providential government of the world or decision of which world to actualize. Finally, a divine being's middle knowledge provides the key to his foreknowledge: since he knows, for every free individual, *x*, and for every time, *t*, that *x* will be in circumstances of a certain sort, *C*, at *t*, and that *x* would freely perform a certain action, *A*, at *t*, were *x* in *C* at *t*, he knows that *x* will perform *A* at *t*. Middle knowledge is indeed an extremely useful and important property and certainly a great-making property: a being that lacks middle knowledge is clearly less great than a being that has middle knowledge, *ceteris paribus*.

One final note: since Molinism is a doctrine about what a free being would have done in certain non-actual circumstances, it is available even for the contingent determinist. If one thinks that in fact every action is determined, but that this might not have been the case, then one is still faced with the question of whether there are truths about what certain beings would have done had they been free, or what certain non-actual beings would have done if they had been free in certain circumstances, and, further, with the question of whether every divine being knows these truths. Even if one thinks that, necessarily, all humans are determined, one might still think that every divine being is at least possibly undetermined, i.e. free as libertarians understand 'free'. In this case, the question arises as to whether there are truths about what a divine being would freely have done in certain non-actual circumstances, and whether every divine being knows such truths. The point of this is that merely espousing determinism is not sufficient for ignoring Molinism:

23 I have written 'for every action' rather than 'there is an action' since, although it might be thought that on the assumption that *X* exists in *C* there are some actions that *X* will have to perform, even if he or she performs them freely, such as *performing a positive action or refraining*, I doubt that Boyd would agree that such actions are free, and so I think he is committed to the strong proposition that I present here with 'for every' instead of 'there is an'.

the determinist will either have to claim that freedom as libertarians understand it is simply impossible, or to use the arguments against Molinism put forward by its various libertarian critics.

5 Omnipotence

Introduction

In Chapter 1 I suggested that a being, *x*, was divine, if and only if *x* was maximally great, i.e. if and only if *x* had a maximally great set of great-making properties, if such a set is possibly instantiated. Power is usually thought to be a great-making property, because beings translate their desires into actuality in virtue of their power; and it seems intuitively that a being, *x*, that was powerless, and, therefore, was unable to translate his desires into actuality, would be inferior to a being, *y*, exactly like *x* except in the fact that he could translate his desires into actuality, in virtue of his power. I think most people think powerlessness a worse thing than power, which is one reason why people are always trying to expand their power by modern technology or exercise or the acquisition of money or getting promoted at work. I also think that one of the reasons most people would assent to the judgement that a human is greater than an ant is because a human is more powerful than an ant – in other words, because a human is capable of making a greater difference to the world. Perhaps this is also why people so greatly fear losing the ability to make an impact on the world through paralysis or some such disease; they fear a loss of power. So it seems as if power is a great-making property and one we should expect every divine being to possess. Similarly, one thinks that more power is greater *simpliciter* than less power. So one would think that a being, *x*, that was less powerful, would be inferior to a being, *y*, exactly like *x* except in the fact that *y* was more powerful in that, for example, *y* could bring about a greater number or variety of states of affairs. One of the reasons that humans are thought greater *simpliciter* than their nearest ape relatives is that humans have greater power than they, partly owing to our technological prowess. Again, people fear even a partial loss of power: for example, loss of strength, or loss of the ability to use a hand, or loss of money, or demotion at work. So, if it is greater to be more powerful than less powerful, then maximal power, i.e., a degree of power that cannot be exceeded, would seem to be a great-making property,[1] and one we should expect every divine being to possess, other things being equal. This idea has recently been challenged, particularly by philosophers working in the feminist tradition. Nevertheless, it forms part of the mainstream of 'perfect-being theology'; Anselm writes in his *Monologion*:

1 There does not seem to be an optimal degree of power below the maximal degree.

> For the supreme essence must not at all be said to be any of those things to which something that is not what they are is superior; and, as reason teaches, he absolutely must be said to be any of those things to which whatever is not what they are is inferior. He must therefore be living, wise, powerful and all-powerful, true, just, happy, eternal, and whatever similarly it is better to be than not to be.
>
> (Anselm of Canterbury 1995: 29)

Traditional backing for omnipotence

Many other philosophical and religious texts affirm that every divine being is omnipotent. Aquinas says in *Summa Theologiae*:

> All confess that God is omnipotent; but it seems difficult to explain in what His omnipotence precisely consists: for there may be a doubt as to the precise meaning of the word 'all' when we say that God can do all things. If, however, we consider the matter aright, since power is said in reference to possible things, this phrase, *God can do all things*, is rightly understood to mean that God can do all things that are possible; and for this reason He is said to be omnipotent.
>
> (Aquinas 1920: Ia.Q25.a3)

Descartes writes:

> [In] general we may affirm that God can do everything we can comprehend, but not that He cannot do what we cannot comprehend; for it would be rash to think our imagination reaches as far as His power does.
>
> (Descartes 1970: 260)

To take a more modern source, the official *Catechism of the Catholic Church* states:

> Of all the divine attributes, only God's omnipotence is named in the Creed: to confess this power has great bearing on our lives. We believe that his might is *universal*, for God has created everything and can do everything.
>
> (*Catechism of the Catholic Church* 1999: §268)

Scripture says:

> Then Job replied to the LORD: 'I know that you can do all things; no plan of yours can be thwarted.'
>
> (Job 42: 1–2).

'Can' and 'has the power to'

All these quotations have one thing in common: each claims that an omnipotent being's power is to be analysed in terms of what actions an omnipotent being *can* do. I, however, shall analyse omnipotence using the locution 'has the power to', rather than the word 'can', because the latter is ambiguous; 'can' may mean *has the power to* or it may mean *has the opportunity to* or it may mean *has the know-how to*. For instance, I have the power to write my name, but if I have no writing

implement to hand I do not have the opportunity to do so, and I may say 'I cannot write my name because I have no writing implement'. I don't think that we would say 'I lack the *power* to write my name because I lack a writing implement'. In this case, a being might be omnipotent even if he lacked the opportunity to write his name.

Let me take another example: every omnipotent being has the power immediately to destroy the Eiffel Tower.[2] Suppose that an omnipotent being exercised this power and destroyed it. Would he thereby have forfeited his power immediately to destroy it? I think not; I think he would thereby have forfeited only his opportunity to exercise this power.[3] Rather than think that a power goes in and out of one's possession, it seems to me preferable to think of a constant power that an omnipotent being sometimes has the opportunity to exercise and sometimes does not. Similarly, rather than think that an omnipotent being's omnipotence comes and goes, it is better to think that his omnipotence is stable but not always exercisable in every way.

What is a power?

It is not easy to formalize the notion of a power, but we might use as a benchmark for our concept a definition that takes its lead from Nowell-Smith's analysis of 'ability' (Nowell-Smith 1954: 274ff.), and J. L. Austin's discussion of it (Austin 1956*a*; repr. Austin 1979: 227). I do not think that Nowell-Smith meant to distinguish between power and ability, so I feel at liberty to appropriate his definition.

(D5.1) For every being, x, x has the power to perform an action, A, if and only if, if x had the opportunity, know-how and the overriding desire to perform A, then x would perform A.

It may well be objected to this that we have no better idea what 'opportunity' is than we have of what 'power' is.[4] It may well be that at least one of 'opportunity', 'know-how', 'desire' and 'power' must be taken as primitive, but (D5.1) still serves the useful purpose of interrelating the concepts.

Austin's principal objection is to the claim that an analysis such as (D5.1) gives the *meaning* of the English word 'can'. I agree with Austin that it does not give the meaning of 'can' or of 'has the power to'. Austin also presents some counter-examples that might suggest that it is perfectly possible that the left-hand side of the definition be true without the right-hand side's being true too. The most

2 By 'immediately' I mean, in particular, that no omnipotent being has to bring about a state of affairs temporally before his destruction of it.

3 Even though it seems obvious that nobody has the opportunity to destroy something that does not exist, someone might object that an omnipotent being *does* still have the opportunity in this example to destroy the Eiffel Tower – he has the opportunity to recreate it and *then* destroy it. I specifically phrased the example in terms of *immediate* destruction, however. In the situation that the objector envisages, the omnipotent being does not *immediately* destroy the Eiffel Tower – he has to recreate it first.

4 Such an objection was in fact put to me by Greg Welty, to whom I am grateful.

famous of these concerns a golfer (Austin himself, in the example) that misses a putt and kicks himself because he 'could have holed it'. The suggestion in the present context would be, then, that Austin might have had the power to hole the ball, the opportunity, know-how and overriding desire to hole the ball, and yet still not have holed it. It seems to me that there is a possible confusion here. Austin had the power, I should say, to hole the ball, since indeed he might have holed it. He did not, however, have the power to hole the ball at will. Compare the situation when I am taking a blind guess as to what number you are thinking of: I have the power to make a correct guess, since I might well do so, but I do not have the power to make a correct guess at will.

It seems to me that Anthony Kenny is guilty of a similar confusion when he flatly denies that performing an action implies having the ability to perform it (I think he would extend his account to the notion of *power* too):

> A hopeless darts player may, once in a lifetime, hit the bull, but be unable to repeat the performance because he does not have the ability to hit the bull. I cannot spell 'seize'; I am never sure whether it is an exception to the rule about 'i' before 'e'; I just guess, and fifty times out of a hundred I get it right. On each such occasion we have a counter-example to *CpMp*:[5] it is the case that I am spelling 'seize' correctly but it is not the case that I can spell 'seize' correctly.
>
> (Kenny 1975: 136)

I think that Kenny here confuses having the ability (or power) to perform a token of a certain action type, *A*, and having the ability (or power) to perform a token of *A* on demand – or perhaps the ability (or power) to perform a token of the distinct type *A-on-demand*. Contrast Kenny's words with those of Peter Geach:

> But to say that a man has a certain concept is to say that he *can* perform, because he sometimes *does* perform, mental exercises of a specifiable sort. This way of using the modal word 'can' is a minimal use, confined to a region where the logic of the word is as clear as possible. *Ab esse ad posse valet consequentia* – what is can be, what a man does he can do; that is clear if anything in modal logic is clear.
>
> (Geach 1957: 15; cf. Kenny 1975: 135–136)

I think that Geach is correct. Let us admit, then, as a truth of our logic, the axiom of most systems of modal logic:

(5.1) $\phi \rightarrow \Diamond\phi$.

It is a truth, however, of *metaphysics*, not of *logic*, that this axiom holds for the concept of *power* (which Geach does not specifically address).

Austin himself says about his counter-example:

> But if I tried my hardest, say, and missed, surely there *must* have been *something* that caused me to fail, that made me unable to succeed? So that I *could not* have holed it. Well, a modern belief in science, in there being an explanation of everything, may make us assent to this argument. But such a belief is

5 '*CpMp*' is Kenny's Polish notation for 'If ϕ then it is possible that ϕ'.

> not in line with the traditional beliefs enshrined in the word *can*: according to *them*, a human ability or power or capacity is inherently liable not to produce success, on occasion, and that for no reason (or are bad luck and bad form sometimes reasons?).
>
> (Austin 1979: 218)

We are not engaged at present in elucidating the word 'can'; rather we are engaged in analysing the concept of power. In any case, Austin's counter-example does not affect our larger project of defining omnipotence. This is because I think we should all agree that it cannot be that an omnipotent being's power should fail to produce success on any occasion for no reason or for bad luck or bad form. So our analysis may well suffice for analysing the power of *an omnipotent being* even if it will not suffice for power more generally. In fact, this conclusion is, I think, forced on us for another reason too. Suppose I have the power to do something unspeakably evil – so evil that no divine being can permit me, in virtue of his essential goodness, to perform this action. For example, we are accustomed to think that the President of the USA has the power to annihilate the world in a nuclear holocaust. Indeed, we are also accustomed to claim that he has the know-how and opportunity to do this. But perhaps this action would be so evil that no divine being could permit him to perform it. But in that case, if the President had the overriding desire to perform it, then a divine being would step in to prevent him. Furthermore, since every divine being exists of metaphysical necessity and is good of metaphysical necessity it follows that necessarily if the President had the overriding desire, know-how and opportunity, he still would not do it, for he would be prevented by a divine being. But then it seems to follow that he lacks the power. But if he lacks the power then what is the divine being preventing him from exercising?

This problem is not unique to the definition presented above, but is endemic to counterfactual analyses of concepts. (For example, we are accustomed to say that something is fragile if and only if it is the case that, if it were dropped, it would break. But what about the fragile item that is so beautiful that if dropped a guardian angel steps in and preserves it?[6]) It would be possible, though a long and difficult job, to rework the definition to exclude such counter-examples. Such counter-examples would not apply to an omnipotent being, however, so I shall continue to use the analysis, but as no more than a rough guide.

What does an omnipotent being have the power to do?

The instinctive answer to the question: 'What does an omnipotent being have the power to do?' is 'Everything'. Let us put this a little bit more formally:

(D5.2) For every being, x, x is omnipotent if and only if for every action, A, x has the power to perform A.

A proposed definition may be unsatisfactory for many reasons. Two are particularly important here. It may be *too strong* in that things that we intuitively think satisfy the definiendum do not satisfy the definiens. On the other hand, it may be *too weak*

6 I am grateful to Keith Hossack for this example.

in that things that we intuitively think do *not* satisfy the definiendum *do* satisfy the definiens. In this case, a definition of 'omnipotence' would be too strong if divine beings turned out not to be omnipotent on the definition; a definition of omnipotence would be too weak if some intuitively non-omnipotent being (such as I) satisfied it. Our first questions will be concerned with whether the definition is too strong.

The logically possible

One may wonder whether an omnipotent being should be expected to have the power to perform logically impossible actions such as causing something to exist and not to exist at the same time.[7] Descartes seems to have thought so:

> You [Fr Mesland] raise the difficulty of conceiving how God could have chosen, freely and indifferently, that it should not be true that the three angles of a triangle are equal to two right angles, or in general that it should be true that contradictories cannot be true together. But this is easily removed by considering that God's power cannot have any limits; [. . .] From [this] consideration we see that nothing can have obliged God to make it true that contradictories cannot be together, and that consequently he could have done the contrary.
>
> (René Descartes, Letter to Mesland, 2 May 1644, Descartes 1970: 291)

Harry Frankfurt interprets this passage as saying that there are logically impossible actions and that God has the power to perform them (Frankfurt 1977). Alvin Plantinga interprets the passage as saying that God can perform every action and that, thus, no action is logically impossible (Plantinga 1980). It is worth noting in addition that in fact Descartes says here that God 'could have done the contrary'. He does not explicitly say that God 'can do the contrary'. Whether Descartes's claim that 'God's power cannot have any limits' should be taken to imply this claim anyway is another hotly debated question.

Aquinas thought that an omnipotent being did not have the power to perform logically impossible actions, as was clear from the first quotation. Most philosophers now side with Aquinas against Descartes (at least, against Descartes as interpreted by Frankfurt), because it is very difficult to grasp what it would be for an omnipotent being to perform a logically impossible action. This is not by itself a decisive point, however, since, as Descartes points out, it may be just that we have limited imaginations. On the other hand, an additional point against Descartes, as interpreted by Frankfurt, is that it seems that a sentence of the form '*A* is logically impossible' just means that *A* is such that nothing in any logically possible world performs it. This might be taken to imply that if an omnipotent being has the power to perform an action then that action is logically possible. The point would then be better put as follows: not that an omnipotent being has the power to do the logically impossible, but that there is no action that is logically impossible, not even making something both exist and not exist at the same time. This would be compatible with Descartes as interpreted by Plantinga, but not with Descartes as interpreted by Frankfurt.

7 I attempt a rigorous definition of 'logically possible action' below.

There is one consideration in favour of claiming that every omnipotent being has the power to do the logically impossible, and that is related to the conditional definition quoted earlier:

(D5.1) For every being, *x*, *x* has the power to perform an action, *A*, if and only if, if *x* had the opportunity, know-how and the overriding desire to perform *A*, then *x* would perform *A*.

It is hard to see that anything could plausibly be said to have the *opportunity* to perform an impossible action. So, if *x* could not metaphysically possibly have the opportunity to perform an impossible action then, on the standard semantics for counterfactual conditionals (cf. Lewis 1973*a*; Stalnaker 1984) it is metaphysically necessarily true that *if x* had the opportunity, know-how and the overriding desire to perform *A*, then *x* would perform *A*. Hence, it is metaphysically necessarily true that everybody has the power to perform every impossible action. This result is counter-intuitive, but its defender will point out that we have this power only in a trivial sense of 'power' owing to the trivial nature of the fulfilment of the conditional involved. I shall argue later that we should reject the standard semantics for counterfactual conditionals with metaphysically (but not logically) necessarily false antecedents, so I do not think the counter-intuitive result follows from (D5.1), since I do not think that the conditional involved is necessarily true. Nevertheless, it seems clear that it is not a lack of *power* that prevents one from making something exist and not exist – it is not as if this 'action' is too *difficult* or *hard* for one (cf. Wielenberg 2000: 39–40).

The objection that it is hard to understand what it would be like to perform a logically impossible action is also not decisive because one could respond that every omnipotent being has the power to perform logically impossible actions but that it is logically impossible that he exercise this power (cf. Conee 1991). I do not, however, find this route appealing since I find it hard to grasp what it is to have the power if it is *logically* (as opposed to merely *metaphysically*) impossible that one exercise it.

If we reject Descartes's line as too strong we might then try Aquinas's, weaker, formulation, roughly put:

(D5.3) For every being, *x*, *x* is omnipotent if and only if for every logically possible action, *A*, *x* has the power to perform *A*.

To elucidate the notion of a logically possible action we might try:

(D5.4) For every action, *A*, *A* is a logically possible action if and only if the full description of *A* and *A*'s outcome expresses a logically possible truth.[8]

8 This rather strange formulation is necessary because *logic* tells us nothing about causation, say. Thus logic does not tell us, from the description of an *action* as 'causing it to be the case that John exists and it to be the case that John does not exist', that the action is logically impossible, any more than it tells us, from the description of an action as 'thinking it to be the case that John exists and it to be the case that John does not exist', that the action is logically impossible (which, in my view, it is not, *pace* Richard Swinburne (Swinburne 1994: 246–247)). Secondly, a logically impossible action and its outcome may be described in many ways, some of which expose its logical impossibility and others of which do not. This is why I need to specify that it has to be a 'full description'. If an irrational person expresses a desire that John both exist and not exist at the

Since the full description of the outcome of the action of causing John to exist and not to exist does not express a logically possible truth,[9] if *x* lacks the power to cause John both to exist and not to exist at the same time that fact does not imply that *x* is not omnipotent.

Note that, with reference to our earlier discussion, if one uses the expression 'can' rather than 'has the power to' in (D5.3) the result is ambiguous. For instance, in the actual world most adults at some time can write their names. For most, there is some time such that at that time they have the power (for example, they are literate) and they have the opportunity (for example, they have a writing implement within reach). For example, the sentence 'Daniel writes his name' expresses a logically possible truth; indeed, in writing the sentence I made it express an *actual* truth. So an omnipotent agent ought to be able to perform this logically possible action, on this view. But consider a possible world, *W*, that never contains a writing implement. It looks as if no being in *W* is omnipotent since no being can – has the opportunity to – write his own name, yet we have just seen that writing one's own name is a logically possible action.[10] The solution to this conundrum is to avoid the ambiguity of 'can' and stick with the security of 'has the power to'. It may well be that a being has the power to write his own name even if there is no writing implement available.

There is still a problem with (D5.3), and, indeed, with (D5.4), however, arising first from the distinction between action *tokens* and action *types*. When a particular agent – say, Joseph of Nazareth – performs a particular action, the performance of the particular thing that is performed – say, the making of a particular table, *T*, in Nazareth at 12:00 on AD 01/01/01 – is an action token.[11] This action token, like every action token, is particular – it happened at a particular time and place and was performed by a particular agent – and non-repeatable. It, like every action token, could not have happened at a different time or a different place. Furthermore, like every action token, it could not have been performed by a different agent. Yet it, like every action token, might not have actually existed, since Joseph might not have actually performed it.[12] Every action token is a member of infinitely many action types. It is somewhat difficult to draw the type–token distinction adequately

same time, then we could describe the 'outcome' of the 'action' of causing John to exist and not exist at the same time thus: 'A certain irrational person had a certain expressed desire satisfied'. This partial description does not bring out the logical impossibility of the action in question.

9 The description would have to contain the sentence 'John exists and John does not exist'.

10 Some may object here that an omnipotent agent would have the power to create a writing implement. This is true, but not to the point. The example can be easily adapted to get round this objection by discussing the action of *immediately* writing one's name, rather than the action of just writing one's name.

11 There is some controversy over whether an action is the thing done or the doing of the thing done. I hope that my distinction between action tokens and action types will cut across this debate here. See also the discussion in Chapter 6 of 'act' and 'action'.

12 Some may think that a particular action token had to exist. For example, Leibniz thought that the divine being had to exist, and had to create this world. Since Leibniz also thought that the divine being had to exist timelessly it would seem to follow on the Leibnizian view that he had to perform the action token of creating this, the actual world. In this case, the action token of creating this, the actual world, could not have failed actually to exist (cf. Leibniz 1973: 25).

here. If we take an action token – say, Joseph's making table *T* at 12:00 on AD 01/01/01 – we do not really want the singleton set of this action token to count as an action type. Types are supposed to represent a general classification principle, and have a multiplicity of members (which need not all be actual). Types are supposed to be like properties: universals that may be instantiated in different individuals.[13] If we do count the singleton set of an action token as an action type, then it seems clear that nothing other than Joseph has the power to perform a token of this type. It is then easy to see that nothing can have the power to perform a token of every type. So I shall not regard any old set of actions as an action type, but I shall take a type to be a universal that different actions might (in theory) instantiate.

(D5.3) does not specify whether we have action types or action tokens in view, but we have seen that no single being has the power, for every action token, to perform that token. Suppose, then, that we interpret (D5.3) as about types. How then should we define the logical possibility of action *types*?

(D5.4′) For every action type, *A*, *A* is a logically possible action type if and only if there is some action token, *a*, such that *a* is a token of *A*, and the full description of *a* and *a*'s outcome expresses a logically possible truth.[14]

That suggests the following definition:

(D5.5) For every being, *x*, *x* is omnipotent if and only if for every logically possible action type, *A*, *x* has the power to perform a token of *A*.

The metaphysically possible

There are many *logically* possible action types of which nothing has the power to perform a token, however. For example, *logic* does not tell us that the action type *squaring the circle* is impossible; this is impossible in virtue of the laws of mathematics rather than the laws of logic. Should we say that an omnipotent being has the power to square the circle? Most philosophers would say not, though, as we saw above, Descartes would disagree. It is very difficult to understand what it would be like for an omnipotent being to have the power to square the circle. So we shall have to refine our definition (D5.5) above to take account of this:

(D5.6) For every being, *x*, *x* is omnipotent if and only if for every metaphysically possible action type, *A*, *x* has the power to perform a token of *A*.

There does not seem any point in working piecemeal through various subtypes of metaphysical necessity: arithmetical, geometrical etc. There will be action types, such as *making a table that is red all over and green all over at the same time* or *causing oneself to exist*, that seem to be impossible in virtue of metaphysical laws that are not easily subsumed under mathematical subtypes of necessity.[15]

13 Some, e.g. David Lewis, distinguish between universals and properties (cf. Lewis 1983*a*; repr. Lewis 1999: 10–13).

14 It might be wondered why this definition is expressed in terms of 'some' rather than 'every'. The answer is that logically impossible actions, such as *making a table that exists and does not exist*, still fall under possible action types, such as *making a table*, *doing an action*, etc.

15 To repeat myself, one could claim that this paragraph is irrelevant to the consideration of omnipotence, since one could never, of metaphysical necessity, be given the opportunity to square the

On this definition, it still seems as if omnipotence is impossible, however. I shall try to show this by building on an example given by Alvin Plantinga (cf. Plantinga 1967: 169). Consider a carpenter, Joseph of Nazareth again, say, and take a different, putatively omnipotent, being – call him 'G' – and then consider the action type *making a table not made by G*. (I do not mean here the action type *making in some possible world, W, a table that is not made by G in the actual world*, rather I mean the action type *making in some possible world, W, a table that is not made by G in W* or the action type *making a table such that if one made it the table would not have been made by G*.) Although this action type seems a little odd, it seems intuitively a metaphysically possible action type – indeed, a type that no doubt contains among its tokens many tokens actually performed by Joseph. Certainly the sentence 'Joseph makes a table not made by G' expresses a metaphysically possible truth.[16] But if we consider a token of this type that is purportedly performed by G, then it looks as if the full description of the outcome would contain:

(5.2) There exists a table, *T*, such that *T* was made by G and such that it is not the case that *T* was made by G.

(5.2) expresses a logical and metaphysical falsehood. It seems then that while the action type, *making a table not made by G*, is a metaphysically possible action type, it is logically and metaphysically impossible for G to perform a token of it. This is because every token of this action type that is purportedly performed by G also falls under the action type *G's making a table not made by G*. This action type is a logically and metaphysically impossible action type, since every full description of the performance and outcome of any of its tokens would be logically and metaphysically false. It is clear, however, that *making a table not made by G* is a metaphysically possible action type, since Joseph performs tokens of it, and clear that G lacks the power to perform a token of it.[17] The example involving G may be generalized in an obvious manner to every pretender to omnipotence, hence there can be no omnipotent being, on this definition.

It seems that this definition, (D5.6), is too strong, since it cannot be satisfied for purely logical reasons. Before giving up on omnipotence as an impossible property, however, we should check to see if there is a better definition.

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circle, say. Once more, I shall not take this route, but I think it important to repeat that, intuitively, it is not because the action is *too difficult* that no omnipotent being can square the circle.

16 George Schlesinger seems to think that this sentence does *not* express a metaphysically possible truth, apparently on the grounds that there could not exist anything not created by an omnipotent being – God, in his example (Schlesinger 1988). This seems to me unsatisfactory. What would Schlesinger say about an adaptation of another of Plantinga's examples, 'Daniel scratches an ear not scratched by God' (cf. Plantinga 1967: 170)? While it is true that the concurrence of every divine being is necessary for me to perform any action, surely Schlesinger would not claim that if any ear is scratched it is scratched by God? If he would, what would he say about 'Daniel commits a sin not committed by God'?

17 At least, it is clear apart from the problems to do with G's not possibly having the opportunity to perform a token of it. One might also respond that G has the power to perform a token of this type, but that it is logically impossible for him to exercise this power. Once more, I shall not take this route, but I do note that it is not because it is *too difficult* that G cannot make a table not made by G.

To respond to this problem we might try relativizing, and thereby weakening, the definition:

(D5.7) For every being, *x*, *x* is omnipotent if and only if for every action type, *A*, such that it is metaphysically possible that *x* perform a token of *A*, *x* has the power to perform a token of *A*.

We should then need to define the notion of its being metaphysically possible that *x* perform a token of *A*. One way to do it would be:

(D5.8) For every being, *x*, and for every action type, *A*, it is metaphysically possible that *x* perform a token of *A* if and only if there is some token, *a*, of *A*, such that the full description of *x*'s performing *a* and of *a*'s outcome expresses a metaphysically possible truth.

This definition, (D5.8), has the consequence that it is not metaphysically possible that G perform a token of the action type *making a table that G did not make*, since a full description of G's performing such an action token and of its outcome would contain the metaphysical falsehood expressed by:

(5.2) There exists a table, *T*, such that *T* was made by G and such that it is not the case that *T* was made by G.

It then follows by (D5.7) that G's powerlessness to perform a token of the action type *making a table that G did not make* does not imply that he is not omnipotent.

Somebody might object that we have overly weakened our definition, and that we should have relativized it thus:

(D5.9) For every being, *x*, *x* is omnipotent if and only if for every action type, *A*, if *A* is metaphysically possible and it is logically possible that *x* perform a token of *A*, *x* has the power to perform a token of *A*.

There are lots of metaphysically possible action types of which it is logically, but not metaphysically, possible that G perform tokens, however. For example, G is not Michelangelo, but *logic* does not tell us this fact. Consider the proposition expressed by:

(5.3) G makes a table not made by someone other than Michelangelo.

(5.3) expresses a *logically* possible truth; it is not a rule of logic that G is a different individual from Michelangelo. Yet, since G is a different individual from Michelangelo, (5.3) does not express a *metaphysically* possible truth, even though the action type *making a table that is not made by someone other than Michelangelo* is a metaphysically possible action type.

The relativized definition and its problems

It might seem, then, that this relativized definition, (D5.7) above, solves matters, but it does, in fact, turn out to be too weak:

(D5.7) For every being, *x*, *x* is omnipotent if and only if for every action type, *A*, such that it is metaphysically possible that *x* perform a token of *A*, *x* has the power to perform a token of *A*.

This may be shown by consideration of a further problem due, like the table-not-made-by-G problem, to Alvin Plantinga.[18] We are asked to consider the (allegedly) metaphysically possible person that has metaphysically essentially only one power – the power to scratch his ear.[19] The point would then be that this being, dubbed 'McEar' in the literature,[20] qualifies as omnipotent under (D5.7), since it is not metaphysically possible that he perform a token of any action type other than that of scratching his ear (and types in which that would be included). The argument goes roughly as follows: consider another metaphysically possible action type, say, *scratching one's nose*; then, so the claim goes, it is not metaphysically possible that McEar, the man that has metaphysically essentially only one power, viz. the power to scratch his ear, should scratch his nose. It is very tempting here to reject the metaphysical possibility of McEar and his ilk. The problem with this is that we have seen that there are also certain action types that are metaphysically impossible for G, such as *making a table that G did not make*, and, since the difference between McEar and G (and, indeed, every agent) is only a matter of quantity or degree (albeit a very great degree), rather than of quality or kind, it is hard to justify the claim that G (who is, after all, just an arbitrary divine being) is metaphysically possible, but McEar metaphysically impossible. Somebody might reply that McEar's inabilities are due to mere *metaphysical* limitations, but G *logically* cannot make a table that G did not make. This will not do, however. G and every other agent are *metaphysically* limited too. For example, a chrysalis has the power to turn into an ordinary butterfly, but, supposing that he is non-physical, G lacks this power.[21] Furthermore, *logic*

18 Although the modern discussion of this sort of counter-example began with Plantinga (1967: 170), his idea was anticipated by the mediaevals. See Thomas P. Flint and Alfred J. Freddoso, 'Maximal Power' (Freddoso 1983: 109–110). They refer to Ockham (1979: 611).

19 I have adapted Plantinga's example, since he is dealing with a different definition of omnipotence from the one that we are considering. Plantinga says that this person is 'incapable' of doing anything other than scratching his ear. Plantinga does not limit this person of *metaphysical essentiality*; nevertheless those that have followed Plantinga in discussing him have so limited him (cf. Wielenberg 2000). Some philosophers have expressed doubt as to whether such a person is metaphysically possible (cf. Wierenga 1983). Wierenga claims that such a person is not metaphysically possible because, in order to have the power to scratch his ear, he would have to have lots of other powers, e.g. the power to raise his arm and so on. It is not clear that Wierenga is right here. The *exercise* of this power might necessitate the possession and exercise of other powers, but it is not clear that the mere possession of a power necessitates the possession of other powers. (Of course, if this is right then the possession of only the power to scratch one's ear would imply that one could not exercise it.) But the main point is that this criticism takes the wording of the example too literally. One may easily amend the example to consideration of the person that has the power to scratch his ear and, for every action included in scratching his ear, the power to perform that action, but no other powers. (I say that an action, *a*, is 'included' in an action, *b*, when it is metaphysically impossible to perform *b* without performing *a*.) It seems clear that such a person is *logically* possible, and I can see no *metaphysical* law to prevent his existence either.

20 The name 'McEar' – which is not present in Plantinga (1967) – was coined by Richard La Croix in La Croix (1977: 189).

21 I write 'an ordinary butterfly' because I think that it is possible that an omnipotent being 'hook himself up to' a butterfly in some way, e.g. controlling its movements and receiving information from its eyes and brain. It is doubtful whether this would count as *turning into*, but even if it did, it would not be an *ordinary* butterfly. Somebody might object that a chrysalis is not an agent and therefore does not have powers in the requisite sense. It is not clear that the fact that a chrysalis is not an agent means that the powers that it has are of a different sort from those that G has. In any

does not tell us that G lacks it, it is only *metaphysics* that tells us that G does not have the power to turn into an ordinary butterfly. Similarly G, if non-physical, will lack the power to occupy space, or to change shape or size, even though physical beings not only have the power to occupy space, but also, by eating or starving, have the power to change shape or size. Suppose, on the other hand, that G *is* physical. Then he lacks the power to become a guardian angel, say, since angels are non-physical beings.[22] Or he lacks the power to transcend space or to have a causal impact on the world without being physically extended. Perhaps he also lacks the power to avoid being an effect of a physical cause. Yet all these powers are possessed by possible non-physical beings.[23] In general, it seems to me that a physical object of metaphysical necessity lacks the power to become a non-physical object, e.g. a soul, and a soul lacks the power, of metaphysical necessity, to become a physical object.[24] Again, these are metaphysical claims – they are not theorems of any standard logical system. McEar's metaphysical limitations are much more severe than those that actual agents face, but I cannot see a good argument against the metaphysical possibility of his existence. Those that disagree owe one a duty to say which law of metaphysics he would be breaking.

It may be that some will say that G's lack of the power to turn into a butterfly is a power that he lacks of *logical* necessity after all. Some might argue that a full description of a purported token of the action type *G's turning into a butterfly* would not express a *logically* possibly true proposition. Where, precisely, is the logical contradiction in my sense of 'logical'?[25] Some might say that the full description would contain the following sentence:

(5.4) One that is not a butterfly turns into a butterfly.

It might then further be claimed that the proposition expressed by (5.4) is a logical falsehood. This, I think, is certainly wrong. (5.4) expresses a logically possible truth, since it expresses the same proposition as that expressed by a sentence of the following form:

(5.5) One that is not a butterfly at a time t_0 is a butterfly at a later time t_1.[26]

The proposition expressed by (5.5) is obviously not a logical falsehood. The objector might respond by claiming that a full description of a purported token of the

case, the power to become a butterfly is one that G lacks, but does not lack from *logical* necessity. Furthermore, it is a logically possible power. Even if no agent has this power, it is not obvious that it is a metaphysically impossible power. Is it a metaphysical law that every agent is non-physical?

22 At least, that is the traditional understanding of angels; cf. Hebrews 1: 14.

23 Some philosophers of course deny that there are possible non-physical beings. I disagree, but there is not space to argue the point here.

24 Christian readers may here worry about the Incarnation. The Incarnation does not involve the *becoming* of a soul (the second person of the Trinity) into a material object. Rather it involves the becoming of a soul (the second person of the Trinity) into a human being, and also the taking on of a particular relationship with a material object (a human body) similar to the relationship that every other human has with his or her body.

25 Note that Plantinga and those that follow him in discussing McEar mean by 'logical' and 'consistent' what I mean by 'metaphysical' and 'metaphysically compossible', respectively.

26 Here 't_0' and 't_1' denote arbitrary times such that t_0 is earlier than t_1.

action type *G's turning into a butterfly* would not express a logically possibly true proposition because it would contain:

(5.6) One, such that it is not the case that at some time he is a butterfly, is a butterfly at some time.

(5.6) does indeed express a logical falsehood, but why should that be part of the full description of the purported action token? All we are entitled to say is that the full description contains:

(5.7) One, such that it is not the case that at some time he is a butterfly in the actual world, is a butterfly at some time in some other world.

This does not express a logical falsehood. After all, the purported action token we are describing does not occur in the actual world. All that is necessary is that it occur in some logically possible world.

Why does the solution to *this* problem not endanger our resolution of the *making a table not made by G* problem? The answer is that since 'G' is a rigid designator it designates the same person in every possible world that affords it a reference. The statement that we came up with before was:

(5.2) There exists a table, T, such that T was made by G and such that it is not the case that T was made by G.

The proposition expressed by (5.2) is equivalent to that expressed by:

(5.8) There exists, in some metaphysically possible world, W, a table, T, such that T was made in W by the one that is G in W and such that it is not the case that T was made in W by the one that is G in some metaphysically possible world, W_1.

The reason is that since 'G' is a name and not a predicate, it is a logically necessary truth that a being that is G in W is identical with one that is G in W_1.

This whole debate also plays itself out in the case of McEar. Someone might try to claim that McEar's limitations are *logical*, in my sense of 'logical', rather than *metaphysical*. Such an objector might urge that a full description of McEar's scratching his nose would contain:

(5.9) The person that has only one power, the power to scratch his ear, scratches his nose.

The proposition expressed by (5.9) is not *logically* false, however; *logic* has nothing to tell us about whether scratching one's nose implies having the power to scratch one's nose. Even if we treat the description 'the person that has only one power, the power to scratch his ear' as an abbreviated version of the infinitely conjunctive description 'the person that has the power to scratch his ear but not the power to scratch his nose and not the power to scratch his arm and not the power to . . . ' we still should not have a *logical* contradiction, because of Kenny's point (which was not a *logical* mistake), so we should have to consider the infinitely conjunctive description 'the person that has the power to scratch his ear but *does not* scratch his nose and *does not* scratch his arm and . . . '. The full description of

a purported action token of the type *McEar's scratching his nose* seems to give us a contradiction, for it *seems* to contain:

(5.10) The person such that, *inter alia*, it is not the case that he scratches his nose, scratches his nose.

