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North American Philosophical Publications

Recent Work on God and Freedom

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Source: *American Philosophical Quarterly*, Vol. 29, No. 2 (Apr., 1992), pp. 91-109

Published by: [University of Illinois Press](#) on behalf of [North American Philosophical Publications](#)

Stable URL: <http://www.jstor.org/stable/20014405>

Accessed: 24/02/2011 13:12

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RECENT WORK ON GOD AND FREEDOM

John Martin Fischer

I. INTRODUCTION

IN the last twenty-five years, and increasingly in the last ten, there has been a considerable amount of work on the cluster of issues pertaining to the traditional problem of the relationship between God and human freedom. The richness and fertility of the puzzle are remarkable, and its intractability is not less noteworthy. In this somewhat panoramic—and, necessarily, compendious—essay, I shall present and organize some of the recent work on the set of issues involved in the puzzle.

II. WHAT DOES HE KNOW, AND WHEN DOES HE KNOW IT?

I shall suppose here that “God” is the name of an individual who possesses the divine attributes. These divine attributes include essential eternity and essential omniscience (among others). But there are two alternative conceptions of God’s essential eternity: atemporal and temporal (sempiternal).

Atemporality

On the atemporal picture of God’s eternity, God exists outside of the temporal framework in which humans exist. This leaves two possibilities: either God exists in another temporal framework, or He does not exist within any temporal framework. For my purposes here, it will be convenient to lump these two possibilities together in the category of the atemporal conception of God’s eternity. There is an interesting development of an atemporal conception of God in Stump and Kretzmann (1981, 1985,

and 1987). For some skeptical ruminations, see Pike (1970), and Fitzgerald (1985). There are recent defenses of the coherence of an atemporal God in Helm (1988) and Leftow (1991).

A set of problems emerges from the interaction of God’s essential eternity—construed as atemporality—and essential omniscience. It is a delicate business to define omniscience, but it is sufficient here to say that it is at least plausible to think that an omniscient being knows all the propositions that are true. Thus, if a being does not know certain propositions, this is at least *prima facie* reason to suppose that he is not omniscient. The problem is that if God is atemporal, then there appear to be certain things He cannot know. For instance, an atemporal God cannot know what time it is now, and thus it might be supposed that such a being could not be omniscient. There is an early discussion of this issue in Kretzmann (1966) and Castaneda (1967). (Kretzmann has informed me that he recently told Castaneda that he has changed his mind about the main issue about which they disagreed, to which Castaneda responded that he has also changed his mind. Thus, a disagreement remains.)

There is no time (within the human temporal framework) at which an atemporal God knows what He knows. He *timelessly* knows what He knows. But this does not mean that He does not know many things—even many temporal facts. He timelessly knows what happens at each human time (and the temporal relations between these events). It is important to distinguish the time at which knowledge is held from the temporal contents of the knowledge; even though God

possesses His knowledge timelessly, He can know temporal facts. But whereas an atemporal God can know that John F. Kennedy is assassinated in 1963 (where the "is" is not taken to express the present tense), and that Ronald Reagan is president at a later time than John F. Kennedy is president, such a God cannot (it seems) know what time it is now. Further, it might be supposed that a being who cannot know what time it is now cannot know all things and hence cannot be omniscient. There is a development of a similar line of argumentation in Grim (1985). (For useful background analysis and discussion, see Perry [1977 and 1979] and Millikan [1990].)

One strategy of response to this objection to the possibility of an atemporal agent who is omniscient would employ an alleged analogy with omnipotence. (Swinburne, [1977].) According to this approach, it is unreasonable to demand that an omnipotent agent be able to do *anything*. Rather, an omnipotent agent must be able to do anything which it is logically possible (in a broad sense) for that agent to do. Thus, the inability of an agent to square a circle or for God to sin are alleged not to be genuine limitations which would rule out omnipotence. By analogy, then, the inability of an atemporal God to know what it is logically impossible for such an individual to know—what time it is now—would be no genuine limitation on God's cognitive powers.

But there are two problems with this strategy. First, it is not evident that this approach works in the case of omnipotence. If an individual is defined as having as an essential property that he can only do one thing—count to four—then the definition of omnipotence will deem him omnipotent if he can in fact count to four. (For a similar example, see Plantinga [1967].) But it is very implausible to suppose that such an individual is omnipotent. Further, it is not uncontroversially evident that the definition can be refined to rule out such examples. (For an illuminating discussion of this point, see Flint and Freddoso [1983].) Finally, even if the definition can be suitably refined, it is not clear that omnipotence and omniscience are relevantly similar. Indeed, Kretzmann (1966)

and Kvanvig (1986) have disputed the putative analogy between omnipotence and omniscience.

Another strategy of response claims that, despite the appearances, there is really nothing (in the example of God's allegedly not knowing what time it is now) that an atemporal God fails to know: nothing is there for God not to know. The proponent of this response to the worry points out that the phrase, "what time it is now," contains the (temporal) indexical element, "now," and thus picks out different times on different occasions of usage. (For an excellent discussion of the logical behavior of indexicals such as "I," "he," "she," and "now," see Kaplan [1979].) Further, the sentence, "It is now ten o'clock," picks out different *propositions* on different occasions of utterance; there is no single proposition associated with this sentence. Indeed, whereas understanding the meaning of the sentence, "It is now ten o'clock," involves understanding the way in which "now" picks out a time on an occasion of utterance, it does not involve associating a particular proposition with the sentence (apart from a given context of utterance). Thus, although an atemporal God cannot know what time it is now, there simply is no proposition which is true and to which such a God cannot have cognitive access.

Let us suppose that at ten o'clock Mary utters the sentence, "It is now ten o'clock." By uttering this sentence, Mary expresses the proposition, "At ten o'clock it is ten o'clock." Although it does not require great acumen to know this, it is at least a true proposition which Mary can know at ten o'clock. Of course, even an atemporal God can (timelessly) know *this* proposition. Note that Mary's knowledge of the pertinent proposition is in some sense "mediated" by the sentence, "It is now ten o'clock." In contrast, an atemporal God's knowledge of the proposition in question cannot be mediated in the same way: He cannot know the proposition *via* the sentence (or corresponding mental state), "It is now ten o'clock." But of course this is not to say that an atemporal God cannot know certain things; rather it is to suggest that he cannot know them *in certain ways*. (For such a view, see Kvanvig [1986].)

And that a being cannot know a given proposition in certain ways may not impugn his omniscience. Consider an analogy: only I can *express* the proposition that John Martin Fischer is in Dodger Stadium by uttering the sentence, "I am in Dodger Stadium," even though others can express this same proposition by employing other sentences. But this fact does not seem to be a significant limitation on the powers of other agents. It would not be evidence of another individual's failure to be *omnipotent* that he cannot express the proposition that John Martin Fischer is in Dodger Stadium by uttering the sentence, "I am in Dodger Stadium." Similarly, that an atemporal individual cannot know a certain proposition in a certain way does not seem to be a significant limitation on his cognitive powers.

Sempiternality

On the *temporal* conception of God's essential eternity, God exists within the temporal framework in which we exist. His eternity consists in "sempiternality"—existence at all times. God's *essential* eternity can be interpreted as his sempiternality in all possible worlds in which He exists. (God's essential omniscience conjoined with His necessary existence entails His sempiternality in all possible worlds.)

The interaction of the temporal picture of God's essential eternity and His essential omniscience issues in a conception of God according to which he knows *at all times* in all possible worlds in which He exists all there is to know (at those times). (Alternatively, one might say that on this picture God knows in all worlds in which he exists at all times all that it is logically possible for Him to know at those times.) But this relatively abstract model leaves room for more and less robust conceptions of God's knowledge of the future.

Let us define a "future contingent" as a statement saying that some human being will freely perform some action (or freely refrain from performing some action) in the future. (For the purposes of this discussion, we need not consider other contingent statements—perhaps involving natural events—about the future.) A fairly radical way of denying that

God knows anything about the free behavior of humans in the future is to deny that future contingents are really about the future. Peter Geach has argued that although future contingents seem to be about the future free behavior of human agents, their real content concerns the present; they specify present dispositions and propensities. (Geach [1977]; for a critical discussion, see Kvanvig [1986]).

Some philosophers have held that God cannot at any time know any future contingents because all future contingents fail to be true (prior to the times they are "about"). On one such approach, all future contingents are false (prior to the times they are about). (See Prior [1962].) On another such approach, all future contingents are neither true nor false (prior to the times they are about). (See Lukasiewicz [1967].) On still another approach, future contingents are assigned values between zero and one which are treated according to the probability calculus. (This approach is developed in Purtill [1988].) Here, although God could know the *probability* that certain future events would occur, He could not know any future contingents (of the form, "Agent *A* will freely perform act *X* at time *T*."). Alternatively, some have argued that although (some) future contingents are indeed true prior to the times they are about, it is logically impossible for God to know these truths. (See Hasker [1989]; for a critical discussion of this sort of view, see Kvanvig [1986].)

