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## SHAPSHOT OCKHAMISM

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### I.

Three sorts of arguments triangulate on the conclusion that human beings might not have the sort of freedom which implies “freedom to do otherwise.” Each sort of argument is really a family of arguments. The three families are: the argument for fatalism, the argument for the incompatibility of causal determinism and human freedom to do otherwise, and the argument for the incompatibility of divine foreknowledge and human freedom to do otherwise. And the three families are themselves related; the three nuclear families are members of an extended family of arguments with a common structure.<sup>1</sup>

The common structure involves a premise which claims that a certain feature of the past is “fixed”—unalterable and, in some specified sense, “out of our control”. In the argument for fatalism, the relevant premise expressing the idea of the fixity of the past might be as follows: “It is now out of my control that yesterday it was true that I would go to the movies tonight.” (One could make this more precise by eliminating the indexicals.) In the argument for the incompatibility of causal determinism and human freedom to do otherwise, the relevant premise might be: “It is now out of my control that in the year 1000 B.C. the universe was in state  $U$  (where  $U$  is a complete description of the intrinsic, temporally non-relational facts).” Finally, the relevant premise in the argument for the incompatibility of divine foreknowledge and human freedom to do otherwise might be: “It

is now out of my control that in the year 1000 B.C. God believed that I would go to the movies tonight.”

It seems to me that these three arguments (or families of arguments) are plausible to different degrees, and it is not the point of this paper to assess the relative plausibility of the various arguments. It suffices for my purposes here to point out that it is widely believed that a certain sort of distinction is an important tool for responding at least to some of the arguments. This distinction is between temporally non-relational, genuine, or “hard” facts about times and temporally relational, non-genuine, or “soft” facts about times.<sup>2</sup> It is alleged, for example, that one can successfully respond to the argument for fatalism by claiming that the relevant premise asserting the fixity of the past is false because the claim about the past in question is a *soft* fact about the past. This move seems to me to be entirely correct.

Further, it seems that there is a clear asymmetry between the argument for fatalism and the argument for the incompatibility of causal determinism and human freedom to do otherwise. As claimed above, in the former argument the relevant premise is false because it claims that some *soft* fact about the past is fixed. In contrast, in the latter argument the relevant premise is not false in virtue of claiming that some soft fact about the past is fixed; the pertinent fact is by hypothesis a temporally non-relational, hard fact. (Now it might turn out that in the latter argument the relevant premise *is* false, but it would not be for the reason in virtue of which the premise of the former argument is false. More specifically, some philosophers believe that even hard facts about past times need not be fixed, and such a philosopher could deny the relevant premise of the argument for the incompatibility of causal determinism and freedom to do otherwise. But it would be clear that this denial would be based upon different considerations from those which ground the denial of the parallel premise in the argument for fatalism.)

I believe that there is an interesting sense in which the argument for the incompatibility of God’s foreknowledge and human freedom to do otherwise is “in between” the two arguments mentioned above. That is, whereas the status of the relevant premises in the first two arguments is relatively uncontroversial, the status of the relevant premise of the argument from God’s foreknowledge is highly controversial. Recall that this premise is, “It is now out of my control that in the year 1000 B.C. God believed that I would go to the movies tonight.”

Some philosophers believe that God's beliefs are soft facts about the times at which they are held. These philosophers would assimilate the argument for the incompatibility of God's foreknowledge and human freedom to do otherwise and the argument for fatalism. Other philosophers hold that God's beliefs are *hard* facts about the times at which they are held. These philosophers are inclined to assimilate the argument for the incompatibility of God's foreknowledge and human freedom to do otherwise and the argument for the incompatibility of causal determinism and human freedom to do otherwise (at least as regards the parallel premises asserting the fixity of some feature of the past).

What should be clear from the above remarks is that the distinction between hard and soft facts is an important tool for understanding and responding to the various arguments discussed above. (It certainly has not been established—or even suggested—that this distinction is *necessary* in order properly to come to grips with the extended family of arguments. But it at least seems to be clear that this distinction is *useful* in addressing the arguments. Also, it seems to me that other approaches to responding to the arguments employ tools which are importantly related to the basic distinction between hard and soft facts.)<sup>3</sup>

There is a clear point, then, to attempting to give a precise account of the distinction between hard and soft facts about times. In the next section of this paper I shall lay out a version of an account of the distinction proposed by Marilyn Adams. I shall then briefly summarize a criticism which I have offered of this distinction elsewhere. Next, I shall present David Widerker's defense of Adams' account of the distinction.<sup>4</sup> Finally, I shall develop a criticism of this defense. This critique, however, will lead to a constructive proposal, because I believe that the difficulties with Adams' criterion (even as modified in light of Widerker's insights) point us to a new approach to sketching an account of the distinction between hard and soft facts.