The proposition expressed by (5.10) is indeed a *logical* contradiction. So it *looks* as if McEar's powerlessness is logical. The problem here is that the fact that one *does not* do something does not imply that it is a logical contradiction that one do it. In fact, (5.10) is *not* contained in the full description of McEar's scratching his nose. What is in fact contained is something like:

(5.11) The person that, *inter alia*, does not scratch his nose *in* W, scratches his nose *in* W_1.

Here 'W' rigidly designates a logically possible world that contains a person that *in* W has only one power, the power to scratch his ear, and 'W_1' rigidly designates a logically possible world that includes the scratching of his nose by a person that *in* W has only one power, the power to scratch his ear. The proposition expressed by (5.11) is not logically false. So McEar's limitations are no more logical than G's.

We are still stuck with the problem of McEar. He is clearly not omnipotent, yet our definition says that he is, because his limitations are metaphysical ones.

Active and passive causal powers

Here we need to distinguish between active and passive causal powers. An active causal power is a power to cause some state of affairs to obtain; a passive causal power is a power to be caused to have some property, stand in some relation, or to continue or cease to exist.[27] One might at first think that every omnipotent being has every power, active and passive. This seems to me wrong, however. Passive powers do not imply any power to cause anything, and they do not add any greatness to their possessor. I think if we were asked to judge which was the more powerful of two beings, exactly alike in their active causal powers but varying in their passive powers, we should say that neither was more powerful than the other. I think we should similarly say that neither was greater than the other. In fact, there is a long-standing tradition that no divine being has any passive powers – the doctrine of impassibility. Aquinas writes:

> For we proved above that active power exists in God; that there is no passive potency in Him had already been demonstrated in Book I of this work. (We, however, are said *to-be-able* as regards both active and passive potentiality.) Hence, God is unable to do those things whose possibility entails *passive potency*. What such things are is, then, the subject of this inquiry.
>
> (Aquinas 1955: II.25)

27 It seems that there is no passive power to be caused to begin to exist, since anything that had such a power would already exist, since nothing can have a power if it does not exist.

The power to become a butterfly, which we saw that G lacked, is not an active causal power. Rather, it is a passive power. It follows that if *x* lacks the power to become a butterfly, that lack does not *per se* make *x* less powerful than a being similar in every other respect but with the power to become a butterfly (and all the powers the possession of that power implies). In particular, it does not prevent *x* from being omnipotent. This then suggests a new definition of omnipotence:

(D5.10) For every being, *x*, *x* is omnipotent if and only if, for every possible active causal power, *P*, *x* has *P*.

A new definition of maximal power also suggests itself:

(D5.11) For every being, *x*, *x* is maximally powerful if and only if, for every possible being, *y*, the class of active causal powers that *y* possesses is not greater than the class of active causal powers that *x* possesses.

We shall take 'greater' in this definition intuitively, pending further clarification: we (nearly) all have the intuition that the set of active causal powers possessed by an ant is not as great as the set of active causal powers possessed by a human.

As it stands, this new definition of omnipotence, (D5.10), will not do the job, because the power to make a table not made by G is an active causal power: it involves actively causing there to be a table with a certain property. But intuitively there is no separate power to make a table not made by G. Consider again when Joseph makes a table. What powers does he exercise? His powers to move his hands in certain ways, to hold certain objects, to lift certain weights, to exert downwards pressure, and so on. In among all these powers does he exert a distinct power to make a table not made by G? Surely not. Joseph just makes a table and it follows from his not being G that he makes a table not made by G. It is surely absurd to think that Joseph has the power to make a table not made by G, and the separate power to make a table not made by Michelangelo, and the separate power to make a table not made by da Vinci etc. My intuition here is that the phrase 'to have the power to' does not always pick out a distinct power. How should we individuate active causal powers? We have seen that it is not easy to individuate them by actions, as we count as actions both actions that do not directly correspond to an active causal power, such as *becoming a butterfly*, and actions that do directly correspond to an active causal power, such as *destroying a planet*. We shall try to individuate them by reference to states of affairs, which is certainly the most prominent strategy in the recent literature on this topic.[28]

States of affairs

It might at first seem simple to define omnipotence in terms of actualizing states of affairs, along the following lines:

28 See the three leading recent examples: (Hoffman and Rosencrantz (1988) ; Wierenga (1983); and Thomas Flint and Alfred J. Freddoso, 'Maximal Power', in Freddoso (1983) and available for download from: http://www.nd.edu/ afreddos/papers/mp.htm.

(D5.12) For every being, x, x is omnipotent if and only if x has, for every state of affairs, S, the active causal power to actualize S.

I shall not here attempt to define what a state of affairs is beyond saying that a state of affairs is the possessing of a property or the standing in a relation or the beginning, continuing or ceasing to exist of some being or beings. Many philosophers take the term 'state of affairs' as primitive, e.g. Chisholm (cf. Loux 1998: 159) and Plantinga (1974: 44; cf. Peter van Inwagen, 'Trans-world Identity' in Tomberlin and van Ingwagen (1985: 102)).

This definition, (D5.12), is too strong, and has to be limited, since, similarly to what we saw above concerning actions, almost everybody, except perhaps Descartes,[29] would agree that even an omnipotent agent does not have the power to actualize a logically impossible state of affairs, and it is arguable that no being has the power to bring about some logically necessary states of affairs.[30] Similar comments to those made above on the Cartesian line on actions apply to the Cartesian line on states of affairs. It seems that to say that S is logically impossible just means that S does not obtain in any logically possible world. This might suggest that if an omnipotent being has the power to actualize it then it is logically contingent. The Cartesian point would then better be put as follows: not that an omnipotent being has the power to actualize logically impossible states of affairs, but that there is no logically impossible state of affairs, not even the state of affairs named by:

(5.12) John's existing and not existing.

Hence we have:

(D5.13) For every being, x, x is omnipotent if and only if x has, for every logically contingent state of affairs, S, the active causal power to actualize S.

Just as with actions, we shall want to say that, for every being, x, it is not a necessary condition of x's being omnipotent that x have the power to actualize a metaphysically impossible state of affairs, such as that named by:

(5.13) There existing a square circle.

Likewise, we shall probably want to say that it is not a necessary condition of x's being omnipotent that x have the power to actualize a metaphysically *necessary* state of affairs such as that named by:

(5.14) Nothing's being red all over and green all over.

This suggests a refinement and weakening of our definition thus:

29 Similarly to what I said above concerning actions, there is debate about what Descartes believes concerning states of affairs. Plantinga thinks that, for Descartes, every state of affairs is logically contingent in virtue of God's omnipotence, i.e. no state of affairs is logically necessary or logically impossible (cf. Plantinga 1980). Harry Frankfurt supports the understanding that Descartes believed that there were logically necessary states of affairs and that God could actualize them (Frankfurt 1977).

30 Descartes (as interpreted by Frankfurt) is not the only exception as far as logically *necessary* states of affairs are concerned. Plantinga himself thinks that it is at least an epistemic possibility that every divine being brings about the necessary states of affairs of logic and also of mathematics and metaphysics (Plantinga 1980)

(D5.14) For every being, x, x is omnipotent if and only if x has, for every metaphysically contingent state of affairs, S, the active causal power to actualize S.

How do we escape the parallel to the problem we had earlier concerning the action type *making a table not made by G*? Consider the state of affairs named by:

(5.15) There existing a table, T, such that G did not make T.

I think that the state of affairs named by (5.15) is in G's power; if G causes someone, Joseph, say, to make a table, that fact does not imply that G makes the table himself. On the other hand, the state of affairs named by the following phrase is not in G's power:

(5.16) G's making a table, T, such that G did not make T.

(5.16) must be understood, however, in the sense of:

(5.16′) G's making a table, T, in a possible world, W, such that G did not make T in W.

The state of affairs named by the following phrase *is* within G's power:

(5.16″) G's making a table, T, in a possible world, W, such that G did not make T in the actual world.

The fact that the state of affairs named by (5.16) is not within G's power does not, however, count against his omnipotence, since (5.16) names a logically impossible state of affairs. Since we have not had to relativize our definition of omnipotence, there is no threat *thus far* from the McEar counter-example.

Other objections have been made to definitions of omnipotence in terms of states of affairs, however. Richard La Croix, for example, asks us to consider 'a state of affairs not brought about by an omnipotent being' (La Croix 1977: 181–182). He claims that this 'is a state of affairs whose description is not self-contradictory and which it is logically possible for many agents to bring about but which it is logically impossible for an omnipotent being to bring about' (La Croix 1977: 182). La Croix's claim that it is logically impossible for an omnipotent being to bring about such a state of affairs is ambiguous. It is true that the following phrase names a logically impossible state of affairs:

(5.17) An omnipotent being's bringing about a state of affairs that is not brought about by an omnipotent being.

It is, however, false that if x is omnipotent then it is logically (or even metaphysically) impossible that x bring about a state of affairs that is not brought about by an omnipotent being. It may well be that x is not metaphysically essentially omnipotent, so in those metaphysically possible worlds in which x is not omnipotent x brings about states of affairs not brought about by an omnipotent being.[31] Furthermore, if 'not brought about by an omnipotent being' is taken as meaning *not* actually *brought about by an omnipotent being*, La Croix's claim is so obviously

31 I am here ignoring the complication that it may well be metaphysically impossible that there be a contingently metaphysically omnipotent being since every divine being is metaphysically necessarily omnipotent and may well necessarily prevent any non-divine being from being omnipotent.

false that he surely did not mean it in that way: I am considering a state of affairs that, in the actual world, was not brought about by an omnipotent being – the state of affairs *a light's going on in Daniel's house at 16:00 on 01/02/2004*. This state of affairs was not brought about by an omnipotent agent; it was in fact brought about by me. It does not follow that it is logically or metaphysically impossible for an omnipotent agent to have brought about this state of affairs.

La Croix surely wants us to consider a state of affairs that is (logically or metaphysically) *essentially* not brought about by an omnipotent being, i.e. whenever the state of affairs obtains it is not brought about by an omnipotent being. The key difference here between a definition of omnipotence in terms of states of affairs and one in terms of actions is that our example of the latter was couched in terms of action *types*, which have action tokens as instances, but here we are discussing token states of affairs, not types. Just as G does not have the power to perform an action token of the action type *making a table in W not made by G in W*, so G does not have the power to actualize a state of affairs belonging to the class *the class of all possible states of affairs that, if they obtained, would not have been brought about by G*.

This fact does not imperil our definition of omnipotence (D5.12), though, since this definition is not couched in terms of power to bring about, for every *class* of possible states of affairs, a member of that class, but rather in terms of power to bring about every possible state of affairs, and, thus far forth, we have been given no reason to believe that there are any members of this class, *the class of all possible states of affairs that, if they obtained, would not have been brought about by G*.

Now, we can correctly use the phrase '*the* action type *performing an action not performed by G*', but we cannot correctly use the phrase '*the* state of affairs not actualized by G' if this means *the state of affairs not actualized by G in the actual world* or if it means *the state of affairs not actualized by G in some possible world or other*, since there are many states of affairs not actualized by G in the actual world, and even more not actualized by G in some possible world or other. Does the phrase 'the state of affairs that, if it obtained, would not have been actualized by G' pick out a member of our problematic set? I think not – we have no guarantee of uniqueness to ground the word 'the'. But we do not need to debate this; the state of affairs *nobody's ever bringing about anything* is a logically possible state of affairs that it is logically and metaphysically impossible that G bring about (cf. Wierenga 1983: 365). So, for that matter, is *G's never bringing anything about*.

Here it may be objected that if G is supposed to be not just omnipotent but also divine then he will be a metaphysically necessary being, and, consequently, the two states of affairs, *nobody's ever bringing about anything* and *G's never bringing anything about* are not metaphysically possible after all.[32] So, if one doubts that these two states of affairs are metaphysically possible, consider the state of affairs named by:

32 Someone might object here that G does not actually exist, but we may treat 'G' as a name of an actual divine being. I am avoiding religious controversy by choosing a non-standard name for him.

(5.18) Plato's freely writing a dialogue.

Or consider the state of affairs named by the following phrase:

(5.19) Plato's writing a dialogue without being caused to do so by G.

Each of these states of affairs is logically and metaphysically possible and, we may presume, actual.[33] But could a being distinct from Plato have actualized either? It seems not: if another being brings it about that Plato writes a dialogue it follows that Plato does not write it freely.[34] So, G does not have the power to actualize either state of affairs, and it would be metaphysically impossible for him to do so: if G were to actualize one of them then Plato would not freely write the dialogue, but would have been caused to do so by G. But then neither state of affairs would have been actualized, contrary to the supposition. Although it is metaphysically impossible for *G* to actualize either, arguably it is metaphysically possible for *Plato* to actualize the first and anybody other than G to actualize the second. So these will be counter-examples demanding the relativization of (D5.12). Since 'G' is just the name of an arbitrary divine and, hence, omnipotent being, the argument will clearly work with any name of any omnipotent being instead of 'G'.

This argument, of course, presupposes an incompatibilist or libertarian notion of freedom. It might seem as if compatibilists have an easier time of defining omnipotence because, of course, on their view, it is possible that a being other than Plato actualize the state of affairs named by (5.18). Consider, however:

(5.20) Plato's writing a dialogue without being caused to do so by anyone else.

For the libertarian, of course, the state of affairs named by (5.18) and the state of affairs named by (5.20) are very similar.[35] The compatibilist should either admit that the state of affairs named by (5.20) is metaphysically contingent, but that every being distinct from Plato does not have the power to bring it about, or claim that determinism is metaphysically necessary, i.e., that it is metaphysically impossible that there be an uncaused or self-caused event. The latter still leaves open the state of affairs named by (5.19):

(5.19) Plato's writing a dialogue without being caused to do so by G.

On the assumption that causation is a transitive relation, G does not have the power to actualize the state of affairs named by (5.19) by causing another being to cause Plato to write a dialogue.[36] The determinist will then have to judge the state of affairs named by (5.19) metaphysically impossible, which judgement in

33 I assume here, plausibly, that Plato did write at least one of the dialogues that are attributed to him, and that he did so of his own free will.

34 This is a slight oversimplification: see the definition of acting 'ultimately freely' presented in the discussion of perfect essential goodness in Chapter 6. This is compatible with Plato's freely causing or permitting Socrates to cause him to write a dialogue.

35 Some might object that the state of affairs named by (5.20) allows for Plato *randomly* to have written the dialogue, but the state of affairs named by (5.18) does not.

36 On the other hand, if causation is not transitive, then it is not obvious that causing another being to cause Plato to write a dialogue counts towards G's omnipotence, since G does not have the power *immediately* to actualize the state of affairs named by (5.19).

turn will require the claim that it is a metaphysically necessary truth that G exist,[37] and not only that of metaphysical necessity, G *has the power to* exercise control over everything, but that of metaphysical necessity, G actually *does* so, else (5.19) or some similar phrase will turn out to name a metaphysically possible state of affairs. It follows from this that G, on this view, does not have the power – or, at least, cannot exercise the power – to refrain from exercising causal influence over everything, which is a slightly counter-intuitive, though consistent, result.[38]This also raises problems with the doctrine of the Trinity: if each of the Father, the Son and the Holy Spirit is omnipotent, then each will have the power to actualize the apparently metaphysically contingent states of affairs named by the following:

(5.22) The Father's speaking to Adam without being actively caused to do so by anything else;

(5.23) The Son's becoming human without being actively caused to do so by anything else;

(5.24) The Spirit's inspiring Peter without being actively caused to do so by anything else.

It is not metaphysically possible, however, for any individual distinct from the Father (or the Son or the Spirit) to actualize the state of affairs named by (5.22), or (5.23) or (5.24), respectively. Hence the determinist that thinks each member of the Trinity is omnipotent will have to say that each of (5.22)–(5.24) names a metaphysical impossibility. This will then imply that for every action of every member of the Trinity there will be a backwardly infinite full *active* causal chain. This idea is less plausible, I think, than the idea broached in Chapter 6 that there is a backwardly infinite *permissive* causal chain for each action that each member of the Trinity performs.

One final problem for this view is with such states of affairs as that named by:

(5.25) Plato's writing a dialogue without being caused to do so by a being that called Moses.

Now in some possible worlds the state of affairs named by (5.25) obtains, but it does not obtain in every possible world. This is because in some possible worlds an omnipotent being calls Moses and causes Plato to write a dialogue, but in other possible worlds Moses does not even exist to be called. The question then arises over whether an omnipotent being that *has* called Moses has the power to actualize the state of affairs named by (5.25). If the omnipotent being is in time then it might appear that once he has called Moses it is too late for him to actualize the state of affairs named by (5.25). If the omnipotent being is outside time then it does seem less of a problem in that one may insist that he timelessly has the power to

37 The weaker judgement that, although G is metaphysically contingent, it is metaphysically impossible that Plato write without G's causing him to, will fall foul of such (in that case) metaphysically possible propositions as that expressed by 'Nothing ever happens'.

38 This may cause theological problems with such apparently contingent states of affairs as the state of affairs named by:

(5.21) John's sinning, but G's not causing him to (directly or indirectly).

actualize the state of affairs named by (5.25). I think, however, that even if the omnipotent being is in time one might still insist that he has the power to actualize the state of affairs named by (5.25), it is just that he now lacks the opportunity to exercise this power.

So states of affairs such as that named by (5.18) are problematic for definitions of omnipotence, since they are metaphysically contingent yet only the beings whose free actions they report can make them true. It appears that the definitions of omnipotence that we have considered so far have the consequence that nothing can be omnipotent, because for every being, x, there will be a state of affairs like that named by (5.18) that x will lack the power to actualize.

Alternative solutions

Various different authors have come up with different definitions to deal with the problem presented by states of affairs such as that named by (5.18).

Hoffman and Rosenkrantz's definition

Hoffman and Rosenkrantz analyse states of affairs of the same sort as the state of affairs named by (5.18) as conjunctions of three conjuncts, which they go on to say:

> [. . .] can be informally expressed as follows: Plato decides to write a dialogue; and there is no *antecedent* sufficient causal condition of Plato's deciding to write a dialogue; and there is no concurrent sufficient causal condition of Plato's deciding to write a dialogue. Because an agent could not have power over the *past*, the second conjunct [. . .] is not possibly brought about by anyone.
>
> (Joshua Hoffman and Gary Rosenkrantz, 'Omnipotence', in Quinn and Taliaferro 1997: 232–233))

They go on to say that it is clearly not right to expect an omnipotent agent to bring about a conjunctive state of affairs that contains a conjunct that cannot be brought about by anyone. This analysis presents several problems: first, somebody might intuitively think that if one conjunct of a conjunctive state of affairs cannot be brought about by anyone then the conjunctive state of affairs as a whole cannot be brought about by anyone. In fact, Hoffman and Rosenkrantz are aware of this objection and try to answer it in Hoffman and Rosenkrantz (1988), and I suggested in Chapter 3 that I also thought that it was possible to bring about a conjunction by bringing about one conjunct if the other already obtained. There remain the second and third problems: the second is that it is not at all clear that any of the conjuncts requires power over the past even on Hoffman and Rosenkrantz's own view. Suppose x at t wants to actualize the state of affairs named by:

(5.26) Plato's freely writing a dialogue at t_1.[39]

39 It is to be understood that t_1 is later than t.

If there is at t no cause (direct or indirect) of Plato's writing a dialogue at t_1 then it seems that no power over the past is required; all that is required is power over the future to prevent a cause of Plato's writing arising. Hoffman and Rosenkrantz will object that power over the past is required to bring it about that there was no cause before t. Consider the state of affairs named by:

(5.27) There being no cause of Plato's freely writing a dialogue at t_1.

The state of affairs named by (5.27) may be analysed as the conjunction of the states of affairs named by (5.28) and (5.29):

(5.28) There being no cause of Plato's freely writing a dialogue before t.

(5.29) There being no cause of Plato's freely writing a dialogue between t and t_1.

By Hoffman and Rosenkrantz's own arguments, if the state of affairs named by (5.27) may be analysed as the conjunction of the state of affairs named by (5.28) and the state of affairs named by (5.29), then an agent may bring about the state of affairs named by (5.27), if the state of affairs named by (5.28) obtains, by bringing about the state of affairs named by (5.29). Hence it is not clear that power over the past is required. Secondly on this point, if x is omnipotent and temporally everlasting, then surely it is enough that at every moment of time x ensures that there is no cause at that moment of Plato's writing a dialogue at t_1. It follows that x can bring about the second conjunct of the state of affairs named by (5.27) without having power over the past merely by exercising from all eternity his power to prevent one arising. But even if x is not backwardly everlasting it seems as if it would still be easy for x to ensure that there is no cause of Plato's writing a dialogue at t_1; surely an omnipotent being would be able to divert, if only by changing the laws of nature, what would otherwise have been a sufficient condition for Plato's writing a dialogue at t_1? If x is omnipotent and atemporally eternal then the problem does not arise. The third problem with Hoffman and Rosenkrantz's analysis is that Plato has the power to actualize the state of affairs named by (5.18) without exercising power over the past, so why does not an omnipotent being? Clearly power over the past is irrelevant. Surely it would be nearer to the truth to say of a conjunction that contains one conjunct that cannot be brought about by anybody, that if the conjunct in question fails to obtain then an omnipotent agent is not required to have the power to actualize the conjunctive state of affairs, but if the conjunct in question *does* obtain then an omnipotent agent *is* required to actualize the conjunction. So I think Hoffman and Rosenkrantz's solution fails.

Wierenga's solution

Edward Wierenga's technically proficient solution to the problem fails at a different point: it allows the McEar counter-example (Wierenga 1983). Wierenga's response to this, as I suggested earlier, is to say that the McEar counter-example is not possible, saying that McEar does not have only the power to scratch his ear, as Plantinga and his followers claim, but also has the power to perform an infinite

number of other actions included in scratching his ear. The response to this is merely to tighten up the example and claim, as I did above, that McEar has the power only to scratch his ear and to perform every action included in scratching his ear. Although McEar has the power to perform tokens of infinitely many types of actions, he is still clearly not omnipotent, yet he can do all that is metaphysically possible for him to do. Nor do we need to look at counter-examples as drastic as McEar. Erik Wielenberg directs our attention to the 'series of deities' objection (Wielenberg 2000). In this objection we are asked to consider a sequence of deities, each of which deities has the power to actualize every metaphysically possible state of affairs, subject to the following restrictions: the first of the sequence metaphysically essentially lacks the power to actualize any red-infected state of affairs,[40] the second lacks the power to actualize any red-infected state of affairs and also lacks the power to actualize any blue-infected state of affairs, and so on, until we arrive at the last deity of the sequence, who metaphysically essentially lacks the power to actualize every state of affairs that contains anything that is not grey. It seems clear that at least the last of these is not omnipotent, yet it comes out as omnipotent on Wierenga's definition. If Wierenga maintains that the last of these is not omnipotent or not metaphysically possible, it seems that he will be driven to admit that the first of these is also not omnipotent or not metaphysically possible.[41] Then he will be hard pressed to explain why G, who is metaphysically essentially powerless to actualize the metaphysically contingent state of affairs *Plato's freely writing a dialogue*, is metaphysically possible and omnipotent, and the first deity of the sequence is not.[42]

Flint and Freddoso's definition

Flint and Freddoso's definition of omnipotence also falls prey to the McEar objection, though they try to escape it by postulating that an omnipotent being should have the maximal amount of power consistent with their conditions (Thomas Flint and Alfred J. Freddoso, 'Maximal Power', in Freddoso 1983: 81–113). The problem is precisely that of specifying the maximal amount, however, and this is what they do not satisfactorily address – the formal account that they proffer is unsatisfactory. Wielenberg points out that it is subject to a revised version of the 'series of deities' objection. Let us imagine that each of the deities is such that it is metaphysically essentially indestructible and metaphysically essentially responsible for every state of affairs that obtains.[43] On Flint and Freddoso's definition it turns out that each of these deities is omnipotent, even though intuitively we feel that none of them is. Again, it would be difficult for Flint and Freddoso to maintain that the deity that metaphysically essentially lacks the power to actualize every state of

40 A state of affairs is *red-infected* if and only if it contains a red object. Similar definitions hold for the other colours.

41 It is, of course, possible that Wierenga would draw the line part way through the sequence, but this would not be very plausible.

42 Wierenga will have to accept the metaphysical possibility of G, since G is just an arbitrary divine being (distinct from Plato), and Wierenga certainly believes that there is such a being.

43 I am greatly simplifying matters here. For the full story see Wielenberg (2000: 35).

affairs that contains anything non-grey is metaphysically impossible or not omnipotent without maintaining that the deity that metaphysically essentially lacks the power to actualize any red-infected state of affairs is metaphysically impossible or not omnipotent. And it would be difficult for Flint and Freddoso to maintain that the deity that metaphysically essentially lacks the power to actualize any red-infected state of affairs is metaphysically impossible or not omnipotent without maintaining that G, who metaphysically essentially lacks the power to actualize the metaphysically possible state of affairs *Plato's freely writing a dialogue*, is metaphysically impossible or not omnipotent.[44]

Is there any other way of defining omnipotence if all these suggestions in terms of states of affairs are proving fruitless? I shall now describe three possible responses.

Wielenberg's definition

Erik Wielenberg offers the following account of omnipotence:

(O2) For every being, x, x is omnipotent if and only if it is not the case that there is some state of affairs, p, such that x is unable to bring about p at least partially because of a lack of power in x. (Wielenberg 2000: 42)[45]

Wielenberg offers this explanation of his account:

> [This definition] implies that in cases of overdetermination, if the fact that a given being is lacking in power is one of the reasons that being cannot bring about a given state of affairs, then that being is not omnipotent. In cases of partial explanation, it implies that if part of the explanation for a given being's inability to bring about a given state of affairs is that the being is lacking in power, then that being is not omnipotent.
>
> (Wielenberg 2000: 42)

This account has a great deal of intuitive support: if there is no state of affairs that x cannot bring about owing (at least partially) to lack of *power* then it looks as if x's *power* is unlimited and, hence, that x is omnipotent. Conversely, if x is omnipotent then we expect x's power to be unlimited and, hence, that there be no state of affairs such that x cannot bring it about owing (at least partially) to lack of *power*. Wielenberg's definition seems neither too strong nor too weak. Instead, it seems just right. It deals with McEar (and Wielenberg's own sequence of deities) by pointing out that these are cases of overdetermination and that lack of power is one of the factors involved. Wielenberg does not provide any analysis of this beyond what was quoted above and consideration of one or two examples, but it is clear that the word 'because' in his definition will need some careful explanation. For instance, suppose that the first deity of Wielenberg's sequence of

44 Like Wierenga, Flint and Freddoso will have to accept the metaphysical possibility of G, since G is just an arbitrary divine being (distinct from Plato), and they certainly believe that there is such.

45 'O2' is Wielenberg's label. I have italicized the variables and added an initial universal quantifier, in keeping with my practice throughout. Wielenberg, like Hoffman and Rosenkrantz, uses quotations of sentences to name states of affairs.

deities not only lacks the power to actualize any red-infected state of affairs, but also is metaphysically unable to do so for some other reason. Wielenberg himself postulates the following (additional) explanation for the deities' inability to create red-infected states of affairs:[46]

> Suppose that the deities must create by mentally visualizing what they wish to create and then willing the visualized object into existence. This would make it clear that if a given deity is unacquainted with a particular color that deity will be unable to create an object of that color (since he will be unable to visualize an object of that color).
>
> (Wielenberg 2000: 47)

Let us summarize Wielenberg's suggestion by saying that the deities metaphysically essentially lack both the power and the opportunity to actualize red-infected states of affairs. Because of each of these two factors, the deities are metaphysically essentially unable to exercise the power to actualize a red state of affairs. Might one not then conclude that they satisfy Wielenberg's definition since their lack of opportunity is a sufficient condition of their non-actualization of any red-infected state of affairs? Clearly one will have to say something along the lines that, if the deities would still be unable, because of a lack of power, to actualize red-infected states of affairs if they had the opportunity, then they are not omnipotent. I shall return to this line below. Alternatively, one could say that their having sufficient power is a necessary condition of their actualizing red-infected states of affairs, and that if this necessary condition is lacking then they are not omnipotent, whatever other necessary conditions may also be lacking. In this latter case, though, one wonders why Wielenberg did not define omnipotence more simply as:

(O2′) For every being, x, x is omnipotent if and only if it is not the case that there is a lack of power in x.

It seems to me that Wielenberg's definition is the most promising afforded in the literature, and it seems consonant with the majority theistic traditions – compare Jeremiah's prayer:

> Ah, Sovereign LORD, you have made the heavens and the earth by your great power and outstretched arm. Nothing is too hard for you.
>
> (Jeremiah 32: 17)

Maximal power

The second approach that one might try harks back to what we discussed in Chapter 1. There I suggested that we should think of a divine being as maximal with respect to the strict partial order *being greater than* defined on the class of all possible beings. I also suggested that a being's position in this order supervened on its position in various other orders, for example, in the strict partial order *being more*

46 Wielenberg in fact considers two hypotheses: first, that the deities lack the power but not the opportunity, and, secondly, that the deities lack the opportunity but have the power. I have rolled these into one to give a case of overdetermination.

knowledgeable than, the strict partial order *being morally better than*, and the strict partial order *being more beautiful than*. There is also the strict partial order *being more powerful than*. Why should we not define 'omnipotence' as *being maximal with respect to the order being more powerful than*? One could scarcely require more of a being with regards to power than that he be maximally powerful, that is to say such that there could be none more powerful. In particular, it will, I think, do justice to the theist's intuitions about divine almightiness to say that every divine being is maximally powerful. Indeed, I think the theist would be very worried by the claim that there could be a more powerful being than a divine one. There have, however, been objections to precisely this effect.

Gale's objection – inability to do evil

One such philosopher that thinks that there could be a more powerful being than a divine one is Richard Gale, who writes:

> Let a Pinrod be a possible being who has only one of the divine perfections – omnipotence – and thereby does not qualify as an absolutely perfect being. Anything that God can do or bring about, our Pinrod can do or bring about, and then some. Not being burdened with being absolutely perfect, our Pinrod, in addition to having all of God's powers, for instance, being able to create a universe ex nihilo and perform other parlor tricks, can be possessed of a body and thereby be able to play football. Since he is not absolutely perfect, he is not barred from committing suicide. Furthermore, since he lacks benevolence, he is able to perform an immoral action. Thus, this lesser being has a greater degree of freedom than that possessed by God, an absolutely perfect being. It looks as if no one is perfect, not even an absolutely perfect being!
>
> (Gale 1991: 23)

It is not obvious that Gale is right in saying that the Pinrod can do all that God can do.[47] It seems, for instance, that a Pinrod cannot perform an action of the type *an action performed by a being that is divine* or of the type *making a table that a perfect being made* or of the type *refraining from evil of metaphysical necessity*. Let us, though, try to reformulate Gale's objection, along the lines of an account of omnipotence in terms of states of affairs.[48] Gale would say that a Pinrod can actualize the state of affairs named by:

(5.30) Somebody's suffering unjustly, unredeemedly and unwillingly.[49]

47 This is perhaps just Gale getting carried away by his own rhetoric, since he does propose on the previous page an analysis of omnipotence in terms of bringing about the truth of propositions.

48 Notice that Gale's objection is expressed in terms of 'can' rather than 'has the power to'. This becomes important below.

49 This may be thought to presuppose that no divine being exists of metaphysical necessity, since, if a divine being did exist, he would (so the argument goes) prevent a Pinrod from actualizing the state of affairs named by (5.30). One can weaken the example to:

(5.31) Somebody's suffering unjustly and unwillingly.

It seems as if no divine being can actualize the state of affairs named by (5.31), but that he can (and, indeed, does) permit others to actualize it (and, indeed, others have actualized it). Of course,

The point of the example is that a perfectly good being, such as a divine being, cannot actualize the state of affairs named by (5.30). It might be that a perfectly good being, such as a divine being, can cause guilty people just pain, or can cause an innocent person pain for a greater good (that is, redeemed pain), or cause an innocent person to suffer undeservedly if he or she was willing, but a perfectly good being, such as a divine being, *cannot* cause unredeemed and unjust and unwanted pain, as is needed to actualize the state of affairs named by (5.30). So a Pinrod can actualize a state of affairs that no divine being can actualize. Gale thinks that it follows from this that no divine being is omnipotent. This does not follow on the definition that I have put forward (D5.14), however.[50] I think one must grant that every divine being has the opportunity and know-how to actualize the state of affairs named by (5.30). It is clear that every divine being lacks the (overriding) desire to actualize the state of affairs named by (5.30). Indeed, I think that this is what metaphysically essential goodness consists in: that one cannot do evil because one cannot *will* to do evil. Of metaphysical necessity, every divine being lacks the will to do evil – for instance, to actualize the state of affairs named by (5.30). Nevertheless, every divine being has the *power* to actualize the state of affairs named by (5.30), since if, *per impossibile*, he did have the overriding desire to actualize it, he would.

The power to do evil

I think my claim that every divine being has the power to do evil can be shown to be plausible by various examples. We may think of a metaphysically essentially good human agent, say, Jesus. Let us say that Jesus, owing to his metaphysically essential

some atheists will claim that no divine being could permit the state of affairs named by (5.31) to be actualized, and, therefore, the fact of its actualization implies that no divine being exists; this would essentially be one version of the argument from evil. Since this argument could show, even for an optimistic atheist, only that no divine being *actually* exists, the atheist would still have two possible but non-actual sorts of beings (divine beings and Pinrods), one of which cannot, and the other of which can, actualize a metaphysically contingent (indeed, actual) proposition. On the other hand, some theists might admit that no divine being can actualize the state of affairs named by (5.31), but deny that it is actual, holding that everybody that suffers is a fallen, and, therefore, sinful, human being that, in consequence, suffers justly. The one exception to this is, of course, Jesus, who did suffer unjustly, but willingly. This response, of denying that a divine being can permit what he cannot cause, at a stroke demolishes the argument from evil and the problems of omnipotence, by postulating the metaphysically necessary existence of a divine being, and thereby defining metaphysical possibilities in terms of what is permitted by a divine being. I think that this is an unsatisfactory procedure (on both counts). It allows anybody to claim that a being, McActual, that has just enough power to cause all that is actual, exists of metaphysical necessity. This being will be omnipotent, since, although he lacks the power to cause anything else to exist, nothing else is metaphysically possible, since he cannot permit it either, hence his powerlessness to cause it does not imply that he is not omnipotent. This procedure is irrefutable, if it is permitted. The only way to prevent it is not to allow our concept of the metaphysically possible in our definition of omnipotence to be defined by our concept of a metaphysically necessary being, or, perhaps, to talk of the conceptually necessary and impossible.

50 It does follow on the definition that Gale is considering. I think that Gale's kind of example shows that one should not define omnipotence in terms of ability, but rather in terms of power (cf. Gale 1991: 22).

goodness, is unable to actualize the state of affairs named by the following, slightly weaker, phrase, (5.31):

(5.31) Somebody's suffering unjustly and unwillingly.

Jesus's disciple Peter might be able to actualize this by cutting off the ear of a servant that, let us suppose, was carrying out orders in ignorance (cf. Matthew 26: 51–54, Mark 14: 47, Luke 22: 49–51 and John 18: 10–11).[51] Jesus is not able to actualize this, but is this really through a lack of power? Jesus's own statement gives the lie to this (Matthew 26: 53). We also see that Jesus certainly has the power, including the muscle power, to be violent at times, to turn over tables and drive out moneylenders (Matthew 21: 12, Mark 11: 15–16, Luke 19: 45, John 2: 14–16). The difference was that, in those cases,[52] the moneylenders suffered justly, since they had been dishonest and had swindled their customers.[53] It seems extremely implausible to me to say that Jesus had the *power* to wield a whip on the one occasion, but not a sword on the other. It seems much more plausible to say that he had the power, including the muscle power, to wield both, but that he was not able to exercise this power in the case of the innocent man. It is clear from Jesus's reaction that he lacked the desire in this case to strike the servant (Luke 22: 51). I think it is correct to say that he had the power to strike him and, if he had wanted to, he would have done; it is just that he did not want to, and could not have wanted to.

Powers that cannot be exercised

This raises some difficult but important issues. I have to claim that it is metaphysically possible to have a power that one metaphysically essentially cannot exercise. This provokes scepticism among many philosophers[54]. Hume writes:

> It has been observ'd in treating of the understanding, that the distinction, which we sometimes make betwixt a *power* and the *exercise* of it, is entirely frivolous, and that neither man nor any other being ought ever to be thought possest of any ability, unless it be exerted and put in action.
>
> (Hume 1978: 311)[55]

It seems to me that Hume's claim is totally untenable. Even if it were true (which it is not in my view) that we can *know for certain* that someone has an ability only if he or she exercises it, this *epistemological* fact (if it were a fact) would not imply that there was no *ontological* or *metaphysical* distinction between the two. It is, however, more difficult to reject the claim that, while a power and its exercise are distinct, they are related in that one has a power if and only if it is metaphysically possible that one exercise it.