On all the above approaches, God's omniscience does not involve His knowledge of future contingents. Note that He remains omniscient insofar as He knows at all times all those truths which it is logically possible for Him to know at those times. Nevertheless, His knowledge of the future is not robust. Given the lack of robustness of His knowledge of the future posited by these approaches, it is unclear how (on these approaches) God exercises his providential activity. (Below it will be noted that even if God is taken to have a very robust picture of the future, it is puzzling how this would help him in his providential activity.) Insofar as God does not have a robust representation of the future, Hasker believes that God must take risks in His providential activity. (Has-

ker [1989]). Also, this "restricted" approach to God's omniscience does not fit well with various passages in the Old and New Testaments; for a useful discussion of these passages and an argument that the dominant Biblical view of God implies that God possesses foreknowledge of future contingents, see Craig (1987).

Finally, there is what I would call the "robust temporal" conception of God's (essential) omniscience. On this picture of God's essential omniscience, God essentially knows at all times all future contingents (among other things He knows). Some proponents of the robust temporal conception are incompatibilists about God's essential omniscience and human freedom, while other proponents of this conception are compatibilists. A discussion of the relationship between the robust temporal conception and human freedom will be presented below. In the next two sections I shall (briefly) explore some other aspects of the robust conception of God's essential omniscience.

III. HOW DOES HE KNOW WHAT HE KNOWS?

I shall divide this section into two discussions. First, I shall discuss the issue of whether God knows the future via having *beliefs* about the future. This is a question about the analysis or components of His knowledge. Second, I shall discuss the evidence or procedure for generating His knowledge of the future.

Some philosophers hold that God's knowledge is like all other knowledge to the extent that it includes true belief. (Knowledge involves more than true belief, but exactly what must be added is of course highly controversial.) Thus, on this approach, God has knowledge of the future (at least partly) in virtue of having true beliefs about the future. William Alston has denied this claim, arguing that God's knowledge does not involve beliefs. (See Alston [1986].) Alston suggests that insofar as God does not have beliefs about the future, one can avoid the worries for the robust view generated by the Basic Argument for Incompatibilism pre-

sented below. Hasker however criticizes Alston's position, arguing that it is plausible to suppose that God's knowledge involves beliefs and further that even if it didn't, there would be a problem similar to the problem generated by the basic argument for incompatibilism. (See Hasker [1988b].)

There is a further question about the *nature* of God's beliefs, if indeed He has beliefs. Supposing that God does have beliefs, Fischer has argued that it is appropriate to apply a certain constraint to these beliefs which would render God's beliefs similar in an important respect to human beliefs. (See the discussion of the "incompatibilist's constraint" in Fischer [1983 and 1986].) J. A. Fodor has argued that human beliefs must be constrained by what he has called the "formality condition:" Fodor [1980]. Very roughly, this constraint implies that two human thoughts "can be distinct in content only if they can be identified with relations to formally distinct representations. ... mental states can be (type) distinct only if the representations which constitute their objects are formally distinct." (*Ibid.*, p. 64) Fodor even suggests—perhaps in jest—that not even God will violate the formality constraint in a certain way. (*Ibid.*, p. 67.) Fischer has offered a constraint on God's beliefs which is in certain respects analogous to Fodor's formality condition on human beliefs. On Fischer's approach, it cannot be the case that one and the same (formally specified) state of God's mind would count as one belief about the future should one event occur in the future, but would count as another belief should another event occur in the future. (See Fischer [1983 and 1986].) Thus, Fischer has in effect claimed that God's beliefs should be treated as analogous to human beliefs in meeting some sort of formality condition. There are useful discussions of this view in Kvanvig (1986); Helm (1988); Zemach and Widerker (1988); and Wierenga (1989).

On the basis of what evidence, and in virtue of what procedure does God (on the robust conception of God's essential omniscience) know about the future? I shall distinguish three answers to this "how" question. The first answer claims that God knows future contingents in virtue of know-

ing their causal antecedents and the causal laws which link those antecedents with the events posited by the relevant future contingents. This answer is natural and appealing, but it seems to presuppose causal determinism; this presupposition might be problematic for a proponent of compatibilism about God's foreknowledge and human freedom (This point illustrates the interaction between certain answers to the "how" question and the issue of the compatibility of God's foreknowledge and human freedom.) A variant on this answer claims that God can have genuine knowledge of future contingents based on knowledge of the antecedents of the events mentioned in the future contingents and non-deterministic generalizations linking the antecedents with the subsequent events. But whereas this picture allows one to avoid the presupposition of causal determinism and its attendant problems with regard to freedom, it attenuates the claim that God has *knowledge* of the events mentioned in the future contingents.

Another answer to the "how" question claims that God has some sort of "direct" knowledge of the actual future event. On this sort of approach, God's knowledge is directly "brought about" by the relevant future event. It is as if God gazes into the future in the manner in which a man on a tall mountain may gaze down a road, or in the manner in which someone might gaze into a telescope or a crystal ball. A *prima facie* problem with this approach is that it accepts a certain sort of *backward causation* which links future events with God's mental states.

A third answer to the question of how God knows about the future appeals to the "Molinist" doctrine of "middle knowledge." For an excellent presentation and discussion of Molinism, see Freddoso (1988). Here is a crisp formulation of the position:

The theory of middle knowledge holds that, for each possible free creature that might exist, and for each possible situation in which such a creature might make a free choice, there is a truth, known to God prior to and independent of any decision on God's part, concerning what definite choice that creature would freely make if placed in that situation. (Hasker [1989], p 20).

Molina called this type of knowledge "middle knowledge" because it is in between God's "natural knowledge" of the various possible circumstances that he could actualize and His "free knowledge" of what will happen (which God possesses after His free act of willing the creation of certain circumstances). God employs His middle knowledge to go from knowledge about which circumstances will obtain to knowledge of which free actions will occur. This transition is possible because middle knowledge consists in conditionals linking circumstances with actions. Also, He (allegedly) employs His middle knowledge providentially: it guides Him in His selection of circumstances to actualize. Thus, the doctrine of middle knowledge has considerable appeal. It offers a picture of how God can know the future which avoids both the presupposition of causal determinism and the assumption of backward causation. Further, it provides a natural model of the providential use of foreknowledge.

But there is considerable controversy over whether middle knowledge is possible. The controversy centers on whether the "conditionals of freedom" essential to middle knowledge can be true. Plantinga is a proponent of middle knowledge. (Plantinga 1974b) There are also defenses of middle knowledge in Freddoso (1988), Wierenga (1989), and Craig (1991). Robert Adams has offered a sustained critique of middle knowledge in Adams (1977 and 1991). The leading idea behind skepticism about the existence of true conditionals of freedom comes from the problem of the metaphysical grounding of such conditionals. If conditions obtain which ground claims about what individuals would *definitely* do in certain circumstances, it is hard to see how the individuals would be acting *freely*. But if no such conditions obtain, then one cannot have any basis for saying in advance what individuals would definitely do in the circumstances in question. Thus, it is alleged, there are no true conditionals of freedom. (For criticism of Adams' argument, see Freddoso [1988], Wierenga [1989], and Craig [1991].) There is another argument against the possibility of middle knowledge in Hasker (1986b and

1989). For critical discussion of Hasker's argument, see Freddoso (1988), Flint (1990), and Wierenga (1989). (There is a response to Flint [1990] in Hasker [1990].)

IV. WHAT GOOD IS IT FOR GOD TO KNOW THE FUTURE? WHAT CAN HE DO WITH HIS KNOWLEDGE?

It is perhaps evident how knowledge of conditionals of freedom might be providentially useful. If God had such knowledge, it could guide him in his choice of which circumstances to actualize.

But what good would it be for God to have robust, complete knowledge of "absolute" (non-conditional) future contingents? If God had such knowledge, it would seem to be useless, for having such knowledge would appear to imply that it is "too late" to do anything about the content of the knowledge. As Hasker puts the point,

We are inclined to think, albeit unconsciously, of God's foreknowledge along the lines of the limited foreknowledge we ourselves sometimes have, when we see certain events coming that are *not* contingent upon anything we may choose to do or to refrain from doing. In such cases the actions that we take in view of our foresight lead to no paradox. But if we could foresee *everything*, then for us, as for God, it would be too late to do anything about it. (Hasker [1989], p. 62)

There is an ingenious and lucid presentation of this idea that foreknowledge of absolute future contingents would be providentially useless for God in Hasker (1989). For an interesting critical discussion, see Hunt (forthcoming). For Hasker it is some consolation for the fact that it is logically impossible for God to know future contingents that such knowledge would in any case be providentially useless.

