

Circular Explanations, Cosmological Arguments, and Sufficient Reasons

WILLIAM ROWE

Within philosophy of religion, cosmological arguments are understood to be arguments from the existence of the world to the existence of God. Typically, such arguments proceed in two stages. The first step argues from the existence of the world to the existence of a first cause or necessary being that accounts for the existence of the world. The second step argues that such a first cause or necessary being has, or would very likely have, the properties associated with the idea of God. My concern here is only with the first stages in these arguments. For convenience, I will use the expression 'cosmological arguments' to refer to the first stages of these arguments.

Cosmological arguments may be divided into two broad types: those that depend on a premise denying an infinite regress of causes and those that do not depend on such a premise. Among the former are the first "three ways" presented by Aquinas, as well as an interesting argument, developed by Islamic thinkers, that the world cannot be infinitely old and, therefore, must have come into existence by the creative will of God. An important difference between the arguments represented by Aquinas's first "three ways" and the Islamic argument is that while both reject an infinite regress of causes, only the latter bases the objection on the alleged impossibility of an infinite *temporal* regress. Unlike Bonaventure who adopted the Islamic argument, Aquinas did not think that philosophy could show that the world had a temporal beginning. Instead, he rejected an infinite regress of essentially ordered causes (a *nontemporal* causal series), identifying God as the first cause in such a nontemporal series.

The major eighteenth-century proponents of cosmological arguments, Leibniz and Clarke, allowed an infinite regress of causes, arguing only that there must be a sufficient reason for the existence of such a series of causes. Thus, their arguments do not depend on rejecting an infinite regress of causes. Appealing to

the principle of sufficient reason, Clarke and Leibniz insist only that such a series could not be self-explanatory and, therefore, would require an explanation in the causal activity of some being outside the series.

Although it is difficult to imagine that an absolutely infinite number of *temporally* discrete events have already occurred, philosophical objections to the idea have been found wanting.¹ And although Aquinas thought it obvious that a *nontemporal* causal series must terminate in a first member, itself uncaused, many philosophers in the modern period find the idea of a nontemporal causal series unclear, and, even supposing such a series, do not see why it must terminate in a first member. As a result, current interest has been drawn to those cosmological arguments—for example, the arguments advanced by Leibniz and Clarke—that allow the possibility of an infinite regress of causes, insisting only that such a series would require a sufficient reason for its existence. To see the role that the principle of sufficient reason plays in such arguments, it will be instructive to focus on the argument advanced by Samuel Clarke.²

If we think of a *dependent being* as a being whose sufficient reason for existence lies in the causal activity of other beings, and think of a *self-existent being* as a being whose sufficient reason for existence lies within its own nature, Clarke's cosmological argument (the first stage) can be put as follows.

Every being (that exists or ever did exist) is either a dependent being or a self-existent being.

Not every being can be a dependent being.

Therefore, there exists a self-existent being.

What the first premise implies is that no existing being can lack a sufficient reason for its existence. That is, for each being that exists there is a sufficient reason (explanation) of its existence. Moreover, that reason will lie either within the causal activity of the being(s) that produced it or in the thing's own nature, in which case it will be a necessary being, a being whose nonexistence is impossible. But why should we think this first premise is true? And even if it is true, why should we think that not every being can be a dependent being, as the second premise states? To see why Clarke and Leibniz think these premises are true, we must look at the principle of sufficient reason.

The principle of sufficient reason (PSR) is a principle concerning facts, including facts consisting in the existence of individual beings. Thus the fact that John exists is a fact for which the PSR requires that there be a sufficient reason, some fact that fully explains the fact that John exists. But PSR also requires an explanation for facts about individual beings, for example, the fact that John is happy. In addition, PSR requires an explanation for general facts such as the fact that someone is happy, the fact that there are elephants, or the fact that there are dependent beings. Leibniz expresses PSR as the principle "that no fact can be real or existent, no statement true, unless there be a sufficient reason why it is so and not otherwise."³ And Clarke, under pressure from Leibniz, states: "Undoubtedly nothing is, without a sufficient reason why it is, rather than not; and why it is thus, rather than otherwise."⁴