## II.

For the sake of simplicity, I shall present my own version of Adams' suggestion; it should be kept in mind that this is a simplification and that it differs from the actual form of Adams' suggestion as she presents it. I do not, however, think that my version of the criterion

distorts it in any way relevant to a fair discussion of it. Adams' account of the distinction between hard and soft facts can, then, be presented as follows<sup>5</sup>:

(A) (1) A fact  $F$  is about a time  $T1$  if and only if  $F$ 's obtaining entails that something occur at  $T1$ ; (2) A fact  $F$  about  $T1$  is a soft fact about  $T1$  if and only if  $F$ 's obtaining entails that something (contingent) occur at some later time  $T2$ ; (3) A fact  $F$  about  $T1$  is a hard fact about  $T1$  if and only if it is not a soft fact about  $T1$ .

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  $T1$ ". Basically, then, Adams' account implies that a given fact  $F$  is a soft fact about a time  $T$  insofar as its obtaining at  $T$  entails that a contingent fact obtains at a time later than  $T$ .

Of course, (A) is rather rough, but I believe that it is sufficiently precise to allow us to draw out some implications. On (A) the fact that God believed at  $T1$  that  $S$  would not do  $X$  at  $T2$  is deemed a soft fact about  $T1$ : its obtaining entails that  $S$  does not do  $X$  at  $T2$ . It is here obvious that (A) embodies an "Entailment Criterion of Soft Facthood": a soft fact about  $T1$  entails that some contingent fact obtains at some later time  $T2$ .

(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 I believe that (A) is defective. 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  $T1$ ". Intuitively, 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.

David Widerker has taken exception to my criticism of Adams' (A), saying that "Fischer's objection...cannot be deemed convincing".<sup>6</sup> Widerker notes that, whereas a fact such as "Jack is sitting at  $T1$ "

does entail the non-occurrence of the event, “Jack sits for the first time” at  $T_2$ , it does *not* entail that  $T_2$  exist. In other words, “Jack is sitting at  $T_1$ ” does entail that it is not the case that the event, “Jack is sitting for the first time” occurs at  $T_2$ , but it does not entail that  $T_2$  exist. The point is that there are two ways in which it might be true that it is not the case that the event, “Jack is sitting for the first time”, occurs at  $T_2$ . In the first way,  $T_2$  exists but at  $T_2$  either Jack is not sitting at all, or he is sitting and he has sat before. In the second way, the world has (atemporally) gone out of existence and  $T_2$  does not even exist. Obviously, it is a presupposition of this view that it is not logically or metaphysically necessary that time continue: it is presupposed that it is logically and in some sense metaphysically possible that time stop. Presumably, the picture is that time would stop if the world, including all of space, went out of existence.<sup>7</sup>

Exploiting Widerker’s point, we could slightly modify (A) as follows:

(A’)(1’) A fact  $F$  is about a time  $T_1$  if and only if  $F$ ’s obtaining entails both that  $T_1$  exists and 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 some later time  $T_2$  exists. (3’) A fact  $F$  about  $T_1$  is a hard fact about  $T_1$  if and only if it is not a fact about  $T_1$ .

(A’) appears to remain faithful to the idea of Adams’ approach but to avoid the implausible consequence of (A) that all facts about  $T$  are considered soft facts about  $T$ . Further, (A’) has the consequence that “God believed at  $T_1$  that Jones would mow his lawn at  $T_2$ ” is a soft fact about  $T_1$ ; this is because God’s belief here entails that  $T_2$  exists.

Widerker does not explicitly accept (A’), but it is my reconstruction of Widerker’s interpretation of Adams’ criterion. If (A’) or something very like it is *not* what Widerker has in mind as Adams’ criterion, then it is hard to see what Widerker *does* have in mind. Widerker’s basic point is that I wrongly attribute to Adams the admittedly problematic (A). Rather, Widerker suggests that what Adams really has in mind is something like (A’), which is not problematic in the same way as (A). (Of course, Widerker does not explicitly say or commit himself to the view that (A’) is not problematic in *any* way.)