V. THE BASIC ARGUMENT FOR INCOMPATIBILISM

There is a powerful argument which purports to show that the robust conception of God's essential omniscience is incompatible with human freedom (of the sort that implies "freedom to do otherwise"). One can find many different formulations of this "Basic

Argument for Incompatibilism" in the contemporary literature; such formulations include (but are not exhausted by) Pike (1965, 1970, 1977, and 1984), Fischer (1983, 1984, 1985a, 1985b, 1986b, and 1988), Widerker (1989a, 1990), Zemach and Widerker (1989), Hasker (1985, 1988, 1989), Freddoso (1982, 1988), Plantinga (1986), Davies (1983), Wierenga (1989), Zagzebski (1991), and Craig (1986, 1987a, 1987b, 1988b, 1991). I shall here provide a very simple version of the argument, formulated in two ways. What it lacks in precision and rigor it gains in simplicity and transparency. I believe that, despite the myriad and sometimes technical formulations, the argument is really rather simple.

First, certain assumptions must be made explicit. I assume here that God is temporal and essentially omniscient in the robust sense. That is, for any possible world in which God exists and for any proposition P and time T , God believes that P at T if and only if P is true at T . (Further, future contingents are assumed to be true prior to the times they are about.) Now suppose that God (construed as robustly omniscient and temporal) exists and that Mary does something at time T_2 —she raises her hand. Given that she does in fact raise her hand at T_2 , we can nevertheless ask whether she has it in her power at T_2 (or immediately prior to T_2) to refrain from raising her hand at T_2 . But Mary has it in her power at T_2 or immediately prior to T_2 to refrain from raising her hand at T_2 only if her refraining from raising her hand at T_2 could be an extension of the *actual past* relative to T_2 . But since Mary actually raised her hand at T_2 , God believed at T_1 that she would raise her hand at T_2 . Thus, given God's essential omniscience, Mary's refraining from raising her hand at T_2 *cannot* be an extension of the *actual past*: the actual past includes God's believing at T_1 that Mary would raise her hand at T_2 , and "God believes at T_1 that Mary will raise her hand at T_2 and Mary refrains from raising her hand at T_2 " is *incoherent*. So Mary cannot at T_2 or immediately prior to T_2 refrain from raising her hand at T_2 .

I elaborate a bit on the conception of the fixity of the past contained in this argument. Imagine various pathways into the future.

The point is that the only such paths that indicate what an agent has it in his power to do are the ones which are extensions of the actual past: they are the paths whose initial segments correspond to the actual world up to the present.

We can put the argument slightly more formally as follows. Let us make the same assumptions about God, and we again assume that Mary in fact raises her hand at T_2 . Now we adopt the following constraint on power-attributions: An agent A has it in his power in possible world W at time T to perform act X only if there exists some possible world W^* with the same past relative to T as in W in which A performs X . Thus, we see that Mary has it in her power at T_2 or immediately prior to T_2 to refrain from raising her hand at T_2 only if there exists a possible world with the same past (relative to T_2) as the actual world in which Mary refrains from raising her hand at T_2 . But there is no such world. (Such a world would be one in which God believes at T_1 that Mary will raise her hand at T_2 and Mary nevertheless does not raise her hand at T_2 —a manifest impossibility.) Hence, Mary does not have it in her power at T_2 or immediately prior to T_2 to refrain from raising her hand at T_2 .

I believe that these (admittedly compressed and informal) formulations capture the leading ideas of the Basic Argument for Incompatibilism. The engine that drives the argument is the infelicitous interaction between God's essential omniscience (construed as temporal and robust) and the fixity of the past constraint (the idea that if one can perform a certain act, then it must be possible that one's performing it be an extension of the actual past).

VI. OCKHAMISM

One method of response to the above argument has been particularly salient in the contemporary literature: Ockhamism. Following William of Ockham, this approach distinguishes temporally genuine from temporally non-genuine (or mere relational) facts about the past and it further alleges that God's prior beliefs are in the class of temporally non-genuine facts about the past which are also not presently "fixed" or beyond our

control. That is, the Ockhamist partitions the class of facts about the past into temporally genuine ("hard") facts and temporally non-genuine ("soft") facts, and then divides the class of soft facts about the past into two sub-classes: the class composed of facts which are soft but nevertheless currently fixed and the class composed of facts which are soft and *not* currently fixed. Finally, the Ockhamist's claim is that God's prior beliefs about one's present activity are in the latter group: they are alleged to be non-fixed soft facts about the past.

It should be agreed by all parties that the principle of the fixity of the past only applies to temporally genuine facts about the past. For example, given that Mary in fact raises her hand at T_2 , it is a fact about T_1 that it preceded Mary's raising her hand at T_2 . But *this* fact, being a temporally non-genuine, relational fact—a "soft fact"—about the past, need not be held fixed when considering what Mary can do at T_2 : *this* fact (and facts of this sort) should not be considered part of the actual past when one is considering which pathways into the future are pertinent to freedom ascriptions. Everyone should agree with this. The distinctive ingredient of Ockhamism is the further claim that God's prior beliefs are relevantly similar to the fact that T_1 precedes Mary's raising her hand at T_2 : the claim that God's prior beliefs are in the class of soft, non-fixed facts about the past.

Many philosophers have attempted to present rigorous accounts of the distinction between hard facts (temporally genuine facts) and soft facts (temporally non-genuine facts). It is to be hoped that appeal to such an account can help to determine the status of facts about God's beliefs. Let us explore some of these accounts.

Marilyn Adams's account of the distinction between hard and soft facts can be presented as follows:

- (A) (1) A fact F is about a time T_1 if and only if F 's obtaining entails that something occurs at T_1 ; (2) A fact F about T_1 is a soft fact about T_1 if and only if F 's obtaining entails that something (contingent) occurs at some later time T_2 ; (3) A fact F about T_1 is a hard fact about T_1 if and only if it is not a soft fact about T_1 . (Adams [1967].)

What exactly is meant by “something’s occurring at $T1$?” In effect, Adams would say that “something’s occurring at $T1$ ” consists in “the happening or not happening, actuality or non-actuality of something at $T1$.”

(A) is initially attractive. Also, (A) has the implication that God’s belief at a time (about the future) is a soft fact about the time at which it is held, and thus (A) is appealing to an Ockhamist. But (A) is defective: see Fischer (1983). It will be useful to set out a fundamental problem with (A) here.

The problem with (A) is that it appears as though (A) must classify all facts as soft. Consider the fact, “Jack is sitting at $T1$.” This should be classified as a hard fact about $T1$. But notice that “Jack is sitting at $T1$ ” entails that it is not the case that Jack sits for the first time at $T2$. Thus, in virtue of (A)’s embodying the Entailment Criterion of Soft Facthood, it must classify “Jack is sitting at $T1$ ” as a *soft* fact about $T1$. Because this sort of result is clearly generalizable, it appears as if (A) will classify all facts as soft, and it is therefore evidently unacceptable. For a critical discussion of this criticism of Adams’s account, see Widerker (1989b); for further discussion, see Fischer (1991).

I now wish to discuss very briefly some of the accounts of the distinction between hard and soft facts which have been given in the contemporary literature. When considering the various accounts, it is important to distinguish the issue of whether the accounts are faithful to our considered judgments about clear cases about hard and soft facts from whether the accounts are “Ockhamistic,” *i.e.*, whether they imply that God’s belief about the future is a soft fact. Before I discuss aspects of the particular accounts, I wish to emphasize a feature they all have in common. As Freddoso puts it, the Ockhamist believes in the “metaphysical primacy of the pure present.” (Freddoso [1983].) On this view, truths about the past are now true because of what happened in the “pure present” at past times. And truths about the future are now true because of what will happen in the “pure present” at future times. The notion of the “pure present” is the idea of what is “really happening” at a time—of what is happening in a “basic” sense. What is

happening in the pure present at any given time can be identified with the temporally nonrelational, *i.e.*, hard facts about the time. Thus, the search for hard facts is the search for the “pure present,” which is taken by the Ockhamist (and perhaps any other non-fatalistic philosopher) as metaphysically primary.

Each of the various accounts of hard facts begins with an ingredient meant to capture at least part of the idea of what is happening in the pure present at a time. I shall call this ingredient of each account its account of the Simple Facts. It is interesting to compare the various accounts of the Simple Facts. Further, each account constructs the notion of a hard fact about a time from the account of the Simple Facts. Again, it is interesting to compare the various ways in which the different accounts construct hard facts out of the Simple Facts.

In my brief presentation of the accounts of the Simple Facts, I shall simplify considerably, because my purpose here is to give the reader the fundamental ideas behind the various approaches and to compare and discuss them in a clear way. In presenting these accounts, I shall sometimes depart considerably from the actual presentations by the original authors.