If we understand a contingent fact to be a fact that possibly might not have been a fact at all, it is clear that Leibniz held that every contingent fact has a sufficient reason or explanation. And so long as we restrict ourselves to contingent facts concerning the existence of things, it is clear that Clarke held that all such facts must have a sufficient reason.⁵ If either view should be correct, it does seem that Clarke's second premise must be true. For if every being were dependent it does seem that there would be a contingent fact without any explanation—the fact that there are dependent beings. But if PSR is true, the fact that there are dependent beings must have a sufficient reason, a full explanation.⁶ So, given Clarke's convictions about PSR, it is understandable why he should hold that not every being can be a dependent being. For if every being that exists or ever did exist is a dependent being, what could possibly be the sufficient reason for the fact that there are dependent beings? It won't do to point to some particular dependent being and observe that it produced other dependent beings.⁷ The question why there are any dependent beings cannot be answered by appealing to the causal activity of some particular dependent being any more than the question why there are any human beings can be answered by appealing to Adam and Eve and their causal activity in producing other human beings. Nor will it do to observe that there always have been dependent beings engaged in causing other dependent beings. The question why there are any dependent beings cannot be answered by noting that there always have been dependent beings, any more than the question why there are any elephants can be answered simply by observing that there always have been elephants. To note that there always have been elephants may explain how long elephants have been in existence, but it won't explain why there are elephants at all.

Should we conclude that Clarke's cosmological argument is sound? No. For all we have seen is that his argument is sound *if* PSR is true.⁸ But what of PSR itself? Is it true? In its unrestricted form PSR holds that every fact has an explanation; in its restricted form it holds that every contingent fact has an explanation. Even if we take PSR in its restricted form, there are serious objections to it. Let's turn to a consideration of three objections to PSR in its restricted form. Of course, these objections, if sound, also refute PSR in its unrestricted form.

I will assume in what follows that any fact or true proposition that constitutes a sufficient reason for another fact or true proposition is an explanation of that fact (true proposition) that *entails* the fact (true proposition) it explains. If an explanation of a fact only makes that fact probable, then it does not count as a sufficient reason for that fact; it is at best a partial reason for that fact. I believe this assumption is one way of stating a condition that is shared by Leibniz and Clarke. Moreover, it expresses a condition that recent discussions of PSR take as given.

One objection to PSR is that it cannot avoid the dark night of Spinozism, a night in which all facts appear to be necessary. This difficulty was particularly acute for Leibniz. He explained God's creation of this world by this world's being the best and God's choosing to create the best. But what accounts for God's

choosing to create the best, rather than some inferior world or none at all? God chooses the best because of his absolute perfection—being absolutely perfect he naturally chooses to create the best. The difficulty is that God's being perfect is, for Leibniz, a necessary fact. It seems, then, that God's choice to create the best must also be necessary and, consequently, the existence of this world is necessary. If we avoid this conclusion by saying that God's being perfect is not the sufficient reason of his choice to create the best, we run into an infinite regress of explanations of his choice to create the best. For suppose we say that it is God's perfection in conjunction with his choice to exercise his goodness that constitutes the sufficient reason for his choice to create the best. What then of his choice to exercise his goodness? A similar problem would arise in providing a sufficient reason for it. And we seem to be off to the races, each reason determining a choice only by virtue of a prior choice to act in accordance with that reason.

A second and more serious objection to the restricted form of PSR is that it appears to be impossible for every contingent fact to have an explanation. Consider the huge conjunctive fact whose conjuncts are all the other contingent facts that there are. This huge conjunctive fact must itself be a contingent fact, otherwise its conjuncts would not be contingent. Now what can be the sufficient reason for this huge conjunctive fact? It cannot be some necessary fact. For the sufficient reason for a fact is another fact that entails it; and whatever is entailed by a necessary fact is itself necessary. The huge conjunctive fact cannot be its own sufficient reason since only a necessary fact could be self-explanatory. So, the sufficient reason for the huge conjunctive fact would have to be one of the contingent facts that is a conjunct of it. But then that conjunct would have to be a sufficient reason for itself, since whatever is a sufficient reason for a conjunctive fact must be a sufficient reason for each of its conjuncts. It follows, then, that the huge conjunctive fact cannot have an explanation. It thus appears that PSR is false.⁹