51 Admittedly, the servant did not suffer for long (Luke 22: 51).

52 Scholars debate whether the gospel accounts represent one or two cleansings of the Temple.

53 Compare Jesus's comment about 'a den of robbers' (Matthew 21: 13, Mark 11: 17, Luke 19: 46).

54 E.g. Chris Hughes (personal communication)

55 All that Hume 'observ'd in treating of the understanding' was 'The distinction, which we often make betwixt *power* and the *exercise* of it, is equally without foundation'

(Hume 1978: 171).

Before tackling this claim, I should point out that I am *not* endorsing the view that one may have a power that it is *logically* impossible that one exercise. For example, it is logically impossible, as we saw earlier, that anything perform a token of the action type *bringing it about that John exist and John not exist*. I think that it is logically impossible that anything have the *power* to perform a token of the action type *bringing it about that John exist and John not exist*.[56] Here the difference between the logically impossible and the merely metaphysically impossible becomes important.[57] The state of affairs named by a phrase such as the following is logically impossible:

(5.32) John's existing and not existing.

It is hard to see what it would be like for the state of affairs named by (5.32) to obtain; no being has the power to actualize it, I claim. On the other hand, the state of affairs named by the following phrase is not logically impossible, and, I claim, G has the power – a power that he metaphysically essentially cannot exercise – to actualize it:

(5.33) G's sinning.[58]

It is easy to see what the sentence might mean and what it would be like to believe the proposition expressed by it. Indeed, people debate whether it (or something very like it) expresses a possible (or even actual) truth. As Nelson Pike comments, citing C. B. Martin (Martin 1964; cf. Pike 1969; repr. Helm 1981: 69):

> With respect to the predicate 'perfectly good', however, I shall assume that any individual possessing the attribute named by this phrase might not (logically) have possessed that attribute. This assumption entails that any individual who occupies the position or who has the value-status indicated by the term 'God' might not (logically) have held that position or had that status. It should be noticed that this [. . .] assumption covers only a *logical* possibility. I am not assuming that there is any real (i.e. material) possibility that Yahweh (if He exists) is not perfectly good. I am assuming only that the hypothetical function 'If *x* is Yahweh, then *x* is perfectly good' differs from the hypothetical function 'If *x* is God, then *x* is perfectly good' in that the former, unlike the latter, does not formulate a necessary truth. With Job, one might at least *entertain* the idea that Yahweh is not perfectly good. This is at least a *consistent* conjecture even though to assert such a thing would be to deny a well-established part of the Faith.
>
> (Pike 1969; repr. Helm 1981: 68–69)

Pike means by 'logically' what I mean by 'metaphysically'; I do not know what he means by 'real (i.e. material)'. Pike does not mean here to prejudge the conclusion

56 I concede that it is hard to see how something could be given the *opportunity* to perform a token of this type. Nevertheless, it does seem implausible to say that one has the power to do a logically impossible action.

57 I write 'the merely metaphysically impossible' to name those impossibilities that are metaphysically impossible, but not also logically impossible. Recall that the logically impossible constitutes a subset of the metaphysically impossible.

58 Here I continue to use 'G' as a name of an arbitrary possible divine being.

of his paper; he is claiming merely that, whatever precise sense we give to 'cannot', 'God cannot sin', meaning *for every being, x, if x is God (or divine) then x does not sin*, is a 'logical truth'; 'God cannot sin', meaning *the individual that is God (or divine) cannot sin*, is not a 'logical truth'. If one reinterprets Pike's comments in my sense of 'logical' then we have one version of what I am trying to say: that (5.33) does not name a *logical* impossibility, unlike (5.32). So I am claiming that the state of affairs named by (5.33) is *within* G's power. The state of affairs named by (5.32), by contrast, is *outside* G's, and every divine being's, power, since it is *logically* impossible. On the other hand, the state of affairs named by the following phrase, while not *logically* impossible but *metaphysically* impossible, is *outside* the power of every divine being:

(5.34) A divine being's sinning.[59]

It follows that the state of affairs named by the following phrase is also within G's power, even though it is metaphysically impossible:

(5.36) G's not being divine.

Let me emphasize that I am not claiming that if *x* is omnipotent *x* has the power to actualize *every* metaphysically impossible state of affairs: the state of affairs named by (5.34) is metaphysically impossible and also in nobody's power. The state of affairs named by (5.33) and the state of affairs named by (5.36) are metaphysically impossible, but G has the power to actualize them. The reason that the states of affairs named by (5.33) and (5.36) are metaphysically impossible is that G of metaphysical necessity makes them so, i.e. G of metaphysical necessity actualizes their complements. In other words, the state of affairs named by (5.33) and (5.36) are metaphysically impossible in virtue of G's metaphysically essential refraining from sinning. Contrast with this the state of affairs named by:

(5.37) A table's being red all over and green all over.

The state of affairs named by (5.37) is metaphysically impossible not in virtue of G's activity, but in virtue of a law of metaphysics, and nothing has the power to actualize it.[60] Similarly, although (5.34) names a metaphysical impossibility, it does so in virtue of the inter-relation of certain concepts (that of divinity and that of sinlessness), not in virtue of anything that G does or fails to do. So the state of affairs named by (5.34) is not within G's power.

59 Some might think that this phrase names the same state of affairs as that named by:

(5.35) The sinning of a being that does not sin.

If (5.34) and (5.35) had named the same state of affairs then (5.34) would have named a logical impossibility, since (5.35) clearly does. I do not believe, however, that they do name the same state of affairs – *logic* does not tell us that divinity includes sinlessness.

60 The reader might well wonder whether, since the state of affairs named by (5.33) is not impossible in virtue of a law of metaphysics, 'metaphysical impossibility' is a good name for the property it exemplifies. I share the reader's dissatisfaction, but a piecemeal discussion of many different sub-divisions of metaphysical necessity and impossibility would be unhelpful here. I think that it is very important, both for the reasons at hand and for general philosophical reasons, to treat *logical* necessity separately from other sorts of metaphysical necessity. This is not only important, but also easy to do.

Semantics for conditionals

The reader will have noted that, to help establish my case that G has the power to sin, I claimed that if G had the opportunity, know-how and overriding desire then he would sin. In other words, I claimed that the following sentence expresses a metaphysically necessary truth:

(5.38) If G had the opportunity, know-how and (overriding) desire to sin he would sin.

I think that the proposition expressed by (5.38) is true, but not trivially so. In addition, I think that the following sentence expresses a metaphysically necessary falsehood:

(5.39) If G had the opportunity, know-how and (overriding) desire to sin he would not sin.

The reader may well be puzzled by this, thinking that on the standard semantics for conditionals both the above are trivially true. It is certainly correct that the material conditional is true if the antecedent is metaphysically necessarily false. The material conditional, however, is false if the antecedent is merely materially false (that is, false). It should be clear from the wording that (5.38) and (5.39) do not express material conditionals. The corresponding material conditionals would in fact be expressed by:

(5.40) If G has the opportunity, know-how and (overriding) desire to sin he sins.

and:

(5.41) If G has the opportunity, know-how and (overriding) desire to sin he does not sin.

I admit that these are trivially true. The conditionals that I mentioned above, expressed by (5.38) and (5.39), however, are not material conditionals at all, but subjunctive or counterfactual conditionals. The reader may protest that these are still trivially true, since counterfactuals with antecedents that express logical falsehoods are trivially true.[61] I agree with the reason given for this judgement, but do not accept that it constitutes a good reason. In fact, it is not relevant to the present concern. The antecedents of (5.38) and (5.39) do *not* express logical falsehoods – they express *merely metaphysical falsehoods*. I claim that the propositions expressed by (5.38) and (5.39) are not trivially true on a slight adaptation of the standard semantics for counterfactuals.[62] If we consider the closest logically possible (but not

61 Plantinga gives a proof (in classical logic) from C. I. Lewis of this principle, remarking that the proof was known to the mediaevals (Plantinga 1967: 56).

62 The slight adaptation is necessary because I think that David Lewis and Robert Stalnaker, who launched the modern way of analysing counterfactual statements, mean by 'possible worlds' what I mean by 'metaphysically possible worlds'. I do not think that the adaptation is severe, because I think that the impossible worlds that Lewis and Stalnaker want to keep out of consideration are those that include the truth of contradictions. Of course, for me such worlds would not be logically possible and so would not enter into consideration either. On the other hand, I think that it is much more difficult to be a realist in the style of David Lewis about metaphysically impossible, but logically possible, worlds. I think this is an advantage of my view, since I think that modal realism is an unsatisfactory view. Lewis's famous argument for modal realism begins

metaphysically possible) world that includes the truth of the proposition expressed by the antecedent, I think that world is one that includes the truth of the proposition expressed by the consequent of (5.38) and the falsehood of that expressed by the consequent of (5.39). If it were the case that G had the overriding desire to sin, then I think he would sin. What would prevent him? I do not think it is plausible to say that his metaphysically essential goodness would prevent him, since it is plausible to suppose that it is evil to desire evil (even if one metaphysically essentially cannot translate one's desires into actuality). Rather, G's perfect goodness is what prevents his *desiring* to do evil. The claim iterates: G has the power to desire to desire to do evil, but he is metaphysically essentially prevented by his perfect goodness from exercising his desire to desire to do evil. It is plausible that to desire to desire to do evil is itself evil.

Aquinas on whether a divine being can sin

The foregoing line of reasoning was partially anticipated by Aquinas. He replies in *Summa Theologiae* to the objection 'Further, sin is an act of some kind. But God cannot sin, nor *deny Himself*, as it is said (2 Tim ii. 13). Therefore He is not omnipotent' (Aquinas 1920: Ia.Q25.a3.obj2) as follows:

> Nevertheless, the Philosopher says (*Top.*: iv.3) that God can deliberately do what is evil. But this must be understood [. . .] on a condition, the antecedent of which is impossible – as, for instance, if we were to say that God can do evil things if He will. For there is no reason why a conditional proposition should not be true, though both the antecedent and consequent are impossible: as if one were to say: *If man is a donkey, he has four feet*.
>
> (Aquinas 1920: Ia.Q25.a3.ad2)

Pike has severely criticized this passage, claiming that Aquinas is mistaken and that 'God can do evil things if He will' is not a conditional at all (Pike 1969; repr. Helm 1981: 72–73). Notice, however, that the 'conditional' that Aquinas uses is not the same as the one I have advanced. Aquinas's statement is 'God can do evil things if He will'; mine is 'G would do evil things if He willed'. Pike's supporting examples, such as 'Jones can wiggle his ear if he wants to' (Helm 1981: 73), do seem to support his reading of Aquinas as the most natural, but they do not in any way affect the conditional that I have put forward, since neither of Pike's two examples is counterfactual, or even subjunctive, in nature.[63]

Aquinas discusses the conditional elsewhere also. In *Quaestiones Disputatae De Potentia*, Aquinas considers the question 'Why is God called omnipotent?'

thus: 'It is uncontroversially true that things might have been otherwise than they are. I believe, and so do you, that things could have been different in countless different ways.' Lewis does not here explain precisely what he means by 'might' and 'could' (Lewis 1973*a*: 84; cf. Stalnaker 1976; repr. Honderich and Burnyeat 1979: 455).

63 Some distinguish between counterfactual conditionals and subjunctive conditionals by saying that a counterfactual conditional is a subjunctive conditional with a false antecedent. 'If I were to go, I should have fun; if I were not to go, I should be miserable': one of these two subjunctive conditionals is a counterfactual, the other is not.

(Aquinas 1953: Q1.a7.q1; tr. Aquinas 1993: 247) and the answer 'Again, it seems that he is called omnipotent because he can do everything he wants' (Aquinas 1953: Q1.a7.q1.d2; tr. Aquinas 1993: 248). He quotes Augustine's approval of this definition: 'For there is no other reason to call him truly omnipotent except that he can do whatever he wills' (Augustine, *Enchiridion*, 96; cf. Aquinas 1993: 248, 439). He cites two reasons to the contrary:

> Those in bliss can do whatever they want, for otherwise their wills wouldn't be fulfilled. But they're not called omnipotent. So it's not enough for God to be omnipotent that he can do whatever he wants. Moreover, the wise don't will the impossible, so that no one wise wills what he can't do. Yet the wise are not all omnipotent. The same conclusion then.
>
> (Aquinas 1953: Q1.a7.q1.d2.1,2; tr. Aquinas 1993: 248)

These reasons do not suffice, however, to refute the suggested definition. If the wise *were to* will the impossible they would not do it, because they lack the power (or the opportunity). Even if anyone wills that the impossible is *ipso facto* not wise (not a plausible suggestion, since the wise might be rational but ignorant – there are plenty of wise mathematicians trying to prove Goldbach's conjecture, and no doubt some wise ones trying to refute it), this still does not refute the suggested definition. That remark would merely lead one to say that the following sentence expresses a metaphysical truth:

(5.42) For every being, x, if x is wise then x does not will the impossible.

It does not allow one to conclude that the following sentence expresses a metaphysical truth:

(5.43) For every being, x, if x is wise then x *cannot* will the impossible.

To argue from the proposition expressed by (5.42) to the proposition expressed by (5.43) one would need the additional (and implausible) premiss that those that are actually wise *have to be* wise.

Aquinas's other objection is slightly more forceful, but still far from conclusive. It may well be that those in bliss can do whatever they actually want; the question is rather whether they have the power to do all that they *could* want to do. Let us suppose, plausibly, that those in bliss *cannot* will to do evil. What is the force of the 'cannot' here? Let us suppose it has the strongest feasible force (logical force is clearly out of the question): in other words, that they are metaphysically unable to will to do evil. (Perhaps their wills are metaphysically essentially constrained, so they could will otherwise only if they received divine permission.) Even so, we may still sensibly ask about what happens in the closest[64] logically possible, but metaphysically impossible, worlds in which they do desire evil. It seems likely that most such worlds will include their performing some actions that they desire to perform and include their failing to perform some other actions that they also

64 'Closest' here has to be understood intuitively. The idea is that the powers that they have in the actual world are common to all the worlds under consideration, since it is precisely their powers that we are investigating. The difference between these worlds and the actual world is that in these worlds they desire various forms of evil. Any other differences are just those necessary to ensure logical possibility.

desire to perform, and failing because they lack the power. If in all such worlds they performed every action that they overridingly desired and had the know-how and opportunity to perform then we could conclude that they were omnipotent in the actual world.[65]

Metaphysically contingent states of affairs beyond omnipotence?

Are there any metaphysically contingent states of affairs such that even if an omnipotent being with the opportunity and know-how overridingly desired to actualize them he could not? If so, these would be putative counter-examples to the suggestion that an omnipotent being has the power to actualize every metaphysically contingent state of affairs. We have not progressed much with the analysis of the state of affairs named by (5.18) and other states of affairs involving free actions. While it is hard to see what it would be for an omnipotent being such as G to have the opportunity to actualize the state of affairs named by (5.18),[66] it seems clear that even if he (overridingly) wanted to he would not actualize it.[67]

The underlying intuitive definition

At this point I shall remind the reader of the underlying intuitions that we are trying to formalize. I shall concentrate for the moment solely on the notion of maximal power, as opposed to omnipotence, as the intuitions are rather stronger there.

Power evaluations

What is 'maximal greatness with respect to power'? We rank beings according to their active causal power. So an ant is less powerful than a cheetah, which is less powerful than a human. I am less powerful than the Prime Minister of the UK, who is less powerful than the President of the USA. Nothing is more powerful than a divine being – every divine being is maximally powerful. It is not necessarily the case that for any two beings, x and y, if x is more powerful than y then x has more active causal powers than y. For example, a being that had only three powers: the power to paint something red, the power to paint something blue and the power to paint something green, would be less powerful than a being with the single power of destroying the universe. So determining which is the most powerful being is not simply an exercise in counting.

Note that I am not claiming that all powers are commensurable: I do not claim that for every two powers, P_1 and P_2, either P_1 is greater than P_2, or conversely.

65 Richard Swinburne discusses, citing Maximus the Confessor, the possibility that those in bliss are omnipotent in (Swinburne 1998: 251).

66 I suppose somebody might argue that the opportunity to actualize the state of affairs named by (5.18) would be identity with Plato – a condition that it is metaphysically impossible for an omnipotent being like G to fulfil, since he is distinct from Plato.

67 The counterfactual conditional expressed by the following sentence will then be false:

(5.44) If G (overridingly) wanted to he would actualize the state of affairs named by (5.18).

The powers might be of equal greatness, or they might be incommensurable. What I am claiming is that the partial ordering relation determined by 'is a greater set of powers than' has a maximal element. In other words, I am claiming that there is a set of co-tenable powers than which there is no greater set of co-tenable powers.

So the intuitive definition of maximal power underlying our discussion is:

(D5.15) For every being, x, x is maximally powerful if and only if it is not possible that there be a being with a greater set of active causal powers than x possesses.

Potence classes

This may, in fact, be put somewhat more formally along the following lines. Let us take the class, C, of states of affairs that a being, x, has the power to actualize and call this x's 'potence class'.[68] The question then arises as to whether there is another class, C', such that C' properly includes C,[69] and such that there is some metaphysically possible individual, y, such that, for every state of affairs in C', y has the power to actualize that state of affairs. The natural definition of maximal power would then be:

(D5.16) For every being, x, x is maximally powerful in a metaphysically possible world, W, if and only if there is no metaphysically possible individual with a potence class that properly includes that of x in W.

Gale's Pinrod counter-example purported to produce such a metaphysically possible individual: the idea was that a Pinrod's potence class would have properly included G's potence class, showing that the latter was not maximal.

Note that the definition does not say that if x is maximally powerful then x's potence class properly includes every other potence class of a metaphysically possible being. This is because the Father's potence class – call it '*FC*' – will not include the Son's – call it '*SC*' – nor conversely. This follows from the fact that *FC*, but not *SC*, will contain metaphysically contingent states of affairs such as that named by:

(5.45) The Father's freely begetting the Son.

On the other hand, *SC*, but not *FC*, will contain metaphysically contingent states of affairs such as that named by:

(5.46) The Son's freely becoming incarnate.

68 Given the rough analysis of 'power' that we are using, x's potence class is the class containing every state of affairs, S, such that if x had the know-how, the opportunity, and the overriding desire to actualize S, then x would actualize S. Sadly, the term 'power class' has another well-established meaning (which has nothing to do with power in the normal sense).

69 A class, C, *includes* a class, C', when every member of C' is a member of C. Thus every class includes itself. A class, C, *properly* or *strictly* includes a class, C', when every member of C' is a member of C and C' is distinct from C. Two classes, C and C', are identical if and only if every member of C is a member of C' and conversely. It follows that if C properly includes C' then C has a member that C' lacks.

Gale's objection, as we construed it above, depended on the claim – a claim that we have now seen fit to reject – that the state of affairs named by (5.30) (or a similar phrase) is not within the power of a divine being, but is within a Pinrod's. We still have the thorny issue of freedom to wrestle with, however. One might claim that since the state of affairs named by (5.18) is not in the potence class of any divine being, then we may take a divine being's – say G's – potence class and add the state of affairs named by (5.18) to give a potence class – call it '*PC*' – that properly includes G's. But is it metaphysically possible that there be an agent that for every state of affairs, *S*, in *PC* has the power to actualize *S*? Since *PC* contains the state of affairs named by (5.18) it seems that only Plato could have every state of affairs in *PC* within his power. *PC* also contains, however, in virtue of containing every state of affairs in G's potence class, such states of affairs as that named by the following phrase:

(5.47) G's freely refraining from evil.

Only G has the power to actualize the state of affairs named by (5.47), so it seems as if only a being that was identical with both G and Plato could have *PC* as its potence class. If there were a being that were identical with both G and Plato, it would follow, by the transitivity and symmetry of identity, that G and Plato were identical. Since G and Plato are not actually identical, however, it follows from the metaphysical necessity of identity that it is metaphysically impossible that they be identical.[70] Hence it is metaphysically impossible that there be a being that has *PC* as its potence class. Is there then a class that properly includes G's potence class?

'Always an extra possible individual' objection

Another objection, which holds that there is a class that properly includes every potence class, goes thus: nothing could be omnipotent, since, for every being, *x*, and for every metaphysically possible world, *W*, there is another possible world, *W′*, in which *x* has a potence class that properly includes *x*'s potence class in *W*. The argument for this claim goes something like this: for every possible world, *W*, there is another possible world, *W′*, that contains an extra individual, *y*. It follows, goes the argument, that there will be some state of affairs, expressed by a phrase of the following form, that *x* has the power to actualize in *W′*, but lacks the power to actualize in *W*:

(5.48) *y*'s performing an action of type *A*.

The reason I think that the objection is misplaced is that it is not so much that *x* lacks the *power* in *W* to actualize the state of affairs named by (5.48) as that *x* lacks the *opportunity*, as we saw in the discussion concerning the Eiffel Tower at the beginning of this chapter.

70 I deny that it is *logically* necessary that, say, Hesperus and Phosphorus are identical. I do not deny that they are *metaphysically* necessarily identical.

What is not in an omnipotent being's potence class?

What metaphysically contingent states of affairs *does* an omnipotent being lack the power to actualize? There seem to be two classes: first, those (apparently) metaphysically contingent states of affairs that nothing has the power to actualize, and, secondly, those states of affairs that it is metaphysically impossible for, say, G, to actualize as they are states of affairs consisting in another's free action, such as the state of affairs named by (5.18). Note that it is not sufficient, as some philosophers do (e.g. Anderson 1984), to claim that *x* is omnipotent if and only if *x* has the power to actualize every state of affairs that it is metaphysically possible for some being, *y*, to actualize and that it is metaphysically possible for some being, *z*, distinct from *y*, to actualize. This strategy eliminates the state of affairs named by (5.18) from contention, because although it is metaphysically possible for Plato to actualize it, it is not metaphysically possible for some being distinct from Plato to actualize it. The success is short-lived, however. Consider the disjunctive state of affairs named by the following phrase:

(5.49) Plato's freely writing a dialogue or Socrates's freely talking to him.

The state of affairs named by (5.49) is metaphysically contingent and is such that there are exactly two distinct individuals that have the power to actualize it, viz. Socrates and Plato. G does not have the power to actualize it.

So far we have still not come up with a class that properly includes G's potence class and is the potence class of a metaphysically possible individual. Adding the state of affairs named by (5.18) or the state of affairs named by (5.49) to G's potence class is ruled out, since it is metaphysically impossible that any being be identical both with G and with Plato or with Socrates. The reader may object at this point that, on this showing, Plato is also omnipotent. After all, no being distinct from Plato has a potence class that properly includes Plato's, since no being distinct from Plato has a potence class that contains the state of affairs named by (5.18), which Plato's does. This last remark is correct. It does not follow, however, that Plato is actually omnipotent. One's potence class may vary from metaphysically possible world to metaphysically possible world. There are certainly metaphysically possible worlds that include Plato's having more power than he actually does. For instance, in the actual world Plato's political ambitions were frustrated,[71] but there are metaphysically possible worlds that include Plato's fulfilling his (actual) dream of being a philosopher-king. There are certainly potence classes that properly include Plato's actual potence class. In the actual world, Plato does not have the power to actualize the state of affairs named by the following phrase:

(5.50) A new planet's coming into existence.

There is, however, a metaphysically possible world, *W*, like the actual world except that in it Plato has the power to actualize the state of affairs named by (5.50).[72] It is clear that Plato's potence class in *W* properly includes his actual potence class.

71 Witness the failure of his attempts to exercise influence on Dionysius II in Sicily.

72 There will, of course, be many other differences implied by the fact that the state of affairs named by (5.50) obtains in *W*.

It follows that Plato is not actually omnipotent. Somebody might argue that it is a consequence of the definition we are considering that everything is metaphysically *possibly* omnipotent. There is a flaw, however, in the reasoning: it may be that for some object, O, for every metaphysically possible world that contains O, there is another one that includes O's being more powerful. For example, in a metaphysically possible world, W_1, O's potence class contains the state of affairs named by:

(O_1) O's lifting 1 kg.

In a different metaphysically possible world, W_2, O's potence class contains the state of affairs named by (O_1) and the state of affairs named by:

(O_2) O's lifting 2 kg.

In general, for any metaphysically possible world, W_n, O's potence class contains the states of affairs named by $\{(O_1), (O_2), \ldots, (O_{n-1})\}$ and the state of affairs named by the relevant instance of the phrase schema:

(O_n) O's lifting n kg.

We have no *a priori* guarantee that there will be a metaphysically possible world such that O's potence class in that world will contain every state of affairs named by a phrase of the form exemplified by the schema (O_n). Instead, there may be merely an infinite sequence of metaphysically possible worlds, in each of which O's potence class properly includes O's potence class in the preceding world. The objector seems to owe us an argument that this is not a possibility and that, for every metaphysically possible being, there is a metaphysically possible world in which that being is omnipotent (on the current definition).

McEar's potence class

The reader will probably now wish to draw my attention back to McEar. Surely he is not omnipotent? And does he not, of metaphysical necessity, have a potence class that cannot be greater than a singleton?[73] At this point we might look again at how the McEar example was originally set up. Plantinga claimed that McEar was 'capable' only of scratching his ear. Others then claimed that this restriction was one imposed on him of metaphysical essentiality (cf. Mavrodes 1977). We used a different version above, in terms of McEar's 'having only one power', to apply to our definition of 'omnipotence'. I can see no real reason to deny that McEar metaphysically essentially lacks the power to actualize (5.50). After all, G metaphysically essentially *has* certain powers – he is metaphysically *essentially*

73 If we ward off Wierenga's objection that McEar, as described, is impossible, by postulating that McEar has all the powers that are necessary for him to exercise his power of scratching his ear, then it may well be that McEar's potence class is infinite. I suggested above that if one of the conjuncts of a conjunctive state of affairs obtains, then if one actualizes the other conjunct one actualizes the whole conjunctive state of affairs. It will follow then that McEar's potence class is infinite because it will contain, for every number, n, a state of affairs named by a phrase of the form:

(Mc_n) McEar's scratching his ear and n's being a number.

omnipotent, we may suppose – so why should McEar's more limited potence class not also be invariant across metaphysically possible worlds? I think one must cede this point and acknowledge that the simple definition of maximal power we have been considering will not work:

(D5.16) For every being, x, x is maximally powerful in a metaphysically possible world, W, if and only if there is no metaphysically possible individual with a potence class that properly includes that of x in W.

This will still yield the result that McEar is omnipotent, as there is no metaphysically possible individual with a potence class that properly includes his.

We cannot say merely that there is no potence class *bigger* than G's, since, as I remarked in a footnote about McEar, it looks as if all non-empty potence classes will be infinite. Of course, there are different orders of infinity, but comparing the size of infinite classes is both difficult and counter-intuitive. (For instance, if for every set, S, there is a state of affairs of S's being a set, then, by the conjunction argument mentioned earlier, every being that has any power will have so many states of affairs in his potence class that the class will not be a set.) We could just stipulate that states of affairs consisting in free actions are to be excluded from potence classes. This seems rather *ad hoc*, however.

Underlying the attempted formal definition we have been considering there was an intuitive approach reflected in the definition given before:

(D5.15) For every being, x, x is maximally powerful if and only if it is not possible that there be a being with a greater set of active causal powers than x possesses.

How does this fare with the problematic examples with which we have been struggling throughout this chapter?

Necessities and impossibilities

No being has the power to actualize *John's existing and not existing* or *every proposition's being true or false*. Why not? Because it is a law of logic that the first does not obtain and a law of logic that the second does obtain. This law of logic makes no reference to the power of any being. Hence it follows that the answer to the question 'Why does not an omnipotent being have the power to actualize *John's existing and not existing*?' is 'Because it is impossible, owing to a law of logic' and the answer to the question 'Why does not an omnipotent being have the power to actualize *every proposition's being true or false*?' is 'Because it is necessary, owing to a law of logic'. A similar answer is to be given in the case of metaphysical necessities or impossibilities: no being has the power to actualize *the table's being red all over and green all over at the same time* and no being has the power to actualize *two and two's making four*. Why not? Because it is a law of metaphysics that the first state of affairs does not obtain and it is a law of metaphysics that the second does. It follows that the answer to the question 'Why does not an omnipotent being have the power to actualize *the table's being red all over and green all over at the same time*?' is 'Because it is impossible, owing to a

law of metaphysics' and the answer to the question 'Why does not an omnipotent being have the power to actualize *two and two's making four*?' is 'Because it is necessary, owing to a law of metaphysics'. Since no metaphysically possible being has the power to actualize any of these states of affairs it is not necessary to be a maximally powerful being that one have such power. This is because we are interested only in beings than whom there is no more powerful *metaphysically possible* being.

The freedom problem

Consider our omnipotent being, G. Since G is distinct from Plato, G lacks the active causal power to actualize *Plato's freely writing a dialogue*, which active causal power Plato possesses. Plato, however, lacks many active causal powers that G has, such as, for example, the power to actualize *a planet's being destroyed*, not to mention the power to actualize the state of affairs named by the following phrase:

(5.51) G's freely writing a dialogue.

It is clear that G's set of powers is greater than that of Plato, even though Plato has the power to actualize a state of affairs that G lacks the power to actualize. Suppose we have another putatively omnipotent being, H, that has the power to actualize every state of affairs that G has the power to actualize except for states of affairs named by phrases of the following form:

(5.52) G's freely performing action *A*.

Conversely, G has the power to actualize every state of affairs that H has the power to actualize except states of affairs named by phrases of the following form:

(5.53) H's freely performing action *A*.

Which has the greater set of powers, G or H? It seems to me that neither has a greater set of powers than the other, even though their sets of powers are different. Consequently, if nothing has a greater set of powers than either of them they are both omnipotent.

Table not made by G

What about our problem that G lacks the power to make a table not made by G? This is not a problem on the intuitive understanding of the definition, since G does have the power to perform at least one action and, thereby has the power to perform an action performed by G. But clearly there is no co-tenable class of powers containing both the power to perform an action performed by G and the power to make a table not made by G.

Time

If it is metaphysically impossible to bring about the past, then nothing is required in order to be omnipotent to have the power to bring about the past or to have the power to actualize the state of affairs named by a phrase of the following form:

(5.54) Event *E*'s having happened.

This is because, since the power to bring about the past or to actualize the state of affairs named by a phrase of the form given in (5.54) is not tenable, no set containing it will be co-tenable. On the other hand, it is possible to possess before *t* the power to actualize the state of affairs named by a phrase of the following form:

(5.55) Event *E*'s happening at *t*.

After *t*, however, it will not be possible to possess the power to actualize a state of affairs named by a phrase of the form (5.54). It is easy to accommodate this by merely relativizing our definition to times, thus:

(D5.17) For every being, *x*, and every time, *t*, *x* is maximally powerful at *t* if and only if it is not possible that there be a being *y* at *t* with a greater set of powers than *x* possesses at *t*.

On (D5.17) there is no problem with powerlessness to actualize past states. Nevertheless, I shall try to offer a more formal definition of omnipotence to supplement these intuitive reflections on the informal notion of maximal power.

A new definition of omnipotence

Direct and indirect actualization

In the philosophy of action there is a distinction between *basic actions* and *non-basic actions*.[74] The distinction is variously drawn, but one version is that an action is basic at *t* if and only if it is an action that is performed at *t*, but not performed by performing another action at *t* (cf. Hornsby 1980*a*: 73). One may also draw the distinction in terms of an action *type*'s being more basic than another (cf. Hornsby 1980*a*: 71). I wish to adapt this distinction to the actualization of states of affairs.

There are states of affairs that one actualizes at a time, *t*, that are actual at least partly in virtue of the actuality of other states of affairs that one actualizes at *t*. I shall say that one indirectly actualizes such states of affairs. For example, whenever I actualize a state of affairs such as, say, that named by:

(5.56) Daniel's moving his hand.

I indirectly actualize the disjunctive state of affairs named by:

(5.57) Daniel's moving his hand or a circle's being square.

It is clear that I actualize the state of affairs named by (5.57) (after all, it wasn't

74 This distinction is due to Arthur Danto (1963: 435–436; cf. Hornsby 1980*a*: 67). Danto later abandoned his initial definitions; cf. Hornsby 1980*a* (1973: 67).

actual before I moved my hand) and it is clear that the state of affairs named by (5.57) is actual in virtue of the actuality of the state of affairs named by (5.56).

There are other states of affairs that one actualizes at a time, *t*, that are not actual at least in part in virtue of the actuality of other states of affairs that one actualizes at *t*. I shall say that one directly actualizes such states of affairs.[75] The 'at least partly in virtue of' ordering relation must, surely, have an end-point, however, as it is asymmetric, transitive and, plausibly, non-infinite. There must surely be at least one state of affairs that we actualize at *t* that is not even partly actual in virtue of the actuality of some other state of affairs that we actualize at *t*. This is because if we grant that some states of affairs that we actualize at *t* are at least partly actual in virtue of the actuality of others that we actualize at *t*, then we are faced with choosing between the view that every state of affairs that is actualized at *t* is at least partly actual in virtue of the actuality of another state of affairs that is actualized at *t*, which view requires one to postulate a circular or infinite chain of actualizations at *t*, and the view that some states of affairs are actualized at *t*, but are not actual even partly in virtue of the actuality of another state of affairs that is actualized at *t*. Just as I do not think it is plausible to suppose that every action that one performs at *t* one performs in virtue of performing another action at *t*, since then it is hard to see how an action will 'get started', I do not think it is plausible to suppose that every state of affairs that one actualizes at *t* is at least partly actual in virtue of the actuality of another state of affairs that one actualizes at *t*, as it is hard to see how any actualization will 'get started'. (It must be emphasized that I am not talking here about basic and non-basic actions of actualization. The 'in virtue of' ordering relation that I am discussing is defined on states of affairs rather than on actualizations.)

I should explain how this distinction between *direct actualization* and *indirect actualization* is related to the distinction between *strong actualization* and *weak actualization*. That distinction is first made by Plantinga (Plantinga 1974: 172–173), but he does not there make the distinction precise, and he is concerned solely there with how it applies to *freedom*, in particular to *counterfactuals of freedom*, and to the problem of evil. Plantinga later offered a more formal definition of divine strong actualization (Alvin Plantinga, 'Self-Profile', in Tomberlin and van Inwagen 1985: 49; cf. Wierenga 1989: 21). This definition cannot, however, be plausibly generalized, and Wierenga puts forward his own definitions: he claims that strong actualization is causal power, and then gives a technical definition of 'weak actualization', which has the consequence that one weakly actualizes every state of affairs that would obtain whatever one did, including necessary states of affairs. This is unsatisfactory as it blurs the difference between, for example, a divine being's *weak* actualization of the free actions of other agents and his weak actualization (on this definition) of necessary states of affairs and the truth of counterfactuals of freedom (other than his own). Indeed, intuitively one thinks that nothing has the power to actualize in any way, weak or strong, logically necessary

75 This usage of 'direct' and 'indirect' is not connected with the brief discussion of 'direct power over the past' and 'indirect power over the past' in Chapter 3.

states of affairs, and it is important to stress that for a being, *x*, the counterfactuals of freedom of any distinct being, *y*, are out of *x*'s control. Although there is no accepted satisfactory definition of strong and weak actualization it is clear that my distinction is different. While everything that *x* weakly actualizes *x* indirectly actualizes, it is not the case that everything that *x* strongly actualizes *x* directly actualizes, unless a very restricted understanding of what one may cause to be the case is correct.

Let me now apply this distinction: it is metaphysically impossible directly to actualize a conjunctive state of affairs – such a state of affairs will be actual in virtue of the actuality of its conjuncts, and one can actualize a conjunctive state of affairs only by actualizing at least one conjunct. It is metaphysically impossible directly to actualize a disjunctive state of affairs: such a state of affairs will be actual in virtue of the actuality of at least one of its disjuncts, and one can actualize a disjunctive state of affairs only by actualizing at least one disjunct. Also, when we consider the state of affairs named by (5.18):

(5.18) Plato's freely writing a dialogue.

it seems intuitively clear that if Plato actualizes this at some time, *t*, the state of affairs named by (5.18) is actual partly in virtue of the actuality of the state of affairs named by:

(5.58) Plato's writing a dialogue.

Plato also actualizes the state of affairs named by (5.58) at *t*. Hence it is not possible for Plato (or anyone else) directly to actualize the state of affairs named by (5.18).

Indeed, as we saw, the state of affairs named by (5.18) was itself the same as the state of affairs named by a slightly more complicated version of the following simplified conjunction:

(5.59) Plato's writing a dialogue and Plato's not being ultimately determined by anything distinct to write a dialogue.[76]

It seems, intuitively, that when Plato actualizes at some time, *t*, the state of affairs named by (5.59) it is actual partly in virtue of the actuality of the state of affairs named by the first conjunct, which state of affairs Plato also actualizes at *t*. (Note that it is only this state of affairs that Plato actualizes that is of relevance here; the state of affairs named by (5.59) is also partly true in virtue of the actuality of the state of affairs named by the second conjunct. Note also that if some other agent, *A*, actualizes the state of affairs named by the second conjunct, that also is not relevant unless *A* also actualizes the whole conjunctive state of affairs thereby.)

Let me pause to explain the intuition behind the use of the distinction between direct and indirect actualization. I have the power to make a table not made by an omnipotent being. How do I exercise this power? Well, I simply make a table. It follows from the facts that I am not omnipotent and that I have made a table on my own and that I have made a table not made by an omnipotent being. This is similar in spirit to Davidson's famous comment that 'All we ever do is move our bodies. The rest is up to nature' (Donald Davidson, 'Agency', in Binkley, Bronaugh and Marras 1971; cf. Hornsby 1980*a*: 9).