Zemach and Widerker (1988) can be understood as employing the idea of a set of facts compatible with the world’s ending at T (*i.e.*, there being no times after T) as part of an account of the pure present at T . It is clear, of course, that this captures only part of the idea of the pure present at T , because contained in the set of facts compatible with the world’s ending at T will be facts about times prior to T . This account of the Simple Facts then is meant to capture those facts not about the future relative to T ; what is happening in the pure present at T , then, will be a *subset* of these facts. Widerker and Zemach then proceed to construct an account of hard facts about T from the Simple Facts consisting of the set of facts compatible with the world’s ending at T . For a critical discussion of Zemach and Widerker’s approach, see Wierenga (1989).

To generate the set of hard facts about a time T , Freddoso begins with the set of

“present-tense, atomic, and temporally indifferent” facts relative to T : Freddoso (1983). A fact F is temporally indifferent (relative to T) if and only if (roughly) (a) F (and its negation) obtains at T in some possible world in which T is the first moment of time; (b) F (and its negation) obtains at T in some possible world in which T is the last moment of time; and (c) F (and its negation) obtains at T in some possible world in which T is an intermediate moment in time. Freddoso then proceeds to construct an account of hard facts about T from this set of Simple Facts: the set of present-tense, atomic, and temporally indifferent facts. For critical discussion of Freddoso’s approach, see Zemach and Widerker (1988), Wierenga (1989), and Craig (1991).

William Hasker begins with the set of facts which are atomic and “future-indifferent” (with respect to T): Hasker (1985 and 1989). He defines the set of atomic propositions which are future-indifferent with respect to T roughly as follows: those atomic propositions which are consistent with there being no times after T and also consistent with there being times after T . As Hasker puts it, “a future-indifferent proposition must permit, but not require, that the entire universe should disappear and there be nothing at all after [T].” (Hasker [1985], p. 133.) As with Widerker and Zemach, it is clear that Hasker’s account here is intended to capture *part* of the idea of the pure present: those facts which are not at least partly about the future. Hasker then proceeds to construct an account of the hard facts which employs this set of Simple Facts—the set of atomic, future-indifferent facts.

For Hoffman and Rosenkrantz, the pure present at T is built out of those present-tense facts which obtain at T and both are “unrestrictedly repeatable” and do not entail unrestrictedly repeatable facts which obtain at times after T : Hoffman and Rosenkrantz (1984). Their account is quite subtle and complex, and I shall greatly oversimplify here, in order to provide a clear picture of the thrust of the account. An unrestrictedly repeatable fact is one which “may obtain, then fail to obtain, then obtain again indefinitely many times throughout all

of time.” (Hoffman and Rosenkrantz [1984], p. 423.) They thus posit a *stroboscopic* conception of the sort of fact which can be part of the pure present. For example, “Sam sits” would be an unrestrictedly repeatable fact, whereas “Sam sits at $T1$ ” or “Sam sits for the first time” would not be unrestrictedly repeatable facts. Hoffman and Rosenkrantz then employ the set of Simple Facts—the set of present-tense facts which are both unrestrictedly repeatable and do not entail unrestrictedly repeatable facts about future times—to generate the account of the hard facts.

In a certain way, Hoffman and Rosenkrantz are refining the Entailment Criterion of Soft Facthood embodied in Adams’s account of the distinction. Basically, Adams claimed that a fact is a soft fact about a time insofar as it entails that a contingent fact obtains at a later time. Hoffman and Rosenkrantz employ a similar strategy. But on their approach, it is not sufficient for a fact to be a soft fact about a time that it entail that some contingent fact obtains at a later time; rather, the fact must entail that some contingent fact *of a certain sort*—an unrestrictedly repeatable fact—obtains at a later time. There is critical discussion of the approach suggested by Hoffman and Rosenkrantz in Hasker (1988a and 1989).

It is interesting to note that all of the above accounts seem to embody some version of the Entailment Criterion of Soft Facthood: the claim that a fact is a soft fact about $T1$ if it entails that a certain kind of fact obtains at later times, where the relevant kind of fact might simply be that the world does not go out of existence. The approach of Hoffman and Rosenkrantz explicitly embodies a version of the Entailment Criterion. The other approaches appear implicitly to rely on such a criterion. For instance, Widerker and Zemach employ the notion of a set of facts compatible with the world’s ending at T to isolate the hard facts about T . This implies that a soft fact about T is (among other things) incompatible with the world’s not ending at T . But to say that a fact is incompatible with the world’s not ending at T is to say that it entails that the world continues at a time after T . (In general, P entails Q just in

case P is incompatible with not- Q .) Similar remarks apply to the other approaches to the distinction between hard and soft facts.

There is an interesting alternative strategy in Kvanvig (1986). Kvanvig's approach is rather nuanced and complex, and I shall merely sketch the leading idea (with the hope that I am not oversimplifying too much). Consider the fact that corresponds to the proposition expressed by the sentence, "Lincoln freed the slaves in 1864." This fact is a hard fact about 1864. Kvanvig attempts to capture this intuition by pointing out that this fact corresponds to a proposition that could be expressed by a purely present tense sentence uttered in 1864, such as, "Lincoln is now freeing the slaves." One could say then that one should begin the account of hard facts about a time T by isolating the propositions that can be expressed by the utterance of atomic, purely present tense sentences at T . These will help to fix the Simple Facts about T , from which the hard facts are constructed.

Kvanvig notes that there is a certain time at which hard facts "become hardened." "Soft facts are facts which have not, so to speak, become hard yet." (Kvanvig [1986], p. 102) (One is reminded of remarks by William Hasker: "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 (1985), p. 135].) An interesting feature of Kvanvig's approach is that it does not appear to be committed to some version of the Entailment Criterion of Soft Facthood.

VII. TROUBLES WITH OCKHAMISM: THE PROBLEM OF BAGGAGE

It is important to note that not all soft facts about the past are currently under our control. That is, it is not the case that all soft facts about the past are not currently fixed. Consider, for example, the fact that it was true on Monday that the sun would rise on Wednesday. This, presumably, is a soft fact about the past relative to Tuesday, but nevertheless fixed on Tuesday: one cannot do anything about it on Tuesday. (Thus, it is important to

distinguish the issue of "hardness"—temporal nonrelationality—from the issue of "fixity"—being out of one's control.) The indispensable and distinctively potent ingredient of Ockhamism is the contention that facts about God's beliefs fall into the subclass of soft facts about the past which are currently not fixed.

But various philosophers have argued that even if facts about God's prior beliefs are properly considered soft facts about the past, there are good reasons to deny the Ockhamist's contention that they are in the subclass of soft facts about the past which are currently not fixed. That is, these philosophers have argued that God's beliefs are currently beyond our control and fixed, even if soft. For one such strategy of argumentation, see Hasker (1985 and 1989).

One way of arguing that God's beliefs are (even if soft) fixed (which differs from Hasker's strategy) is to point out that there are contexts in which so acting that God's belief in the past would have been different from what it actually was would require so acting that some indisputably hard fact about the past would not have been a fact. Thus, the soft fact would have excess *baggage*: a hard fact "comes along" with the soft fact and must be altered if the soft fact is to be altered. The hard fact "piggybacks" on the soft fact in such a way that falsification of the soft fact would require falsification of the hard fact. In such contexts, it is plausible to suppose that the soft fact is fixed, insofar as hard facts are taken to be fixed.

One version of this sort of strategy is found in David Widerker (1989 and 1991). Let us consider Widerker's example:

Suppose that God believes at T_0 that Jack will pull the trigger at T_{10} , with the intention of killing Smith. Suppose further that wanting to save Smith, God reveals this fact to Smith at T_3 , in which case Smith when meeting with Jack wears a bulletproof vest that saves his life. It seems plausible to suppose that were Jack not to pull the trigger at T_{10} , God would not have believed so, and hence would not have told Smith about this. Hence, if it were within Jack's power at T_9 not to pull the trigger at T_{10} , it would be within his power to bring about the non-occurrence of a causally neces-

sary condition of the event of Smith's coming to believe at T_3 that Jack will attempt to kill him, and by implication to bring about the non-occurrence of that past event itself. (Widerker [1989], p. 107)

Widerker's point is that in this context the only way in which Jack can at T_9 so act that God would have had a different belief at T_0 from the one He actually had would have been to so act that some *hard* fact about the past would have been different from what it actually was—the fact that God warns Smith at T_3 or the fact that Smith hears at T_3 a voice telling him that Jack will attempt to kill him or the fact that Smith comes to believe at T_3 that Jack will attempt to kill him, or some such fact. Thus, because of the baggage carried by God's belief at T_0 , it is plausible to say that in this context God's belief is fixed (even if soft).

Now someone might wonder whether Widerker's strategy really shows that God's omniscience is *incompatible* with human freedom. This is because all that is necessary to establish that God's omniscience is compatible with human freedom is the existence of *some* contexts in which it is plausible to say that God's omniscience does not rule out human freedom. This of course is consistent with there being other contexts in which there is divine omniscience and no human freedom. Further, the circumstances of Widerker's example do not always obtain; that is, God certainly does not in fact always intervene in the way envisaged in Widerker's example. Thus, it is reasonable to think that there are cases in which God's beliefs come without baggage: there are cases in which there are no piggybacking hard facts, and the existence of some such cases would be sufficient to establish the compatibility claim.