In the above argument it is important not to confuse the huge conjunctive fact constituted by every other contingent fact with the general fact that there are contingent facts. The latter fact—that there are contingent facts—is not itself a contingent fact. It is a necessary fact. For every possible world contains some contingent fact or other. Consider the contingent fact that there are elephants. That there are elephants is a fact in the actual world. But if some possible world in which there are no elephants were to be actual, it would be a fact that there are no elephants. So, no matter what possible world is actual, either that there are elephants will be a fact or that there are no elephants will be a fact. Thus, that there are contingent facts is itself a necessary fact. But the huge conjunctive fact described above is itself a contingent fact. Had some other possible world been actual, the huge conjunctive fact described above would not have been a fact.

Finally, there is an objection I presented some years ago to the effect that there is a certain nonconjunctive, contingent, general fact that cannot possibly have a sufficient reason in the sense of another fact that entails and explains it.¹⁰ The objection involves the idea of a positive contingent state of affairs.

X is a positive contingent state of affairs if and only if from the fact that X obtains it follows that at least one contingent being exists.¹¹

I pointed out that *there being elephants* is a positive contingent state of affairs. For, from the fact that it obtains, it follows that at least one contingent being exists. *There being no unicorns*, however, is not a positive contingent state of affairs. I then drew attention to the following state of affairs:

t: There being positive contingent states of affairs.

I argued that it is impossible for there to be a sufficient reason for the fact that t obtains. That it is impossible follows from two considerations. First, any sufficient reason (full explanation) for the fact that t obtains would itself be a positive contingent state of affairs. For from the fact that t obtains it follows that at least one contingent being exists. Therefore, since any sufficient reason for t would entail t, and therefore entail whatever is entailed by t, any sufficient reason for t would entail that at least one contingent being exists, and thus would itself be a positive contingent state of affairs.

Our first consideration establishes that any sufficient reason for t must itself be a positive contingent state of affairs. Now we come to the second consideration. Any sufficient reason for the fact that t (there being positive contingent states of affairs) must constitute a full explanation for why there are positive contingent states of affairs. But surely, nothing that itself is a positive contingent state of affairs can be an explanation for why there are positive contingent states of affairs. For such a proposed explanation is simply circular. I then illustrated this reasoning by an example.

suppose we try to explain why there are positive contingent states of affairs by citing the fact, let us suppose, that God willed that positive contingent states of affairs be actual—just as, for example, we might explain why there are men by citing the (supposed) fact that God willed that men should exist. The fact, then, consisting of God's willing that positive contingent states of affairs be actual is what explains why there are positive contingent states of affairs. But now let us consider the fact of God's willing that positive contingent states of affairs be actual. If that fact does explain why there are positive contingent states of affairs it must entail that some positive contingent states of affairs are actual. And if this is so, then the fact that God willed that there be positive contingent states of affairs entails that at least one contingent being exists. We then ask whether the fact in question is contingent or necessary. It cannot be necessary, for then it would be necessary that at least one contingent being exists—and, as we have seen, it seems to be a contingent matter that contingent beings exist. What follows, then, is that the fact consisting of God's willing that positive contingent states of affairs be actual is *itself* a positive contingent state of affairs; for it is contingent and, from the fact that it obtains, it follows that at least one contingent being exists. But clearly, the fact that *accounts* for why there are

positive contingent states of affairs *cannot* itself be a positive contingent state of affairs.¹²

In a review of *The Cosmological Argument*, Robert Adams questioned this argument.¹³ Noting my contention that any explanation of *t* (in the sense of a sufficient reason for *t*) would be circular, Adams, in effect, denies that this is true. His argument seems to be this. Suppose that what is offered as the sufficient reason for *t* is, unlike God's willing that positive contingent states of affairs be actual, a *conjunction* of two factors, neither of which is itself a positive contingent state of affairs. Let one of these factors be

- a. God's having a *prima facie* desire to bring about the existence of another being. (Here we understand God as a necessary being and also understand that any being he brings into existence will be a contingent being.)