76 This is a rough simplification of the detailed definition of 'freedom' in Chapter 6.

I do not agree with Davidson that all we ever do is move our bodies. Nevertheless, I quote his remark because I want to emphasize the role that nature and circumstances play in combining with our actions. If I make a table then that table-making combines with my not being omnipotent, yielding the result that I make a table not made by an omnipotent being. But surely I do not *directly* actualize the state of affairs *a table's existing without being made by an omnipotent being*.

In any case, surely one does not want to say that I have two distinct powers: the power to make a table and the power to make a table not made by an omnipotent being. I suggest that we individuate powers by reference to the states of affairs that it is possible *directly* to actualize. We shall perhaps still have too many powers, but there will at any rate be fewer[77] than there are on the unlimited conception.

This then suggests a way to flesh out our definition of omnipotence:

(D5.10) For every being, x, x is omnipotent if and only if, for every possible active causal power, P, x has P.

If we accept that a power, P, is an active causal power if and only if it is, for some directly actualizable state of affairs, S, the power directly to actualize S, then we may also use the following definition:

(D5.18) For every being, x, x is omnipotent if and only if for every state of affairs, S, if there is a metaphysically possible being, y, such that it is metaphysically possible that y have the power *directly* to actualize S, then x has the power *directly* to actualize S.

The intuition here is that in order to cut away unnecessary powers we should deny that there are powers for states of affairs that can be actualized only ever indirectly. One might at first think that this will leave us with too few powers, but in fact this is not the case – take any state of affairs, S, that is actualizable only indirectly; one does not need a distinct power to actualize S, one may just exercise one's power directly to actualize the members of a certain set of states of affairs, T, all of which are directly actualizable, then S will be actual at least in part in virtue of the actuality of the members of T.

We can also come up with a new definition of maximal power, which we intuitively defined as:

(D5.11) For every being, x, x is maximally powerful if and only if, for every possible being, y, the class of active causal powers that y possesses is not greater than the class of active causal powers that x possesses.

We may use the distinction between direct and indirect actualization to define a *direct potence class for x at t* as the class of states of affairs that x has the power *directly* to actualize at t, that is, that x has the power to actualize at t without their being actual at least partly in virtue of the actuality of some other state of affairs that x actualizes at t. It seems clear enough that nothing could have a direct potence class that contained every metaphysically contingent proposition. We may now use this notion of a potence class to put forward a new, and more informative, definition of maximal power:

77 Intuitively fewer. It may be that both sets will still be infinite.

(D5.19) For every being, x, x is maximally powerful if and only if, for every metaphysically possible being, y, y's *direct* potence class does not strictly include x's.

This definition is *logically* weaker than (D5.18), as this definition, (D5.19), provides for x's being maximally powerful if there are many propositions that are in the direct potence classes of other beings without being in x's direct potence class, while there is a proposition that is in x's direct potence class but not in that of any other being. I do not think that this is a metaphysical possibility, however, so I think that (D5.18) and (D5.19) are *metaphysically* equivalent.

Objections

Too strong?

Are these definitions too strong? That is, are there any states of affairs such that a metaphysically possible being distinct from G has the power *directly* to actualize them, but G does not have this power? If there were such states of affairs that would be bad news for our definition of omnipotence (though not necessarily for our definition of maximal power), since G is an arbitrary divine being and any definition of omnipotence that excluded divine beings from omnipotence would, for that reason, be too weak.

The freedom problem solved

Consider again the state of affairs named by the following phrase:

(5.18) Plato's freely writing a dialogue.

G lacks the power directly to actualize the state of affairs named by (5.18). Yet Plato has the power to actualize it. It seems clear, in the light of the foregoing intuitive explanation, however, that neither Plato nor anything else *directly* actualizes it; Plato actualizes it in virtue of actualizing something like the state of affairs named by:

(5.58) Plato's writing a dialogue.

Suppose the state of affairs named by (5.58) already obtained; would it then be possible directly to actualize the state of affairs named by (5.18)? No. For the state of affairs named by (5.58) to obtain without the obtaining of the state of affairs named by (5.18), it would have to be the case that Plato was writing a dialogue under compulsion (or, some might argue, randomly). One could remove the compulsion and thus make Plato free to write and free to refrain from writing a dialogue. But one cannot directly actualize the state of affairs *Plato's being free to write and free to refrain from writing a dialogue* – this will have to be actualized in virtue of the actualization of something else (i.e. *Plato's being free to write and free to refrain from writing a dialogue* will be actual at least partly in virtue of some other state of affairs that has also been actualized). So the freedom problem

is dealt with since nothing has the power directly to actualize any state of affairs named by a phrase of the form:

(5.60) *x*'s performing *A* freely.

Hence G's powerlessness directly to actualize any such state of affairs does not imply that he is not omnipotent.

What about the states of affairs named by the following phrases?

(5.61) No omnipotent being's ever directly actualizing anything.

(5.62) No omnipotent being's ever existing.

Those unconvinced by the claim that these states of affairs are metaphysically impossible need not worry – it is hard to see that anything could *directly* actualize either of these; it seems that each would be actual in virtue of the actuality of, for every instance of the following schemata, the state of affairs named by that instance:

(5.63) No omnipotent being's directly actualizing anything at *t*.

(5.64) No omnipotent being's existing at *t*.

Does anything have the power directly to actualize any of these states of affairs? If something has the power directly to actualize one of them, then surely G has the power directly to actualize it. (Perhaps every divine being has a power – a power that he metaphysically essentially cannot exercise – to cause himself to cease to exist.)

The problem of the power to actualize evil solved

Even those that are unconvinced by my defence of the view that every divine being has the power – a power that he metaphysically essentially cannot exercise – to do evil need not worry. No metaphysically possible being has the power *directly* to actualize the state of affairs named by the following:

(5.65) An innocent person's suffering, eternally and unredeemedly.

The state of affairs named by (5.65) would be actual partly in virtue of the actuality of the state of affairs named by the following phrase:

(5.66) A person's suffering.

Yet every divine being does have the power directly to actualize this state of affairs. What if the state of affairs named by (5.66) is already actual? Does one then directly actualize the state of affairs named by (5.65)? No. One would need to actualize the state of affairs named by each instance of the following schema for some agent, *S*:

(5.67) *S*'s suffering at *t*.

But even if one thought that no divine being had the power to actualize the state of affairs named by:

(5.68) An innocent person's suffering unredeemedly.

there would still be no problem, for nobody has the power directly to actualize the state of affairs named by any instance of this schema:

(5.69) *S*'s suffering unredeemedly

or of this schema:

(5.70) *S*'s being innocent.

So it is impossible that anything directly actualize the state of affairs named by (5.65) or (5.68).

The problem of actualizing the past solved

What about such states of affairs as that named by the following?

(5.71) Its having rained in the past.

If backwards causation is impossible then nothing will have the power directly to actualize the state of affairs named by (5.71). If, on the other hand, backwards causation is possible then we have no reason to suspect that an omnipotent being in general or a divine being in particular will be powerless to actualize it.

What about such states of affairs as that named by the following?

(5.72) A raindrop's falling on 1 January 2000.

If backwards causation is impossible then nothing has the power directly to actualize this state of affairs after 1 January 2000. But is it not possible that something have the power directly to actualize this state of affairs before 1 January 2000, and that, in consequence, nothing will be omnipotent after 1 January 2000? It might seem as if the state of affairs named in (5.72) is actual partly in virtue of the actuality of the state of affairs named by the following phrase:

(5.73) A raindrop's falling.

This, however, raises a further question. If we take the view that states of affairs obtain at times, then anything that actualizes the state of affairs named by (5.72) will do so by actualizing on 1 January 2000 (or shortly before then if simultaneous causation is impossible) the state of affairs named in (5.73). Since the state of affairs named by (5.72) will be actual partly in virtue of the actuality of the state of affairs named in (5.73), it follows that, if this view is right, it is impossible directly to actualize the state of affairs named in (5.72).

If we reject the view, however, that states of affairs obtain at times, then (5.73) will not name a state of affairs at all, since (5.73) does not tell us when the raindrop is supposed to fall. So it will be possible directly to actualize the state of affairs named in (5.72). Thus, for every agent, x, if x is omnipotent, then x has the power directly to actualize the state of affairs named in (5.72). If backwards causation is metaphysically impossible then my definition should be relativized to times, since a being's powerlessness directly to actualize the state of affairs named in (5.72) at any time after 1 January 2000 does not imply that he is not omnipotent:

(D5.20) For every being, x, and every time, t, x is omnipotent at t if and only if, for every state of affairs, S, if there is a metaphysically possible being, y, such that it is metaphysically possible that y at t have the power *directly* to actualize S, then x at t has the power *directly* to actualize S.

We should then relativize to times our more intuitive definition:

(D5.21) For every being, x, and every time, t, x is omnipotent at t if and only if, for every active causal power, P, if there is a metaphysically possible being, y, that possesses P at t, then x possesses P at t.

The definition of maximal power may similarly be relativized to times:

(D5.22) For every being, x, and every time, t, x is maximally powerful at t if and only if, for every metaphysically possible being, y, y's *direct* potence class at t does not strictly include x's at t.

It is not clear, however, that these modifications are necessary: one could claim that after 1 January 2000 one has lost the *opportunity* to actualize the state of affairs named in (5.72). One might then claim that if, *per impossibile*, one did have the opportunity (and the know-how and the overriding desire), one would actualize it. This would then show that one did have the power, after all.

The objector might regroup and argue that if I have actually played tennis before 1 January 2000 then in the actual world after 1 January 2000 no being has the power to actualize the metaphysically contingent state of affairs named by:

(5.74) Daniel's playing tennis for the first time.

The objector might continue to argue that it is metaphysically possible that a being actualize this state of affairs at a time after 1 January 2000, because there are possible worlds in which I do not play tennis until after 1 January 2000. This line of argument will not work against our definitions of omnipotence, however, since nothing has the power *directly* to actualize the state of affairs named by (5.74). If some possible being in a different possible world does actualize the state of affairs named by (5.74) after 1 January 2000, he also actualizes in that world the state of affairs named by:

(5.75) Daniel's playing tennis.

or that named by some instance of the following schema:

(5.76) Daniel's playing tennis at t (after 1 January 2000).

Furthermore, the state of affairs named by (5.74) would be actual partly in virtue of the actuality of the state of affairs named by (5.75) or the actuality of the state of affairs named by some instance of the schema (5.76). Hence it follows that the state of affairs named by (5.74) may be only indirectly actualized, and, in consequence, that a being's powerlessness in the actual world to actualize the state of affairs named by (5.74) after 1 January 2000 does not imply that he is not omnipotent.

It is hard to think of a state of affairs that a metaphysically possible being has the power *directly* to actualize and yet that a divine being or an intuitively omnipotent being lacks the power *directly* to actualize. So it seems the definition is not *too strong*. Is it *too weak*?

Too weak?

'Leaving out the agent'

Here is an argument for its being too weak. Let us recall the case of McEar. He is metaphysically essentially powerless to do anything bar scratch his ear. In other words he has the power to actualize the state of affairs named by the following phrase:

(5.77) McEar's scratching his ear.

He also has the power to actualize every state that would be actual in virtue of the actuality of the state of affairs named in (5.77). For example, he has the power to actualize the state of affairs named by the following phrase:

(5.78) McEar's arm's moving to his ear.

Does McEar directly or indirectly actualize the state of affairs named by (5.77)? It seems to me likely that McEar indirectly actualizes the state of affairs named by (5.77) in virtue of directly actualizing the state of affairs named by (5.78).

McEar metaphysically essentially, however, lacks the power to scratch his nose; he metaphysically essentially lacks the power to actualize the state of affairs named by the following phrase:

(5.79) McEar's scratching his nose.

The curious thing is that if McEar metaphysically essentially lacks the power to scratch his nose, then the state of affairs named in (5.79) is metaphysically impossible. This is because if it were actual then McEar would be scratching his nose, in which case he would have the power to scratch his nose, since it is impossible to scratch a nose without having the power to scratch it. So nothing, not even an omnipotent being, could have the power to actualize the state of affairs named in (5.79). But then it is not necessary in order to be omnipotent that one have the power to actualize it. But then the fact that McEar is metaphysically essentially powerless to actualize the state of affairs named in (5.79) does not imply that he is not omnipotent. Of course, we know that McEar is not omnipotent anyway, for he lacks the power to actualize such states of affairs as that named by:

(5.50) A new planet's coming into existence.

The point is, however, that the fact that McEar is powerless to actualize the state of affairs named in (5.79) does not imply that he is not omnipotent, and this might seem wrong – it might well seem that this does imply that he is not omnipotent.

The puzzle here seems to turn on an ambiguity between active and passive powers.[78] Why does McEar lack the power to actualize the state of affairs named by (5.79)? If, *per impossibile*, he were to actualize it he would do so indirectly by directly actualizing the state of affairs named by the following phrase:

(5.80) McEar's arm's moving to his nose.

We may suppose, then, that his powerlessness to actualize the state of affairs named by (5.79) follows from his powerlessness to actualize the state of affairs named by

78 I am grateful to Joseph Jedwab for pointing this out to me.

(5.80). We know in any case that McEar lacks the power to actualize the state of affairs named by (5.80) because we know that McEar is metaphysically essentially powerless to actualize any state of affairs except that named by (5.77) and those states of affairs that would be actual if the state of affairs named by (5.77) were actual. Now, why is it that McEar lacks the power to actualize the state of affairs named by (5.80)? Is it that McEar lacks the active power to scratch his nose, i.e. that he lacks just the active power to cause his arm to move to his nose, or is it that he lacks the passive power as well, because his arm is immovable to his nose? Suppose first that McEar lacks just the active power to cause his arm to move to his nose. Then it follows that he is not omnipotent because the state of affairs named by (5.80) is one that a being other than McEar, for example a divine being, could actualize: a divine being could make McEar's arm move to his nose without McEar's moving it there. So let us suppose that McEar lacks the passive power too, because, say, his arm is essentially fixed by his ear and it is essentially too withered to move to his nose. Then it does not follow that McEar is not omnipotent, because the state of affairs named by (5.80) will then be impossible. Its impossibility does not imply that McEar is not omnipotent, since it is only a passive power that he is lacking, rather than an active one. After all, every purely spiritual being also lacks the passive power of having one's arm move to one's nose, since no purely spiritual being has an arm or a nose. Neither of these results – that the lack of the active power implies his non-omnipotence, and that the lack of the passive power does not imply his non-omnipotence – is counter-intuitive, and so the objection has no force against our definitions.

The principles at stake in this discussion are not limited to esoteric counter-examples such as McEar. For example, it is plausible that, since each of us mere humans is finite, each of us lacks the power infinitely to praise a divine being.[79] Furthermore, since each of us mere humans is essentially finite, each of us metaphysically essentially lacks the power to do this. So I metaphysically essentially lack the power to actualize the state of affairs named by the following phrase:

(5.81) Daniel's infinitely praising a divine being.

No divine being has the power to actualize my praising him infinitely, since it is metaphysically impossible that I do so. So the state of affairs expressed by (5.81) is metaphysically impossible. But it is not necessary to be omnipotent that one have the power to actualize a metaphysically impossible state of affairs. So the fact that I am powerless to bring this about does not imply that I am not omnipotent. But surely this is wrong, it may be urged – surely it does imply it. Of course, each of us mere humans also lacks the power to actualize the state of affairs named by the following phrase:

(5.82) A divine being's being infinitely praised.

Every omnipotent being does have the power to actualize this state of affairs, if only by infinitely praising the divine being himself. So none of us mere humans is omnipotent, since each of us lacks the power to actualize the state of affairs

79 I add the word 'mere' to make it clear that we are not including Jesus under our quantification.

named by (5.82). Nevertheless, it may be argued, the point still stands: the fact that I am metaphysically essentially powerless to actualize the state of affairs named by (5.81) does not imply that I am not omnipotent. This may well seem wrong, however. Indeed, it may be alleged that we intuitively feel that my metaphysically essential powerlessness to actualize the state of affairs named by (5.81) is a very important limitation on me and a very important factor in my not being omnipotent. Again, the problem here may be resolved thanks to the distinction between active causal powers and passive causal powers. I lack the passive causal power to praise a divine being infinitely, and this lack rightly does not imply that I am not omnipotent, since it is impossible to cause me to exercise this power. I also, however, lack the active causal power to actualize the state of affairs named by (5.82) and this lack rightly does imply that I am not omnipotent. An important point becomes apparent here, though: it may well be that we shall want a maximally great being to have some passive causal powers. For example, although it is not necessary to be omnipotent that one possess the passive causal power infinitely to praise a divine being, it may well be that it is necessary to be a divine being that one possess this power, notwithstanding Aquinas's insistence that no divine being has any passive powers.

I shall consider just two more versions of this objection, in which the principles at stake are worked out to their logical conclusion. It seems at first obvious that for every being, x, if x is omnipotent, then x has the power to lift a weight: it seems at first obvious that if something lacks the power to lift a weight it is obviously not omnipotent. What if, however, x is metaphysically essentially powerless to lift a weight? In that case, *x's lifting a weight* is not a metaphysically possible state of affairs after all, since if it were actual then x would be lifting a weight and x would have the power to lift a weight (since it is impossible that one lift a weight if one does not have the power to do it). It seems in that case that x may come out as omnipotent on my definition, since it is not necessary to be omnipotent that one have the power to actualize a metaphysically impossible state of affairs. At any rate, it is clear that x's powerlessness to actualize *x's lifting a weight* does not imply that x is not omnipotent. This seems wrong, however; surely x's powerlessness to actualize *x's lifting a weight* intuitively does imply that x is not omnipotent. Let us suppose, then, that x has the power directly to actualize every state of affairs that it is possible be directly actualized, and is metaphysically essentially powerless to lift a weight, and, hence, metaphysically essentially powerless to actualize *x's lifting a weight* and every other state (*x's lifting a ton weight* etc.) whose actuality would imply the actuality of *x's lifting a weight*. Then x is omnipotent on my definition, since *x's lifting a weight* will be a metaphysically impossible state of affairs. This, however, seems wrong: how can x be omnipotent when x metaphysically essentially lacks the power to lift a weight?

Once more, we can see that the distinction between active and passive causal powers dispels the confusion here. Does x have the active causal power directly to actualize the state of affairs *a weight's rising*? If not, then x is not omnipotent, since this state of affairs is directly actualizable. If so, x may be omnipotent, even if x lacks the passive power to lift a weight with his own body. This is because if x essentially lacks this passive power then the state of affairs *x's lifting a weight*

(with his body) will be metaphysically impossible, and so *x*'s powerlessness to actualize it will rightly not imply that he is not omnipotent.

This suggests a final puzzle. We intuitively think that a possible being such as G is omnipotent, even though he is purely immaterial, and, thus, lacks the power to perform physical actions. (It could be argued, however, that he lacks merely the opportunity.) We intuitively feel that, despite G's (supposed) powerlessness to perform physical actions, G has the power directly to actualize, in virtue of his infinite willpower, every state of affairs that is possibly directly actualized. Now consider another possible being, *x*, who has the same level of willpower as G, and who, consequently, also has the power directly to actualize every state of affairs that is possibly directly actualized. *x*, however, has a body, and a weak one at that – indeed, an essentially weak one at that. *x* also, i.e. as well as G, lacks the power to perform physical actions – in his case because he is too weak. This being is just as powerful as G in terms of the actualization of possible states of affairs, yet one intuitively feels that he is not omnipotent. Consider, finally, another possible being, *w*. *w* has the same infinite willpower as G and as *x*, and so has the power directly to actualize every state of affairs that is possibly directly actualized. *w* also has a weak body, but *w*'s is not quite as weak as *x*'s. *w* has the power to lift newspapers and things of an equal or lesser weight. *w* lacks the power to lift anything heavier. What is more, *w* metaphysically essentially lacks this power, so states of affairs such as *w's lifting a book* are metaphysically impossible, and so not metaphysically possibly directly actualized. So *w* is omnipotent, on my definition. This seems intuitively wrong, however. Our intuitions leave us confused: we think that G is omnipotent, even though there is a being, *w*, that is apparently more powerful than he, in the sense that *w* has the power directly to actualize every state of affairs that G has the power directly to actualize and also has the power to perform an action, viz. *physically lifting a newspaper*, that G (apparently) lacks the power to perform. We also think that *x* is not omnipotent even though he is just as powerful as G.

The resolution of this final puzzle is similar to the preceding: the difference among G, *x*, and *w* is in their passive powers: each has the same level of active causal power. Each is, therefore, omnipotent. *w* is not more powerful than G or *x* in the relevant sense of having more active power; *w* has more passive power than G, but this is not relevant to considerations of omnipotence. Indeed, there is an argument for using terms like 'liability' rather than (passive) 'power' in this context to illustrate this difference. Likewise, we intuitively feel that *x* is not omnipotent only because of his limitations regarding passive power. It seems plausible that neither *x* nor *w* could be divine because of their being partly physical, so it may be that we are sidetracked into thinking, wrongly, that they could not be omnipotent because of their materiality.[80]

80 I tentatively believe that it is impossible for a divine being to be physical even in part. It may be objected that Jesus was both divine and physical in part. I reply that Jesus was purely immaterial; he possessed a body, but his body was not a part of him. I think this holds true of every human, not just of Jesus, though I hold this view only tentatively.

Here is a general argument to the effect that the definition is not too weak. Suppose it were too weak. Then there would be an intuitively non-omnipotent being, x, that qualified as omnipotent under my definition. Why would this being be intuitively non-omnipotent? We have just examined some cases where our intuitions seemed to suggest that a being was not omnipotent because of his powerlessness to actualize a state of affairs that was metaphysically impossible – impossible because of his powerlessness. We have decided that these cases traded on an ambiguity between active causal powers and passive causal powers. So, for a case to be significantly different from one of these already dealt with, it must be a case of x's being non-omnipotent because there is a metaphysically *contingent* state of affairs, S, that x lacks the power to actualize. Now, if x is to qualify as omnipotent under my definition, x has the power for every metaphysically contingent state of affairs that is possibly directly actualized directly to actualize that state of affairs. So S then must be a state of affairs that cannot be directly actualized. But it then follows that S would be actual if the members of some set, T, of directly actualizable states of affairs were actual. But if x is omnipotent under my definition, then x does have the power, for every member of T, to actualize that state of affairs. Furthermore, we know that the members of T are metaphysically compossible, since S is metaphysically contingent. Hence x has the power directly to actualize all the members and, hence, indirectly to actualize S. So there can be no such counter-example. So our definition is not too weak.

Someone might object to the very last step of our argument, from the claim that, for every member, t, of T, x has the power to actualize t, to the claim that x has the power to actualize the conjunctive state of affairs composed of all the members of T. The objector is, of course, right that this does not follow logically, even if, as they are, the members of the set T are all compossible. Our definition of omnipotence is, rightly, in terms of powers themselves, rather than their exercise. So it is quite possible that x should be unable to actualize all the members of T together for some reason – possibly because x is essentially good and so unable to exercise his powers to actualize evil. The objector may still press the question as to whether x has the *power* to actualize the conjunctive state of affairs composed of all the members of T. I have already argued that there is no distinct power to actualize a conjunctive state of affairs over and above the power to actualize its conjuncts. The question remains, though, as to whether we may truthfully say that x has the power to actualize the conjunctive state of affairs composed of all the members of T in a way that does not predicate a *distinct* power of x's. Here I must fall back on my conditional analysis of power, adapted in terms of the actualization of states of affairs:

(D5.23) For every being, x, and every state of affairs, S, x has the power to actualize S if and only if, if x had the opportunity, know-how and the overriding desire to actualize S, then x would actualize S.

Suppose then that x desired to exercise for every member, t, of T, his power to actualize t, what could stop x from doing so ? It is true, of course, that if x is not omnipotent, then an omnipotent being could prevent x from co-exercising his

powers,[81] but that would not imply that he did not have them. Suppose that every member of T obtained, bar one: t_n. Since x has the power (directly) to actualize t_n it follows that he has the power indirectly to actualize the conjunctive state of all the members of T, and, therefore, the power indirectly to actualize S. Suppose, then, that x actualized all the members of x individually (since it is undisputed that x has this power), then, when x had finished, the conjunctive state of all the members of T would be actual, and, in consequence, x would indirectly have actualized S. It might now be objected that a mischievous being, y, might undo what x has done by, whenever x has actualized a member, t, of T, actualizing the complement of t. This is possible, but it does not show that x is not omnipotent, since y's activity is obviously an extrinsic factor on x relating to the *effects of the exercise of* x's power, and is not an indication of an intrinsic lack of power in x. If x had the overriding desire, know-how and opportunity to actualize the conjunctive state of affairs of all the members of T, then x would co-exercise all of his powers, and the conjunctive state of affairs of all the members of T, and, in consequence, S, would obtain. And even if it is impossible for x to co-exercise all his powers that does not imply that he does not have the powers in question.

The objection of specifying times

It might still be alleged that my definition is too weak for other reasons: is it possible that x be omnipotent at t and yet not be able to cause a raindrop to fall at a later time, $t*$? The idea is that there is no separate power to cause a raindrop to fall at $t*$ over and above the power to cause a raindrop to fall; one indirectly actualizes the state of affairs of a raindrop's falling at $t*$ in virtue of directly actualizing at, or shortly before, $t*$ the state of affairs of a raindrop's falling. Could we not then have a being that qualified as omnipotent on my definition but, when asked to do something, always replied with an embarrassed smile 'Well, I have the power to do that in general, just not when you want me to do it . . . '? Again, I do not think that such a being is possible. First, if we say that simultaneous causation is possible, then we should presume that if x at t is omnipotent and has the overriding desire, know-how and opportunity at t to actualize a certain state of affairs, then that state of affairs obtains at t. If simultaneous causation is not possible, then we should presume that if x at t is omnipotent and has the overriding desire, know-how and opportunity at t to actualize a certain state of affairs, then that state of affairs obtains at $t + n$, where n is the length of time taken for the effect to follow the cause.[82] In this instance no possible being would have the power at any time, t, to actualize a state of affairs at t, hence a being's lack of this power would not imply that it was not omnipotent.

81 I think that even if x is omnipotent an omnipotent being would have the power to prevent him for each of his powers from exercising that power, but I pass over this for now. See the further discussion in Chapter 7.

82 In our relativistic universe it may be that the effect can follow the cause only at the speed of light. I see no reason to suppose that this restriction applies to a divine being or other omnipotent beings that are not in a physical universe governed by the special theory of relativity.

How would an omnipotent being actualize a state of affairs in the far future? Why not in the same way as we do? If I wish some state of affairs, S, to be the case tomorrow I have a choice: I can either wait till tomorrow to actualize S, or I can actualize a state of affairs now that will begin a causal chain of states of affairs that will tomorrow yield S as a consequence. An omnipotent being has the same choice. If x is omnipotent at t_1 and has at t_1 the opportunity and desire to actualize some state of affairs, S, at t_{1000}, then x may wait till t_{1000} (or t_{1000-n}, if simultaneous causation is impossible) and then actualize S – running the risk of course that x might have forgotten, changed his mind, lost the opportunity, or ceased to be omnipotent by then[83] – or to set in motion now a causal chain that will yield S as an effect at t_{1000}. Somebody might object that causal chains may be derailed. This is true, but if x is omnipotent then x will be able to prevent it from being derailed at each moment at which x is omnipotent. Of course, again it is possible that x might cease to be omnipotent before t_{1000}. That's life – a being cannot, I think, be said to fail to be omnipotent because of things that happen after its demise or after it has ceased to be omnipotent.

The distinction between power and its exercise should, I hope, defuse other counter-examples. Consider a being, x, that is determined by another being, y, as to how to exercise his powers – x may yet qualify as omnipotent under my definition. Someone might object that surely x is intuitively non-omnipotent, however. I claim, on the other hand, that it is possible that x be omnipotent but determined as to how to exercise his powers. It will follow, however, that if x is omnipotent then he has the power to actualize such states of affairs as *y's not existing*, if y is a destructible being. So x will, if omnipotent, have the power to free himself from y's determination of him, but there is no particular reason why x should exercise his power to free himself.

Or consider an omnipotent being, O, that has the power to actualize states of affairs only in co-operation; in other words O has direct power over every state of affairs that may directly be actualized, but cannot actualize a state of affairs not also actualized by N, where N is O's collaborator. Such a being, it may be urged, seems intuitively non-omnipotent. I should respond by claiming that O is omnipotent but unable to exercise his direct powers on his own. (Otherwise it would seem as if O did not have direct power over every state of affairs, but only indirect power in that he would indirectly actualize, in virtue of collaborating with N, most states of affairs he actualizes.) Again, this fact would not imply that O lacked any active causal powers (particularly if, say, N's existence were metaphysically necessary).

It may be objected that I have merely shifted the problems to the idea of the ability to exercise powers. There is good reason for this, however: theists traditionally want to say that every divine being *possesses* every possible power, but not that every divine being has the ability to *exercise* every possible power. Rather, theists want every divine being to be able to exercise every power whose exercise would not diminish his greatness. Neither of the beings described above could count as

83 All these matters may of course be avoided by an omnipotent being – he may ensure, in virtue of his omnipotence, that he loses none of his memory, desire, opportunity, know-how or omnipotence – but he *need* not do so.

divine since they cannot exercise powers that would enhance their greatness. The ability to sin on the other hand, would not enhance the sinner's greatness. Hence I think it entirely appropriate that the putative counter-examples should come under discussion of the ability to exercise powers instead of under discussion of omnipotence, which, after all, etymologically and intuitively, is concerned with powers, rather than their exercise.

Appendix: The 'paradox' of the stone

A famous puzzle in the recent history of philosophy has been the 'paradox' of the stone.[84] This comes in many versions, depending on the precise definition of omnipotence in question.

The version in terms of actions

I shall consider first the version concerning the definition in terms of metaphysically possible actions:

(D5.6) For every being, x, x is omnipotent if and only if for every metaphysically possible action type, A, x has the power to perform a token of A.

We know that this definition is no good, because we know that it falls victim to such counter-examples as 'to make a table not made by G'. Nevertheless, it will be interesting to see how the 'paradox' goes with this definition:[85]

(5.83) Of logical necessity, for every being, x, either x has the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S*, or x does not have the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S*.

(5.84) Of logical necessity, for every being, x, if x has the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S*, then there is at least one metaphysically possible

84 The first mention I have been able to find of a paradox of this sort is that of the 'paradox' of whether God can create an agent that he cannot control, in McTaggart (1906: 204; cf. Khamara 1978: 221; cf. Khamara 1995). That 'paradox' was rediscovered by J. L. Mackie in Mackie (1955).

85 The 'paradox' is helpfully laid out by C. Wade Savage in Savage (1967). There is one infelicity in his formulation, however; he writes 'x' where I write 'its creator'. Savage's own solution is also mistaken; he writes:

> 'x cannot create a stone which x cannot lift' can only mean 'If x can create a stone, then x can lift it.' It is obvious that the latter statement does not entail that x is limited in power.
>
> (Savage 1967: 77)

This does not seem at all obvious to me; the objector may argue the other way about, claiming that since the proposition expressed by a sentence of the form 'If x can create a stone, then x can lift it' logically implies the proposition expressed by the corresponding sentence of the form 'x cannot create a stone that x cannot lift', and, since it is 'obvious' that the latter statement implies that x is limited in power, then the former statement has that implication too. Savage has merely concealed the 'cannot'; he has not resolved it (cf. Swinburne 1993: 161). Similar comments apply to Keene (1960) and Keene (1961).

action type, *A*, of which *x* does not have the power to perform a token, viz. *lifting S*.

(5.85) Of logical necessity, for every being, *x*, if *x* does not have the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S*, then there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token, viz. *creating a stone, S, such that S's creator does not have the power to lift S*.

Hence,

(5.86) Of logical necessity, for every being, *x*, there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token.

(5.87) Of logical necessity, for every being, *x*, if *x* is omnipotent, then there is no metaphysically possible action type, *A*, of which *x* does not have the power to perform a token.

Therefore,

(5.88) Of logical necessity, for every being, *x*, *x* is not omnipotent.

The argument is valid, so let us examine the premisses. (5.83) expresses a truth, (5.87) is a logical consequence of our definition, and the proposition expressed by (5.86) follows from the other premisses. It behoves us, then, to examine (5.84) and (5.85). I shall mention (5.85) shortly, but I wish to focus attention on (5.84) for a moment. The action type in question is *creating a stone, S, such that S's creator does not have the power to lift S*. The proposition expressed by (5.84) claims that, of logical necessity, if *x* has the power to perform a token of this type, then there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token. The proposition expressed by (5.84) further claims that one action type of this sort is the action type *lifting S*. (5.84)'s claim is false. It does *not* follow of logical necessity from the fact that *x* has the power to create a stone, *S*, such that *x* does not have the power to lift *S*, that there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token. It may be, for instance, that *x* has the power to create a stone, *S*, such that *x* does not have the power to lift *S* only because it is *not metaphysically possible* that anyone lift any such stone. In this case, *x does* have the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S*, but every token that *x* has the power to perform of this action type also falls under the action type *creating a stone, S, such that it is not metaphysically possible that anyone lift S*.[86] Since, in this case, it is not

86 Some may doubt that it is metaphysically possible that there be a stone such that it is metaphysically impossible that something lift it. On the other hand, I am certain that it is metaphysically possible that there be a *substance* that it is metaphysically impossible for anything to lift: souls, for instance, are metaphysically unliftable. A being's powerlessness to lift a soul does not imply that he is not omnipotent, for it is metaphysically impossible that anyone lift one.

metaphysically possible that anyone lift *S*, *x*'s powerlessness to lift *S* does not imply that *x* is not omnipotent. So (5.84) expresses a falsehood.

The above problem is easily enough resolved, though. The objector may simply switch to discussing the action type *creating a stone, S, such that S's creator does not have the power to lift S, even though it is metaphysically possible that someone lift S*. Even this altered version of the second premiss expresses a falsehood, however:

(5.84′) Of logical necessity, for every being, *x*, if *x* has the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S, even though it is metaphysically possible that someone lift S*, then there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token, viz. *lifting S*.

(5.84′) expresses a falsehood because it does not follow, of logical necessity, from the fact that *x* has the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S, even though it is metaphysically possible that someone lift S* that there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token, viz. *lifting S*. It may be that *x*, while he has the power to create *S*, does not exercise this power. In this case, *S* will not exist. In that case, it is not that *x* lacks the *power* to lift *S*, so much as *x* lacks the *opportunity*, as we saw in the discussion of the Eiffel Tower at the start of this chapter (cf. Swinburne 1993: 161). Let us suppose that *x* does exercise the power, what follows? Even if *x* lacks a certain power *after* creating *S* that does not imply that *x* lacked any power *before* creating *S*. We should have to add time indicators to our sentences to make this explicit:

(5.84″) Of logical necessity, for every being, *x*, if *x* has the power, at some time, *t*, to perform a token at *t* of the action type *creating a stone, S, such that S's creator does not have the power to lift S, even though it is metaphysically possible that someone lift S*, then, if *x* exercised this power at *t*, there would be at least one metaphysically possible action type, *A*, of which *x* did not have the power to perform a token at *t*, viz. *lifting S*.

(5.84″) expresses a falsehood. It does not follow of logical necessity from the fact that *x* has the power at *t* to perform a token at *t* of the action type *creating a stone, S, such that S's creator does not have the power to lift S, even though it is metaphysically possible that someone lift S* that there is at least one metaphysically possible action type, *A*, of which *x* does not have the power to perform a token at *t*, viz. *lifting S*. We usually suppose that the effect will follow the cause, so that *x* will lack the power to lift *S* at t_1, where t_1 is later than *t*. (If the effect were simultaneous with the cause – against the possibility of which I cautiously suggested in Chapter 3 I could see no compelling arguments – then we should be dealing also with the action type *creating a stone, S, at t such that S's creator does not have the power at t to lift S at t, even though it is metaphysically possible that someone lift S at t*.) In the light of this objection, the objector might rephrase the sentence once more:

(5.84‴) Of logical necessity, for every being, x, if x has the power, at some time, t, to perform a token at t of the action type *creating a stone, S, such that S's creator does not have the power to lift S, even though it is metaphysically possible that someone lift S* then, if x exercised this power, there would be at least one metaphysically possible action type, A, of which x did not have the power to perform a token at t_1, viz. *lifting S*.

The proposition expressed by (5.84‴) is correct. It is harmless, however: the proposition expressed by (5.84‴) shows merely that x is not omnipotent *after* he exercises his power *if* he exercises it. This fact does not imply that x is not omnipotent *before* exercising his power or if he does *not* exercise it.

Nevertheless, the 'paradox' does show us that our naive definition is unsatisfactory:

(D5.6) For every being, x, x is omnipotent if and only if for every metaphysically possible action type, A, x has the power to perform a token of A.

This is because we intuitively want to allow that x may be metaphysically essentially omnipotent. In this case, it would not be metaphysically possible that x perform a token of the metaphysically possible action type *creating a stone, S, such that S's creator does not have the power to lift S* even though it is metaphysically possible that someone lift *S*. This is because, in this case, every token of the action type *creating a stone, S, such that S's creator does not have the power to lift S* even though it is metaphysically possible that someone lift *S* that x had the power to perform, would also fall under the action type *creating a stone, S, such that a metaphysically essentially omnipotent being does not have the power to lift S* even though it is metaphysically possible that someone lift *S*. So x would not have the power to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S* even though it is metaphysically possible that someone lift *S*, even though this action type is metaphysically possible. We could conclude that metaphysically essential omnipotence is impossible, but we already know that the definition is no good even for contingent omnipotence. If we relativize our definition, we avoid the problem:

(D5.7) For every being, x, x is omnipotent if and only if for every action type, A, such that it is metaphysically possible that x perform a token of A, x has the power to perform a token of A.