In this paper I shall develop a problem for the account suggested by (although not explicitly endorsed by) Widerker. The problem with (A’) is this. On (A’), a fact such as the fact that God believed at  $T_1$

that Jones would mow his lawn at  $T2$  (let us call this fact, " $F1$ ") is a soft fact about  $T1$ , as stated above. Now, consider the following fact, which is generated by simply counting all the persons who hold the belief at  $T1$  that Jones will mow his lawn at  $T2$ : "Exactly  $N$  persons believed at  $T1$  that Jones would mow his lawn at  $T2$ ." (Let us call this fact, " $F2$ ".) I claim that if  $F1$  is considered a soft fact about  $T1$ , then  $F2$  should be considered a soft fact as well. That is, if God is actually one of the  $N$  believers, then intuitively  $F2$  should be considered a soft fact about  $T1$ . But whereas ( $A'$ ) implies that  $F1$  is a soft fact about  $T1$ , ( $A'$ ) implies that  $F2$  is a *hard* fact about  $T1$ :  $F2$  does not entail that time continue after  $T1$ . (To see this, remember that the possible-worlds definition of entailment is as follows:  $P$  entails  $Q$  if and only if  $Q$  is true in all the possible worlds in which  $P$  is true. And note that in *some* possible worlds in which  $F2$  obtains, time stops at  $T1$ ; in such worlds, God is not among the  $N$  believers at  $T1$ .)

Above I claimed that if  $F1$  is considered a soft fact about  $T1$ , then  $F2$  should be considered a soft fact as well. Further, I said that, if God is actually one of the  $N$  believers, then intuitively  $F2$  should be considered a soft fact about  $T1$ , if  $F1$  is so considered. I need to say a bit more about these claims. Notice that facts can be more or less abstract, and a fact such as  $F2$  is relatively abstract. That is,  $F2$  can be "made true" by various more "basic" facts. Now my claim is that, if  $F2$  is made true by a set of believers including God, then  $F2$  should be considered a soft fact about  $T1$  (on the assumption that  $F1$  is considered a soft fact about  $T1$ ). Another way of putting the point might be as follows. In a possible world in which  $F2$  is made true by a set of believers including God,  $F2$  should be considered a soft fact about  $T1$  (if  $F1$  is so considered); one might even say that  $F2$  is a soft fact *relative to the world in question*. But ( $A'$ ), as stated, does not have the consequence that  $F2$  should be considered a soft fact about  $T1$  or that it should be so considered relative to any particular possible world.

The above considerations raise the question of whether ( $A'$ ) might be easily revisable in such a way as to avoid the problem just discussed. What if we revised ( $A'$ ) so that it would apply to facts *as made true in particular ways* rather than facts simpliciter? I believe that there are a number of problems with this approach. First, note that  $F2$  is a different fact from  $F2^*$ : "Exactly  $N$  persons including God believed at  $T1$  that Jones would mow his lawn at  $T2$ ." They are apparently different facts insofar as they have different entailments.

But the revised version of (A') would not be able to preserve this distinction; indeed, it would not seem to allow any space for the fact *F2* apart from *F2\**.

Further, the whole point of the enterprise of providing a precise account of the distinction between hard and soft facts (within the context of this paper) is to *employ* it in a certain way, *i.e.*, to apply it to facts about God's beliefs such as *F1* in order to determine whether such facts are hard or soft facts. But if (A')—or whatever account one ultimately adopts—is to apply only to facts *as they are made true*, the question will arise as to exactly what makes true a fact such as *F1*. It seems to me that it is essentially controversial, within the context of debates about Ockhamism, exactly what state of affairs makes true a fact such as *F1*. That is, it is controversial whether Jones' mowing his lawn at *T2* is part of the state of affairs that makes true *F1*. Given this sort of consideration, I do not think that it is fruitful, within the context of debates about Ockhamism, to employ (at least in the way suggested above) the notion of what states of affairs "make true" certain facts in attempting to generate an account of the distinction between hard and soft facts.

Since (A') classifies *F1* but not *F2* as soft, (A') does not capture our intuitive judgments about softness (*i.e.*, about temporal relationality). I believe that this problem in itself shows that (A') is deficient. But I shall now point out why this sort of problem makes it impossible for an Ockhamist to employ (A') in defense of his position. (Marilyn Adams endorses some version of Ockhamism in her paper. Ockhamism is the doctrine that God's prior beliefs are both (a) soft facts about the times at which they are held and (b) not fixed after the times at which they are held. Of course, the fact that (A') cannot be employed by an Ockhamist does not in itself constitute a reason to think that (A') is inadequate; but this fact is, nevertheless, an interesting fact to the extent that the hard fact/soft fact distinction is a necessary component of Ockhamism.)