God's *prima facie* desires to create, as in what theologians call his "antecedent will" (as in "God wills all men to be saved"), as opposed to his "all things considered will," does not logically necessitate its realization. For he may have good reason not to act on such a desire. Let the second factor be something like

- b. God's having no good reason not to bring into existence another being.

Let us agree that although neither (a) nor (b) entails *t*, the conjunction of (a) and (b) does entail *t*. Adams's point is that since neither (a) nor (b) is a positive contingent state of affairs, and since they obtain independently of each other, they may "jointly provide a noncircular explanation of *t*."

My response to this objection is that the conjunctive fact that (a) and (b) cannot explain the fact that there are positive contingent states of affairs because the conjunctive fact in question is itself a positive contingent state of affairs. Such an "explanation" would be circular. Of course, Adams admits that the conjunctive fact is itself a positive contingent state of affairs.

It does seem that this conjunction must be a positive contingent state of affairs if it is contingent. But in determining whether it would be circular to explain something by a conjunction, one must consider the conjuncts separately, if they are independent.¹⁴

We thus seem to be in a stalemate. I insist that no explanation for *t* can itself be a positive contingent state of affairs, and Adams allows that in some circumstances an explanation for *t* can itself be a positive contingent state of affairs. But we do seem to agree that an explanation cannot be circular. So, there is room here for further discussion. For I hold that his conjunctive explanation is circular, whereas he denies this. And what this suggests is that I need to say something more about what it is for a proposed explanation to be circular. Before turning to that task, however, it will be helpful to consider one other serious objection to my argument against PSR.

In “Explanatory Rationalism and Contingent Truths” Quentin Smith argues against my objection to PSR.¹⁵ Since much of his discussion proceeds in terms of propositions, rather than states of affairs, it will be convenient here to follow him and discuss positive contingent truths rather than actual positive contingent states of affairs. As Smith notes: “His [Rowe’s] ‘states of affairs’ are identical or isomorphic to our propositions and the following equivalence obtains: ‘states of affairs either obtain or do not obtain and exist even if they do not obtain’ is logically equivalent to ‘propositions either are true or false and exist even if they are false’.”¹⁶ Suppose, then, we introduce the notion of ‘a positive contingent truth’ as follows:

1. P is a positive contingent truth iff P is contingently true and entails that some contingent concrete object exists.

Thus, the proposition that *there are elephants* is a positive contingent truth, but neither the proposition that *there are no unicorns* nor the proposition that *there are 18-foot-tall basketball players* is a positive contingent truth. Consider now the proposition:

2. There are positive contingent truths

(2) is contingent, true, and entails that some contingent concrete object exists. So P *itself* is a positive contingent truth. Could there be a sufficient reason for the truth of (2)? As Smith notes, in *The Cosmological Argument* I argued (using the language of states of affairs) that there could not be. As we’ve seen, my argument comes down to this. Any true proposition that gives a sufficient reason for (2) would have to entail (2) and constitute an explanation of why there are any positive contingent truths. But any true proposition that entails (2) would itself be a positive contingent truth and therefore could not provide an explanation of why there are positive contingent truths at all. It seemed to me clear that no positive contingent truth could itself explain why there are any positive contingent truths. Adapting my remarks to the language of propositions (rather than states of affairs), I said that

3. God (effectively) wills that there be positive contingents truths

could not explain why there are positive contingent truths at all, since it itself is a positive contingent truth. The purported explanation would be viciously circular in that it employs a positive contingent truth to supposedly explain why there are any positive contingent truths.

Why does Smith hold that I am mistaken in believing that there can be no sufficient reason for (2), the truth that *there are positive contingent truths*? Switching from propositions to states of affairs, he explains as follows.