We avoid the problem because x's powerlessness to perform a token of the action type *creating a stone, S, such that S's creator does not have the power to lift S* even though it is metaphysically possible that someone lift *S* would not imply that x was not omnipotent, since it would be metaphysically impossible for x to perform a token of this type. We already know, however, that this definition is too weak, as it lets in McEar.

Note that I discuss the action type *creating a stone, S, such that S's creator does not have the power to lift S*, rather than the action type *creating a stone, S, such that x does not have the power to lift S*, or the action type *creating a stone, S, such that G does not have the power to lift S*, and similar action types. The reason for

this is that it is obvious that *creating a stone, S, such that S's creator does not have the power to lift S* is a metaphysically possible action. Indeed, many sculptors have performed actual tokens of it.[87] It is not at all obvious, however, that the other two action types *are* metaphysically possible; if *x* or G, or whoever, is metaphysically essentially omnipotent, then the action type *creating a stone, S, such that x does not have the power to lift S* or the action type *creating a stone, S, such that G does not have the power to lift S* and its parallels will not be metaphysically possible action types (assuming that the objection claims that it would be metaphysically possible that someone lift *S*), since it will not be metaphysically possible that *S* exist. If we consider another action type *creating a stone, S, such that an omnipotent being does not have the power to lift S*, we come across an ambiguity: is this the action type *creating a stone, S, in a possible world, W, such that a being that is omnipotent in W does not have the power in W to lift S in W*, or is it *creating a stone, S, in a possible world, W, such that a being that is omnipotent in* the actual world *does not have the power in W to lift S in W*? If the former is meant, then again, the action type will be metaphysically impossible (assuming that the objection claims that it would be metaphysically possible that someone lift *S*). If the latter is meant, then the action type may be metaphysically possible.[88]

The version in terms of states of affairs

Let us now see how a definition of omnipotence in terms of actualizing states of affairs copes with the 'paradox' of the unliftable stone. Let us start by taking the definition that I proposed in terms of metaphysically contingent states of affairs. We know that this definition does not work because of the freedom problem, but it will, nevertheless, be instructive to consider how it fares with the 'paradox':

(D5.14) For every being, *x*, *x* is omnipotent if and only if *x* has, for every metaphysically contingent state of affairs, *S*, the active causal power to actualize *S*.

The question is whether, if *x* is omnipotent, he has the active causal power to actualize the state of affairs named by the following phrases:

(5.89) There existing a stone, *S*, such that *S*'s creator does not have the power to actualize the state of affairs named by (5.90):

(5.90) *S*'s rising.

The state of affairs named by (5.89) is metaphysically contingent. Indeed, I have the power to actualize it, but so does an omnipotent agent. Suppose an omnipotent agent determines me to create a stone too heavy for me to lift. It does not then follow that the omnipotent agent is the creator of the stone. That this is so may be seen from the fact that we commonly get others to do things that we do not have the power to do ourselves. Far from our getting another to do something implying

87 Here I construe 'creating a stone' loosely, to include cutting a stone out of a larger rock.

88 The action type *creating a stone, S, in a possible world, W, such that a being that is omnipotent in the actual world does not have the power in the actual world to lift S in W* will also prove to be metaphysically impossible, if it be metaphysically possible that someone lift *S*.

our power to perform the action in question, it often presupposes our *lack* of it: it is often precisely because of our lack of power that we get the other to act.[89] Making is not a transitive action, so it is possible for an omnipotent being to make a non-omnipotent being make a stone too heavy for the non-omnipotent being to lift without the omnipotent being thereby making it himself. The reason that this is easier to dispose of than the question in terms of actions is that (5.89) is not exactly parallel to the question in terms of actions. What is parallel is:

(5.89′) There existing a stone, *S*, such that the being that actualizes the state of affairs named by this phrase does not have the power to actualize the state of affairs named by (5.90):

(5.90) *S*'s rising.

For every being, *x*, if *x* has the power to actualize the state of affairs named by (5.89′), and exercises it, then *x* lacks the power to actualize the state of affairs named by (5.90). Note that this still will not underwrite an argument against omnipotence, as *x* might well never exercise *x*'s power and thus never lose his omnipotence. I shall return to this point shortly; for now let us consider another version of the argument.

Let us revise our definition, replacing '*S*'s creator' with the variable '*x*'; this variable, though free in the current formulation, will be bound in the context of the argument. The next thing that we should clarify is whether by (5.89) we mean:

(5.91) There existing a stone, *S*, such that (5.90) names a metaphysically impossible state of affairs,

or, schematically:[90]

(5.92) There existing a stone, *S*, such that, though the state of affairs named by (5.90) is metaphysically contingent, *x* does not have the power to actualize the state of affairs named by (5.90).

First interpretation

If (5.91) names the state of affairs in question, then the answer to our question could be of the form 'Yes, if *x* is omnipotent then *x* does have the power to actualize the state of affairs named by (5.91)'. Assuming that we limit omnipotence to (D5.14), i.e., having, for every metaphysically *contingent* state of affairs, the

89 Some people may raise a theological objection to this, citing the creed's affirmation that the divine being is the 'Maker of heaven and earth, And of all things visible and invisible' (Cranmer 1662). I respond with a theological counter-objection: it cannot be that the divine being is the maker of things that are evil (when made), yet he is the maker of the first human, and he *was* the maker of things that were evil when made. Even if the divine being determined the first man to create, the divine being would still not be the *creator* of what the first man created.

90 The following phrase, (5.92), is a *phrase schema*; it represents the form of infinitely many phrases, each obtained by replacing the variable '*x*', which at the moment is like a dangling relative pronoun, with a particular relative pronoun or name to cross-refer to the sentence that will contain (5.92) as an embedded element. This sentence will be obtained by instantiation from the universally quantified sentences of the main argument. For the variable as a relative pronoun, see W. V. Quine, 'The Variable', in (Parikh 1975: 155–163; repr. Quine 1976: 275).

active causal power to actualize that state of affairs, it follows that, if (5.91) names a metaphysically contingent state of affairs, then, if some agent is omnipotent, he has the power to actualize it without any problems arising; since the state of affairs named by (5.90) is metaphysically impossible, *x*'s lack of power to actualize *it* does not imply that *x* is not omnipotent. Similar comments apply here to those I made concerning the 'paradox' in terms of actions: I myself am not sure whether or not (5.91) names a metaphysically contingent state of affairs, since I am not sure whether or not there could be a stone, *S*, such that (5.90) names a *metaphysically impossible* state of affairs; but if we were to talk about *concrete particulars* in general rather than *stones* in particular, then I should certainly admit that disembodied minds or souls are such that, if *S* is a disembodied soul or mind, then (5.90) names a metaphysically impossible state of affairs, and (5.91′) a (metaphysically contingent) state of affairs:

(5.91′) There existing some concrete particular, *S*, such that (5.90) names a metaphysically impossible state of affairs.

There is no reason one should think that nothing could have the power to actualize the state of affairs named by (5.91′), assuming that it is possible such a soul or mind exist; since the state of affairs named by (5.90) is metaphysically impossible, for every being, *x*, if *x* lacks the power to actualize the state of affairs named by (5.90), it does not follow that *x* is not omnipotent.

Second interpretation

This brings us to the second interpretation, (5.92). Suppose, then, that (5.89) is to be taken in the sense of (5.92):

(5.92) There existing a stone, *S*, such that, though the state of affairs named by (5.90) is metaphysically contingent, *x* does not have the power to actualize the state of affairs named by (5.90).

The argument still takes many forms. One form is that of a dilemma:

(i) Of logical necessity, for every being, *x*, either *x* has the power to actualize the state of affairs named by (5.92), or *x* does not have the power to actualize the state of affairs named by (5.92).

(ii) Of logical necessity, for every being, *x*, if *x* does have the power to actualize the state of affairs named by (5.92), then there is at least one metaphysically contingent state of affairs that *x* does not have the power to actualize, viz. that named by:

(5.90) *S*'s rising.

(iii) Of logical necessity, for every being, *x*, if *x* does not have the power to actualize the state of affairs named by (5.92), then there is at least one metaphysically contingent state of affairs *x* does not have the power to actualize, viz., that named by (5.92).

Hence,

(iv) Of logical necessity, for every being, x, there is at least one metaphysically contingent state of affairs that x does not have the power to actualize.

(v) Of logical necessity, for every being, x, if x is omnipotent, then x has the power to actualize every metaphysically contingent state of affairs.

Therefore,

(vi). Of logical necessity, for every being, x, x is not omnipotent.

The argument is formally valid, so let us examine the premisses. The proposition expressed by ii is false – it does not follow from the fact that x has the power to actualize the state of affairs named by (5.92) that x lacks the power to actualize the state of affairs named by (5.90). This follows only if x exercises his power to actualize the state of affairs named by (5.92). We can see this point more clearly by bringing out the modal element.

Suppose we alter (5.92) to (5.93′):

(5.93′) There existing a stone, S, such that, though the state of affairs named by (5.90) is metaphysically contingent, if x is metaphysically possibly omnipotent x does not have the power to actualize it.[91]

We should then tighten up our definition thus:

(D5.24) For every being, x, x is omnipotent in a metaphysically possible world, W, if and only if, for every metaphysically contingent state of affairs, S, x has the power in W to actualize S.

Here we see that, whether or not the state of affairs named by (5.93′) is metaphysically possible, the proposition expressed by ii is false: we have been given no reason to believe that if x is omnipotent in W, and thus, let us grant, has the power in W to actualize the state of affairs named by (5.93′), then x does not have the power in W (as opposed to some other metaphysically possible world, W_1[92]) to actualize the state of affairs named by (5.90), since x lacks the opportunity to actualize it, and x's omnipotence or lack of omnipotence in W_1 does not imply anything about his omnipotence or lack of it in W. It might be argued that we have been given reason to reject *metaphysically essential* omnipotence for any object, x, on the tenuous grounds that if x is omnipotent in W then x has the power in W to actualize the state of affairs named by (5.93′) and that, therefore, there is a metaphysically possible world, W_1, that includes x's actualization of the state of affairs named by (5.93′), in which possible world x lacks the power to actualize the state of affairs named by (5.90). This goes wrong at the very first step; if x is metaphysically essentially omnipotent then the state of affairs named by (5.93′) is metaphysically impossible. Hence, it does not follow from the fact that x is

91 Here again (5.93′) is a phrase schema and 'x' is a free variable like a dangling relative pronoun. The point is that 'x' should be replaced in the context of the revised argument with the appropriate relative pronoun, as one instantiates the universally quantified sentences of the main argument.

92 W_1 is a metaphysically possible world that includes x's exercise of his power to actualize the state of affairs named by (5.93′).

omnipotent in W that x has the power in W to actualize the state of affairs named by (5.93′).

Let me return to consideration of:

(5.89′) There existing a stone, S, such that the being that actualizes the state of affairs named by this phrase does not have the power to actualize the state of affairs named by (5.90):

(5.90) S's rising.

This phrase looked as if it might motivate a more difficult and considerably more intricate problem of the stone, though its force was blunted by the persistent error that we noted there. In fact, the self-referential nature of (5.89′) may be achieved more simply:

(5.93) Its not being the case that G at any time has the power to actualize the state of affairs named by this phrase.

If the state of affairs (apparently) named by (5.93) does not obtain in a given metaphysically possible world, W, then G does at some time in W have the power to actualize it. But this power is one that G cannot exercise. If he did exercise this power in some metaphysically possible world, W_1, then he would never have had the power in W_1 to actualize the state of affairs named by (5.93), which contradicts the hypothesis. The objector is now faced with a dilemma, however: if he or she argues that it is metaphysically impossible that one have a power that one cannot exercise, then it follows that the state of affairs (apparently) named by (5.93) obtains of metaphysical necessity. This implies that G does not have the power in any metaphysically possible world to actualize it, but this fact does not imply that he is not omnipotent. On the other hand, if the objector grants that it *is* metaphysically possible that one have a power that one cannot exercise then, again, we have no argument against omnipotence. One could also counter-claim that (5.93) (and (5.89′)) do not even name states of affairs.

The objector may regroup with the following phrase:

(5.94) Its not being the case that G at some time actualizes the state of affairs named by this phrase.

If the state of affairs (apparently) named by (5.94) failed to obtain in any metaphysically possible world, W, then it would follow that G at some time actualized the state of affairs named by (5.94) in W, which would then imply that he had never actualized it in W, which is a contradiction. Therefore there is no metaphysically possible world in which the state of affairs (apparently) named by (5.94) fails to obtain. It follows that if (5.94) names a state of affairs, it names one that obtains in every metaphysically possible world. But then if G lacks the power to actualize the state of affairs named by (5.94) this does not imply that he is not omnipotent. In fact, one may not deduce even that G lacks the power to actualize the state of affairs named by (5.94); all one may deduce is that if G has the power in W to actualize the state of affairs named by (5.94), he cannot exercise it. If he were to exercise it in some possible world, W_1, then the state of affairs named by (5.94) would obtain and that would imply that G had not actualized it, which would contradict

the hypothesis. So the objector cannot prove this way that G is not omnipotent; one may maintain that G has a power that he cannot exercise or that (5.94) does not name a state of affairs or that G lacks the power, but is, nevertheless, omnipotent, since the state of affairs named by (5.94) is metaphysically impossible.

In any case, it is not clear whether the above self-referential examples differ significantly from:

(5.95) This sentence does not express a truth or there is no omnipotent being.

As we saw in the similar case in Chapter 2, however, this is no more than using the Liar 'paradox' to show whatever one wants.

So it does not seem as if the 'paradox' of the stone has much bite when formulated in terms of states of affairs, unless one adds in considerations of freedom thus:

(5.96) There existing a stone, *S*, such that *S* was freely created, and, though the state of affairs named by (5.90) is metaphysically contingent, the creator of *S* does not have the power to actualize the state of affairs named by (5.90).

I have the power to actualize the state of affairs named by (5.96), but no omnipotent being has the power to actualize it. This, however, does not add anything to the problem of free action already considered, with such states of affairs as that named by:

(5.97) There existing a table freely made, but not by G.

The new definition

Finally, I should like to see how my new definitions fare against the 'paradox' of the stone. Suppose *x* is omnipotent, does *x* have the power to actualize the state of affairs named by the following phrases?

(5.89) There existing a stone, *S*, such that *S*'s creator does not have the power to actualize the state of affairs named by (5.90):

(5.90) *S*'s rising.

The problem is supposed to arise because an answer of the form, 'Yes, *x* does have the power to actualize such a state of affairs', or of the form 'No, *x* does not have the power to actualize such a state of affairs', is supposed to imply that *x* is not omnipotent. However, it will readily be seen that nothing has the power directly to actualize the state of affairs named by (5.89). If I should indirectly actualize it I should do so in virtue of directly actualizing some state of affairs such as that named by:

(5.98) There existing a stone.

or by:

(5.99) There existing a stone of mass 500 kilogrammes.

The fact that 500 kilogrammes is more than I can lift combines with my actualizing the state of affairs in question to yield the state of affairs named by (5.89).

So an omnipotent being should have the power to make for every mass, degree of slipperiness etc., a stone of that mass and degree of slipperiness, and also should have the power to lift for every mass, degree of slipperiness etc., a stone of that mass and degree of slipperiness. However, the fact that if x is omnipotent he does not have the power indirectly to actualize the state of affairs named by (5.89) is irrelevant to questions of omnipotence, for this does not reflect any limitations on x's *direct* active causal power.

6 God and value

Introduction

It seems to me that it is a necessary condition for a being, *x*, to be a maximally great being that *x* be morally good and that *x* be aesthetically good. This is to say that moral goodness and aesthetic goodness, or beauty (which is traditionally taken to be the major component of aesthetic goodness), are great-making properties. A morally good being is greater, *ceteris paribus*, than a being that is not morally good. Likewise, an object that is beautiful is greater (both aesthetically and *simpliciter*), *ceteris paribus*, than an object that is not beautiful. Hence, it seems to me that it is a necessary condition for a being, *x*, to be maximally great that *x* be *maximally* morally good and that *x* be *maximally* beautiful, *ceteris paribus*. Since we have concluded that a being, *x*, is divine if and only if *x* is a maximally great being, it follows that a being, *x*, is divine only if *x* is morally good and beautiful, indeed only if *x* is *maximally* morally good and *maximally* beautiful, *ceteris paribus*.

There is also abundant Scriptural support for this line of thinking. For instance, for (apparently) moral goodness, we could look at: 'Good and upright is the LORD' (Psalm 25: 8a); 'You are good and what you do is good' (Psalm 119: 68). On the other hand, for aesthetic goodness, or beauty, we could look at 'May the beauty of the Lord our God rest upon us' (Psalm 90: 17 margin), or at:

> One thing I ask of the LORD,
> this is what I seek:
> that I may dwell in the house of the Lord
> all the days of my life,
> to gaze upon the beauty of the LORD
> and to seek him in his temple.
>
> (Psalm 27: 4)

Also, many of the modern hymns and songs of the Christian tradition talk of the beauty and (moral) goodness of God.

Why beauty?

The reader may protest that I am not discussing any other aesthetic values than beauty. There are several reasons that I do not think that my restricting my attention to beauty in this chapter will matter greatly.

First, it may be that there are some aesthetic values included in beauty, such as harmony, and these will naturally be possessed by a beautiful being.[1]

Secondly, many aesthetic terms are used in practice as synonyms for 'beauty', for example, 'loveliness', and so if a divine being is beautiful then he is lovely too. For example, Jonathan Edwards uses the two terms as synonymous in *The Religious Affections* (Edwards 1961: 182).

Thirdly, other aesthetic terms, such as 'attractiveness', are used to indicate beauty and an extra component: for instance, a positive reaction to it. It seems to me to make sense to say that a thing is beautiful but no-one is attracted to it, but it is doubtful whether it makes sense to say that a thing is attractive but no-one is attracted to it. At least, it does not make sense to say that something is attractive but no-one *could* be attracted to it.[2] So if one has a positive reaction to the beauty of a divine being's character, say, then it would make sense to talk about finding the being's character attractive. I do not think that the 'extra component' warrants a separate discussion, however.

Fourthly, there are other aesthetic concepts that overlap with that of beauty: for example, the concept of prettiness. Not everything that is pretty is beautiful and not everything that is beautiful is pretty.[3] Another example would be that of the concept of daintiness, as in J. L. Austin's famous remark, 'if only we could forget for a while about the beautiful and get down instead to the dainty and the dumpy' (Austin 1956*b*; repr. Austin 1979: 183). Some of these overlapping properties will be exemplified by every divine being – for instance, purity – others, such as those just mentioned, may not be. This is not a problem. There are many aesthetic concepts that apply only to the physical: for example, being good-looking. For someone that accepts that every divine being is maximally great ('a perfect-being theologian'[4]), the thing to do then is to decide whether it is greater for something to be physical and good-looking or whether it is greater to be non-physical and have a beauty that is distinct from being good-looking. Eventually, this consideration will also have to be balanced off against other forms of value than the aesthetic. Hence we should not be unduly worried if no divine being displays prettiness or daintiness. (It is not always easy to distinguish between properties of this class and properties of the class described in the preceding paragraph. For example, perhaps being good-looking is being beautiful and being physical. In this case, the physicality does not add to the aesthetic value; that is given entirely by the beauty.)

1 By 'included in' here I mean that the possession of the property of beauty implies the possession of the properties represented in these other values.

2 I shall argue shortly that it does make sense to say that something is beautiful even if no-one *could* appreciate its beauty. This makes sense, but it is false – every divine being appreciates every beautiful thing.

3 I owe this example to James Heather, to whom I am grateful.

4 It might be thought that this term applies only to those that think every divine being is absolutely perfect, but in fact the term has a wider application than this.

Fifthly, and finally, there are other concepts that have controversial relationships to the concept of beauty. An example of this is the concept of the sublime. In modern aesthetics the concept of the sublime has, for many philosophers, particularly those of a Kantian disposition, largely taken over from the concept of beauty as the most important form of aesthetic value. This need not worry us either. There is no reason one should not claim that every divine being is sublime as well as beautiful. I shall not treat this question separately because I think that the objections to the claim that every divine being is sublime largely parallel those to the claim that every divine being is beautiful, and that the answers to the latter may easily be adapted to answer the former.

Meta-ethics and meta-aesthetics

The first question one has to face before discussing what is meant by calling a divine being 'good' or 'beautiful', and whether such appellations are correct or not, is whether goodness and beauty, and ethical and aesthetic properties generally, are real, objective properties of things, or whether they are relative, subjective or illusory. This question is not the main topic of this chapter, nor can I do it full justice in the space available, but it forms a necessary foundation for the consideration of what *is* the principal concern of this chapter: the relation between a divine being's perfect goodness and his other attributes. There seem to me to be five broad meta-ethical and meta-aesthetic positions, multiply subdivided, that one could take in this matter:

Anti-realism

One may deny that there are any true ascriptions of goodness or beauty; the words 'good' and 'beautiful' fail to apply to anything. Subdivisions of anti-realism are distinguished from each other on the basis of how they analyse the words 'goodness' and 'beauty' and other ethical and aesthetic terms.

(i) The most extreme view would be that 'good' and 'beautiful' are literally meaningless, and merely express an attitude.[5] This view is often known as 'non-cognitivism', and its modern *locus classicus* is A. J. Ayer's *Language, Truth and Logic*:

> The presence of an ethical symbol in a proposition adds nothing to its factual content. [. . .] If now I [. . .] say, 'Stealing money is wrong', I produce a sentence which has no factual meaning – that is, expresses no proposition which can be either true or false.
>
> (Ayer 1946: 142)

5 Ayer admits different sorts of meaning: literal meaning and factual meaning, for instance. He does not explicitly claim that there is *no* meaning to moral and aesthetic claims, but he does not explicitly claim that there is *some* meaning, either. He does explicitly claim that value statements do not express propositions and are not true or false. I think he would certainly think of himself as denying meaning to them in the most important sense of 'meaning'. It may also be that Ayer had changed his mind by the time he came to write the 1946 preface to *Language, Truth and Logic*.

Ayer holds the same view about aesthetic symbols:

> [Our] conclusions about the nature of ethics apply to aesthetics too. Aesthetic terms are used in exactly the same way as ethical terms. Such aesthetic words as 'beautiful' and 'hideous' are employed, as ethical words are employed, not to make statements of fact, but simply to express certain feelings and evoke a certain response. It follows, as in ethics, that there is no sense in attributing objective validity to aesthetic judgements, and no possibility of arguing about questions of value in aesthetics, but only about questions of fact.
>
> (Ayer 1946: 150)

C. L. Stevenson held the same view or, at least, a very similar view: that ethical and aesthetic terms were meaningful, but not descriptively meaningful; rather, he held that they were emotively meaningful:

> I think 'meaning' may be thus defined in a way to include 'propositional' meaning as an important kind. [. . .] There will be a kind of meaning, however, in the sense above defined, which has an intimate relation to dynamic usage. I refer to 'emotive' meaning [. . .]. The emotive meaning of a word is a tendency of a word, arising through the history of its usage, to produce (result from) *affective* responses in people. [. . .] The word 'good' has a laudatory emotive meaning that fits it for the dynamic use of suggesting favourable interest.
>
> (Stevenson 1937; repr. Pojman 1995: 423–424).

Yet another variant on this view is that of R. M. Hare, who claimed that ethical sentences were meaningful in a prescriptive way. This is to say that an indicative ethical sentence has the meaning of the corresponding imperative, and consequently fails to express a proposition, and fails to be true or false.

(ii) A less extreme view would be that 'goodness' and 'beauty' do have factual meaning, and attempt to refer, in virtue of this meaning, to properties that objects may possess. But, in fact, no objects do possess either of these properties. Hence, although ascriptions of ethical and aesthetic properties express propositions and each is either true or false, they are, in fact, all false.[6] This might be labelled an 'error theory of value', and is expounded by John Mackie:

> The claim that values are not objective, are not part of the fabric of the world, is meant to include not only moral goodness, which might be most naturally equated with moral value [. . .]. It also includes non-moral values, notably aesthetic ones, beauty and various kinds of artistic merit. I shall not discuss these explicitly, but clearly much the same considerations apply to aesthetic and to moral values, and there would be at least some initial implausibility in a view that gave the one a different

6 Note that such sentences as 'Nothing is good', 'Murder is not wrong', and 'There is no such thing as beauty' do not ascribe values to objects. The error theorist will, therefore, assent to the propositions expressed by such sentences. I am grateful to James Heather for bringing this point to my attention.

> status from the other. Since it is with moral values that I am primarily concerned, the view I am adopting may be called moral scepticism. [. . .] I conclude, then, that ordinary moral judgements include a claim to objectivity, an assumption that there are objective values in just the sense in which I am concerned to deny this. And I do not think it is going too far to say that this assumption has been incorporated in the basic, conventional meanings of moral terms. Any analysis of the meaning of moral terms which omits this claim to objective, intrinsic, prescriptivity is to that extent incomplete; and this is true of any non-cognitive analysis, any naturalist one, and any combination of the two. [. . .] The claim to objectivity, however ingrained in our language and thought, is not self-validating. It can and should be questioned. But the denial of objective values will have to be put forward not as the result of an analytic approach, but as an 'error theory', a theory that although most people in making moral judgements implicitly claim, among other things, to be pointing to something objectively prescriptive, these claims are all false. It is this that makes the name 'moral scepticism' appropriate.
>
> (Mackie 1977; repr. Pojman 1995: 459, 463).

Subjectivism

Subjectivism is the view that there are true ascriptions of moral goodness and of beauty, but that they are, fundamentally, self-ascriptions to the subject of the ascription, not ascriptions to the apparent object. In other words, on this view, moral and aesthetic judgements actually report some fact about the utterer rather than about the object one naturally thinks to be the topic of the utterance. It follows from this that every moral and every aesthetic judgement is true or is false. A. J. Ayer clearly distinguishes this from his own non-cognitivist view:

> Thus, although our theory of ethics might fairly be said to be radically subjectivist, it differs in a very important respect from the orthodox subjectivist theory. For the orthodox subjectivist does not deny, as we do, that the sentences of a moralizer express genuine propositions. All he denies is that they express propositions of a unique non-empirical character. His own view is that they express propositions about the speaker's feelings. If this were so, ethical judgements clearly would be capable of being true or false. They would be true if the speaker had the relevant feelings, and false if he had not. And this is a matter which is, in principle, empirically verifiable. Furthermore they could be significantly contradicted. For if I say, 'Tolerance is a virtue', and someone answers, 'You don't approve of it', he would, on the ordinary subjectivist theory, be contradicting me. On our theory, he would not be contradicting me, because, in saying that tolerance was a virtue, I should not be making a statement about my own feelings or about anything else. I should simply be evincing my feelings, which is not at all the same thing as saying that I have them.
>
> (Ayer 1946: 144)

Usually people distinguish between two sorts of subjectivism. I shall call these sorts 'individualism' and 'relativism'. *Individualism* is the view that moral and aesthetic judgements report the feelings of the individual subject of the judgement. *Relativism* is the view that moral and aesthetic judgements report the feelings of the culture or society to which the individual subject of the judgement belongs. Ayer distinguishes the two varieties of subjectivism thus:

> We reject the subjectivist view that to call an action right, or a thing good, is to say that it is generally approved of, because it is not self-contradictory to assert that some actions which are generally approved of are not right, or that some things which are generally approved of are not good. And we reject the alternative subjectivist view that a man who asserts that a certain action is right, or that a certain thing is good, is saying that he himself approves of it, on the ground that a man who confessed that he sometimes approved of what was bad or wrong would not be contradicting himself. [. . .] Our contention is simply that, in our language, sentences which contain normative ethical symbols are not equivalent to sentences which express psychological propositions, or indeed empirical propositions of any kind.
>
> (Ayer 1946: 138–140)

Hume gives us a fine example of individualism. Here is a representative quotation concerning moral judgements:

> Take any action allow'd to be vicious: Wilful murder, for instance. Examine it in all lights, and see if you can find that matter of fact, or real existence, which you call *vice*. In which-ever way you take it, you find only certain passions, motives, volitions and thoughts. There is no other matter of fact in the case. The vice entirely escapes you, as long as you consider the object. You never can find it, till you turn your reflexion into your own breast, and find a sentiment of disapprobation, which arises in you, towards this action. Here is a matter of fact; but 'tis the object of feeling, not of reason. It lies in yourself, not in the object. So that when you pronounce any action or character to be vicious, you mean nothing, but that from the constitution of your nature you have a feeling or a sentiment of blame from the contemplation of it.
>
> (Hume 1978: III.1.1; pp. 468–469)[7]

As for aesthetic judgements, a semi-literal understanding of the common sentiment, 'Beauty is in the eye of the beholder', seems to be an example of aesthetic individualism, the view that aesthetic judgements report the feelings of an individual subject. Hume also seems to espouse the aesthetic individualistic line at one point when he writes:

> Euclid has fully explained all the qualities of the circle; but has not in any proposition said a word of its beauty. The reason is evident. The beauty is not a quality of the circle. It lies not in any part of the line, whose parts are equally distant from a common centre. It is only the effect which that figure produces

7 Some claim that Hume was a non-cognitivist. I do not think that Hume carefully distinguished non-cognitivism from individualism, but the interpretation of Hume on this point is hotly debated.

> upon the mind, whose peculiar fabric or structure renders it susceptible of such sentiments. In vain would you look for it in the circle, or seek it, either by your senses or by mathematical reasonings, in all the properties of that figure.
>
> (Hume 1975: Appendix 1.III.§242; pp. 291–292).

Aesthetic *relativism*, the view that aesthetic judgements report the feelings of a particular community, seems even more firmly embedded in the popular mind, with most people seemingly to believe that human beauty, say, varies according to the society, just as most people seem to believe that moral rightness and wrongness vary from human society to human society.

Relationism

Relationism is the view, neglected in standard meta-ethical and meta-aesthetic taxonomies, that goodness and beauty are relations between the subject of the judgement and its object. I call it 'relationism' because the traditional label 'relativism' does not fit, since the latter has already been applied to the notion that moral and aesthetic judgements report the feelings of a whole culture or society. These feelings are, of course, for the relativist, properties of the society rather than relations between the society and the object. An example of relationism might be the unusual view of Jonathan Edwards, following the interpretation of Roland Delattre, who argues that Edwards identifies moral goodness with excellence and with beauty (cf. Delattre 1968):

> This is an universal definition of excellency: The consent of being to being, or being's consent to entity. The more the consent is, and the more extensive, the greater is the excellency.
>
> (Jonathan Edwards, 'The Mind' §1, in Edwards 1980: 336)

Here is Edwards explicitly on beauty:

> 'Tis peculiar to God, that he has beauty within himself, consisting in being's consenting with his own Being.
>
> (Jonathan Edwards, 'The Mind' §45.12, in Edwards 1980: 365)

Consenting is a relational property, and so, on this view, is excellence or goodness or beauty. Hence there can be no goodness or beauty if there is nothing to consent, agree or be united, or if there is nothing with which one may consent, agree, or be united. This is different from the individualist view above, because for Hume there goodness and beauty were the effects, i.e., the sentiments themselves, and hence properties of the judge; for Edwards here goodness or beauty is the (relational) property of consent, agreement, union, between the judge and the judged.[8]

8 Note that relationism does not necessarily require there to be a plurality of objects for goodness or beauty to exist; if there is only one judge then it may be that that judge can consent with himself, or be united with himself, or agree with himself. Indeed, Edwards thought that if only one divine being had existed (there is some debate over whether Edwards thought this really possible) he would have been morally good and beautiful in virtue of his own consent with himself. (I am

Objectivism

Objectivism is the view that goodness and beauty are monadic properties of the objects of judgements, and properties that they possess independently of the subjects of the judgements. On this view goodness and beauty are properties that exist wholly independently of judgements. Although, on this view, goodness and beauty are monadic properties, not relational ones, they may, of course, enter into relations with any judges there may be, e.g., in playing a part in the causation of certain sentiments in judges. But this will not be of the *essence* of goodness and beauty. So, on this view too, every value judgement is true or is false.

Dispositionalism

Dispositionalism is the view that goodness and beauty are dispositional properties, and, formally, this view is a mixture of relationism and objectivism described above.[9] An example would be the view that goodness and beauty are the dispositional abilities to cause certain sentiments in judges. On this view, a disposition is a monadic property, for a thing still has dispositions even when there are no other concrete objects to which it may be related. Hence an action may still be right, or a picture beautiful, even if nobody is judging it to be so. Yet an object has a disposition to cause certain sentiments in judges partly in virtue of the (conceptual) *possibility* of there being judges, and this distinguishes it from objectivism, on which view it is not the case that an action depends for its rightness, or a picture for its beauty, on the (conceptual) possibility of a judge. Hence, objectivism does not rule out the thought that, for example, there might be a morally good action, or a beautiful object, that nothing could judge to be so.[10] On dispositionalism this thought *is* ruled out.

It seems to me that to make most sense of our ethical and aesthetic discourse we ought to take the position I have labelled 'objectivism' above. I think this because this is the common-sense intuitive position, which we would need strong arguments to reject, arguments that, I think, are not available. John Mackie himself admits this:

> [T]he main tradition of European moral philosophy includes the contrary claim, that there are objective values of the sort I have just denied. [. . .] But this objectivism about values is not only a feature of the philosophical tradition. It has also a firm basis in ordinary thought, and even in the meaning of moral terms. [. . .] But since this [Mackie's theory] is an error theory, since it goes against assumptions ingrained in our thought and built into some of the ways in which language is used, since it conflicts with what is sometimes called common sense, it needs very solid support. It is not something we can accept

grateful to James Heather for pressing me to make this point explicit here.)

9 I am grateful to Pierre Cruse and to Joseph Jedwab for (separately) pointing this fifth option out to me.

10 Objectivism does not, however, imply this thought either, since it is consistent with theism, which holds that every divine being correctly judges every object.

> lightly or casually and then quietly pass on. If we are to adopt this view, we must argue explicitly for it.
>
> (Mackie 1977; repr. Pojman 1995: 461, 463)

It does not seem plausible to claim that none of our ethical or aesthetic talk is cognitively meaningful – it seems on the face of it to make very good sense, and we feel able to agree on many ethical and aesthetic judgements and to have fruitful debates about others. Neither does it seem plausible, *pace* Mackie, to claim that every ethical and every aesthetic judgement is mistaken – we certainly feel intuitively that one of the following sentences is true:

(6.1) Murder is sometimes morally permissible.

(6.2) Murder is always morally prohibited.

Nor do I think it plausible to suggest that goodness and beauty are properties of the subjects of judgements rather than the apparent objects – the intuition is that we are making our judgements not about our own feelings but rather about actions or states of affairs or other agents or objects in the world. And I certainly do not think that it is possible that an action be right with respect to one person and wrong with respect to another, or that an object be beautiful with respect to one person and ugly with respect to another, as individualism would have it.[11] This is particularly implausible where a divine being is concerned: it would be outrageous for an individualist to say of the psalmist's affirmations of God's goodness and beauty, quoted earlier, that God was good and beautiful for the psalmist, but not for the individualist. It would be even more outrageous for an individualist to say of God's affirmation that, say, murder was wrong,[12] or that the Pleiades were beautiful,[13] that this was entirely subjective, and that murder was wrong and the Pleiades beautiful for God, but not for the individualist. The same goes for relativism, *mutatis mutandis*. I do not think even that it is plausible to say that goodness and beauty are dispositional properties; I do not think it is plausible to say that, for example, murder is wrong or the Pleiades beautiful, partly in virtue of the (conceptual) possibility of judges – I don't think its wrongness or their beauty depends in any way on judges or their (conceptual) possibility. In any case, one would want to know on what non-dispositional properties these dispositions supervened – in virtue of what is it that murder, for example, potentially causes 'a sentiment of disapprobation' in the judge? It then seems plausible to claim that goodness and beauty consist in the answer to a question of this sort, rather than in the disposition.

On the other hand, there are well-known arguments against objectivism. One is that there is much difference of opinion in ethical and aesthetic matters. Although much is made about differences of ethical and aesthetic opinion, there are also remarkable concurrences, e.g., very few people are willing to claim that murder is right or the Pleiades ugly, and most agree that it is wrong and they are beautiful. (Of course, agreement on values may find many different *expressions* – of those that hold the view that marital fidelity is a moral virtue, say, some widows express

11 Aristotle seems to argue against individualism along these lines (Aristotle 1928: VI.7).

12 Compare Mark 7: 21.

13 Compare Job 38: 31a. The New International Version's translation is disputed; see the margin.

the virtue through suttee, others through living life to the full in memory of the deceased.[14]) In any case, the argument seems to me to be of little weight: there are differences of opinion in most fields of life – philosophy, history, geography, even physics. Yet most people think that these disciplines are objective and in pursuit of an absolute mind-independent truth.[15] It is true that there is more disagreement over ethical and aesthetic opinions than over theories in physics, say, but this goes to show merely that we are in a worse epistemic position in ethics and aesthetics than in physics. By itself, this argument has nothing to say about the *metaphysics* of the matter, about whether the properties of wrongness and beauty are mind-independent or not. Indeed, I think that global error is possible, i.e., that it is possible that every human be wrong in every value judgement that he or she makes, but this would not go to show that the subject matter was dependent on judgements. Indeed, the very fact that we can imagine its being the case that every human were wrong on this issue suggests that it is (epistemically) possible that value properties be real, else it would make no sense to speak of its being the case that every human were wrong. Similarly, arguments purporting to show that our ethical and aesthetic agreements are culturally conditioned are of little philosophical interest. These go to show merely that our views are caused by certain mundane factors; but this *epistemological* fact entails nothing *metaphysical* about whether our views are true or false.[16]

Compare an argument that ran thus:

(6.3) Science arose with the Greeks.