Imagine that Jones mows his lawn at *T2* and that (*F1*) and (*F2*) obtain. It follows that (*F3*) obtains: Exactly *N-1* persons other than God believed at *T1* that Jones would mow his lawn at *T2*. Assume further that Jones is free at *T2* to refrain from mowing his lawn at *T2*. Now it seems to me that there are the following two possibilities:

- (I) If Jones were to refrain from mowing his lawn at *T2*, then no person who failed to believe at *T1* that Jones would



mow his lawn at  $T2$  would have held this belief at  $T1$ , or  
 (II) If Jones were to refrain from mowing his lawn at  $T2$ ,  
 then some person(s) who failed to believe at  $T1$  that Jones  
 would mow his lawn at  $T2$  would have held this belief.

Assume first that (I) is true. It follows that, if Jones were to refrain from mowing his lawn at  $T2$ , then  $F2$  would not obtain. And  $F2$  is deemed a hard fact about  $T1$  by (A'). Assume now that (II) is true. It follows that if Jones were to refrain from mowing his lawn at  $T2$ , then  $F2$  or  $F3$  would not obtain. And both of these facts are deemed by (A') hard facts about  $T1$ .

Since either (I) or (II) is true, if Jones were free at  $T2$  to refrain from mowing his lawn at  $T2$ , then *some* hard fact about  $T1$  (according to [A' ]) would not have been a fact. And if one cannot at any time so act that a fact which is a hard fact about the past would not have been a fact, then Jones *cannot* (contrary to the original supposition) refrain from mowing his lawn at  $T2$ .

So even if God's belief at  $T1$  that Jones will mow his lawn at  $T2$  were a *soft* fact about  $T1$ , it would be a "hard-core soft fact."<sup>8</sup> That is, even if God's prior belief were a soft fact about  $T1$ , it would be such that the only way in which Jones could at  $T2$  so act that it would not have been a fact would be by so acting that *some* fact which *is* a hard fact about the past would *not* have been a fact. (A'), then, generates the problem of "hard-core soft facts"—an apparently lethal problem for Ockhamism. After all, the Ockhamist (unlike his metaphysically more extravagant counterpart, the Multiple-Pasts Compatibilist), believes that one *cannot* so act that a fact which is a hard fact about the past would not have been a fact. Thus, if an account (such as [A' ]) implies that God's prior belief is a hard-core soft fact, then it cannot be employed by the Ockhamist to vindicate human freedom. Whereas Adams' (A) generates too many soft facts, the interpretation of (A) suggested by Widerker's criticism, (A'), generates hard-core soft facts.<sup>9</sup>

### III.

Suppose an Ockhamist says this. "I should never have said—if I really did say this—that no agent can ever so act that some hard fact about the past would not have been a fact. This is because there are hard-core soft facts, and, in general, not all soft facts about past

times are fixed. More specifically, since one can alter certain soft facts, one might be able to alter certain hard facts *in virtue* of altering the soft facts. (This approach might be called, “Bootstrapping Ockhamism”). So one man’s hard-core soft facts might be another’s hard facts with soft underbellies. Why should one focus on the hard elements of these facts and take them to be salient, rather than focusing on the soft elements and taking *them* to be salient?”

The Ockhamist cannot, however, get away with this. Quite clearly, it is *not* in general true that it suffices for an agent’s being able to do a certain act that in so acting the agent would be falsifying some soft fact. There are some soft facts about the past which are beyond an agent’s power to control. Further, whenever it is the case that an agent is free to perform some action which he does not in fact perform, he is free so to act that *some* soft fact about the past would not have been a fact. So whenever one considers whether an agent can perform some action (which he does not in fact perform), one is considering whether an agent can falsify *some* soft fact about the past. For example, imagine that causal determinism is true, the natural laws are fixed, and Jones goes to a Stanford football game in September, 1990. Let *C* be the total set of hard facts about the year 1900 which, together with the natural laws, entails that Jones goes to the football game in September, 1990. If Jones is free in September, 1990 to refrain from going to the football game, then it follows that Jones is free so to act that 1900 would not have preceded his going to the game in 1990. But this fact—that 1900 preceded Jones’ going to the Stanford football game in September, 1990—is clearly a soft fact about 1900. But note that if Jones is free in September, 1990 to refrain from going to the game, he is free so to act that *C* would not have been the case in 1900. But “*C* obtains in 1900” is clearly a hard fact about 1900. If one believes that it is not in an agent’s power so to act that hard facts about the past would not have been facts (as the Ockhamist does believe), then presumably this is as clear a case as one can get of an agent’s being constrained in his power by the fixity of the past. So it does *not follow* from the fact that in performing some act one would be falsifying some soft fact that one can perform the act in question. Indeed, unless Ockhamism is to *collapse* into multiple-pasts compatibilism, the Ockhamist must *not* allow that one can falsify hard facts *simply* in virtue of falsifying soft facts. Thus, it is not clear how the Ockhamist can justify the claim that facts such as those pertaining to God’s beliefs