I am not certain how Widerker would respond, but he might respond as follows. With regard to the issue of whether the agent is free at T_9 , there is intuitively no difference between the case in which God does in fact intervene (in the way envisaged in Widerker's example) and one which is similar except that God does not intervene. That is, the freedom of the agent at T_9 should not depend on whether or not God actually intervenes in the way envisaged. But since this

is so and since the agent is *not* free if God does in fact intervene (because of the problem of baggage and the fixity of hard facts about the past), the agent is not free even when God has not actually intervened. Further, it cannot be argued that, since the intervention of God should make no difference and since the agent is free if there is no intervention, then the agent is free even if there is intervention. This strategy cannot be embraced by anyone who accepts the fixity of hard facts about the past, because when God has actually intervened, falsifying the fact about God's belief *requires* falsifying some (other) *hard* fact about the past.

It is interesting to note that Widerker's strategy can be employed to show that even *atemporal* omniscience is incompatible with human freedom. (Widerker has developed this point in Widerker [forthcoming].) Suppose that God is outside time and thus His omniscience is atemporal. Nevertheless, He may have it in his power timelessly to produce effects in time. (His actions are here construed as atemporal, but their effects are temporal: see Stump and Kretzmann [1981]). Thus, even an atemporal God may produce the kind of warning described in Widerker's example. And then the argument proceeds as above. If the warning has been given, then even if God is outside of time, the only way in which the agent can do otherwise is so to act that some hard fact about the past would not have been a fact. But since the past is fixed, the agent cannot do otherwise. Further, this sort of strategy would seem to be applicable even if God's omniscience does not involve *beliefs* (as in Alston [1986]). Thus, the most salient strategies that attempt to "sidestep" the problems posed by the Basic Argument for Incompatibilism may nevertheless be vulnerable to quite similar problems.

Fischer has developed another strategy which argues that there is good reason to think that facts about God's prior beliefs are fixed currently, even if they are soft facts about the past. Like Widerker's approach, it appeals to the problem of baggage. But whereas the baggage in Widerker's examples consists in allegedly indisputably hard facts which are *not parts* of the facts about God's

beliefs, the baggage in Fischer's strategy consists in allegedly hard *aspects or features* of the facts about God's beliefs themselves. Fischer argues that facts about God's beliefs are soft facts with hard components. (Fischer [1985a, 1986a, and 1991]). Further, Fischer argues that the only way an agent can at a later time falsify a fact about God's prior beliefs is to affect one of the hard elements. Insofar as it is plausible to suppose that hard features of the past are currently fixed, and if in order to falsify a fact about God's belief in the past one must affect some hard feature of the past, Fischer argues that facts about God's beliefs in the past are plausibly taken to be currently fixed, even if soft. Fischer has distinguished two kinds of hard components of facts, corresponding to two ways of dividing facts. If you divide facts into smaller component *facts*, then some of the component facts may be hard. If a soft fact has a hard component fact which must be falsified if the soft fact is to be falsified, Fischer calls the soft fact a "hard-core soft fact." If you divide facts into individuals and properties, then some of the component properties may be temporally genuine or "hard" properties. If a soft fact has a hard component property which must be affected if the soft fact is to be falsified, Fischer calls the soft fact a "hard-type soft fact." Insofar as it is plausible to suppose that no agent can so act that some individual who actually had some *hard property* in the past would not have had this property, then it is plausible to think that hard-type soft facts are currently fixed. Widerker's point is that soft facts can have baggage which consists of other, related facts; this generates a piggybacking problem. Perhaps a soft fact on which there is a piggybacking hard fact could be called a "hard-edged soft fact." Fischer's point is that soft facts can have *internal* baggage; hard-core and hard-type soft facts are "hard-hearted" soft facts.

VIII. COMPATIBILISM AND NEWCOMB'S PROBLEM

Various philosophers have argued that certain variations of Newcomb's Problem can be constructed which provide

decisive support for compatibilism about God's omniscience and human freedom: Plantinga (1986) and Craig (1987a, 1987b, 1989, and 1991). Indeed, Craig says that Newcomb's Problem is the "final vindication of the Ockhamist..." (Craig [1989], p. 245.) Let us briefly explore the relationship between Newcomb's Problem and compatibilism about God's omniscience and human freedom.

A version of Newcomb's Problem can be set forth as follows. You are confronted with two opaque boxes, *A* and *B*. You know that box *B* contains \$1,000 and that box *A* contains either \$1,000,000 or nothing at all. You can choose to take both boxes or to take just box *A*. You know that the money was put there eighty years ago by an extremely knowledgeable agent according to the following plan: if he believed that you would take both boxes, he put \$1,000 in box *B* and nothing in box *A*; if, on the other hand, he believed that you would take only box *A*, he put \$1,000 in box *B* and \$1,000,000 in box *A*. What should you do—take both boxes or just box *A*?

This is an interesting puzzle, insofar as there seem to be good reasons for both possible choices. But some have argued that it is evident what you should do, if the predictor is God. Craig says:

...if the predictor is essentially infallible, then there is no debate: the one-box choice is correct simply because there are no possible worlds in which the predictor errs and one winds up with \$1,001,000. The choice is between receiving \$1,000,000 or \$1,000; and it takes no genius to make this decision. (Craig [1989], p. 245)

But even if what Craig says here is true, it is hard to see its relevance to Ockhamism or any other form of theological compatibilism. Let's suppose that you adopt Craig's analysis and opt for choosing the one box (and that you do indeed choose it). It follows that the predictor (God) knew this in advance. Thus, you did something such that if you were to do it, God would have put the \$1,000,000 in box *A*. This is then an example in which a certain backtracking conditional is true, but note that it is *not* a backtracking *counterfactual*.

And it is not enough to vindicate compatibilism to present a case in which both a can-claim and an appropriate backtracking conditional are true; what is necessary is a case in which both a can-claim and a backtracking *counterfactual* are true. That is, the compatibilist must contend that there are cases in which an agent can so act that temporally nonrelational—hard—features of the past would have been different from the way they actually were. (This would be the denial of the claim that only those pathways into the future which start with the actual past are relevant to power ascriptions.)

Perhaps Craig would respond as follows. Whereas what has been said so far is correct, it neglects the fact that you have it in your power (in the puzzle circumstances) either to choose the one box or the two boxes. Given that God actually knew that you would choose the one, that you nevertheless have the power to choose the two, and that if you were to choose the two, God would have known that you would choose the two, you obviously have the power so to act that God would have had a different belief in the past from the belief He actually had.

But remember the dialectical situation here. The issue that is being debated is whether God's foreknowledge is compatible with human freedom. Thus, it is obviously inappropriate simply to *assume* a set of circumstances in which God exists and has foreknowledge and nevertheless a human agent is free. It is dialectically unfair simply to *assert* that although God exists and knew eighty years in advance that you would choose the one box, nevertheless you had it in your power to choose the two boxes. Of course, the incompatibilist will not be surprised to learn that if you *begin* with the assumption that God's foreknowledge is compatible with human freedom, then you can "generate" the conclusion that humans can sometimes perform acts which are such that, if they were to perform them, the past would have been different from the way it actually was. But to begin with this assumption is to beg the question in an egregious fashion.

In my opinion, Alvin Plantinga makes precisely this sort of mistake:

Let us suppose that a colony of carpenter ants moved into Paul's yard last Saturday. Since this colony has not yet had a chance to get properly established, its new home is still a big fragile. In particular, if the ants were to remain and Paul were to mow his lawn this afternoon, the colony would be destroyed. Although nothing remarkable about these ants is visible to the naked eye, God, for reasons of his own, intends that it be preserved. Now as a matter of fact, Paul will not mow his lawn this afternoon. God, who is essentially omniscient, knew in advance, of course, that Paul will not mow his lawn this afternoon; but if he had foreknown instead that Paul *would* mow this afternoon, then he would have prevented the ants from moving in. The facts of the matter, therefore, are these: if Paul were to mow his lawn this afternoon, then God would have prevented the ants from moving in. So if Paul were to mow his lawn this afternoon, then the ants would not have moved in last Saturday. But it is within Paul's power to mow this afternoon. There is therefore an action he can perform such that if he were to perform it, then the proposition (34) That colony of carpenter ants moved into Paul's yard last Saturday would have been false. (Plantinga [1986], p. 254.)

But the context here is a discussion of whether God's foreknowledge is compatible with human freedom. The specific issue under consideration is whether human agents can so act that hard features of the past would not have obtained. (Alternatively, the issue is whether a pathway into the future needs to share the actual past in order to indicate what we have the power to do.) But in attempting to answer this question, Plantinga posits an example in which it is simply *asserted* that God has foreknowledge of Paul's not mowing this afternoon and nevertheless that Paul has it in his power to mow this afternoon. Thus, this example is question-begging.