(6.4) There were certain social and economic factors that contributed to the rise of the Greeks.

Therefore,

(6.5) Science is merely a socio-economic construct that we have no independent reason to trust.

Such an argument would rightly be dismissed, but there is no formal difference between it and the following, to take a very common example from aesthetics:

(6.6) The idea that thin women are beautiful is a Western idea.

(6.7) Western ideas have achieved dominance in our minds because we are in the midst of the very powerful Western culture, powerful owing to certain socio-economic factors.

Therefore,

(6.8) The idea that thin women are beautiful is merely the product of socio-economic factors and one that we have no independent reason to trust.

Since we reject the validity of the anti-science argument we should reject that of

14 I am grateful to Paul Helm for making this point and giving this example to me.

15 I am not claiming that aesthetics and physics have a lot in common, merely pointing out that the mere existence of disagreement will not show, even by the objector's lights, that the subject matter is not objective.

16 I should admit that such might cause us to re-evaluate our intuitions, though. (I am grateful to James Heather for reminding me of this.)

the anti-aesthetics argument too. Similar comments apply to the obvious parallel arguments concerning moral goodness.[17]

Note that I have not yet committed myself in any way to a view on the *meaning* of 'goodness' and 'beauty'. What I have said is compatible with G. E. Moore's non-naturalistic view of value, according to which value terms are indefinable using natural terms:

> If I am asked 'What is good?' my answer is that good is good, and that is the end of the matter. Or if I am asked 'How is good to be defined?' my answer is that it cannot be defined, and that is all I have to say about it. [. . .] Ethics aims at discovering what are those other properties belonging to all things which are good. But far too many philosophers have thought that when they named those other properties they were actually defining good; that these properties, in fact, were not simply 'other', but absolutely and entirely the same with goodness. This view I propose to call the 'naturalistic fallacy'.
>
> (Moore 1968: 6–10)

Moore held a similar view concerning aesthetic value terms:

> The naturalistic fallacy has been quite as commonly committed with regard to beauty as with regard to good: its use has introduced as many errors into Aesthetics as into Ethics. It has been even more commonly supposed that the beautiful may be *defined* as that which produces certain effects upon our feelings; and the conclusion which follows from this – namely, that judgements of taste are merely *subjective* – that precisely the same thing may, according to circumstances, be *both* beautiful *and* not beautiful – has very frequently been drawn. [My] conclusions [. . .] suggest a definition of beauty, which may partially explain and entirely remove the difficulties which have led to this error.
>
> (Moore 1968: 201)

The above forms a brief defence for considering the goodness and beauty of God from an objectivist meta-ethical and meta-aesthetic position.[18] I now turn from meta-ethics to first-order ethics, and from meta-aesthetics to first-order aesthetics. I shall deal with ethics and aesthetics in sequence rather than in parallel. First, I shall discuss the moral goodness (which I shall hereafter abbreviate to plain 'goodness') of a divine being and then I shall discuss the beauty of a divine being.

Moral goodness

What is it, then, for a being to be good? In particular, what is it for a divine being to be *perfectly*, or *maximally*, good? Richard Swinburne offers us the following definition:

17 Again, I am not arguing that aesthetics and physics (say) are substantively on a par. I am merely pointing out the invalidity of a common argument against the notion of objective beauty.

18 There is, of course, much more that may be said here. But I do not think it is incumbent on me to say it. The main focus of our discussion is on whether *every divine being* is maximally good and maximally beautiful. For more detailed discussion see Swinburne (1976) and (1993: 188–209).

> In claiming that God is by nature perfectly good, I suggest that the theist be interpreted as claiming that God is so constituted that he always does the morally best action (when there is one), and no morally bad action.
>
> (Swinburne 1993: 184)

This definition is not wholly adequate; it allows a divine being to choose a morally indifferent action when he is faced with an infinitely ascending set of good actions,[19] or when he is faced with more than one action that is not exceeded in goodness.[20] We should perhaps add a clause saying that our divine being always does a good action when there is one.[21] It may be asked, however, what happens if there is only one available action, and that action is a bad one, or what happens if a maximally good being is faced with a choice among evils. It then seems as if a bad action is also the morally best or right action, *faute de mieux*, or, at any rate, it seems as if he has to do a bad action. Imagine that one discovers one's father is an enemy spy: should one betray one's father or one's country? Similarly, it often seems in life that whatever one does one will end up hurting somebody. Happily, for our purposes this tricky problem does not arise: no divine being is ever in a situation of having to choose among evils, if only because, thanks to his omniscience and omnipotence, he may (and, thanks to his goodness, would) avert the situation. Nevertheless, for full generality we should accommodate such a possibility in our definition:

(D6.1) For every being, x, x is maximally good if and only if it is the case that, with respect to the set, S, of actions within x's power, know-how and opportunity,

(i) if there is one member of S, A, better than every other member of S, then x performs A;

and

(ii) if there is a sub-set of S, S', such that for each member of S' no member of S is better than it then x performs a member of S';[22]

and

(iii) if, for every member of S, there is another member of S that is better (or less bad) than it then x performs a good member of S if there is one.[23]

19 By this I mean *a set of good actions such that for every action in the set there is another in the set that is better*.

20 By this I mean that there is a set, S, of at least two actions open to our divine being, such that no action open to him is better than any action in S. This could be either because every member of S is of equal goodness with every member of S and is better than everything not in S, or because at least one member of S is incommensurable in goodness with every action open to the divine being that it does not exceed or equal in goodness. By 'an action open to our divine being' I mean *an action, A, such that our divine being has the power, know-how, and opportunity to perform A*. My meta-ethical and first-order ethical stances do not imply that either of these is impossible.

21 I am grateful to James Heather for drawing my attention to this point.

22 In fact the previous option can be subsumed under this one.

23 If all the members of S are bad and for each member of S there is a less bad one then it appears that a morally good being can perform any member of S. This will not, however, arise for a divine being.

This will not quite do as it stands, either. Clearly *x* must perform the good actions in question intentionally. *x* will not be maximally good if he performs good actions quite by accident. But, again, it is not enough that *x* perform a good action, *A*, intending to do *A*. In order to be maximally good, *x* must do *A* because it is good. For example, it is not enough for maximal goodness that *x* do *A* merely because that benefits *x* most. Again, if *x* is maximally good *x* will perform good actions ungrudgingly and joyfully.[24] It seems to me, though, that this last point follows from the others, however, in that a grudging performance of a token of *A* will also be a token of the type *a grudging performance of A*. This type seems not to be a good action type. So, let us refine our definition:

(D6.2) For every being, *x*, *x* is maximally good if and only if it is the case that, with respect to the set, *S*, of actions within *x*'s power, know-how and opportunity,

(i) if there is one member of *S*, *A*, better than every other member of *S*, then *x* intentionally performs *A* because it is the best;

and

(ii) if there is a sub-set of *S*, *S′*, such that for each member of *S′* no member of *S* is better than it, then *x* intentionally performs a member of *S′* because no member of *S* is better than it;

and

(iii) if, for every member of *S*, there is another member of *S* that is better (or less bad) than it, then *x* intentionally performs a good member of *S*, if there is one, because it is good.

We here follow Swinburne in locating morality in the realm of action,[25] but this is not essential for what follows in this chapter. One could claim that the primary loci of goodness are states of affairs, and claim that every divine being is, derivatively, perfectly good if and only if he always intentionally brings about the morally best state of affairs (when he can) because it is the best, and whenever he is faced with a choice among equally morally good states of affairs he intentionally brings about one of them because it is not exceeded in goodness, and whenever he is faced with a choice among states of affairs each of which has a better he brings about a good state of affairs because it is good. Or one could claim that the primary loci of goodness are agents, and claim that every divine being is perfectly good if and only if he has the greatest possible class of virtues and no vices.[26] The reader may make whatever adjustments in this regard he or she likes to what follows; I shall principally think in terms of actions' being good or being bad, and an agent's being morally praiseworthy if (but not only if) he or she freely

24 I am most grateful to Harry Bunting for bringing these last two points to my attention.

25 The goodness of the divine being himself is derivative here, for Swinburne.

26 It is not obvious that all virtues are compossible: valour and discretion may be incompatible, or generosity and prudence. Secondly, it may be that some virtues are not exemplifiable by a maximally great being, e.g. humble acceptance of one's limitations, or, perhaps, humility in general. The correct response here, however, is to claim that humility is not in itself a virtue; rather it is a virtue only if one is not a maximally great being.

intends to perform a right action for a morally good reason, and an agent morally blameworthy if (but not only if) he or she freely intends to perform a wrong action for a morally bad reason.[27] The qualifications are necessary because a robot programmed to perform only good actions is not morally praiseworthy, nor is an incompetent would-be evildoer whose bungled attempts at evil backfire into doing good. We may, however, suppose that, in the case of a divine being, each of his intentions to perform an action is always translated into actuality, each of his actions is intentional, that he is perfectly free, such that nothing causes him to have the intentions he has without his permission, and that he always does what he does for the morally best reasons.

Note also that we could have offered a much simpler definition of maximal goodness:

(D6.3) For every being, x, x is maximally morally good if and only if there is no possible being, y, such that y is morally better than x.

Although I think this definition correct, I have offered another definition above in order to flesh out (D6.3). The two definitions are intended to be equivalent. It may be objected that there is no maximally good being if there is no action, A, such that there is no better action than A. For example, it might be objected that a being that created one being would be better than one that created no beings, and a being that created two beings would be better than one that created only one being, and that, in general, for every natural number, n, a being that created n beings would be less good than one that created $n + 1$ beings. I dispute the general premiss of this argument, however. My intuition is that if it is possible that there be for every action open to one a better action, then it is wrong to try to measure one's goodness simply by measuring the goodness of the action performed. It is not absolutely clear, in any case, that it is possible that for every action open to a divine being there be a better one: there may, for all we know, be an optimal natural number of beings to be created, or it may be that there is an optimal infinite number of beings to be created, for example.

Deontology

There is, of course, a vast literature on what actions, states of affairs and virtues or vices actually *are*. There is not space here to enter into these metaphysical debates, but I should forestall a possible misinterpretation of what follows. Some philosophers, as mentioned in Chapter 5, distinguish in meaning between 'acts' and 'actions'. The first to use the words 'act' and 'action' with significantly different meanings was Richard Cartwright (Butler 1962; repr. Cartwright 1989: 38), but the underlying distinction is clearly made by Jennifer Hornsby:

27 One may be culpably, but unintentionally, negligent. On the positive side, one may be praiseworthy for doing the right thing without even stopping to think about it. Also, one may, of course, do the right thing for a morally bad reason and the wrong thing for a morally good reason (e.g. thinking it to be right). I am grateful to Paul Helm for drawing my attention to these points.

> It is only on certain occasions of people's doing things that there are connexions between things that are done. [. . .] [W]e get this across if we talk about actions that occur on occasion (particulars), and avoid confusing those with the things that are done (universals).
>
> (Hornsby 1980*b*: 74)

For Cartwright and Hornsby, an *act* is a thing done, and not the doing of that thing, which is the *action* of doing it. For the sake of naturalness, I shall not follow this distinction below, but I shall distinguish between performing action *tokens*, and the action *types* that one's performance may fall under. I discuss the distinction between action tokens and action types in Chapter 5. Here, I shall say merely that an action *token* is an individual, particular, event that occurs at a particular time and at a particular place, and is performed by a particular individual. Every action token falls under infinitely many action *types*, which may be thought of as classes of action tokens that possess a particular property. Finally, as Hornsby points out elsewhere, the word 'performing' here makes no substantive metaphysical point, it is really no more than a schematic verb: that is, a dummy verb that stands in place of a proper verb, much as 'ϕing' does in the work of some philosophers.[28]

I shall write in terms of actions' being the primary loci of moral qualities because I think that the end does not always justify the means. In other words, I think that it would be wrong to perform certain actions even though better states of affairs might result from doing them. This does not mean, of course, that I hold that the end *never* justifies the means, nor is this view implied by the view that actions are the principal loci of moral evaluation. Action tokens fall under many different action types, the descriptions of some of which will include reference to states of affairs: for any state of affairs, *S*, there is the action type *bringing about state of affairs S*. So, if somebody objects that the view that actions are the primary loci of moral evaluation implies the absurd view that it is morally wrong rudely to interrupt someone with a shouted warning of danger, then I reply that the action token in question falls under many different types, not only *rudely interrupting someone*, but also *saving a life* (say). Hence, one may consistently and sensibly claim that the action token in question is good because, even if it falls under a bad action type, it also falls under a good action type, the goodness of which outweighs the badness of the bad type. Although there is no implication from the view that the principal loci of moral evaluation are actions to the view that the end never justifies the means, there *is* an implication from the view that the principle loci of moral evaluation are states of affairs to the view that the end justifies the means. At least, this implication holds if one follows the natural strategy of individuating states of affairs without reference to how they were brought about, as, say, Mill did when he wrote that 'actions are right as they tend to promote happiness' without mentioning anything about the *way* that actions promote happiness (Mill 1962: 257); the corresponding strategy of individuating actions without reference to the states of affairs they produce is

28 Hornsby's point about the schematic nature of 'perform' is to be found in (Hornsby (1980a: 8). On the same page Hornsby uses 'ϕ' as a dummy verb too. I avoid that usage here since I use 'ϕ' as a dummy sentence letter.

extremely *unnatural*, as then almost no human action would be anything other than a bodily movement. To be sure, some of Mill's followers have tried to redress this unfortunate aspect, giving us such systems as *rule utilitarianism* etc., but I think that these systems gain any plausibility they have only by moving away from Mill's own ideas. Someone that thinks that states of affairs are the primary loci of moral qualities, and that actions derive their goodness or their badness solely from the states of affairs that they produce, is plausibly committed to the view that the action that produces the best state of affairs is the best action.[29] I do not share this view. There are a number of famous thought experiments that are designed to test this view, experiments that seem to me to show, for example, that it is a wrong action to kill one unwilling person and take his or her organs even if five others might be saved by them.[30]

Finally, I think that the direction of explanation should go from the moral properties of *actions* to the moral properties of *agents*, rather than the other way around. A virtue is merely the disposition to intend to perform good actions; a vice is merely the disposition to intend to perform bad actions. I do not wish to defend in detail here my view that actions are the primary loci of moral properties; the reader that objects may simply make the changes that he or she wishes in what follows. Nothing in my main argument turns on whether actions really are the primary loci of moral properties or not.

No best action

Note that, as hinted earlier, there need not always be a morally best or right action.[31] This may be because the choice of action has no moral implications: Paul's choice, mentioned in Chapter 3, of which sandwich to eat appears to have no moral implications.[32] Or it may be that a decision is a moral one, but that there are two or more equally morally good options: I may have £10 to give to charity and it may be just as good to give it to Tear Fund as to give it to World Vision, each of which, say, needs exactly £10. Or it may be that there is no upper limit on the goodness of an action. It may be that giving £5 to charity is less good than giving £10 to charity, and that, in general, giving £n is less good than giving £$(n+1)$, for every natural number n. Someone may, of course, reply that this does not deal with giving an *infinite* amount of money to charity. Still, there may be possible situations that allow for different orders of infinitely morally good actions: if it is good to create free agents, may a divine being not create any order of infinity he likes of them? Or again, it may be that there are at least two actions that are not exceeded in goodness by any other action but that are also incommensurable with each other. If one of these four cases holds then there is no best action. This

29 This is not a *logical* commitment, but it would be extremely implausible for any other view to be taken.

30 This thought experiment originates with Judith Jarvis Thompson. See 'Killing and Letting Die and the Trolley Problem' and 'The Trolley Problem' in Thompson (1986: 78–116). I am grateful to Martin Stone for this reference.

31 I take 'morally best' and 'right' to be co-extensive.

32 Clearly in *some* particular cases it would have moral implications, but not in every case.

does not mean that any action will do for the maximally good being: as suggested earlier, if *x* is maximally good *x* will not do a bad or mediocre action (e.g. eating too many sandwiches, pocketing the £10, giving nothing to charity, doing an action that *is* exceeded in goodness, respectively).

The Euthyphro dilemma

The reader may at this point have a question about my first-order, normative, ethics, i.e. about what I think the rightness of actions (or the virtue of character or the goodness of states of affairs) is, whether or not it is the promotion of happiness, as Mill thought,[33] or the command of a divine being, as a follower of Euthyphro would have it,[34] or something else. It seems to me that many different types of actions are right, and I do not think that one may plausibly accommodate all of them and only them under one natural kind, other than the kind of right actions itself.[35] In particular, I do not agree with the followers of Euthyphro that actions are right because a divine being commands them. Rather, I think that, in fundamental cases at least, divine beings command actions because they are right. Denying this view leads one to postulate such implausible views as that, had no divine being existed, murder would not have been wrong, and, had a divine being commanded us to torture the innocent, torturing the innocent would have been a good action. On the other hand, I feel that the fear that one has that moral laws 'limit' a divine being may be assuaged by pointing out that moral laws are metaphysically necessary, as are, say, the laws of mathematics. Most theists do not feel that the laws of mathematics limit a divine being, so why should one feel that moral laws do? Again, I shall not further defend here my views in first-order, normative, ethics, since they will not greatly affect what follows. Should the reader disagree with my views, he or she may make the appropriate changes in the text below – nothing in the main argument turns on these views.[36]

Essential goodness

There is, however, a complication: might the individual that is divine be only contingently good? Suppose *x* is divine in the actual world, then *x* is good in the actual world, but is *x* good in all metaphysically possible worlds in which *x* exists? One of the motivations for holding that, for every being, *x*, if *x* was divine

33 'The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness' (Mill 1962: 257). Mill took the line that the fundamental moral category was the goodness of states of affairs.

34 '[W]hat is agreeable to the gods is pious, and what is disagreeable to them impious', Plato, *Euthyphro*, 6e10–7a1, translated in Tredennick (1959: 26). Euthyphro puts this statement forward as a *definition* of piety and impiety.

35 The reader should bear in mind what was said above, namely that I think that actions are the primary loci of moral properties.

36 For a discussion of the question raised in the Euthyphro dilemma, see Swinburne (1974) and (1993: 209–216). I am grateful to Richard Swinburne, Hugh Rice and James Heather for (separately) leading me to see the errors of my old ways on this topic.

x was metaphysically essentially divine, was the argument of Richard Swinburne that divine individuals lack thisness and are constituted the individuals they are by the property of divinity and any metaphysically essential relational properties that they possess.[37] If this is so, then, of course, if *x* is divine, then *x* is metaphysically essentially maximally good. In fact, even theists that are reluctant to admit that, for every being, *x*, if *x* is divine *x* is metaphysically essentially omnipotent and omniscient are willing to admit that, for every being, *x*, if *x* is divine *x* is metaphysically essentially maximally good.[38]

However, the conception of metaphysically essential goodness that I have just adumbrated has come under fire from some philosophers that doubt its coherence with other divine attributes. (I cannot think of any arguments against the coherence of *contingent* goodness, either with itself or with any of the other divine attributes. Of course, the major debate here is over the coherence of the omnipotence, omniscience, (contingent) goodness of a divine being and the existence of evil. I shall not tackle this subject here, since it is not so much a matter of clarifying the *concept* of divinity, but of seeing how the concept fits in with the world, which is not within the purview of this work.)

Pike's first argument

The first argument that we shall consider concerns the coherence of metaphysically essential goodness with omnipotence. (Note that omnipotence is viewed by the proponents of this argument as being a modal notion, so there is no need for them to introduce the notion of metaphysically *essential* omnipotence.) This argument was first advanced, as far as I know, by Nelson Pike in Pike (1969), reprinted in Helm (1981). Pike's version runs thus:

> An omnipotent being is one that can do all things possible. But, surely, it is possible to sin. Men do this sort of thing all the time. It would thus appear that if God is perfectly good (and thus impeccable) He cannot sin; and if God is omnipotent (and thus can do all things possible), He can sin.
>
> (Helm 1981: 67)

Note first that Pike uses 'perfectly good' with modal force; in other words, Pike means by 'perfectly good' what we mean by 'metaphysically *essentially* perfectly good'. For brevity and simplicity in what follows I shall follow Pike's usage and speak simply of 'perfect goodness' etc. when I mean *metaphysically essential perfect goodness* etc. We may now follow Pike in distinguishing three different analyses of 'God cannot sin',[39] remembering that Pike does not assume that, for

37 See Swinburne (1994: 163–169). This is not the only argument of Swinburne's for the view that, for every being, *x*, if *x* is divine, then *x* is essentially divine: cf. also Swinburne (1994: 155).

38 Such theists would include kenoticists about the incarnation, i.e. those that hold that Jesus, while on earth, was neither omnipotent nor omniscient. Most of these still want to maintain that Jesus was maximally good even while on earth.

39 Pike says 'There is probably some distinction to be made between acting in a morally reprehensible way and sinning. However, for purposes of this discussion, I shall treat these concepts as one' (Helm 1981: 70). So the theological reply that 'sinning' is defined as 'defying God' and that it is

every being, *x*, if *x* is God or divine *x* is metaphysically essentially God or divine. First,

> 'God cannot sin' might mean: 'If a given individual sins, it follows logically that the individual does not bear the title 'God'.' In this case the 'cannot' in 'cannot sin' expresses logical impossibility.
>
> (Helm 1981: 80)

Let us grant Pike that, for every being, *x*, if *x* sins *x* is not God or divine, and, for the moment, that, for every being, *x*, if *x* is God or divine then *x* can do everything that is metaphysically possible.[40] Thus far there is no conflict between the two doctrines, on Pike's assumptions, i.e. that, for every being, *x*, *x* may be God or divine in one metaphysically possible world and not God or divine in another metaphysically possible world, for this is consistent with *x*'s being able to sin, and there being a metaphysically possible world in which *x* sins but is not God or divine, though *x* is God or divine in the actual world, in which *x* does not exercise his ability to sin. So, as Pike states, on this understanding of 'cannot sin', omnipotence and perfect or maximal goodness cannot be shown to be incompossible.

The second analysis of 'God cannot sin' Pike expresses thus:

> Secondly, 'God cannot sin' might mean that if a given individual is God, that individual does not have the ability to sin, i.e., He does not have the creative power necessary to bring about states of affairs the production of which would be morally reprehensible [. . .] In this case, the 'cannot' in 'cannot sin' does not express logical impossibility. It expresses a material concept – that of a limitation of 'creative power' (as in, e.g., 'I cannot make leather sandals').
>
> (Helm 1981: 80)

This second analysis gives rise to an argument of the following sort:

(6.9) For every being, *x*, if *x* is divine then *x* can perform every metaphysically possible action;

(6.10) Sinning is a metaphysically possible action;

Therefore,

(6.11) For every being, *x*, if *x* is divine *x* can sin [from (6.9) and (6.10)];

(6.12) For every being, *x*, if *x* can sin there is a metaphysically possible world in which *x* sins;

Therefore,

(6.13) For every being, *x*, if *x* is divine then there is a metaphysically possible world in which *x* sins [from (6.11) and (6.12)];

(6.14) For every being, *x*, if *x* is divine then *x* is metaphysically essentially good;

(6.15) For every being, *x*, if *x* is metaphysically essentially good then there is no metaphysically possible world in which *x* sins;

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metaphysically impossible for something to defy itself is not to the point here.

40 In Chapter 5 I tried to argue that this does not follow from omnipotence, but the details do not matter for the present.

Therefore,

(6.16) For every being, x, if x is divine there is no metaphysically possible world in which x sins [from (6.14) and (6.15)].

The argument is valid and yields a contradiction on the assumption that there is an x such that x is divine. Let us therefore analyse the premisses. Pike seems to mean by 'can' *have the power to*. In this case, as I argued in Chapter 5, the proposition expressed by premiss (6.12) is false. I think that every divine being has the power to sin, but, of metaphysical necessity, cannot exercise this power. I agree that if one can exercise a certain power then there is a possible world in which one does exercise it, but this point will not help Pike, because if we replace 'can' in his argument with 'can exercise his power to' then the proposition expressed by the modified version of (6.11) is false. We may however, even leave aside this ambiguity, and proceed by casting doubt on premiss (6.9) of Pike's argument, following a suggestion of Plantinga's discussed in Chapter 5.[41] Let us take a divine being and call him 'G'. Clearly it's metaphysically possible to perform an action token of the action type *an action not performed by G*: we perform them all the time. Yet it seems that it is not metaphysically possible that *G* perform an action token of the type *an action not performed by G*.[42] Pike informally offers what could be an alternative formulation of (6.9) in terms of states of affairs along the following lines:

(6.9′) For every being, x, if x is God then x can bring about any consistently describable state of affairs. (Helm 1981: 69)

This, however, does not help: a state of affairs not brought about by G is consistently describable and it's clearly metaphysically possible that it be brought about – such states are brought about by us all the time. Yet it seems that it's not metaphysically possible that G bring about a state of affairs not brought about by G.[43] This point is generalizable in an obvious way to all pretenders to omnipotence.

I conclude that this argument against the metaphysically essential goodness of every divine being fails – since the proposition that G sins is metaphysically necessarily false, Pike, on the argument under present consideration, cannot claim that the affirmation of G's omnipotence implies the affirmation of G's ability to sin, unless he is prepared to claim that it implies also the affirmation of G's ability to create square circles, and to actualize other metaphysically impossible states of affairs. Sometimes this argument against the doctrine of divine essential goodness is recast as an objection from the doctrine of divine perfect freedom. It should be clear that a very similar response should be made: the laws of metaphysical necessity are no limit on a divine being's freedom, and a divine being's lack of freedom to sin is no more of a limit on his freedom than the lack of freedom to create square circles. Pike might respond by trying to come up with a better definition of 'omnipotence' to avoid the unwelcome consequence of the failure of

41 Plantinga's example is '*the action of making a table God did not make*' (Plantinga 1967: 169).

42 I do not mean here the action type *an action not actually performed by G*, but rather the action type *an action such that if it were performed it would not be performed by G*.

43 Again, I do not mean here *a state of affairs not actually brought about by G*, but rather *a state of affairs that if it were brought about would not be brought about by G*.

his argument, but since I claim that G's having the power to sin does not imply that there is a possible world in which he exercises it, I do not think that this would make his argument successful.

In fact, Pike moves on from (6.14) to his third formulation of 'God cannot sin':

> Thirdly, 'God cannot sin' might mean that although the individual that is God (Yahweh) has the ability (i.e., the creative power necessary) to bring about states of affairs the production of which would be morally reprehensible, His nature or character is such as to provide material assurance that He will not act in this way. [. . .] On this third analysis of 'God cannot sin', the claim conveyed in this form of words is that the individual that is God (Yahweh) is of such character that he cannot bring himself to act in a morally reprehensible way. God [Yahweh?] is strongly disposed to perform only morally acceptable actions.
>
> (Helm 1981: 80–81)

It is unclear to me what Pike means by 'a strong disposition'. It seems that he does not mean a disposition strong enough to be a metaphysically essential feature of the divine character: Pike is proposing this account precisely to replace the traditional account of divine metaphysically essential goodness. So it seems to be metaphysically possible, on Pike's view, that a divine being perform an action that he is strongly disposed not to perform. This then leaves the reader wondering what Pike's grounds are for saying 'there is complete assurance that He will not exercise this ability' (Helm 1981: 82). Given that it is metaphysically *possible* that a divine being sin, from where does this 'complete assurance' come?[44]

Finally, Pike's account looks circular: he is trying to give an analysis of 'cannot' in 'God cannot sin' and his analysis reintroduces the analysandum: 'he *cannot* bring himself to act in a morally reprehensible way'. If the 'cannot' here means *in no metaphysically possible world* then Pike is back with the essential goodness he is apparently trying to reject. If the 'cannot' means *does not* then Pike has no more than 'Yahweh does not sin'. Finally, if the 'cannot' means *is of such character that he cannot bring himself to bring himself to act in a morally reprehensible way*, then an infinite regress threatens.

It seems to me that to do justice to our intuitions about divine goodness we ought to say that it is metaphysically impossible for an individual that is divine to do wrong, i.e., there is no metaphysically possible world in which an individual that is divine in one world does wrong. I have already argued that it is possible to be omnipotent and unable to exercise all one's powers. In sum, I think that Pike's third analysis will not do, and, since his argument against the second analysis

44 I am not claiming that this question is unanswerable. Pike might reply by saying 'If your assurance that, for every being, *x*, if *x* is God or divine *x* is metaphysically essentially good comes by pure argument and conceptual analysis, from where comes your assurance that Yahweh is God or divine and, hence, essentially good?'. This would then start a whole epistemological debate. The problem I have is that Pike does not explain what he means by such terms as 'material assurance', 'materially excluded', and even 'logically possible', which last I have taken as meaning what I mean by 'metaphysically possible'. My hope would be that Pike's answer to my (implicit) question in the text would cast light on what he meant by the terms I have mentioned.

was not compelling, I conclude that one should preserve the traditional, orthodox, analysis of 'God cannot sin', viz. that every individual that is possibly divine is metaphysically essentially sinless, which doctrine should be taken as coherent unless shown to be otherwise.[45]

Pike's second argument

There is, however, a second argument against the doctrine of essential goodness. Pike again:

> Further, I think there is strong reason to suspect that if the individual that is God (Yahweh) cannot sin in this sense [i.e., the second sense], He is not perfectly good either. Insofar as the phrase 'perfectly good' applies to the individual that is God (Yahweh) as an expression of praise – warranted by the fact that this individual does not sin – God [Yahweh?] could not be perfectly good if He does not have the ability to sin. If an individual does not have the creative-power necessary to bring about evil states of affairs, he cannot be praised (morally) for failing to bring them about. Insofar as I do not have the physical strength necessary to crush my next door neighbor with my bare hands, it is not to my credit (morally) that I do not perform this heinous act.
>
> (Helm 1981: 80)

This argument is often linked with considerations of freedom, so Thomas Morris:

> Most accounts of free action include a condition to the effect that an act is performed freely only if its agent in some sense *could have done otherwise*. [. . .] And only free acts are morally characterizable as the satisfaction or violation of duties.[46]
>
> (Morris 1984; repr. Morris 1987: 27–28)

So, it is alleged, a being is morally praiseworthy for doing a good action only if it was metaphysically possible for him to refrain from performing it.[47] (This does seem to accord with some intuitions many of us have: one is not praiseworthy for sexual abstinence in the teeth of temptation if one wishes to yield to temptation but is unable to persuade anyone else of this idea.)

First we must clear up a possible source of confusion over types of actions and tokens of actions. Pike and Morris do not mean that *x* is morally praiseworthy only if *x* intentionally performs a good action *token* that it was possible for *x* not to

45 This does have the consequence that we mere humans could not have been divine. This seems plausible to me.

46 Morris is here discussing the view that moral goodness consists in the satisfaction of duties.

47 Pike does not explicitly say this; he speaks rather of Yahweh's being praiseworthy for performing a good action only if Yahweh had the power to refrain from performing it. In fact, I do not agree even with this, but I think that Pike would accept that if one has the power to refrain from doing something then it is metaphysically possible for one to refrain from doing it, as I argued above. In the text I shall continue to analyse the question in terms of whether one is morally praiseworthy for doing a good action if it was not *metaphysically possible* for one to refrain. My reason for persevering with this analysis is that this is the one adopted in the majority of the literature, e.g. Morris (1984).

perform. To see this, consider the following. Every divine being ought to refrain from performing action tokens of the action type *creating a bad world*, and so, being perfectly good, every divine being essentially does refrain from performing tokens of this type. In other words, it is metaphysically impossible for a divine being to create a bad world. Pike wants to say that, as a consequence, no divine being is praiseworthy for refraining from creating a bad world, since it was metaphysically impossible for him not so to refrain. On the other hand, every divine being is free to create any one of an infinite number of good worlds, and to refrain from creation altogether. So, on the suggestion we are considering, every divine being *could* fairly be praised for refraining from creating a bad world, because the action token of creating a good world falls under the good action type *refraining from creating a bad world*, and yet every divine being was free to create a different good world instead, i.e., to perform a different action *token* of the same action *type*. I do not think that this will do for Pike, who wants it to be the case that no divine being is praiseworthy for refraining from creating a bad world. The action token of creating this world does fall under the action type *refraining from creating a bad world*, as do the action token of creating a different good world and the action token of refraining from creating, but what Pike wants to say is that *x* is morally praiseworthy only if *x* performs an action token of a good type and it was possible for *x* to refrain from performing a token *of this very type*. This is not satisfied in the example: it was not possible for a divine being to refrain from performing an action token of the type in question, namely the action type *refraining from creating an evil world*. Pike claims that it follows from this fact that no divine being could be morally praiseworthy for refraining from creating a bad world. According to some, it also follows that no divine being could refrain freely.

Supererogation

One response to this argument is to point out that a divine being may still be praiseworthy for doing deeds of supererogation:[48] there are many good actions that a divine being could have refrained from performing without thereby forfeiting goodness. Christians usually claim that redemption was one such action: God did not have to redeem us, but it is good that God did, and God is greatly to be thanked and praised as a result. Yet this will not, I think, suffice for the theist: he or she wants to say that every divine being is praiseworthy not only for those things, but also for refraining from evil, keeping promises, not lying etc., even though no divine being could have a choice about these matters.

48 The term 'supererogation' presupposes a duty-based account of morality. The notion that this applies to divine beings has been critically discussed by Robert Adams in Adams (1972). All I am getting at here is that there may be good actions that it is not metaphysically necessary that any divine being perform, and, hence, that any divine being may be praised for performing, without anybody's raising any philosophical objection.

Aesthetic praiseworthiness

Yet another response is to cede the point, and to claim that every divine being is not morally praiseworthy, but praiseworthy in another sense, e.g., the metaphysical or aesthetic sense of 'praiseworthy'. I do not think this is good enough either. If every divine being is maximally great then every divine being has as many great-making properties as metaphysically possible to the optimal degree, *ceteris paribus*. In addition, these great-making properties are themselves not on a par, and moral praiseworthiness is one of the most valuable of the lot. In addition, and as a consequence of the just-mentioned fact, moral praiseworthiness forms a central part of the worship-worthiness of a divine being, and so of the believer's worship of a divine being – he or she gives a divine being moral praise because he or she thinks that he is worthy to receive it. A glance at the sacred writings of Christianity, Judaism, or Islam, or attendance at a worship service of one of these faiths, will leave one in no doubt of the centrality in the believer's life of a divine being's moral praiseworthiness. Is it really plausible that it is just aesthetic or metaphysical praise that is being referred to in the constant injunctions to praise in the Bible (e.g.: 'From the lips of children and infants you [God/Yahweh] have ordained praise' (Psalm 8: 2); or the words of the singers at the dedication of the temple: 'He [God/Yahweh] is good; his love endures for ever' (2 Chronicles 5: 13); or Solomon's own words on that same occasion: 'Praise be to the LORD, the God of Israel, who with his hands has fulfilled what he promised with his mouth to my father David' (2 Chronicles 6: 4))? Sometimes the pious speak of the divine as being beyond moral praise or beyond all praise, but it sounds like empty rhetoric to speak of the divine as being 'beyond the moral' – a divine being is 'beyond moral praise' only in the sense that no finite amount of praise does justice to his infinite moral praiseworthiness.[49] It seems to me that if a being, x, is not morally good then x is defective and, *ceteris paribus*, overall less great than a being, y, that is morally good. The intuition is that a divine being is the perfect fulfilment and culmination of moral praiseworthiness, not a stranger to it. (And so with most other sorts of praise.)

So, if the above strategies are not available to us, how can we rebut the Pike-style argument? Let us lay it out more formally:

(6.17) For every being, x, if x is divine then x is morally praiseworthy for refraining from doing what is morally wrong;

(6.18) For every being, x, if x is morally praiseworthy for refraining from doing what is morally wrong, then x can do what is morally wrong;

(6.19) For every being, x, if x is divine then x is metaphysically essentially good;

(6.20) For every being, x, if x is metaphysically essentially good, then x metaphysically essentially cannot do what is morally wrong;

(6.21) There is a morally wrong action such that every divine being ought to refrain from performing it, and there is a being, x, such that x is divine.