are hard facts with soft underbellies.

The problem can be put as follows. The Ockhamist suggests that facts pertaining to God's beliefs are hard facts with soft underbellies. That is, he claims that they are hard facts which can be "falsified" in virtue of falsifying some *soft* fact. But it does not in general *follow* from the truth that in performing some act one would be falsifying some soft fact about the past that one *can* perform it. Not only would this entailment issue in the collapse of Ockhamism into Multiple-Pasts Compatibilism, but it would result in implausible claims that agents can perform actions which even a compatibilist would admit that they *cannot* perform. If I am chained to my chair, I cannot leave my office, even though by leaving my office I would be falsifying some soft fact about the past: the fact that (at some prior time) I did something prior to not leaving my office. Thus, the claim that in performing some act one would be falsifying some soft fact is not sufficient to justify the claim that one can perform the act in question, and hence the Ockhamist needs to produce some other justification for his claim that God's beliefs are hard facts with soft underbellies. Bootstrapping Ockhamism needs further support.

The Ockhamist might attempt to wriggle out of the uncomfortable position in which he finds himself as follows. "You still fail to do justice to my position. I do *not* think that all hard facts about the past are unalterable. Rather, it is only a proper subset of the hard facts about the past which are unalterable—the "accomplished facts". Let us define the set of such facts as follows: A fact *F* is an accomplished fact about *T* just in case *F* is a hard fact about *T* and for any fact *G* which is a hard fact about *T*, the conjunction *F* & *G* is a hard fact about *T*. Now I can say that, whereas 'Condition *C* obtains' is an accomplished fact about *T*, *F2* is clearly *not* such a fact. (*F2*) is a mere hard fact about *T* since the conjunction of *F2* and *F3* is not a hard fact about *T* (on a criterion such as [*A'*])."

But how can our (admittedly persistent) Ockhamist justify his claim that only accomplished facts about the past need be considered fixed? Try this. Only accomplished facts are unalterable because only they can be members of a *complete* conjunction *C\** of facts about a time *T* (describing the state of the world at *T*) which is such that it is possible that *C\** hold and the world end at the instant after *T*. But this is false, since a fact such as *F2* can be *made true* in different ways; some ways do not include God as one of the *N* believers. Thus, it *is* possible that this fact be a member of a complete conjunction

of facts about  $T$  and the world end immediately after  $T$ .

What the Ockhamist needs to do is somehow to capture the fact that God is actually one of the  $N$  believers in the example discussed above. That is, what is needed is an account of soft facts which takes a snapshot of the world at  $T$ ; the information recorded in the snapshot will tell us exactly how the facts are instantiated at  $T$ . Only a Snapshot Ockhamism can obviate the problem of hard-core soft facts.

#### IV.

A Snapshot Ockhamist might start with the following simple intuition. A fact about some time  $T$  is a hard fact about  $T$  insofar as its obtaining is compatible with the world's ending right after  $T$ . This somewhat chilling and eschatological idea can be made more precise. The world would end at a time to the extent that no particulars which can have properties or stand in relations exist at or after that time. The claim that the world ends at a time is intended to entail that nothing happens after that time.

So, for example, "Jack sits at  $T$ " should be considered a hard fact about  $T$ , and it is so considered by the above suggestion: "Jack sits at  $T$ " is compatible with the world's ending right after  $T$ . Further, "Jack sits at  $T$  five days prior to his swimming" should be considered a soft fact about  $T$ , and it is so considered.