All that needs to be explained is that there obtain positive contingent states of affairs, which is logically equivalent to the state of affairs *that there are*

contingent concrete objects. Now this state of affairs does appear to have an explanation, namely, by the state of affairs

(s). God wills that there are contingent concrete objects.¹⁷

Before quoting the sentence that immediately follows this passage, let me say that I agree entirely with the point Smith makes here. Moving back to the idiom of propositions, we note that the proposition

2. There are positive contingent truths

is logically equivalent to

3. There are contingent concrete objects.

Moreover, on the supposition that it is true that God wills that there are contingent concrete objects, it seems to me entirely correct to cite the proposition

4. God wills that there are contingent concrete objects

as a sufficient reason for the truth of 3. For 4 entails 3 and provides an explanation of the truth of 3. Of course, there would be a circularity in the explanation if God were himself a contingent concrete object. But both Smith and I are allowing here (for purposes of discussion) that God is a necessary being. So, the portion of his argument quoted above strikes me as altogether correct. But he continues the quotation as follows.

(s) is a sufficient reason for t (there obtain positive contingent states of affairs), since necessarily, if s obtains, t obtains, (ii) s relevantly entails t and (iii) s explains t. Thus, it seems that Rowe is mistaken in believing that there can be no sufficient reason for t.¹⁸

In the idiom of propositions, what Smith says here is that proposition (4) (God wills that there are contingent concrete objects) is a sufficient reason for the truth of (2) (There are positive contingent truths). Why does Smith think (4) is a sufficient reason for (2), and, therefore, an explanation of (2)? So far as I can determine, no answer to this question is given in "Explanatory Rationalism and Contingent Truths."

I agree with Smith on two points. First, I agree that (4) can be an explanation of (3). Second, I agree that (3) is logically equivalent to (2). Is it supposed to follow from this that (4) can be an explanation of (2)? By my lights (4) cannot be an explanation of (2) because such an explanation would be circular, using a positive contingent truth to try to account for why there are positive contingent truths. For (4), no less than (2), is itself a positive contingent truth.

In further discussion of this matter,¹⁹ Smith supported his position by defending the Principle of Explanatory Equivalence, according to which if *p* explains *q*, and *r* is "relevantly equivalent" to *q*, *p* also explains *r*. He appealed to this principle in order to argue that since, as I agree, (4) can explain (3), and (2) is equivalent to (3), it follows that (4) can explain (2). The Principle of Explanatory

tory Equivalence, then, fills the gap in the argument he presented in “Explanatory Rationalism and Contingent Truths.” And I must concede that if this principle is correct, Smith has succeeded in showing that

4. God wills that there are contingent concrete objects

can be an explanation of

2. There are positive contingent truths.

And this will be so even though (4) is itself a positive contingent truth.

In response to Smith I could take the position that although he has shown that (4) can be an explanation of (2), he hasn’t shown that it is a good or even adequate explanation of (2) because he hasn’t shown that such an explanation escapes the charge of being viciously circular. For Smith will still have to admit that the explanation in question appeals to a positive contingent truth, (4), in order to explain why there are any positive contingent truths, (2). But such a response on my part might strike some as little more than sophistry. So, let’s agree that being noncircular is a condition of being an explanation. Thus, if Smith has shown that (4) can be an explanation of (2), he has shown that an appeal to (4) as an explanation of (2) can be noncircular, and this despite the fact that we are appealing to a positive contingent truth in order to explain why there are any positive contingent truths. On this approach to the problem, my only possible response to Smith is to question his Principle of Explanatory Equivalence.

In defending his principle, Smith carefully distinguishes *strict equivalence* from *relevance equivalence*. To use his example, the proposition

An isosceles triangle has three angles

is strictly equivalent to

All red things are red

since any possible world in which the one is true is a world in which the other is true. If the Principle of Explanatory Equivalence were stated in terms of strict equivalence it would clearly fall prey to obvious counterexamples. For an explanation of why an isosceles triangle has three angles need not be an explanation of why all red things are red. For two propositions to be *relevantly equivalent*, each must relevantly imply the other. And one proposition relevantly implies another if and only if it “strictly implies it by virtue of its meaning.”²⁰ Smith then argues, correctly (by my lights), that proposition

2. There are positive contingent truths

is *relevantly equivalent* to

3. There are contingent concrete objects.

He then concludes that since the proposition

4. God wills that there are contingent concrete objects

explains (3), it also explains (4).