49 I am grateful to James Heather for alerting me to this possible interpretation of 'beyond praise'.

The argument is valid and yields a contradiction, so let us examine the premisses. Pike rejects (6.19), but it seems to me that it is premiss (6.18) that is suspect. Pike offers no argument for his claim, other than appeal to the intuitions excited by his example. It seems to me, however, that our intuitions actually support a rather different premiss, (6.18′), as has been argued by Harry Frankfurt,[50] but which was prefigured in John Locke's *Essay*:

(6.18′) For every being, x, x is morally praiseworthy for refraining from a morally wrong action, A, if and only if x intentionally and ultimately freely refrains from performing A, and does so for a morally good reason.[51]

A definition of freedom

I shall now try to explain my use of 'ultimately freely'. An *active causal chain*[52] is a sequence of events, $\langle \ldots, E_{-n}, \ldots, E_{-1}, E_0, E_1, \ldots, E_n, \ldots \rangle$,[53] such that, for each event in the chain, if it has an immediate predecessor, it is immediately actively caused by that predecessor, and, if it has an immediate successor, it immediately actively causes that successor. A *permissive causal chain* is a sequence of events, $\langle \ldots, E_{-n}, \ldots, E_{-1}, E_0, E_1, \ldots, E_n, \ldots \rangle$,[54] such that, for each event in the chain, if it has an immediate predecessor, it is immediately permissively caused by that predecessor, and, if it has an immediate successor, it immediately permissively causes that successor. An event, E_n, is *mediately caused by an event*, E_m, if and only if E_m and E_n are members of a causal chain and E_m precedes E_n.[55] An event, E_n, is *mediately caused by an agent*, S_m, if and only if S_m performs an action, E_m, such that E_n is mediately caused by E_m. An event, E_n, is *ultimately caused by an event*, E_m, if and only if E_n is mediately caused by E_m and E_m is not mediately caused by any event. An event, E_n, is *ultimately caused by a set of events*, E, if and only if E_n is mediately caused by some member of E, E_m, and E_m is not mediately caused by any event that is not a member of E. An event, E_n, is *ultimately caused by an agent*, S_m, if and only if S_m performs an action, E_m, such that E_n is mediately caused by E_m, and such that every event, E_l, such that E_m is mediately caused by

50 One of Frankfurt's articles on this topic is Frankfurt (1969). Frankfurt does not argue for (6.18′) exactly, but for an allied thesis. As far as I know, (6.18′) has not been explicitly argued for before.

51 There is an obvious parallel definition concerning moral blameworthiness, and a more general one concerning moral responsibility. I shall not bother to list them here.

52 I think that the distinction between active causation and permissive causation is fairly intuitively clear. The distinction is drawn in Swinburne (1994: 52, 54).

53 I have not specified whether we are to allow the events to be only partial causes and only partial effects. If we do allow this, and necessary conditions count as partial causes, then every event will be part of infinitely many such causal chains, since the sustenance of every member of the Trinity is a necessary condition of every event. As far as I know, the precise terminology and explanation here, though obvious, originate with me. (The concept of a chain in mathematical logic is slightly similar; cf. Machover (1996: 84).)

54 Every event is part of infinitely many permissive causal chains, since every event is permitted by at least two members of the Trinity (the third may be actively causing it).

55 Note that 'precedes' etc. in this discussion are to be understood in terms of the *sequence*, and not necessarily in terms of *time*. Also note that each of these definitions comes in various forms: one for permissive causation, one for active causation, and one for either active or permissive causation.

E_l, is mediately caused (or directly performed) by S_m. An event, E_n, is *ultimately caused by a set of agents*, S, if and only if some member of S performs an action, E_m, such that E_n is mediately caused by E_m, and such that every event, E_l, such that E_m is mediately caused by E_l, is mediately caused (or directly performed) by some member of S. An agent, S_n, is *ultimately determined by an agent,* S_m, to perform an action, E_n, if and only if E_n is ultimately caused by S_m. An agent, S_n, is *ultimately determined by a set of agents,* S, to perform an action, E_n, if and only if E_n is ultimately caused by S. I claim that an agent, S_n, performs an action, E_n, *ultimately unfreely* if and only if

(i) E_n is ultimately actively caused by a set of events, E, such that no member of E is actively or permissively caused or performed by S_n;

or

(ii) E_n is ultimately actively caused by a set of events, E, such that some member of E *is* actively or permissively caused by some action, E_m, of S_n, but S_n performs E_m ultimately unfreely;

or

(iii) E_n is ultimately actively caused by a set of events, E, such that some member, E_m, of E *is* performed by S_n, but S_n performs E_m ultimately unfreely.[56]

Finally, I claim that an agent, S_n, performs an action, E_n, *ultimately freely* if and only if S_n performs E_n and it is not the case that S_n performs E_n ultimately unfreely.[57]

I shall now attempt to motivate and explicate intuitively the foregoing definitions. To revert to my previous example: one would not normally praise x for x's sexual abstinence in the teeth of temptation if x had no other option owing to x's sexual desires' being unreciprocated. Suppose, however, that x is blissfully ignorant of this fact and believes that everybody else is as desirous as x, but feels that sexual abstinence is the right action. It seems clear to me that x is praiseworthy for x's sexual abstinence even though x had no alternative. The point can be generalized to cover cases of metaphysical impossibility: one can imagine a metaphysically essentially good being, x, that did not realize that he was metaphysically essentially good and virtuously decided to do only good things anyway, in ignorance of the fact that he had no other option. Surely x is praiseworthy for his moral conduct, even if not for his level of knowledge.[58]

Locke's case was about freedom or voluntariness:

> Again, suppose a man be carried whilst fast asleep into a room where is a person he longs to see and speak with, and be there locked fast in, beyond

56 Note that the second and third clauses of this definition are recursive.

57 This might be thought to be unsatisfactory because it apparently allows random undetermined events in me to count as free actions. I think this objection misrepresents matters, however: a random event in me does not count as an *action* of any sort, determined or free. It may, of course, cause me to perform an action, but then that action will be unfree because it will satisfy clause i of our definition. I realize that it is hard to give a formal definition of 'action' that will exclude random events in me, but think it is intuitively clear that such random events do not count as things that I *do*.

58 I think this would hold even if x metaphysically essentially lacked not just the ability (overriding desire, know-how, and opportunity) but also the *power* to do evil, but did not know this.

> his power to get out; he awakes and is glad to find himself in so desirable company, which he stays willingly in, i.e. prefers his stay to going away. I ask, is not this stay voluntary? (Locke 1965: II.xxi.10)

It seems clear to me that the man stayed in the room voluntarily and freely, even though he could not have done otherwise. Furthermore, it seems equally clear that the man is to be praised insofar as his stay in the room was a good action (e.g. truthfully to encourage and affirm his interlocutor) and to be condemned insofar as his stay was a bad action (e.g. falsely to criticize his interlocutor).

Harry Frankfurt's example comes from science fiction. He asks us to imagine that an evil neurosurgeon in the pay of a politician, x, has planted a neuroscope in my head such that if I form the intention to vote for x in the election the neuroscope will do nothing, but if I form the intention to vote for one other than x then the neuroscope will cause me to intend to vote for x instead. Clearly in the latter case I am not free, but what about the former case? I cannot do otherwise than vote for x, yet the neuroscope is inactive here; it is my own desire that leads me to vote for x, and my desire has not been tampered with in any way. It seems to me that in this case I freely vote for x, and, moreover, that I am praiseworthy insofar as I thought that x would be a good leader and the right person for the job, and blameworthy insofar as I realized that x was a dirty trickster that shouldn't get the job.[59]

What follows from all this? In intuitive terms, a divine being's metaphysically essential goodness, in virtue of which it is metaphysically impossible for him to do evil, is a feature of his own nature, and is not ultimately actively caused by anything other than him.[60] In other words, no divine being is ultimately actively determined to be metaphysically essentially good, since a divine being's nature is not ultimately actively caused by anything else. It follows that every divine being is free and that every divine being freely does the good, since a divine being's actions originate in him: they are not part of an active causal chain originating outside him. As Swinburne puts it: 'no causal factors over which he has no control act from without on God' (Swinburne 1993: 148).[61] Note that this definition allows a divine being's action at t_1 to cause his action at t_2 and for both actions to be free (hence the qualification of 'from without' etc.). So if a divine being's resolution at t_1 to perform an action, A, at t_2 is causally sufficient for his performing A at t_2, then his performing A at t_2 is still free, provided that his resolution at t_1 is free. Note also that if a divine being gives us in creation natures such that we must sin, then we are not blameworthy for our sin since we sin ultimately unfreely: there is a causal chain containing our sinful actions but originating outside us, in a divine being

59 There is a large body of literature discussing 'Frankfurt-style counter-examples'. I cannot discuss here all the objections and replies that have been made; suffice it to say that I think that the intuitive force of Frankfurt's example is not blunted by the discussion. For some of the literature, see Fischer (1986b).

60 I write 'anything other than him' since there is a venerable scholastic tradition that every divine being is *causa sui*. I am doubtful that it makes sense to call a divine being '*causa sui*', though I think that it does make sense to say that every divine being causes at t himself to exist at every time later than t. This sort of self-causation would be not only possible, but compossible with freedom and moral responsibility.

61 I should point out that Swinburne does not use the definition of freedom here offered.

that gave us the sinful natures.[62] It follows that, if we sin, theistic determinism is false: if all non-divine events are actively caused by other events then, assuming there is no infinite mundane regress (the actuality of which regress is denied by Christians for theological reasons, if the infinite regress is thought to be of infinite duration, and for reasons of intuition if the infinite regress is thought to be of finite duration[63]) and no ultimately circular causation, it follows that all causal chains originate in the set of divine beings, and it follows then from our principle that we are not blameworthy for our sins, but rather that every divine being is morally responsible.[64] But to say that a divine being is morally responsible for our sins is to deny his goodness, since it is a morally bad action to cause someone to sin. Hence if there are any morally wrong actions in the world theistic determinism is false.[65]

An objection from the Trinity

There is a subtle potential problem with the idea of freedom expressed above: if one takes the view that the Father actively causes the Son to exist, and the Father and the Son together actively cause the Spirit to exist, as does Richard Swinburne (1994: 173),[66] it seems at first as if the Son and the Spirit, each being metaphysically essentially good, will not freely refrain from evil, on the grounds that each of their refrainings will apparently be part of an active causal chain originating in the Father's causation of each of them to exist, i.e. they will be ultimately actively determined to refrain by the Father. Yet the Christian wants to say that each of the Son and the Spirit is metaphysically essentially good, perfectly free and morally praiseworthy. One possible response to this is to say that since the Father's causation of the Son and the Spirit is a necessary action it does not militate against the freedom of the Son or the Spirit (a similar move is made by Richard Swinburne over divine necessity (1994: 147)). I do not favour this, however, since a theistic determinist that believed that the divine being *had* to actualize this world of metaphysical necessity (as Leibniz believed) could respond by claiming that we are free, though determined, since our determination is metaphysically necessary. But surely this determinism does remove our freedom, whether it is metaphysically necessary or not.

In fact, I favour the simple response of claiming that on the condition for moral praiseworthiness, (6.18′), given above, and the above definitions concerning freedom and determinism,[67] the Son and the Spirit still refrain from doing wrong

62 We might still be blameworthy if we should have freely desired such natures had we been free.

63 I am grateful to James Heather for making me aware of this other possibility.

64 I assume that moral responsibility goes hand-in-hand with causation.

65 I, of course, want to affirm the antecedent of this claim.

66 Swinburne adds the caveat that the Son permissively causes the Father to exist only for 'every period of time which has a beginning'.

67 This response may also require giving up Richard Swinburne's principle that the Father actively causes the Son and the Spirit throughout every period of time and that the Son and the Spirit permissively cause the Father *only throughout every period of time that has a beginning*. See Swinburne (1994: 173).

ultimately freely. Their refrainings from evil are members of at least one active causal chain,[68] but, although for any given time, t, the Son and Spirit were being actively caused by the Father to exist and have their properties at t, the Son and the Spirit also existed at t_{-n}, and were permissively causing the Father to exist and have *his* properties at t_{-n}, for every positive n.[69] It follows that the refrainings from evil of the Son and the Spirit are not ultimately causally determined by any particular event, such as the Father's causation at any particular time, or by any particular agent, such as the Father, since for each event that the Father (actively) causes in the active causal chain the Father's causing is (permissively) caused by the Son and by the Spirit.

More carefully, it is not the case that they refrain ultimately unfreely because, although the Spirit's refrainings are ultimately actively caused by a set, S, of actions such that no member of S is actively caused by the Spirit, and although the Son's refrainings are ultimately actively caused by a set, S', of actions such that no member of S' is actively caused by the Son, each member of S is permissively caused by the Spirit, and each member of S' is permissively caused by the Son. Furthermore, although each of the Spirit's permittings is ultimately actively caused by a set, S^*, of actions such that no member of S^* is actively caused by the Spirit, and although the Son's permittings are ultimately actively caused by a set, S'', of actions such that no member of S'' is actively caused by the Son, again each member of S^* is permissively caused by the Spirit, and each member of S'' is permissively caused by the Son. And so on *ad infinitum*. Since the definition of acting ultimately unfreely was a recursive definition and since condition (i) is never fulfilled for any of the actions, permittings, or refrainings for any member of the Trinity, it follows that conditions (ii) and (iii) are also never fulfilled for any of the actions, permittings, or refrainings for any member of the Trinity. Hence it follows that the definition as a whole is never fulfilled for any of the actions, permittings, or refrainings for any member of the Trinity. Hence, each member of the Trinity performs each of his actions, permittings, or refrainings ultimately freely. Hence, if any member of the Trinity performs, albeit of metaphysical necessity, an action, a permitting, or a refraining that is morally good, he is morally praiseworthy for so doing.[70] Hence the Son and the Spirit freely refrain from evil, and are, consequently, greatly to be thanked and praised for so doing.[71]

68 For each action that the Son metaphysically essentially performs, there is at least *one* event that actively causes it – the Father's active causation. For every action that the Spirit metaphysically essentially performs there are at least *two* active causes – the Father's active causation and the Son's active causation. (There may be more, since each might metaphysically essentially cause himself metaphysically essentially to perform an action.)

69 It is to be understood that t_{-n} is before t, whatever the (positive) value of n.

70 Of course, each member of the Trinity performs each of his actions intentionally and for a morally good reason (if there is one).

71 The above might sound like circular causation. It need not be, though; it could be that at every time, t, the Father actively causes the Son (with the Father) actively to cause at every time, t_{+n}, for every positive n, the Spirit permissively to cause both Father and Son at every time, t_{+n+m}, for every positive m. This, of course, like my whole discussion, presupposes that the members of the Trinity are in time and that time is backwardly infinite.

As far as we are presently concerned the principal consequence is that every divine being is indeed free and morally praiseworthy, although it is metaphysically necessarily false that he does evil. Hence Pike's second argument fails. We have also seen that Pike's other arguments and Morris's argument from freedom also fail. Nor can I see how any argument could be successfully deployed from a divine being's perfect freedom or omnipotence or praiseworthiness against his essential goodness. It seems, therefore, that we have no reason to deny that a divine being is metaphysically essentially good, and plenty of reasons to affirm it – not just our intuitions, but also the word of Scripture:

> God did this so that, by two unchangeable things in which it is impossible for God to lie, we who have fled to take hold of the hope offered to us may be greatly encouraged;
>
> (Hebrews 6:18)

and:

> When tempted, no one should say, 'God is tempting me.' For God cannot be tempted by evil, nor does he tempt anyone.
>
> (James 1:13)

Beauty

I shall now return to the aesthetic domain. My discussion above was meta-aesthetic; so far I have not discussed first-order aesthetic views. I shall now attempt to do so from the basis of an objectivist meta-aesthetic position.

What is beauty?

What is beauty? Aquinas held that beauty consisted in three things:

(i) integrity or completeness ('*integritas sive perfectio*' in Aquinas's *Summa Theologiae*);
(ii) right proportion or harmony ('*debita proportio sive consonantia*' in Aquinas);

and

(iii) clarity or radiance ('*claritas*' in Aquinas).[72]

Patrick Sherry argues persuasively in his monograph *Spirit and Beauty* that one should not think that each of these conditions is necessary, but rather that each is sufficient for beauty (Sherry 1992: 33). This seems right to me, though a thing can

72 (Aquinas 1920: Ia.Q39.a8). James Alfred Martin claims (1990: 16), without reference, that Aristotle was the originator of this view of beauty. Aquinas does not mention Aristotle at this point. I have been unable to find a single source in Aristotle for this. Aristotle mentions unity or wholeness and proper arrangement of parts as conditions of beauty in Aristotle (1962: 7). He also says that the 'chief forms of beauty are order and symmetry and definiteness' in Aristotle (1908: XIII.3). He also talks of physical beauty's being 'generally supposed to consist in a certain symmetry of the limbs' in Aristotle (1928: III.1). Aquinas applies his conditions only to the Son; I think they may be applied more generally to each of the divine persons.

be beautiful in one respect and not in another, and so overall fail to be beautiful. Likewise, having the opposite qualities to those described in i, ii and iii is sufficient for the opposite of beauty, viz. ugliness, in one respect, though this may be overridden in other respects. A complete collection of books is aesthetically pleasing in virtue of its completeness, but a jigsaw with a piece missing is aesthetically displeasing in virtue of its incompleteness. A geometric figure, say of a regular dodecahedron, is aesthetically pleasing in virtue of its proportion; a D major chord in music is aesthetically pleasing in virtue of the harmony of the notes of which it is composed. Cyrano de Bergerac's elongated nose is aesthetically displeasing in virtue of its being in the wrong proportion to the rest of his face (or, perhaps, his face is aesthetically displeasing in virtue of the disproportion of one of its elements to the others); people's shouting at the same time is aesthetically displeasing in virtue of the competing voices' being discordant. Finally, a shaft of summer light is aesthetically pleasing in virtue of its radiance; and the pureness of a note of music (played on the trumpet, for example), is aesthetically pleasing in virtue of its clarity. On the other hand, a dirty gemstone is aesthetically displeasing in virtue of its dullness instead of the desired radiance; and the water in a cattle trough is aesthetically displeasing in virtue of its muddiness where one would have hoped for clarity.

Note that there is no implication from being beautiful to being, say, morally good. It has been objected that on the above criteria a Nuremberg rally might be beautiful.[73] It does not follow from this that a Nuremberg rally is in any way a morally good thing. In fact, I think that a Nuremberg rally has a certain terrifying beauty.

I think that these examples show that the presence of one of the three elements named in i–iii is sufficient for aesthetic value, and, indeed, beauty, and the presence of the opposite of one of the elements named in i–iii is sufficient for aesthetic disvalue, and, indeed, ugliness. I have not shown that the absence of one of the elements named in i–iii is sufficient for ugliness, which would amount to showing that each of the elements named in i–iii was necessary for beauty (granted that beauty and ugliness are incompossible). I have not tried to show this because I do not think it is true. For instance, it seems to me that it makes no sense to talk of the wholeness or completeness of a note of music, or of the right proportion or harmony of a ray of sunlight, or of the clarity or radiance of a geometric figure. For this reason, I conclude that each of the elements named in i–iii is sufficient for beauty and, possibly, a necessary condition for beauty is the possession of one of the elements named in i–iii.

I do not think that the above is the only defensible account of beauty, nor do I think that i–iii represent the only supervenience base for aesthetic value. I think that other accounts are defensible, but nobody has shown that any of them constitutes more of a problem than the above for the idea that every divine being is beautiful. I think it incumbent on me to show that my view is plausible. I hope I have done this. I do not think that it is incumbent on me to show that my view is the best on

73 This objection is in fact due to Paul Helm.

the aesthetic market. All I need to show is that the idea that every divine being is beautiful – indeed, maximally beautiful – is defensible on a fairly representative view of beauty. Those that prefer other views of beauty may make appropriate changes to what follows; I think that if they are working with broadly similar views to mine they should still arrive at the same conclusion.

In adopting each of the elements named in i–iii as sufficient for beauty, I have not committed myself in any way to a view on the *meaning* of 'beauty' either. I do not think that 'beauty' simply means *wholeness or harmony or clarity*. What I have said is, of course, compatible with that view, but it is also compatible with the non-naturalistic view of G. E. Moore that I quoted earlier.

Non-physical beauty

The most obvious difficulty in showing that every divine being has one of the elements named in i–iii is that no divine being is physical. Most of our everyday talk of beauty in particular, but also of many (though not all) other aesthetic concepts, concerns the physical. A Christian might well reply at this point that the doctrine of the Incarnation states that one of the persons of the Trinity has actually possessed a body for part of the world's history, and, according to the orthodox formulation, always will possess a body.[74] Gerard Manley Hopkins considered Jesus's body as seen in Palestine two millennia ago to be a locus of divine beauty:

> There met in Jesus Christ all things that can make man lovely and loveable. In his body he was most beautiful. [. . .] Moderately tall, well-built and slender in frame, his features straight and beautiful, his hair inclining to auburn, parted in the midst, curling and clustering about the ears and neck as the leaves of a filbert, so to speak, upon the nut. He wore also a forked beard and this as well as the locks upon his head were never touched by a razor or shears. [. . .] I leave it to you, brethren, to picture him, in whom the fulness of the Godhead dwelt bodily, in his bearing how majestic, how strong and yet how lovely and lissome in his limbs, in his look how earnest, grave but kind.
>
> (Hopkins 1953: 136ff)

But this flies in the face of the witness of the prophets, as Isaiah said:

> He had no beauty or majesty to attract us to him,
> nothing in his appearance that we should desire him.
>
> (Isaiah 53: 2b)[75]

So it looks as if we shall have to find an account of beauty that allows for non-physical beauty. But does it make sense to speak of something non-physical as beautiful? I think so. It makes sense to call a piece of music or a ray of light

74 A Christian that thought that only the physical was beautiful would not be able to use the orthodox doctrine of the Incarnation to claim that the Father or the Spirit was beautiful. Indeed, he or she would also not be able to say that the pre-incarnate Jesus was beautiful. I am grateful to James Heather for making this point to me.

75 It should be admitted that the Roman Catholic tradition interprets this verse solely in terms of the crucifixion, with regard to which all agree that Jesus's form would have been battered and bloodied. I am grateful to Patrick Sherry for drawing my attention to this point.

'beautiful'. Somebody might reply that in a sense these things are physical. But one may call a mathematical proof 'beautiful' because various different axioms combine to achieve the desired result (and here we are not thinking of the physical writing down of the proof, which might be ugly in the extreme, owing to poor handwriting or bad symbolism, for example), or a personality 'beautiful' because it is rounded and each of its facets works harmoniously with each other one. This latter is clearly getting closer to the case of a divine being.

Divine beauty

There are two obvious loci for the Christian to search for divine beauty. One is the structure of the Trinity, the other the divine persons.

The Trinity

The Trinity could plausibly be said to manifest integrity or wholeness, particularly if one, as I do, accepts Richard Swinburne's argument for the conclusion that it is a metaphysically necessary truth that there be exactly three divine persons (Swinburne 1994: 177–179). Let me briefly recap the argument: the argument is that self-love, while right and proper in the Father's case, is incomplete. Therefore the Father begets the Son so that each may love another equal. But this is incomplete, for neither knows the joy of sharing in loving a third equal. So the Father and the Son jointly spirate the Holy Spirit. Hence a singularity or a duality would have been incomplete, but a Trinity manifests completion. Indeed, it could not be more beautiful in this regard, since, as Swinburne argues more technically, there could not have been more than three divine persons, since divine persons are individuated by their metaphysically essential monadic and relational properties alone, and a divine person could beget or spirate another divine person only as an act of his essence, and the divine essence metaphysically necessitates only that there be three divine persons. It seems plausible to me to say that the Trinity manifests also proportion or harmony: each member of the Trinity finds his place in the whole and does no action that frustrates either of the others, but does all the best actions that pertain to his allotted sphere of activity. In addition, each member supports each of the others by sustaining him in existence and permitting him to act as he decides. The mutual support (and, indeed, inherence) of the members of the Trinity is called 'perichoresis' by theologians to reflect the (circle) dance-like quality of the symmetrical relations of the members.[76] It is hard to see how anything could be more harmonious than this, and, therefore, hard to see how anything could be more beautiful in this regard.

76 Not all the relations are symmetrical; I think the theologians mean here to pick up on the relation of *permitting to act freely*, which is a symmetric relation, as manifested in the Trinity. On the other hand, relations such as paternity and spiration are asymmetric. These do not detract from the beauty of the Trinity; on the contrary, there seems to be something beautiful about the way that the Father actively causes the Son, and the Father and the Son actively cause the Spirit – there is just enough active causation to underwrite the metaphysical essentiality of the Trinity (i.e. the fact that, of metaphysical necessity, each member exists if and only if the others do).

The third condition, clarity or radiance, is more difficult, particularly as many people have found the doctrine of the Trinity somewhat obscure. There is a sense in which *simplicity* exhibits clarity, mental clarity, although this is not the sense that Aquinas gives in the passage. Descartes does use this notion of clarity, when he speaks of 'clear and distinct truths': he thought that each of these was just so clear that it could not be doubted.[77] And it is surely correct to say that simple things are clearer, *ceteris paribus*, to the mind than complicated ones.

It should be noted that simplicity of this sort is a metaphysical attribute and not an epistemic relation. One should not think that if the Trinity is simple in this sense it is graspable in its fullness by everybody. Something may be profound without being complicated. Despite what critics say, the doctrine of the Trinity has simplicity of this sort – it may be expressed in two very short sentences:

(T1) There is exactly one divine substance;

(T2) There are exactly three divine persons.

I do not say that the reconciliation of these two truths or their defence is an easy matter. Nevertheless, just as many mathematicians think that the truths of higher mathematics are deeply beautiful and simple, even though their exposition or proof is by no means simple, so one might think that the doctrine of the Trinity is simple. Indeed, it is hard to see how a doctrine consistent with the first two facets of beauty could be any simpler than that given by the twelve-word exposition above.

Divine individuals

It would seem inadequate, however, to ascribe beauty to just the whole of the Trinity and not to its members. In particular, if one says that a divine individual is a maximally great being then one should say that each divine individual is maximally beautiful. Secondly, the psalmist, who speaks of 'the beauty of the LORD', may be best interpreted as speaking of the Father, rather than of the Trinity. In this case, we should want to attribute beauty to the Father in himself, rather than just in virtue of being a member of the beautiful Trinity, and should therefore want to attribute beauty to those that share in the Father's nature, viz. the Son and the Holy Spirit.

In virtue of what is each member of the Trinity beautiful?[78] There is a certain, slightly attenuated, sort of wholeness or completeness that is possessed by each member. This is that, on the concept of a divine individual as a maximally great being, each divine individual will have, *ceteris paribus*, every great-making property to the maximum level. So each will have, *ceteris paribus*, 'the complete collection' of great-making properties, and will be in no way deficient of anything that contributes to greatness, other things being equal. If this is not possible, then each will have a maximally great class of great-making properties; and this reflects

77 I do not mean to suggest here that Aquinas thought that the doctrine of the Trinity was self-evident or that Descartes thought that it was clear and distinct. All I am trying to do is draw attention to one way of understanding the concept of clarity.

78 I am not convinced that moral goodness alone is sufficient for aesthetic beauty, though people do sometimes use the phrase 'moral beauty'. I think that the New International Version mistranslates '$\kappa o \sigma \mu o \varsigma$' as 'beauty' in 1 Peter 3: 3 ff. The King James Version correctly has 'adorning'.

as much wholeness as is possible, and, therefore, as much beauty as is possible in this regard. There might seem to be an element of circularity here, if beauty is considered as itself a great-making property, but I do not think that any vicious circularity is present. If *x* possesses every great-making property bar beauty then *x* possesses, in virtue of the completion of the set apart from beauty, beauty itself. Beauty is a supervenient great-making property consequent on (but not only on) the possession of all the non-supervenient great-making properties. This appearance of circularity resurfaces in the following two paragraphs where it may be dealt with analogously.

Secondly, each member of the Trinity demonstrates proportion or harmony because each of the attributes of each divine person coheres with each other attribute. By 'coheres' here I do not mean merely that the possession of each is compossible with the possession of each of the others; I mean rather that the possession of each attribute enables and supports the possession of each of the others. For example, the possession of omniscience enables the possession of omnipotence to be effective – power without knowledge is of little use: how could one bring about what one intends without the knowledge that, if one did a particular action, particular consequences would follow? Likewise, it would be of little practical use if one were a perfectly good agent desiring to bring about the best possible states of affairs if one did not know what those states of affairs were, or did not have the power to bring them about. But each divine person's attributes combine to create a maximally great set of great-making properties. Again, it is hard to think of greater possible harmony than that between the divine attributes, and, therefore, it is hard to think of greater beauty, thus far forth.

The third condition, mentioned in iii, is, again, harder to ascribe to a divine person. What would it mean to say that a divine person exhibited clarity or radiance? I mentioned above that one can understand the notion of clarity in terms of intellectual clarity, especially that exhibited by simple truths or simple objects. I think that there is a certain simplicity about the divine nature. It is simple in virtue of the fact that it consists in no more and no less than maximal greatness.[79] It may well be that the divine nature is too profound for us fully to grasp, but this is not at odds with its being represented by the simple formula of maximal greatness; it shows merely that we cannot fully understand what is represented by that simple formula. The simplicity of the divine nature is further evident from the fact that there are no complications to it such as the essential possession of a complex thing such as a body. Indeed, it is hard to think of a simpler possible nature than that of maximal perfection, and so hard to think of one that exhibits greater beauty in this regard.

79 As stated in Chapter 1, I do not accept the traditional doctrine of divine simplicity, according to which each divine property is identical with every other divine property, and, according to which, every divine being is identical with his essence, which is in turn identical with his existence. I think, however, that the suggestion that the possession of each essential divine attribute is implied by the possession of the attribute of maximal greatness, and that the possession of this single attribute is both necessary and sufficient for being divine, satisfies one's intuitions about the simplicity of the divine nature without leading to the paradoxical consequences of the traditional doctrine.

Conclusion

I conclude that each divine individual maximally satisfies each of the three conditions and should therefore be thought of as maximally beautiful, just as the Trinity as a whole may be thought of as maximally beautiful. So, I think that it is coherent and correct to ascribe maximal beauty to every divine being, as Scripture, tradition, and intuition have it. We have seen, then, that it is reasonable to think that every divine being has maximal value in both the ethical and the aesthetic spheres.

7 Eternity and omniprescence

Eternity

I now wish briefly to consider the relationship between being divine and being in or outside time. I should have liked to have discussed this topic in detail, but shall content myself with a brief discussion here. My reason for not having a detailed discussion is that, although I myself believe that every divine being is in time, I do not think I can prove this from purely philosophical considerations. My reasons are theological: I believe that one divine person became incarnate in the person of Jesus of Nazareth, and that, consequently, the person Jesus of Nazareth was divine. This is a standard item of Christian belief. It also seems to me clear that Jesus of Nazareth was in time: he performed all manner of actions, and suffered, and died, and it seems to me that, necessarily, suffering takes time. Since he was both divine and in time, it follows that at least one divine being is in time, since one cannot enter and leave time.[1] It would, however, be odd if only one of the three divine persons was in time. It would also be difficult, on this supposition, to explain the close relationship that each member of the Trinity has with each other member. So I believe that every actual divine being is in time. This by itself does not prove that every *possible* divine being is in time, but I accept Richard Swinburne's argument, previously discussed, that there is nothing more to a divine being than his possession of the divine nature and his particular essential relational properties: there is no 'thisness' that could individuate one divine being from another. Swinburne also argues that it is impossible that there be more or fewer than three divine beings, since divine beings are individuated by the exact essential relations that actually individuate them. It follows that any possible divine being is identical with one of the actual divine beings. Since I think that everything in time is essentially in time I think that every divine being is essentially in time, and, hence, that it is not possible that there be a timeless divine being. This reasoning appeals, however, to theological premisses that even some theists may not accept. (They are not accepted, for example, by Jews or Muslims, and many Christians dispute my precise understanding of them.) So I shall not say any more about this

1 To forestall an objection, let me add that I do consider that Jesus was maximally great: omnipotent, omniscient, omnipresent, perfectly good, and even purely spiritual, though he did, of course, possess a body.

argument, and shall briefly consider the philosophical arguments for and against the idea that every divine being is in time.

Philosophical arguments

Becoming divine?

A first question to consider would be 'Is it possible to become divine?'. Maximus the Confessor claimed that the Blessed in Heaven are deified in the sense of 'becoming all that God is, except for an identity in essence' (cf. Swinburne 1998: 251). Swinburne comments that a 'natural way of interpreting this is to say that the Blessed are – not by nature, but by God's grace – omnipotent, omniscient, and perfectly good' (Swinburne 1998: 251). Indeed, it does seem metaphysically possible for something to become omniscient, omnipotent, perfectly good, and maximally beautiful: in short, to gain all the properties – call these the 'base' properties – that we have previously considered. Is it possible to become *maximally great*? I think the answer is 'No'. Surely a being that *essentially* possesses all the base properties is greater, *ceteris paribus*, than a being that has these qualities only *accidentally*. This was why we concluded that everything divine was essentially divine. Also, surely a being that permanently possesses the base properties is greater, *ceteris paribus*, than a being whose possession of these qualities is transitory (perhaps because his existence is transitory). It should be noted that there are two routes to the conclusion that a being that permanently possesses the base properties is greater than one that possesses them only temporarily: one route is to consider a being's greatness *sub specie aeternitatis*, i.e. to consider the sum total of a being's existence before deciding how much greatness he has – clearly on this route a being that permanently possesses the base properties is greater than one that merely temporarily possesses the base properties; the second route is to consider a being only at a specific instant of time. It might seem at first as if, on this second route, one cannot differentiate between a being that permanently possesses the base properties and a being that only temporarily possesses the base properties, but that impression seems to me mistaken. The point is that it seems plausible that a being that just happens to possess the base properties for a (non-everlasting) period of time, for example by being given them, is less great than a being that everlastingly possesses these properties, for example because they constitute a part of his nature and because his nature is to exist at all times. Similar considerations apply, as we have seen, to the essential possession of the base properties when we look not across times, but across possible worlds: we could consider all the different possible worlds in which a particular being that essentially possesses the base properties exists and then see how much greatness he has on average and compare him with a similar being that merely contingently possesses the base properties, though many philosophers have doubts about the legitimacy of this procedure;[2]

2 These doubts are based on the view that actual beings do not really exist in other possible worlds, nor do other-worldly counterparts of an actual being exist, and so they cannot be compared with really existent things. Some philosophers, notably David Lewis, think that other-worldly beings

or we could compare objects in a world in virtue of the properties they possess in that world of essentially or contingently possessing the base properties. It seemed to us, in that respect, that a being that essentially possessed the base properties was greater, *ceteris paribus*, than a being that only contingently possessed the base properties.

It follows that every divine being not only has no beginning or end of its existence (for every being that has a beginning or end of existence has only a tenuous grip on existence, unlike the grip that a permanent being has on it, and so is less great than a permanent being), but also that every divine being has no beginning or end of its divinity (for every being that has a beginning or end of a great-making property has only a tenuous grip on it, and so is less great, *ceteris paribus*, than a being with a permanent grip on the great-making property in question). Almost every theist will, in fact, agree that everything divine has no beginning and no end, for it does seem clear that a being with a beginning or an end is less great than a being that has no beginning and no end; but there is disagreement among theists over whether every divine being is sempiternal – that is, exists at every time – or whether every divine being is timeless – that is, exists, but not at any time. There is also the third possibility, not often mentioned, that each property is compatible with divinity, such that it is conceptually possible that there be a divine sempiternal being and it is conceptually possible (even if metaphysically impossible) that there be a divine atemporal being.

The classic statement of atemporalism

Historically, the dominant view from Augustine onwards has been the atemporalist view – that every divine being is timeless. Here is a classic exposition from Boethius:

> Eternity, then, is the complete possession all at once of illimitable life. This becomes clearer by comparison with temporal things. For whatever lives in time proceeds as something present from the past into the future, and there is nothing placed in time that can embrace the whole extent of its life equally. Indeed, on the contrary, it does not yet grasp tomorrow but yesterday it has already lost; and even in the life of today you live no more fully than in a mobile, transitory moment [. . .] Therefore, whatever includes and possesses the whole fullness of illimitable life at once and is such that nothing future is absent from it and nothing past has flowed away, this is rightly judged to be eternal.
>
> (Stewart *et al.* 1978: 422.5–424.31; cf. Stump and Kretzmann 1981: 430)

really do exist, just as actual beings exist, and so these philosophers, presumably, have no problem with the comparisons. See, for example, Lewis (1986).

The temporalist challenge

More recently, this view has been challenged by contemporary philosophers of religion that hold the temporalist view – that every divine being is in time. I shall, therefore, begin by considering these challenges to the atemporalist view and seeing whether they can be met.

It is often argued that the Boethian doctrine of a timeless divine being is absurd for the following reason: if a divine being is simultaneous with the Battle of Hastings and simultaneous with the present moment then it follows that the Battle of Hastings is simultaneous with the present moment, i.e. that the Battle of Hastings is happening now, which is false. Indeed, it follows that every time is simultaneous with every other time, which is absurd. The dominant response to this argument has been to deny its key premiss: the transitivity of simultaneity. This key premiss says:

(7.1) $(\forall x)(\forall y)(\forall z)$ (if x is simultaneous with y and y is simultaneous with z then x is simultaneous with z)

This has been denied in an influential article by Eleonore Stump and Norman Kretzmann (1981; cf. Fitzgerald 1985 and Stump and Kretzmann 1987). It seems to me, however, that a better way is to deny that a divine being is simultaneous with anything; this is the approach adopted by Paul Helm in his monograph (1988). This approach seems to me better because it is more in keeping with the intuitive understanding of timelessness: that no divine being has temporal relations. Since, in particular, simultaneity is a temporal relation, no divine being is simultaneous with anything. (It may here be objected that simultaneity does not have to be a temporal relation. In this chapter, however, we are considering a divine being's relation to time, so a non-temporal relation is not relevant – the question is 'Does a divine being have any temporal relations or not?'.)