But this simple account needs to be refined in light of facts such as  $F2$ . As argued above, if God is one of the  $N$  believers, then a fact such as "Exactly  $N$  persons believe at  $T1$  that Jones will mow his lawn at  $T2$ " should be considered a soft fact about  $T1$ . But note that this fact is compatible with the world's ending right after  $T1$ . As pointed out above, a fact such as  $F2$  can be made true in different ways, and God need not be one of the believers in order for  $F2$  to obtain. Thus,  $F2$  is not considered a soft fact about  $T1$ , according to the Snapshot theorist's suggestion.

Above, I pointed out that Adams' suggestion for an account of the distinction between hard and soft facts is this: a fact is a soft fact about a time insofar as it entails some contingent fact about a later time. I claimed that this account implies that all facts are soft facts about the relevant times. It is clear that the Snapshot theorist's suggestion avoids this problem. However, the Snapshot account, as formulated so far, has the same problem as (A'), which is the revision

of Adams' suggested by Widerker's remarks: it generates hard-core soft facts.

I shall now sketch a strategy which might be used by a Snapshot Ockhamist to avoid the problem of hard-core soft facts. Let us define a special notion of entailment: entailment\*. A fact  $P$  entails\* a fact  $Q$  just in case  $P$  is a member of a set  $S$  of truths minimally sufficient to entail  $Q$ . A set  $S$  is minimally sufficient to entail some fact  $Q$  if and only if

- (1)  $S$  entails  $Q$ , and
- (2) there is no set of true basic propositions  $S'$  such that
  - (a)  $S'$  is equivalent to  $S$ ,
  - (b) no proper subset of  $S'$  is equivalent to  $S'$ , and
  - (c) some proper subset of  $S'$  entails  $Q$ .<sup>10</sup>

When a set  $S$  is minimally sufficient for some proposition  $Q$ , there is no set  $S'$  which is equivalent to  $S$  and which is a non-redundant "mini-entailer" of  $Q$ ; that is, when  $S$  is minimally sufficient for  $Q$ ,  $S$  is a compact entailer of  $Q$ .

Here is an example of entailment\* which is not an example of entailment, *i.e.*, an example in which some proposition  $P$  entails\* some proposition  $Q$  but in which it is not the case that  $P$  entails  $Q$ . Suppose that Alex Rosenberg and Peter van Inwagen are on a train to Syracuse, and that they are the only two passengers on the train. The proposition that Alex Rosenberg is going to Syracuse (call this proposition,  $AR$ ) entails\* (but obviously does not entail) the proposition that exactly two passengers are on the train going to Syracuse. This is because  $AR$  is a member of a set  $S$  of propositions minimally sufficient for the proposition that exactly two passengers are on the train going to Syracuse. The relevant set  $S$  is the set of true propositions, {"Alex Rosenberg is a passenger on the train going to Syracuse", "Peter van Inwagen is a passenger on the train going to Syracuse", "There is no other passenger on the train going to Syracuse"}. This set  $S$  is a compact entailer (in the sense specified above) of the proposition that exactly two passengers are on the train going to Syracuse.

Now the Snapshot Ockhamist's view can be stated more precisely. The view is that a fact  $F$  is a hard fact about a time  $T$  only if (a)  $F$  is compatible with the world's ending at  $T$ , and (b) no fact  $G$  which entails that time continue after  $T$  entails\*  $F$ . Let us call the conjunction of (a) and (b), "(SO)".

We can now apply the Snapshot account. Fact  $F1$ —the fact that God believed at  $T1$  that Jones would mow his lawn at  $T2$ —entails that time continue after  $T1$ . Further,  $F1$  entails\*  $F2$ —the fact that exactly  $N$  persons believed at  $T1$  that Jones would mow his lawn at  $T2$ . This is because  $F1$  is a member of a set of propositions  $S$  which meets the conditions developed above:  $S$  is minimally sufficient for  $F2$ . The set  $S$  in question is the set of propositions saying of each person who believed at  $T1$  that Jones would mow his lawn at  $T2$  that he so believed plus the proposition that these were the *only* persons who so believed. I claim that this set  $S$  entails  $F2$  and that there exists no set  $S'$  of basic propositions such that  $S'$  is equivalent to  $S$ , no proper subset of  $S'$  is equivalent to  $S'$ , and some subset of  $S'$  entails  $F2$ . Thus, the Snapshot Ockhamist's account—(SO)—captures the information we wanted to capture about  $F2$ ; it captures information about the way in which  $F2$  is made true in such a way that it implies that  $F2$  is a soft fact, if God is one of the  $N$  believers.