What, then, is the significance of Newcomb's Problem with God as predictor? I believe that the puzzle, so construed, raises interesting questions for a theological compatibilist. That is, if one accepts theological compatibilism, then one can legitimately think about the puzzle and consider what it shows about various approaches to rational choice and practical deliberation. But it *can-*

not legitimately be invoked (at least in the way suggested above) to *establish* theological compatibilism. In my view, then, Newcomb's Problem is not the final vindication of compatibilism; it is more like compatibilism's Mother of All Victories.

IX. CONNECTIONS

In this review article I have been able to touch upon only some of the issues treated in the voluminous recent literature on God and freedom. Many topics have had to be passed over, and even the ones selected have often been discussed lightly. An interesting thing which emerges from even a superficial scrutiny of the literature is its many connections with debates in other areas of philosophy. There are the obvious connections with the debates about the relationship between causal determinism and human freedom and also the relationship between freedom and moral responsibility. Further, there are various other important connections, some of which have been mentioned above. For example, there is a connection between this literature and the literature in philosophy of mind concerning the representational character of belief and also the issue of whether beliefs are "in the head;" we have seen that such questions arise for God's beliefs. Also, there are connections between the literature on God and freedom and the discussions in philosophy of language about the nature of

"indexicals." In particular, there is an interesting connection between parallel discussions of attitudes *de se*. (See Lewis [1979], Boer and Lycan [1980], and Kvanvig [1986].)

Also, in addition to the discussions of Newcomb's Problem, there are interesting connections between the literature on God and freedom and various issues in philosophy of physics (and metaphysics) such as retrocausation and time travel: Horwich (1987) and Craig (1987b, 1988, 1989, and 1991). There is also a recent discussion of the relationship between the issues that arise in regard to God and freedom and the issues pertinent to debates about the nature of possible worlds ("actualism" v. "possibilism" and the indexical theory of "actuality"): see Lewis (1986) and Fischer (1988).

Finally, it is clear that the distinction between hard and soft facts is related in an interesting way to other distinctions that are philosophically important, especially the distinction between "intrinsic" and "extrinsic" properties of objects and the distinctions between "projectible" and "non-projectible" predicates (Goodman [1955]) and between terms which pick out "natural kinds" and those which do not. It would perhaps be illuminating and fruitful to explore whether some of the machinery developed in the various accounts of the distinction between hard and soft facts may help us better to understand the related distinctions.

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Received May 29, 1991

BIBLIOGRAPHY

- Adams, Marilyn McCord. (1967). "Is the Existence of God a 'Hard' Fact?," *The Philosophical Review*, vol. 76, pp. 492-503.
- _____. (1987). *William Ockham*. (Notre Dame: University of Notre Dame Press.)
- Adams, Robert. (1977). "Middle Knowledge and the Problem of Evil," *American Philosophical Quarterly*, vol. 14, pp. 109-17.
- _____. (1985). "Alvin Plantinga on the Problem of Evil." In Tomberlin and van Inwagen, eds.
- _____. (1991). "An Anti-Molinist Argument," *Philosophical Perspectives*, vol. 5, forthcoming.
- Ahern, Dennis, M. (1979). "Foreknowledge: Nelson Pike and Newcomb's Problem," *Religious Studies*, vol. 15, pp. 475-90.
- Albritton, Rogers. (1957). "Present Truth and Future Contingency," *The Philosophical Review*, vol. 66, pp. 1-28.

- Alston, William P. (1985a). "Divine-Human Dialogue and the Nature of God," *Faith and Philosophy*, vol. 2, pp. 5-20.
- _____. (1985b). "Divine Foreknowledge and Alternative Conceptions of Human Freedom," *International Journal for Philosophy of Religion*, vol.18, pp. 19-32.
- _____. (1986). "Does God Have Beliefs?" *Religious Studies*, vol. 22, pp. 287-306.
- Ayer, A. J. (1963). "Fatalism." In *The Concept of a Person and Other Essays*. (London).
- Basinger, David. (1984). "Divine Omniscience and Human Freedom: A 'Middle Knowledge' Perspective," *Faith and Philosophy*, vol. 1, pp. 291-302.
- _____. (1986a). "Middle Knowledge and Classical Christian Thought," *Religious Studies*, vol. 22, pp. 407-22.
- _____. (1986b). "A Response to Reichenbach on Deliberation," *International Journal for Philosophy of Religion*, vol. 20, pp. 169-72.
- _____. (1987). "Middle Knowledge and Human Freedom: Some Clarifications," *Faith and Philosophy*, vol. 4, pp. 330-36.
- Basinger, David and Basinger, Randall. (1986). *Predestination and Free Will: Four Views of Divine Sovereignty and Human Freedom*. (Downers Grove, Illinois: Inter-Varsity Press).
- Boer, Steven E. and Lycan, William G. (1980). "Who, Me?" *Philosophical Review*, vol. 89, pp. 427-66.
- Burrell, David B. (1984). "God's Eternity," *Faith and Philosophy*, vol. 1 pp. 389-406.
- Castañeda, Hector-Neri. (1967). "Omniscience and Indexical Reference," *The Journal of Philosophy*, vol. 64, pp. 203-10.
- Cook, Robert R. (1987). "God, Time and Freedom," *Religious Studies*, vol. 23, pp. 81-94.
- Craig, William Lane. (1986). "Temporal Necessity; Hard Facts/Soft Facts," *International Journal for Philosophy of Religion*, v. 20, pp. 65-91.
- _____. (1987a). "Divine Foreknowledge and Newcomb's Paradox," *Philosophia*, vol. 17, pp. 331-50.
- _____. (1987b). *The Only Wise God*. (Grand Rapids, MI: Baker Book House).
- _____. (1988a). "Tachyons, Time Travel, and Divine Omniscience," *The Journal of Philosophy*, vol. 85, pp. 135-50.
- _____. (1988b). *The Problem of Divine Foreknowledge and Future Contingents from Aristotle to Suarez*. (Leiden: E.J. Brill).
- _____. (1989). "'Nice Soft Facts': Fischer on Foreknowledge," *Religious Studies*, vol. 25, pp. 235-46.
- _____. (1991). *Divine Foreknowledge and Human Freedom*. (Leiden: E.J. Brill).
- Davies, Martin. (1983). "Boethius and Others on Divine Foreknowledge," *Pacific Philosophical Quarterly*, vol. 64, pp. 313-29.
- Davis, Stephen T. (1979). "Divine Omniscience and Human Freedom," *Religious Studies*, vol. 15, pp. 303-16.
- _____. (1983). *Logic and the Nature of God*. (Grand Rapids, MI: William B. Eerdmans).
- Dummett, Michael. (1964). "Bringing About the Past," *The Philosophical Review*, vol. 73, pp. 338-59.
- Edidin, Aron and Normore, Clavin. (1982). "Ockham on Prophecy," *International Journal for Philosophy of Religion*, vol. 13, pp. 179-89.
- Factor, R. Lance. (1978). "Newcomb's Paradox and Omniscience," *International Journal for Philosophy of Religion*, vol. 9, pp. 30-40.
- Feldman, Seymour. (1985). "The Binding of Isaac: A Test-Case of Divine Foreknowledge." In Rudavsky, ed. (1985a).
- Fischer, John Martin. (1983). "Freedom and Foreknowledge," *The Philosophical Review*, vol. 92, pp. 67-79.
- _____. (1984). "Power Over the Past," *Pacific Philosophical Quarterly*, vol. 65, pp. 335-50.
- _____. (1985a). "Ockhamism," *The Philosophical Review*, vol. 94, pp. 81-100.
- _____. (1985b). "Scotism," *Mind*, vol. 94, pp. 231-43.
- _____. (1986a). "Hard-Type Soft Facts," *The Philosophical Review*, vol. 95, pp. 591-601.
- _____. (1986b). "Pike's Ockhamism," *Analysis*, vol. 46, pp. 57-63.
- _____. (1988). "Freedom and Actuality." In Morris, ed. (1988).
- _____. ed., (1989). *God, Freedom, and Foreknowledge*. (Stanford: Stanford University Press).
- _____. (1991). "Snapshot Ockhamism," *Philosophical Perspectives*, vol. 5, forthcoming.
- Fitzgerald, Paul. (1970). "Tachyons, Backwards Causation, and Freedom," In *Boston Studies in the Philosophy of Science VIII*, eds. Roger C. Buck and Robert S. Cohen. (Dordrecht: Reidel).