The Helmian conception of every divine being as absolutely timeless is also attacked. For example, it is held that it is incompatible with the view that a divine being performs many different actions in history and that these actions are temporally ordered, one after another. The correct response here is not to concede that every divine being has certain temporal relations, viz. that of acting at a certain time and that of acting again at a later time, for that would be to abandon the atemporalist concept. Rather, the correct response for the Helmian is to insist that every divine being timelessly acts and that the effects of his action are temporal.[3] So every divine being, on the Helmian conception, timelessly wills that certain different events should happen at certain different times.

We dealt in Chapter 2 with the argument that if a divine being is timeless he is not omniscient because he does not know what time it is. We found that argument wanting: we concluded that even if it is correct that a timeless being cannot know what a temporal being knows when he knows what time it is, that is no good reason

3 I write 'his action' in the singular, as a concession to those that argue that there can be only one timeless action. The key premiss in their arguments appears to be that actions can be individuated only by reference to times. I am not inclined to grant this premiss, and so am unconvinced that there can be only one timeless action. Nothing much turns on the point, however.

for postulating that every omniscient being is in time, any more than the fact (if it is a fact) that a spaceless being cannot know what a spatial being knows when he knows where he is is a good reason for postulating that every omniscient being is in space.

Atemporalism is often further attacked with the claim that a timeless divine being could not respond to human initiatives. The key premiss in this argument appears to be that, necessarily, if something is a response to an event it temporally follows that event. Again, I see no reason to grant this premiss: the 're-' element in 'response' is compatible with logical, rather than temporal, sequence, and, though, it seems to me true that necessarily a response to an event is *logically* subsequent to the event, I do not think that this implies *temporal* succession.

The just-mentioned attack is often elaborated into the claim that necessarily every *person* is temporal. In other words, it is claimed that if a being is outside time that being is not a person, and, hence, not divine, since personhood is a great-making property. (Thus far forth, the argument appears to have assumed that atemporality is not a great-making property, but this is certainly contested, as we shall see.) It is unclear, however, what the necessary and sufficient conditions for being a person are, and so it is unclear whether it is possible that there be an atemporal person.

Another argument that presents itself, however, goes as follows:

(7.2) For every being, x if x has emotions then x is temporal.

(7.3) For every being, x, if x is divine then x has emotions.

Therefore,

(7.4) For every being, x, if x is divine then x is temporal.

Each of the premisses of this argument is controversial, however. The simplest argument for the proposition expressed by the first premiss, (7.2), is that the having of an emotion is a temporal event, i.e. it takes time. One cannot feel timelessly sad or timelessly happy, so the argument goes. Secondly, it is argued that a timeless being would have contrary emotions: he would feel both happy and sad – happy at the good things that he and others do, and sad at the bad things that others do. This seems clearly possible to me, however; indeed, are we not sometimes happy about one thing and sad about another? So likewise a timeless being could be happy with respect to one thing, and sad with respect to another. It may be retorted that the problem is not logical but psychological: it is unfitting for a divine being to be in such an 'emotional mess'. The atemporalist may well respond to this, however, by saying that it is unfitting for a divine being to have any emotions at all, i.e. the atemporalist may at this point deny the proposition expressed by the second premiss, (7.3). This debate is hard to decide: the temporalist may claim that emotions are an important part of life, and a being that lacks emotions would be less great than a being with emotions, pointing to examples of comparatively emotionless humans that one would be disposed to consider less great than (comparatively) emotional ones. The atemporalist may respond by urging that emotions can mislead us into irrationality, and that a being that has no emotional 'distractions' is greater than a

being that does have them. Again, it seems to me that there are non-philosophical arguments here. It seems to me reasonably clear that the Bible depicts God as having emotions (cf., e.g., Genesis 6: 6), though this is disputed. It seems to me even clearer that Jesus had emotions (cf. Matthew 26: 38, Mark 10: 21a, Luke 19: 41, John 11: 35), and, since Jesus was and is a divine being, it follows that it is possible that a divine being have emotions. And, of course, humans are made in the divine image, so our having emotions (which is not a consequence of the Fall or our sinful nature) may well be attributed to our maker too, though this move is by no means infallible. These theological considerations strongly incline me to the view that every divine being has emotions and that the having of emotions is a great-making property.[4] Nevertheless, I think it is hard to prove this without recourse to theological premisses, and it is hard to prove that the having of emotions takes time.

In my judgement, neither side has a compelling *philosophical* argument here, so the proposition expressed by the second premiss, (7.3), is not shown to be true or false. Since it forms part of a temporalist argument, however, I must conclude that the argument is not compelling, since the truth of neither premiss has been shown. I do not think the argument is completely lacking in force, but it certainly falls far short of being decisive.

I shall now turn to the arguments for atemporalism.

An argument for atemporalism

One argument in favour of the atemporalist conception is derived from perfect-being theology itself. The claim is that a timeless being is greater, *ceteris paribus*, than a temporal being, and, hence, that every divine being is timeless, since every divine being is maximally great. Before examining whether or not the argument is sound, let us examine the principal premiss. The argument for this premiss is that a timeless being has all of his existence at once, whereas a temporal being at any one time has only an instantaneous portion of his existence, with part of his existence out of reach in the future, and the rest of it out of reach in the past. I think there is some force to the intuition underlying this argument, but also that there are some unhelpful connotations that must be avoided: one is tempted to think that a temporal divine being must, like us, regret things he did in the past and be worried about things he will do in the future, and that these traits of regret and worry are not compatible with being a maximally great being. Of course, a divine being is not like us in these respects: necessarily, a divine being is perfectly (eternally) good and so never does anything wrong and so never has any regrets and, necessarily, a divine being has (eternally) full foreknowledge of events in the future and so has no worries, since he knows what will happen, and knows that, thanks to his (eternal) omnipotence, he is able to handle whatever may arise. Nevertheless, it may be pressed that a temporal divine being may regret the passing of certain events and look forward with dread to others, or regret what other people have freely done and

4 It is possible, of course, that the having of emotions is a neutral property.

worry about what other people will freely do. For example, it might be claimed that God looked back with regret on Adam and Eve's eating of the forbidden fruit, and forward with dread to the death of Jesus on the cross. Indeed, if one accepts that Jesus was divine it is hard to avoid the conclusion that a divine being felt dread about the future, since this is so clearly taught about Jesus in Scripture (see, e.g., Matthew 26: 38). But this is entirely an objection to the idea that it is possible that a divine being be passible, not to the idea that it is possible one be temporal. It might, of course, be responded that temporality implies passibility, but this is not plausible: inanimate objects such as minerals are temporal but do not suffer.[5] On the other hand, I tentatively think that atemporality implies impassibility: it seems to me that, necessarily, suffering takes time and that, in consequence, a passible being would be temporal; though, as we have seen, this point is neither obvious nor provable. There is a complication here: 'passible' is a modal adjective, meaning *able to suffer*. Someone might reply that an atemporal being might be *able to* suffer even if it is impossible that atemporal beings suffer, for it might be argued that an atemporal being might be able to 'become' temporal. Indeed, this line has been pushed, for different reasons, by William Lane Craig (cf. Ganssle 2001: 129–160). I think this is unsuccessful, however, since I cannot see how an atemporal being could 'become' temporal. The very word 'become' is a temporal word, and so we cannot truthfully say that an atemporal being can 'become' anything. And it seems to me, despite Lane Craig's claim to the contrary, a clear contradiction to assert that God is both atemporal and temporal. At least, it is a contradiction on the understanding of 'atemporal' put forward earlier in this chapter, and I can make no sense of any other definition of 'atemporal' that would allow something to be both atemporal and temporal.

In any case, let us now consider the claim that if a divine being is in time half of his life will be out of reach in front of him and half out of reach behind him. (I write 'half' because a temporally infinite being will at any point in time have an infinite past and an equally infinite future.) The first part of this claim does not seem to be true in any significant way: a temporal divine being, being (eternally) omnipotent, would be able at any time, t, to cause any effect at any time, $t + n$, after t. Indeed, if backwards causation is possible (which I doubt), then a temporal divine being would be able at any time, t, to cause any effect at any time, $t - n$, before t. And, of course, if simultaneous causation is possible (which I also doubt), then a temporal divine being would be able at any time, t, to cause any effect at t. So it seems as if nothing would be out of the reach of a temporal divine being in virtue of futurity and, if backwards causation is possible, nothing will be out of reach

5 A very few philosophers still use 'impassible' in the original, technical, sense of *not being the object of an action*. They may claim that being impassible in this sense of 'impassible' does imply being atemporal. I have two problems with this line of argument: first, I do not see why one would want to think that a divine being was impassible in this sense of 'impassible', and, secondly, I do not see how anything could be impassible in this sense of 'impassible' – if I think of the number two is not the number two the object of my action of thinking? The impassibilist may reply by distinguishing between real relations and non-real relations, but such a strategy then brings impassibility so close to atemporality that the former cannot provide independent support for the latter.

in virtue of pastness. Suppose, however, that backwards causation is not possible, does it follow that a temporal being is less great than an atemporal being? Not necessarily, since a *divine* temporal being will look back with satisfaction rather than regret on his past actions, informed as they will have been by his (eternal) perfect goodness, omnipotence and omniscience.

Here a subtle point emerges: perhaps someone will argue that it may be that a property is a great-making property for some beings, but not for others. For example, the argument would go, it may be that atemporality would be a great-making property for a being that was not omniscient and omnipotent. This is because a temporal being that was not omniscient and omnipotent might make a mistake that he would then be unable to correct, or might worry about things in the future out of his control. Atemporality would remove these potential problems. Hence atemporality would be a great-making property for such a being, even if it were not one for an omnipotent and omniscient being. There is a subtle error in this reasoning, however: it is not the atemporality that contributes to greatness, but rather the freedom from mistakes and worry. It is true that atemporality implies this property, but other properties imply it too. In particular, omnipotence and omniscience jointly imply freedom from mistakes and worry. Furthermore, these properties are compatible with temporality, and so it is not the case that temporality precludes freedom from mistakes and worry. So we have no reason to think that, necessarily, a temporal being lacks the great-making property of freedom from mistakes and worry. So we have no reason thus far forth to think that, necessarily, a temporal being is not divine.

It may be, however, that somebody will retort that, leaving aside feelings of regret and worry, it is still less great to have half of one's life out of reach in the past and half of it out of reach in the future than to have all one's life within reach. But this is hardly a fair comparison: an everlasting being has his life out of reach in the sense that out of all the moments that compose the duration of his existence, half of them will be in the past, and half in the future.[6] But it is not as if a timeless being will have infinitely many moments of his life available to him, since his life is composed of no moments at all (or, possibly, of one timeless 'eternal moment'). Of course, for the timeless being every moment of time is available for him to act in, but then every moment of time is available for the everlasting being to act in: at each moment that moment itself is available to act in, or at each moment every subsequent moment is available to have a state of affairs brought about in. Here we may meet the following rejoinder: if one compares a timeless being with an everlasting being *sub specie aeternitatis* then one will see that for each being every moment of time is available to that being, but one should compare a timeless being with an everlasting being *at a particular instant of time* or a particular time-slice of an everlasting being; when we do that, we find that the timeless being has every moment of time available to him, but that infinitely many moments are no longer available to the everlasting being, assuming that backwards causation is impossible.

6 Since his life-span is infinite, in fact it could be divided into (continuous) halves an infinite number of ways.

But why should we grant this comparison? If one went to an everlasting being and said to him 'You, right now, are not as great as a timeless being, for infinitely many past moments are now out of your reach', why should not the everlasting being respond with a smile 'I am not worried about those moments because I took care of them some time ago'?

It has also been urged by, among others, Brian Leftow (1991), that a temporal being is less great than an everlasting being because he is less simple: a timeless being has no temporal parts, whereas a temporal being does have temporal parts, indeed, infinitely many temporal parts. This argument would have greater force if it were presented as a stark choice between a totally simple divine being (a timeless one) and a complex divine being (a temporal one). It is not this simple, however, since not many philosophers nowadays defend the doctrine of the total simplicity of every divine being. This is because the doctrine involves commitment to such implausible theses as that a divine being has no properties distinct from himself and that he is identical with both his essence and his existence. So almost every philosopher accepts some complexity in the divine nature. The argument is not totally without force, however, since it is reasonable to try to avoid unnecessary complexity, and it may well seem to be the case that a simple being is greater, *ceteris paribus*, than a complex being. Again, the argument varies, depending on whether we consider an everlasting being *sub specie aeternitatis* or at a particular moment in time. If we consider him at a particular moment in time we are considering only one temporal slice – a momentary being, which is, thus far forth, as simple as a timeless one.[7] On the other hand, if we consider him *sub specie aeternitatis* we are considering him as a collection of infinitely many temporal slices, i.e. certainly as much more complex than a timeless being. The choice between these two considerations is controversial, however: some philosophers think that an object persists by enduring, i.e. by being wholly present at more than one moment of time; others think that an object persists by perduring, i.e. at different moments a different proper part of the object exists, and the object is a collection of some kind consisting of these proper parts. Endurantists will not agree that a temporal object is less simple than a timeless object; perdurantists will be forced to agree. I do not propose here to settle the debate between perdurantists and endurantists, but shall merely return to considering the validity of the argument for atemporalism. Note that there are two hidden premisses in this argument:

(i) it is possible for there to be a timeless being;

and

(ii) a timeless being can have all the other great-making properties that a temporal being can have.

Now, the first of these premisses is controversial, but I shall not dispute it, because it seems to me plausible that there do exist timeless entities: propositions, numbers, sets, properties, etc. (Not many philosophers think of these as being in time;[8] the

7 Of course a temporal slice will have properties connecting it with other temporal slices (i.e. slices of the same being at a different time), which properties an atemporal being will lack.

8 For a dissenting voice, see Nicholas Wolterstorff, 'God Everlasting', in Orlebeke and Smedes (1975) ; repr. Cahn and Shatz (1982: 82).

question is whether they really exist.) These entities are all abstract, however, and I argued in Chapter 1 that concreteness was a great-making property. So if being timeless implies being abstract then it is impossible that a divine being be timeless since, if he were, he would be less than maximally great, which is impossible. Here it might seem as if an absolutely perfect being would be both timeless and concrete. Even if this is so, it is not relevant to our current project, which is to elucidate the notion of maximal greatness – an impossible absolutely perfect being is of no interest to us. There remains the residual question of which is greater: a timeless abstract being or a temporal concrete being. It seems clear to me that the latter is greater than the former.

But why may a timeless being not be a concrete one? Can he not exert causal power? It might seem at first as if a timeless being cannot cause anything because he cannot perform an action, since actions, like all events, take time. Matters are not so straightforward, however, since a timeless being can will an action to take place in time. Is not the willing of such an action itself an action, however? It seems to me that a state of wanting, or the having of a pro-attitude towards, an action would suffice for willing even though such a state might not be temporally extended. So I cannot see a compelling argument for claiming that every concrete thing is in time. Equally, however, I do not think that the atemporalist has proved that a being with no temporal parts is greater than one with temporal parts.

Argument from physics

There is also an argument for the timelessness of a divine being from physics:

(i) every divine being is spaceless, i.e. not spatially extended;
(ii) every spaceless being is timeless, i.e. not temporally extended;

therefore,

(iii) every divine being is timeless.

This argument is often quoted as though modern science has proved correct the traditional theistic conception of a timeless divine being. Things are not this simple, however, since traditional theism historically has gone hand-in-hand with belief in angels, as the messengers of the divine. Angels have traditionally been thought to be purely spiritual beings, i.e. to have no spatial extension, but to have been created, i.e. to have had a beginning, and, hence, to be in time. Angels aside, the problem is with the second premiss. The argument for it is that the rate of passage of time is determined, according to relativity theory, by the particular reference frame for the object, which reference frame is itself determined by the mass and speed of the object. So, it is claimed, it makes no sense to speak of the temporality of a massless object with no speed, as one could not answer the question 'At what rate does time pass for this object?', i.e. the question 'What is this object's reference frame?'. A detailed discussion of this point is beyond the scope of this book, but we may draw on Richard Swinburne's response, which is to claim that relativity theory implies not that there is no privileged reference frame in which to settle such questions, but at most that we cannot know which frame

this is.[9] Note also that some philosophers are happy to say that any divine beings there are do not exist in *our* physical time, but in their own time. This time may be unmetricated, i.e. such that it cannot be measured (cf. Padgett 1992).

The 'eternity is boring' objection

It has been argued by some philosophers, notably Bernard Williams (B. A. O. Williams, 'The Makropoulos Case', in Williams 1974), that everlasting life would be boring. Williams puts forward this argument in denying the immortality of the soul, but it could be used by someone to argue that every divine being is atemporal since an everlasting being would be less great than an atemporal being in this regard. Note that Williams in fact argues for the conclusion that a finite lifespan is greater than an infinite one. This, of course, could not be accepted by most orthodox theists, since belief in the everlasting life of the Blessed in Heaven goes hand-in-hand with belief in a divine being, historically. Leaving that aside, I think that Williams's argument is still unpersuasive. In fact, it seems to embody a lack of imagination. For example, suppose that there are, to put it in anthropomorphic terms, infinitely many facets to each divine being's nature. Then a divine being can spend all eternity contemplating his nature (one facet for each millennium, year, day, minute, second or nano-second, as desired). Since the nature of a divine being is the greatest possible nature there is no greater nature to contemplate, and surely no better way to stave off boredom.

Immutability

Closely bound up with the question of whether every divine being is temporal or atemporal is the question of whether every divine being is mutable or immutable. It is bound up as follows: if every divine being is atemporal then he is immutable as every change takes time. If something is temporal does it follow that it is mutable? No, for it seems possible that there be an instantaneous being. Is it possible that there be an enduring and immutable being? The problem with this question is that there are different understandings of 'immutability'. On one understanding it is necessarily true that every enduring being is mutable. What is it to change? It is to possess a certain property at one time and to lack it at another. Suppose a being exists now. It is now 0900 on 15/10/2003. So the being has the property of existing now at 0900 on 15/10/2003. I pause for a minute. It is now 0901 on 15/10/2003. The being still exists and so has the property of existing now at 0901 on 15/10/2003; he doesn't any longer have the property of existing *now* at 0900 on 15/10/2003, even if he still has the property of existing at 0900 on 15/10/2003. It follows that the being has changed and so is not immutable.[10] Mutability of this sort, however,

9 Richard Swinburne, personal communication; cf. Swinburne (1981).

10 Some may reject this argument on the grounds that 'now' means *at the time in question*, and so the property of existing *now* at 0900 is just the property of existing at 0900 at 0900. I rejected this line in the discussion of divine knowledge of indexicals; see Chapter 2.

is fairly trivial. Every omniscient being will be mutable in a stronger way, though: for example, a temporal omniscient being will know at any time, t_0, that it is then t_0; at another time, t_1, he will know that it is then t_1 and not believe that it is then t_0. Thus his knowledge will change over time.[11] Nevertheless, if it is possible that a divine being be in time, such a divine being will possess the property of being immutable in a fairly strong way – a much stronger property than that possessed by any other temporal thing. For example, it will be impossible for a temporal divine being to undergo any significant change[12] without allowing himself to be changed. Furthermore, a temporal divine being cannot change (and cannot want to change) from being maximally great, omnipotent, omniscient, perfectly good, maximally beautiful etc. A temporal divine being cannot change his mind because he is perfectly rational and so always makes the best decision on the information available, and is omniscient and so possesses all the correct information there is. There is no fickleness and inconstancy about a temporal divine being. The question now arises as to whether the mutability that a temporal being must have is a bad thing, i.e. whether necessarily a temporal being is less great than a timeless being, *ceteris paribus*, on account of his mutability. It seems to me that he is not. The sort of immutability that is a great-making property is the freedom from fickleness that a divine being would have anyway, even if temporal. I do not think that the sort of immutability that proscribes even the changing of temporal location, or that plus the change of beliefs, is more of a great-making property than freedom from fickleness. Hence, a being that is totally immutable (by being atemporal) would not be greater than a being that is free from fickleness but mutable in other, trivial, ways.

Conclusion

It seems to me that our discussion has proved inconclusive; we have not shown that every divine being is in time, nor that every divine being is timeless. As I said at the start of this discussion, since I believe that Jesus was both divine and in time I am committed to denying the atemporalist view. It also seems more plausible to me to maintain that, necessarily, every divine being is in time, rather than that some possible divine beings are in time and some are timeless. I do not, however, know of an argument to prove this contention without reference to special theological beliefs, such as the Incarnation.

11 Again, some might object to this argument, that the knowledge at t_0 that it is then t_0 is just the knowledge at t_0 that it is t_0 at t_0. I have argued against this in the discussion of divine knowledge of indexicals; see Chapter 2.

12 It may not be easy to define exactly what a significant change is, but the intuition is that the change in beliefs associated with knowing what time it is is not significant in this context, though it might, of course, be significant in other contexts.

Omnipresence

One final attribute not dealt with before now, but very prominent in the theistic tradition, is that of omnipresence. I have not dealt with it before now for two reasons: first, it is not a philosophically controversial attribute, and, secondly, I think it is parasitic on omnipotence and omniscience. Aquinas expounds four related theses in Q.8 of the First Part of the *Summa Theologiae*:

(i) every divine being exists in everything;
(ii) every divine being is everywhere;
(iii) every divine being is everywhere in substance, power and presence;
(iv) no non-divine being is everywhere.

Aquinas argues for the proposition expressed by i thus:

> God exists in everything; not indeed as part of their substance or as an accident, but as an agent is present to that in which its action is taking place. [. . .] Now since it is God's nature to exist, he it must be who properly causes existence in creatures [. . .]. And God is causing this effect in things not just when they begin to exist, but all the time they are maintained in existence [. . .]. During the whole period of a thing's existence, therefore, God must be present to it [. . .]. Now existence is more intimately and profoundly interior to things than anything else [. . .]. So God must exist and exist intimately in everything.
>
> (Aquinas 1963: Ia.Q8.a1)

In other words, Aquinas is saying that every divine being is omnipresent in virtue of being the sustaining cause of everything. This seems philosophically unproblematic; every divine being sustains everything, including himself and every other divine being, in being. That is, at every time, t, every divine being is causing, for every time, $t+n$, after t, everything that exists at $t+n$ to exist at $t+n$. (If simultaneous causation is possible then at every time, t, every divine being is causing everything that exists at t to exist at t, and if backwards causation is possible then at every time, t, every divine being is causing, for every time, $t-n$, before t, everything that exists at $t-n$ to exist at $t-n$.)

Aquinas then argues for the proposition expressed by ii by distinguishing two senses in which God could correctly be said to be everywhere:

> First, he is in every place giving it existence and the power to be a place, just as he is in all things giving them existence, power and activity. Secondly, just as anything occupying a place fills that place, so God fills all places. But not as bodies do (for bodies fill places by not suffering other bodies to be there with them, whilst God's presence in a place does not exclude the presence there of other things); rather God fills all places by giving existence to everything occupying those places.
>
> (Aquinas 1963: Ia.Q8.a2)

Aquinas's first point here appears to be premissed on an objectivist account of space, rather than a relativistic one. This is obviously unsurprising, but may appeal less to the present-day philosopher. I include it here not because I think it correct, but merely because if the objectivist theory of space is correct then Aquinas is

right to suggest that omnipresence includes causing space itself to exist. If the relativistic account of space is correct, then only Aquinas's second point is correct: omnipresence includes the causing to exist and sustenance of every spatial object and, thereby, the permissive causing of every spatial relation to obtain. I myself favour the relativistic conception of space, but there is no room for me to argue the point here. In any case, this doctrine of omnipresence does not seem especially philosophically problematic if one accepts the underlying metaphysics.

Aquinas then sums up his argument for the proposition expressed by iii thus:

> Thus God exists in everything by power inasmuch as everything is subject to his power, by presence inasmuch as everything is naked and open to his gaze, and by substance inasmuch as he exists in everything causing their existence, as we said earlier.
>
> (Aquinas 1963: Ia.Q8.a3)

Here omnipresence is viewed as supervenient on omnipotence, omniscience, and the fact that everything depends on every divine being for existence. Since nothing anywhere is outside divine power and nothing anywhere is outside divine knowledge, and since nothing anywhere is outside divine sustenance, there is a very good sense in which every divine being may be said to be omnipresent.

Finally, Aquinas argues for the proposition expressed by iv thus:

> Being everywhere outright and essentially belongs to God alone. By being everywhere outright I mean being everywhere in one's completeness. For to exist everywhere, but with a different part in each different place, is not to be everywhere outright, since any property of a part is not the outright property of the whole [. . .]. By being everywhere essentially I mean not just happening to be everywhere in certain circumstances [. . .]. When a thing is such that it would exist everywhere in any circumstances, it exists everywhere essentially. Now this belongs to God alone. For no matter how many places one may think up, even infinitely more than now exist, God would necessarily exist in them all, since nothing can exist except he cause it to do so.
>
> (Aquinas 1963: Ia.Q8.a4)

While I accept that no non-divine being is actually omnipresent, I am not convinced that it is conceptually impossible that there be an omnipresent non-divine being. Here, however, I want to concentrate on Aquinas's last sentence, which teaches the doctrine of *essential* divine omnipresence, i.e. the doctrine that, of metaphysical necessity, every divine being is omnipresent. I accept this doctrine, and it does not seem to me to raise any philosophical problems over and above any raised by the unmodalized doctrine of divine omnipresence. It is evident that divine omnipresence supervenes on other divine attributes: for example, divine omnipotence, omniscience and the fact that all else depends on divine sustenance. This should mean that any philosophical problems that do arise with this doctrine should arise earlier concerning the subvenient attributes. We must, of course, Aquinas reminds us, be careful to stress that no divine being is omnipresent in virtue of being locally present, that is, physically present, everywhere. But surely this is not necessary to be omnipresent; surely what we have described is enough for the Psalmist's plea:

> Where can I go from your Spirit?
> Where can I flee from your presence?
> If I go up to the heavens, you are there;
> if I make my bed in the depths, you are there.
> If I rise on the wings of the dawn,
> if I settle on the far side of the sea,
> even there your hand will guide me,
> your right hand will hold me fast.
>
> (Psalm 139: 7–10)

Philosophers do raise difficulties over whether a nonphysical thing such as a divine being can be related in the right way to the physical world, e.g., by being the cause of everything in the physical world. I shall confine myself here[13] to pointing out that I cannot see any reason, other than the dogma of the 'causal closure of the physical', which I reject, to deny that it is possible for a mental substance to cause effects in physical substances. It must be admitted that it is difficult to explain *how* a mental substance could have physical effects, but then it is difficult to explain how a *physical* substance has physical effects. Indeed, I suspect that causation is a basic category and, as such, is not susceptible of further explanation (cf. Swinburne 1994).

Divine necessity

Another divine attribute that has occasioned much discussion is that of *necessity*. It is clear that no divine being exists of *logical* necessity in my sense of 'logical'. This is because, as we saw in our earlier discussion of modality, nothing exists of *logical* necessity; *logic* has nothing to tell one about what precise things exist.[14] Many theists, however, claim that every divine being exists of *metaphysical* necessity: that is, that it is *metaphysically* impossible for any divine being that exists to fail to exist. I agree with this claim; I think that every divine being is metaphysically necessary; that is, it is a law of metaphysics that every divine being that actually exists should exist. In other words, I think it is impossible that any divine being should fail to exist. Again, I do not think that this is the object of much philosophical controversy: such controversy as there has been has been over the claim that every divine being exists of *logical* necessity – it has been wrongly claimed that every divine being exists in such a way that atheism involves the commission of a logical mistake. Likewise, it has been claimed that because the ontological argument starts from purely conceptual premisses, its conclusion (that there exists a divine being) is true of logical necessity. I think that the ontological argument (in its traditional form, as opposed to Plantinga's modal version (1974: 213–217)) is invalid and that all it proves is that for every being, x, if x is divine then x is existent, and, secondly, that if x is divine x is 'necessarily' existent. But even if the ontological

13 For further discussion, see, e.g., Smith (1966); McClelland and Deltete (2000); and Craig and Smith (1993).

14 It is a presupposition of many logical systems that something or other exists, however.

argument were valid, all it would prove would be that it was a conceptual, rather than a logical, truth that *x* existed, and that *x* existed of conceptual necessity.

Absolute sovereignty

I think that the quality of absolute sovereignty is another great-making property. I say 'absolute sovereignty' rather than mere 'sovereignty' because there is of course a restricted notion of sovereignty that is at issue when we call Queen Elizabeth II, for example, 'the sovereign of the UK'. We shall want to ascribe to every divine being *absolute* sovereignty.

The following definition suggests itself:

(D7.1) For every being, *x*, *x* is absolutely sovereign if and only if, for every contingent state of affairs, *S*, if *S* had been actual then *x* would have strongly or weakly actualized *S*.[15]

I have written 'if *S* had been actual then *x* would have strongly or weakly actualized *S*' because there are certain contingent states of affairs that nothing distinct from Adam, say, has the power to actualize. Consider the state of affairs named by the following phrase:

(7.5) Adam's freely refraining from eating the forbidden fruit when given a free choice in the Garden of Eden.

This state of affairs, we know, did not obtain (cf. Genesis 3). So we know that no absolutely sovereign being strongly or weakly actualized it. But the state of affairs named by (7.5) is contingent. Indeed, Adam had the power to actualize it, but freely chose not to exercise his power. Did anything distinct from Adam have the power strongly to actualize it? No: if a being distinct from Adam had strongly actualized Adam's refraining from eating the forbidden fruit then Adam would not have freely refrained. Did anything distinct from Adam have the power weakly to actualize it? No. This is because the proposition expressed by the following sentence is true and outside the power of every being except Adam to render false:

(7.6) If Adam were given a free choice in the Garden of Eden then he would freely eat the forbidden fruit.

It follows that nothing distinct from Adam had the power strongly or weakly to actualize the state of affairs named in (7.5), because if Adam were placed in the circumstances in question (i.e. the circumstances of being given a free choice in the Garden of Eden) then he would use his freedom to eat the forbidden fruit. So, not even an absolutely sovereign being had the power to actualize the state of affairs named in (7.5) (since Adam is obviously not absolutely sovereign).

Now, suppose the state of affairs named in (7.5) had been actual, then the proposition expressed by (7.6) would have been false. What would have been true instead is the proposition expressed by:

15 Here I pick up on Plantinga's (Plantinga 1974: 172–173) use of 'strong' and 'weak' actualization, according to which, very roughly, one strongly actualizes a state of affairs, *S*, if one causes *S* to obtain, and one weakly actualizes a state of affairs, *S*, if one causes an agent, *A*, to be in a situation in which *A* will freely cause *S* to obtain (or in which *A* will freely cause another agent to be in a state of affairs in which he will cause *S* to obtain or cause another agent to . . .).

(7.7) If Adam were given a free choice in the Garden of Eden then he would freely refrain from eating the forbidden fruit.

It would still have been true, however, that an absolutely sovereign being had put Adam in the circumstances in question (i.e. the circumstances of being given a free choice in the Garden of Eden) and then that Adam had used his freedom in those circumstances. It follows that the absolutely sovereign being in question would have weakly actualized the state of affairs named in (7.5), had it been actual. So the definition is consistent with freedom (understood as the libertarians understand it).

This definition, (D7.1), has some interesting consequences: every absolutely sovereign being is a metaphysically necessary being. Suppose that *x* is a metaphysically contingent being, then it follows that *x's existing (at some time or other)* is a contingent state of affairs. But if *x's existing (at some time or other)* were actual it would not be the case that *x* strongly or weakly actualized *x's existing (at some time or other)*, since nothing has the power to actualize its own existence. Another consequence, as we have seen, is that if *x* is absolutely sovereign, then *x* cannot refrain from exercising his power: necessarily, *x* has some kind of responsibility for everything that is actual. Again, this may seem counter-intuitive, but it should be remembered that most theists think that everything that is actual is strongly or weakly divinely actualized.

There is an insuperable problem with the definition, (D7.1), sadly. Consider the state of affairs named by the following phrase:

(7.8) Adam's being such that if given a free choice in the Garden of Eden he would freely eat of the forbidden fruit.

This is the state of affairs that makes true the subjunctive conditional:

(7.6) If Adam were given a free choice in the Garden of Eden then he would freely eat the forbidden fruit.

The state of affairs named in (7.8) is metaphysically contingent – indeed, Adam had the power by freely refraining from eating the forbidden fruit to bring it about that it not obtain. Further, the state of affairs named in (7.8) is actual. Yet it is not strongly or weakly actualized by any being distinct from Adam – if it were, Adam's freedom would be compromised. It follows that the definition, (D7.1), is false as it stands.

The obvious strategy is to modify the definition thus:

(D7.2) For every being, *x*, *x* is absolutely sovereign if and only if, for every contingent categorical state of affairs, *S*, *S* would be actual if and only if *x* strongly or weakly actualized *S*.

This then removes from consideration hypothetical states of affairs such as that named in (7.8). This strategy might at first seem too weak, however, since then it might seem to allow to qualify as absolutely sovereign a being that lacked the power to actualize strongly or weakly the holding of the laws of nature, which one might think of as hypothetical states of affairs. I do not think that this is a problem, however, since every absolutely sovereign being will actualize every

actual categorical state of affairs that falls under a law of nature, and, if we regard the laws of nature as being mere descriptions of what happens and what would happen, this may not be a problem.[16] For example, it is a law of nature that potassium reacts violently with water. In the actual world any absolutely sovereign being that there may be has strongly or weakly actualized every actual categorical state of affairs of potassium's reacting violently with water. Furthermore, for every non-actual categorical state of affairs of potassium's reacting violently with water, any absolutely sovereign being would have actualized it, had it been actual. So, if we consider an absolutely sovereign being, *x*, in a world in which no categorical state of affairs of potassium's reacting violently with water obtains, for every categorical state of affairs of potassium's reacting violently with water, *x* would have actualized it had it obtained.

Ontological independence

I should also make mention of the divine attribute of *ontological independence*.[17] For every being, *x*, if *x* is divine then, for every metaphysically possible being, *y*, that is distinct from *x*, if *y* causes *x* to continue to exist,[18] possess a property, stand in a relation, or perform an action, then *x* permissively or actively causes *y* to cause *x*.[19] It will be apparent to the reader how closely connected this is to the previously discussed attributes of omnipotence, absolute sovereignty, perfect freedom, and eternity. The other side of the coin is the divine attribute of *being the creator and sustainer of all*, or what we might call '*universal causality*'. For every being, *x*, if *x* is divine then, for every metaphysically possible concrete particular,[20] *y*, that is distinct from *x*, if *y* exists, possesses a property, stands in a relation, or performs an action, then *x* actively or permissively causes *y* to exist, possess the property, stand in the relation, or perform the action. Universal permission is in one sense a much weaker notion than omnipotence, since permissively causing an action, unlike actively causing it (i.e. strongly actualizing the state of affairs consisting in its occurrence), does not determine the agent to perform the action.[21]

Conclusion

To conclude, in this work I have tried to show that the necessary and sufficient condition for the possession of the property of divinity or *being divine* is the

16 Miracles do pose a problem for this account, if interpreted as violations of the laws of nature. I do not accept this account of miracles, but do not have space to argue the point here.

17 Compare Swinburne's definition of 'metaphysical necessity' in Swinburne (1994: 118–119, 146).

18 For every being, *x*, if *x* is divine then *x* is eternal, i.e. omnitemporal or timeless, and so cannot be caused to *begin* to exist.

19 Just as in the earlier discussion of freedom, the definition iterates, so that if *y* causes *x* permissively to cause *y* then *x* actively or permissively causes *y* to cause *x* permissively to cause *y*.

20 I do not think that anything causes the existence of abstract entities.

21 Swinburne defines 'permission' thus: 'God "permits" or "allows" a state of affairs *S* to occur if he brings it about that nothing stops *S* from occurring. In particular he "permits" or "allows" an agent *Q* to bring about *S* if he brings it about that nothing stops *Q* from bringing about *S*' (Swinburne 1993: 144).

possession of the property of maximal greatness or *being maximally great*. I have tried to show that possession of this single property implies possession of the traditional attributes of a divine being: omnipotence, omniscience, omnipresence, perfect goodness, eternity, maximal beauty, as well as possession of some properties that divine beings share with many other beings, properties such as *being a concrete particular*, *having life*, *consciousness*, *agency* etc. I have also tried to show that this conception of divinity can unify the disparate brands of theism: all theists should be able to agree that a being is divine if and only if he is maximally great. I have tried to demonstrate both the consistency and the possibility of each of the divine attributes taken individually and of the class of divine attributes taken together. There are, I am sure, many divine attributes that I have not mentioned. Indeed, I am sure that there are infinitely many attributes, infinitely many aspects of maximal greatness, that are beyond our cognitive grasp. Nevertheless, I am sure that here too the possession of maximal greatness is sufficient for the possession of all the divine attributes, even the ones beyond our comprehension. I have not argued that this property of maximal greatness is actually instantiated, but it is as well to know about what we are talking when we discuss whether there really is a divine being or not.

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