Not only does Snapshot Ockhamism crystallize the Ockhamist's intuition about  $F2$ , it has another advantage over an approach such as  $(A')$ . On  $(A')$  it is *not* generally true that, if some fact  $F$  is a hard fact about a time  $T$  and some fact  $G$  is a hard fact about  $T$ , then the conjunction  $F \& G$  is a hard fact about  $T$ . That is,  $(A')$  does not preserve hardness under conjunction. For example, on  $(A')$  facts  $F2$  and  $F3$  are each considered hard facts about  $T1$ , but the conjunction  $F2 \& F3$  is not so considered. In contrast, I claim that (SO) preserves hardness under conjunction.

Further, it should be the case that a proper Ockhamistic account entails that facts about God's prior beliefs (and such facts as  $F2$  when made true in certain ways) turn out to be soft facts about the relevant times while entailing that such facts as, "At  $T$  the world is in state  $U$  (where  $U$  is the complete set of temporally non-relational facts which obtain at  $T$ )", are hard facts about  $T$ . And this is precisely what (SO) entails.

To see this, suppose that causal determinism is true, and condition  $U$  (which obtained a some time  $T$  before you were born), together with the laws of nature, constituted a causally sufficient condition for your going to the movies at  $T+n$ . It is here assumed that the conjunction of a statement saying that  $U$  obtained at  $T$  and a statement of the laws of nature entails that you go to the movies at  $T+n$ , although the statement that  $U$  obtained at  $T$  alone does not have this implication. Now, does "You go to the movies at  $T+n$ " entail\*

“ $U$  obtained at  $T$ ”? (If so, then by (SO) the latter fact would be a soft fact about  $T$ .)

Let us suppose that a kind of “two-way” causal determinism obtains according to which it is true that the natural laws entail that you go to the movies at  $T+n$  if and only if  $U$  obtained at  $T$ . Now the fact that you go to the movies at  $T+n$  is part of a set  $S$  which entails that  $U$  obtained at  $T+n$ . This set  $S$  consists of: {“You go to the movies at  $T+n$ ”, “If you go to the movies at  $T+n$ , then  $U$  obtained at  $T$ ”}. But notice now that there *is* a set  $S'$  of true basic propositions which is such that  $S'$  is equivalent to  $S$ , no proper subset of  $S'$  is equivalent to  $S'$ , and some proper subset of  $S'$  entails that  $U$  obtained at  $T$ ; this is the set,  $S'$ , {“You go to the movies at  $T2$ ”, “ $U$  obtained at  $T$ ”}. Hence,  $S$  is *not* minimally sufficient for “ $U$  obtained at  $T$ ”;  $S'$  is a non-redundant mini-entailer (equivalent to  $S$ ) of “ $U$  obtained at  $T$ .”

Snapshot Ockhamism, then, provides a precise way of showing that causal determinism presents a deeper challenge to human freedom than does divine foreknowledge. If an agent is free so to act that God would not have held the belief he did actually hold, then the agent is free so to act that some soft fact about the past (according to [SO]) would not have been a fact. In contrast, if an agent is free at  $T+n$  so to act that  $U$  would not have been a fact about  $T$ , then the agent is free so to act that a hard fact about the past (according to [SO]) would not have been a fact. Snapshot Ockhamism avoids a potential collapse of Ockhamism into Multiple-Pasts Compatibilism.

## V.

In the context of a discussion of Widerker’s critique, I have attempted to present a general problem for a class of Ockhamistic accounts of the distinction between hard and soft facts: this is the problem of hard-core soft facts. Given that no human agent is free so to act that hard facts about the past would not have been facts, the revision of Adams’ account suggested by Widerker’s critique is inadequate; although God’s belief may not be a hard fact about the past, one’s freedom so to act that it would not have been a fact would require so acting that *some* hard fact about the past would not have been a fact.<sup>11</sup>

I have sketched a new version of Ockhamism—the Snapshot approach. Snapshot Ockhamism does not spawn hard-core soft facts, and it preserves hardness under conjunction. Further, Snapshot

Ockhamism is a device strong enough to protect compatibilism about freedom and foreknowledge (against certain worries), but not so strong as to yield compatibilism about freedom and determinism. Whereas I certainly have not argued here that Ockhamism is ultimately tenable, I have at least presented one way in which the theory can be formulated precisely. I have had a minimal project in this paper: to develop a sketch of some tools with which the Ockhamist could formulate his position. But even if these tools render it possible for the Ockhamist to avoid the result that God's prior beliefs are hard-core soft facts, they do not appear to render it possible for the Ockhamist to avoid the (equally mortifying) result that God's beliefs are hard-type soft facts.<sup>12,13</sup>