- _____. (1974). "On Retrocausality," *Philosophia*, vol. 4 pp. 513-51.
- _____. (1985). "Stump and Kretzmann on Time and Eternity," *The Journal of Philosophy*, vol. 82, pp. 260-69.
- Flint Thomas. (1983). "The Problem of Divine Freedom," *American Philosophical Quarterly*, vol. 20, pp. 255-64.
- _____. (1990). "Hasker's *God, Time, and Knowledge*," *Philosophical Studies*, vol. 60, pp. 103-16.
- _____. (1991). "Middle Knowledge and the Doctrine of Infallibility," *Philosophical Perspectives*, vol. 5, forthcoming.
- Flint, Thomas P. and Freddoso, Alfred J. (1983). "Maximal Power," in Freddoso, ed. (Notre Dame: University of Notre Dame Press).
- Fodor, J.A. "Methodological Solipsism Considered As A Research Strategy in Cognitive Psychology," *Behavioral and Brain Sciences*, vol. 3, pp. 63-109.
- French, P. A. et. al. eds. (1979). *Contemporary Perspectives in the Philosophy of Language*. (Minneapolis: University of Minnesota Press).
- Freddoso, Alfred J. 1980. "Ockham's Theory of Truth Conditions." In Ockham (1980).
- _____. (1982). "Accidental Necessity and Power over the Past," *Pacific Philosophical Quarterly*, vol. 63, pp. 54-68.
- _____. ed. (1983). *The Existence and Nature of God*. (Notre Dame).
- _____. (1983). "Accidental Necessity and Logical Determinism," *The Journal of Philosophy*, vol. 80, pp. 257-78.
- _____. (1988). "Introduction." In Molina (1988).
- Gale, Richard. (1961). "Endorsing Predictions," *The Philosophical Review*, vol. 70, pp. 376-85.
- _____. (1968). *The Language of Time*. (London: Routledge and Kegan Paul).
- _____. (1986). "Omniscience-Immutability Arguments," *American Philosophical Quarterly*, vol. 23, pp. 319-35.
- Geach, Peter T. (1969). *God and the Soul*. (New York: Schocken).
- _____. (1972). *Logical Matters*. (Berkeley: University of California Press).
- _____. (1977). *Providence and Evil*. (Cambridge: Cambridge University Press).
- Goodman, Nelson. (1955). *Fact, Fiction, and Forecast*. (Cambridge: Harvard University Press).
- _____. (1962). "About." *Mind*, vol. 70, pp. 1-24.
- Grimm, Patrick. (1983). "Some Neglected Problems of Omniscience," *American Philosophical Quarterly*, vol. 20, pp. 265-76.
- _____. (1984). "There is No Set of All Truths," *Analysis*, vol. 44, pp. 206-7.
- _____. (1985). "Against Omniscience: The Case from Essential Indexicals," *Nous*, vol. 9, pp. 151-80.
- _____. (1988). "Logic and the Limits of Knowledge and Truth," *Nous*, vol. 22, pp. 341-68.
- Haack, S. (1974a). *Deviant Logic: Some Philosophical Issues*. (Cambridge: Cambridge University Press).
- _____. (1974b). "On a Theological Argument for Fatalism," *Philosophical Quarterly*, vol. 24, pp. 156-59.
- _____. (1975). "On 'On Theological Fatalism Again' Again," *Philosophical Quarterly*, vol. 25, pp. 159-61.
- Hasker, William. 1983. "Concerning the Intelligibility of 'God is Timeless'," *New Scholasticism*, vol. 57, pp. 170-95.
- _____. (1985). "Foreknowledge and Necessity," *Faith and Philosophy*, vol. 2, pp. 121-57.
- _____. (1986a). "Simplicity and Freedom: A Response to Stump and Kretzmann," *Faith and Philosophy*, vol. 3, pp. 192-201.
- _____. (1986b). "A Refutation of Middle Knowledge," *Nous*, vol. 20, pp. 545-57.
- _____. (1987). "The Hardness of the Past: A Reply to Reichenbach," *Faith and Philosophy*, vol. 4, pp. 337-42.
- _____. (1988a). "Hard Facts and Theological Fatalism," *Nous*, vol. 22, pp. 419-36.
- _____. (1988b). "Yes! God has Beliefs," *Religious Studies*, vol. 24, pp. 385-94.
- _____. (1989). *God, Time, and Knowledge*. (Ithaca: Cornell University Press).
- _____. (1990). "Response to Flint," *Philosophical Studies*, vol. 60, pp. 117-26.
- Helm, P. (1974a). "Divine Foreknowledge and Facts," *Canadian Journal of Philosophy*, vol. 4, pp. 305-15.
- _____. (1974b). "On Theological Fatalism Again," *Philosophical Quarterly*, vol. 24, pp. 360-62.
- _____. (1975a). "Fatalism Once More," *Philosophical Quarterly*, vol. 25, pp. 289-96.
- _____. (1975b). "Timelessness and Foreknowledge," *Mind*, vol. 84, pp. 516-27.

- _____. (1978). "God and Whatever Comes to Pass," *Religious Studies*, vol. 14, pp. 315-323.
- _____. (1988). *Eternal God*. (Oxford: Oxford University Press).
- Hoffman, Joshua. (1979). "Pike on Possible Worlds, Divine Foreknowledge and Human Freedom," *The Philosophical Review*, vol. 88, pp. 433-42.
- Hoffman, Joshua and Rosenkrantz, Gary. (1980). "On Divine Foreknowledge and Human Freedom," *Philosophical Studies*, vol. 37, pp. 289-96.
- _____. (1984). "Hard and Soft Facts," *The Philosophical Review*, vol. 93, pp. 419-34.
- Holt, Dennis C. (1976). "Foreknowledge and the Necessity of the Past," *Canadian Journal of Philosophy*, vol. 6, pp. 721-30.
- Horne, James R. (1983). "Newcomb's Problem as a Theistic Problem," *International Journal for Philosophy of Religion*, vol. 14, pp. 217-23.
- Horwich, Paul. (1987). *Asymmetries in Time*. (Cambridge: MIT Press).
- Hunt, David. (forthcoming). "Divine Providence and Simple Foreknowledge," *Faith and Philosophy*.
- Kaplan, David. (1979). "On the Logic of Demonstratives," P. A. French, et. al., eds.
- Kenny, Anthony. (1976) "Divine Foreknowledge and Human Freedom," In Kenny, ed. (1976).
- _____. (1976). *Aquinas: A Collection of Critical Essays*. ed. (Notre Dame: University of Notre Dame Press).
- Kneale, Martha. (1968-69). "Eternity and Sempiternity," *Proceedings of the Aristotelian Society*, vol. 69, pp. 223-38.
- Kneale, William. (1960-61). "Time and Eternity in Theology," *Proceedings of the Aristotelian Society*, vol. 61, pp. 87-108.
- Kneale, William and Kneale Mary. (1962). *The Development of Logic*. (Oxford: Oxford University Press).
- Kretzmann, Norman. (1966). "Omniscience and Immutability," vol. 63, pp. 409-21.
- _____. (1983). "Goodness, Knowledge, and Indeterminacy in the Philosophy of Thomas Aquinas," *Journal of Philosophy*, vol. 80 (Supplemental), pp. 631-49.
- Kvanvig, Jonathan. (1986). *The Possibility of an All-Knowing God*. (New York: MacMillan Press).
- La Croix, Richard R. (1976). "Omnipresence and Divine Determinism." *Religious Studies*, v. 12, pp. 365-81.
- Leftow, Brian. (1991). *Time and Eternity*. (Ithaca: Cornell University Press).
- Lewis, David. (1979). "Attitudes *De Dicto* and *De Se*," *The Philosophical Review*, vol. 78, pp. 513-43.
- _____. (1986). *On the Plurality of Worlds*. (Oxford: Oxford University Press).
- Lucas, J. R. (1970). *The Freedom of the Will*. (Oxford: Oxford University Press).
- _____. (1989). *The Future*. (Oxford: Basil Blackwell).
- Lukasiewicz, Jan. (1967a). "On Determinism," In McCall ed., (1967).
- _____. (1967b). "Philosophical Remarks on Many-Valued Systems of Propositional Logic," In McCall ed., (1967).
- Mavrodes, George. (1976). "Aristotelian Necessity and Freedom," *Midwest Studies in Philosophy*, Vol. 1, eds. Peter French, Theodore E. Uehling, Jr., and Howard Wettstein. (Minneapolis: University of Minnesota Press.)
- _____. (1983). "Vestigial Modalities." *Analysis*, vol. 43, pp. 91-4.
- _____. (1984). "Is the Past Unpreventable?" *Faith and Philosophy*, vol. 1, pp. 131-46.
- McCall, Storrs. (1966). "Temporal Flux." *American Philosophical Quarterly*, vol. 3, pp. 270-81.
- _____.ed. (1967). *Polish Logic 1920-1939*. (Oxford: Oxford University Press).
- Millikan, Ruth. (1990). "The Myth of the Essential Indexical," *Nous*, vol. 24, pp. 723-34.
- Molina, Luis de. (1988). *On Divine Foreknowledge (Part IV of the "Concordia.")* Trans. with notes. Alfred J. Freddoso. (Ithaca: Cornell University Press).
- Morris, Thomas, ed. (1988). *Divine and Human Action: Essays in the Metaphysics of Theism*. (Ithaca: Cornell University Press).
- Normore, Calvin. (1982). "Future Contingents," In *Cambridge History of Later Medieval Philosophy*, eds. Norman Kretzmann, Anthony Kenny, and Jan Pinborg. (Cambridge: Cambridge University Press).
- _____. (1985). "Divine Omniscience, Omnipotence, and Future Contingents: An Overview," In Rudavsky ed., (1985a).