## Notes

1. I have set out various versions of these arguments and discussed their structural similarities in: "Introduction: Responsibility and Freedom", John Martin Fischer, ed., *Moral Responsibility*. (Ithaca: Cornell University Press, 1986); and "Introduction: God and Freedom", John Martin Fischer, ed., *God, Foreknowledge, and Freedom*, (Stanford: Stanford University Press, 1989).
2. For a selection of discussions of this distinction and its role in incompatibilist arguments, see: Fischer, 1989.
3. On one such approach, a distinction is made between temporally non-relational and temporally relational *properties* (rather than facts): David Widerker, "Two Forms of Fatalism", in Fischer, 1989, pp. 97-110.
4. David Widerker, "On A Fallacious Objection to Adams' Soft/Hard Fact Distinction" *Philosophical Studies* 57 September 1989, pp. 103-107.
5. Marilyn Adams, "Is the Existence of God 'Hard' Fact?", *Philosophical Review* 76 (1967), pp. 492-503, reprinted in Fischer, 1989.
6. Widerker, 1989
7. For discussions of the issue of whether time can stop, see: Arthur Prior, "On the Logic of Ending Time", in *Papers on Time and Tense* (Oxford: Oxford University Press, 1968); W.H. Newton-Smith, *The Structure of Time* (London: Routledge and Kegan Paul, 1980); and Quentin Smith, "On the Beginning of Time", *Nous* 19 (1985), pp. 579-584.
8. For a discussion of hard-core soft facts, see: John Martin Fischer, "Ockhamism", *Philosophical Review* 94 (January 1985), pp. 81-100.
9. David Widerker develops examples which involve what I would call "hard-core soft facts" in: Widerker, 1989; and "Against the Eternity Solution", forthcoming.
10. First, a set of propositions R is equivalent to a set R\* just in case the conjunctions of the members of the sets are necessarily materially equivalent (or equivalent in the "broadly logical sense"). Second, the



restriction of  $S'$  to basic propositions is essential. This can be seen by considering the following argument. Suppose  $S$  is a non-redundant set  $\{A_1, A_2, \dots, A_n\}$  which entails  $Q$ . We could *always* find a set  $S'$  which satisfies the account without the restriction. Such a set would be:  $S' = \{A_1, A_2, \dots, A_n \text{ or not-}Q, Q, A_n + 1, \dots, A_n\}$ . This set  $S'$  is equivalent to  $S$ , non-redundant, and a proper subset of it entails  $Q$ . Thus, the account requires the restriction to basic propositions. I should point out that all other accounts of the relevant distinction with which I am familiar require some sort of similar distinction; indeed, it is plausible to conjecture that Ockhamism requires (or at least is associated with) atomism—the doctrine that facts (propositions, states of affairs, etc.) can be divided into basic (atomic) and non-basic (molecular) entities.

11. This is precisely the same problem as the one I identified in an approach suggested by Nelson Pike. For this debate, see: Nelson Pike, "Fischer on Freedom and Foreknowledge", *Philosophical Review* 93 (October 1984), pp. 599-614; and Fischer, 1985.
12. John Martin Fischer, "Hard-Type Soft Facts", *Philosophical Review* 95 (October 1986), pp. 591-601. One might distinguish two ways of dividing up facts: into smaller facts and into individuals and properties. The first method of division yields "hard-core soft facts". The second method of division yields "hard-type soft facts". A hard-type soft fact is a soft fact whose falsification would require that some individual who actually possessed some *temporally non-relational property* would not have possessed this property. And it is plausible to suppose that, if hard facts about the past are fixed, then so are hard-type soft facts about the past.
13. I have benefitted from discussing a previous version of this paper with the members of the seminar (on God and Freedom) taught by Nelson Pike and me during the winter quarter of 1990 at UC Riverside and UC Irvine. Also, a version of this paper has been read at the University of North Carolina, Greensboro; on that occasion I greatly benefitted from the comments of Joshua Hoffman, Gary Rosenkrantz, and Jarrett Leplin. Finally, I am very much indebted to Carl Ginet for helping me to develop an ancestor of the idea behind "entails\*".

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