- Ockham, William. (1983). *Predestination, God's Foreknowledge and Future Contingents*. (2nd edition). Trans. with intro. Marilyn McCord Adams and Norman Kretzmann. (Indianapolis: Hackett).
- _____. (1980). *Ockham's Theory of Propositions: Part II of the Summa Logicae*. Trans. with intro. Alfred J. Freddoso and Henry Schuurman. (Notre Dame: University of Notre Dame Press).
- Perry, John. (1977). "Frege on Demonstratives," *The Philosophical Review*, vol. 86, pp. 474-97.
- _____. (1979). "The Problem of the Essential Indexical," *Nous*, vol. 13, pp. 3-21.
- Pike, Nelson. (1965). "Divine Omniscience and Voluntary Action," *The Philosophical Review* vol. 74, pp. 27-46.
- _____. (1966). "Of God and Freedom: A Rejoinder," *The Philosophical Review*, vol. 75, pp. 369-79.
- _____. (1969). "Omnipotence and God's Ability to Sin," *American Philosophical Quarterly*, vol. 6, pp. 208-16.
- _____. (1970). *God and Timelessness*. (New York: Routledge and Kegan Paul).
- _____. (1977). "Divine Foreknowledge, Human Freedom and Possible Worlds," *Philosophical Review*, vol. 86, pp. 209-16.
- _____. (1984). "Fischer on Freedom and Foreknowledge," *Philosophical Review*, vol. 93, pp. 599-14.
- _____. (1990). "Alston on Plantinga and Soft Theological Determinism," *International Journal for Philosophy of Religion*, vol. 27, pp. 27-40.
- Plantinga, Alvin. (1967). *God and Other Minds*. (Ithaca: Cornell University Press).
- _____. (1974a). *God, Freedom and Evil*. (New York: Harper and Row).
- _____. (1974b). *The Nature of Necessity*. (Oxford: Oxford University Press).
- _____. (1986). "On Ockham's Way Out," *Faith and Philosophy*, vol. 3, pp. 235-69.
- Prior, Arthur. (1959). "Thank Goodness That's Over," *Philosophy*, vol. 34, pp. 12-17.
- _____. (1962). "The Formalities of Omniscience" *Philosophy*, vol. 37, pp. 114-29.
- _____. (1967). *Past, Present, and Future*. (Oxford: Oxford University Press).
- _____. (1968). *Papers on Time and Tense*. (Oxford: Oxford University Press).
- Purtill, Richard. (1974). "Foreknowledge and Fatalism," *Religious Studies*, vol. 10, pp. 319-24.
- _____. (1988). "Fatalism and the Omnitemporality of Truth," *Faith and Philosophy*, vol. 5, pp. 185-92.
- Quinn, Philip L. (1985). "Plantinga on Freedom and Foreknowledge," in Tomberlin and van Inwagen eds., (1985a).
- _____. (1978). "Divine Foreknowledge and Divine Freedom." *International Journal for Philosophy of Religion*, vol. 9, pp. 219-40.
- Reichenbach, Bruce. (1984). "Omniscience and Deliberation," *International Journal for Philosophy of Religion*, vol. 16, pp. 225-36.
- _____. (1987). "Hasker on Omniscience," *Faith and Philosophy*, vol. 4, pp. 86-92.
- _____. (1988). "Fatalism and Freedom," *International Philosophical Quarterly*, vol. 28, pp. 271-85.
- Rosenthal, David, M. (1976). "The Necessity of Foreknowledge," *Midwest Studies in Philosophy* vol. 1, Peter French, Theodore E. Uehling, Jr., and Howard Wettstein, eds.. (Minneapolis: University of Minnesota Press).
- Rowe, William L. (1964). "Augustine on Foreknowledge and Free Will," *Review of Metaphysics*, vol. 18, pp. 356-63.
- _____. (1978). *Philosophy of Religion: An Introduction*. (Belmont, Ca.: Wadsworth).
- _____. (1980). "On Divine Foreknowledge and Human Freedom: A Reply," *Philosophical Studies*, vol. 37, pp. 429-30.
- _____. (1980). "Fatalism and Truth," *Southern Journal of Philosophy*, vol. 18, pp. 213-19.
- Rudavsky, Tamar, ed. (1985a). *Divine Omniscience and Omnipotence in Medieval Philosophy*. (Dordrecht: Reidel).
- _____. (1985b). "Divine Omniscience, Contingency and Prophecy in Gersonides." in Rudavsky ed., (1985a).
- Runzo, Joseph. (1981). "Omniscience and Freedom for Evil," *International Journal for Philosophy of Religion*, vol. 12, pp. 131-47.
- Ryle, Gilbert. (1954). "It Was to Be," In *Dilemmas*. (Cambridge: Cambridge University Press).
- Saunders, John Turk. (1958). "Sea Fight Tomorrow?" *The Philosophical Review*, vol. 67, pp. 367-78.
- _____. (1965). "Fatalism and Ordinary Language," *The Journal of Philosophy*, vol. 62, pp. 211-22.
- _____. (1966). "Of God and Freedom," *The Philosophical Review*, vol. 75, pp. 219-25.

- _____. (1968). "The Temptations of 'Powerlessness'," *American Philosophical Quarterly*, vol. 5, pp. 100-8.
- Sosa, Ernest. (1979). "The Status of Becoming: On What Is Happening Now?" *Journal of Philosophy*, vol. 76, pp. 26-42.
- Steuer, Axel D. (1983). "The Freedom of God and Human Freedom," *Scottish Journal of Theology*, vol. 36, pp. 163-80.
- Stump, Eleonore and Kretzmann, Norman. (1981). "Eternity," *The Journal of Philosophy*, vol. 78, pp. 429-58.
- _____. (1985). "Absolute Simplicity," *Faith and Philosophy*, vol. 2, pp. 353-82.
- _____. (1987). "Atemporal Duration: A Reply to Fitzgerald," *The Journal of Philosophy*, vol. 84, pp. 214-19.
- _____. (1991). "Prophecy, Past Truth, and Eternity," *Philosophical Perspectives*, vol. 5, forthcoming.
- Swinburne, Richard. (1966). "Affecting the Past," *American Philosophical Quarterly*, vol. 16, pp. 341-47.
- _____. (1977). *The Coherence of Theism*. (Oxford: Oxford University Press).
- Talbott, Thomas B. (1986). "On Divine Foreknowledge and Bringing About the Past," *Philosophy and Phenomenological Research*, Vol. 46, pp. 455-69.
- Taylor, Richard. (1957). "The Problem of Future Contingency," *The Philosophical Review*, vol. 66, pp. 1-28.
- _____. (1960). "I Can," *Philosophical Review*, vol. 69, pp. 78-89.
- _____. (1962). "Fatalism," *Philosophical Review*, vol. 71, pp. 56-66.
- _____. (1964). "Deliberation and Foreknowledge," *American Philosophical Quarterly*, vol. 1, pp. 73-80.
- Tomberlin, James and van Inwagen, Peter, eds. (1985). *Alvin Plantinga* (Dordrecht: Reidel).
- Widerker, David. (1989a). "Two Forms of Fatalism," in Fischer, ed. (1989), pp. 97-110.
- _____. (1989b). "On A Fallacious Objection to Adams' Hard/Soft Fact Distinction," *Philosophical Studies*, vol. 57, pp. 103-7.
- _____. (1990). "Troubles with Ockhamism," *The Journal of Philosophy*, vol. 87, pp. 462-80.
- _____. (forthcoming) "Against the Eternity Solution," *International Journal for Philosophy of Religion*.
- Wierenga, Edward R. (1989). *The Nature of God: An Inquiry Into Divine Attributes*. (Ithaca: Cornell University Press).
- _____. (1991). "Prophecy, Freedom, and the Necessity of the Past," *Philosophical Perspectives*, v. 5, forthcoming.
- Zagzebski, Linda. (1985). "Divine Foreknowledge and Human Free Will." *Religious Studies*, vol. 21, pp. 279-98.
- _____. (1991). *The Dilemma of Freedom and Foreknowledge*. (Oxford: Oxford University Press).
- Zemach, Eddy and Widerker, David. (1988). "Facts, Freedom, and Foreknowledge," *Religious Studies*, vol. 23, pp. 19-28.