The difficulty with this argument is that the Principle of Explanatory Equivalence is false. And it is not just false when equivalence is understood as *strict equivalence*, it is also false when equivalence is understood as *relevance equivalence*. Consider, for example, propositions

5. John is angry at t

and

6. John exists at t and John is angry at t.²¹

These two propositions are *relevantly equivalent* in Smith's sense. But an explanation of the former need not be an explanation of the latter. It is one thing to explain why John is angry at t and another thing to explain why he exists at t.

It would be nice to be able to claim victory here. But all I've shown, at best, is that a particular argument to establish that (4) can explain (2) is unsuccessful. I haven't shown what I've claimed to be true: that any proposed explanation of (2) cannot be successful since it would be viciously circular. Is there anything more to be said here? Or must we simply end with differing intuitions on the matter of whether (2) can have an explanation? Perhaps that is where we will end. But I can at least say a bit more about two types of circularity that I believe may defeat a proposed explanation of some fact or true proposition.

The two types of circularity that may defeat a proposed explanation can be expressed in two general theses:

- I. If you are going to explain why there are *any* objects of a certain kind (where it is a contingent matter that there are objects of that kind), you cannot do so by citing a fact of the form 'X caused there to be Ys', where X is an object of the kind in question. For to do so is circular.

To illustrate this thesis consider the following. Suppose I ask why there are any elephants. In response you say that Dumbo, an elephant, was rather prolific and gave birth to some elephants. Your response is circular. To explain why there are entities of a certain kind you appeal to the causal activity of an entity of that very kind. A noncircular explanation would be illustrated by the claim that God willed that there should be elephants and proceeded to create some.

- II. If you are going to explain why there are *any* truths of a certain kind (where it is a contingent matter that there are truths of that kind), you cannot do so by citing a truth that is itself a truth of that very kind. For to do so is circular.

To illustrate this thesis let's use a concrete example: 'a truth about Abraham'; where it is understood that *p* is a truth about Abraham if and only if *p* is true and *p* entails the proposition that Abraham exists.²² (This is not how we would normally understand the expression 'a truth about Abraham', but we are giving it a technical sense here for purposes of clarifying this second kind of circular explanation.) Clearly, the true proposition that Abraham exists is itself a truth

about Abraham, for it entails itself. If I ask why there are any truths about Abraham (truths that entail that Abraham exists), it is not enlightening to respond by saying it is because it is true that Abraham exists. For the proposition that Abraham exists is itself of the very kind about which we are inquiring as to why there are any truths at all of that kind. Such an explanation is circular.

We don't know who Abraham's mother was. But let us name her *Elizabeth*. For present purposes, let us agree that the true proposition that Elizabeth begat Abraham *explains* the fact that Abraham exists. Now the proposition

7. Abraham exists

entails the proposition that there are truths about Abraham. Moreover, (7) is entailed by the true proposition that there are truths about Abraham. So, (7) is logically equivalent to

8. There are truths about Abraham.

Now we have agreed that

9. Elizabeth begat Abraham

explains (7). Should we say that (9) also explains (8), that is, that (9) also explains why there are truths about Abraham. By my lights we should not. For we would be using a truth about Abraham to explain why there are any truths about Abraham.

I wish I could produce some decisive argument in support of the conclusion just reached. However, I don't know of any such argument. I simply find myself thinking that such a proposed explanation is circular. It is a case of trying to explain why there are any *Xs* by appealing to something (in this case a proposition) that is itself an *X*.

Where does all this leave us? I can see how one rightly wants to count (9) as an explanation of (7). (9) can satisfy that role, even though it cannot satisfy that role without itself having the property of being a truth about Abraham. I can see too an initial inclination to say that (9) explains (8). But I think this inclination is naturally explained by another inclination: the inclination to construe truths about Abraham as truths of the following sort: (10) Abraham lived for many years; (11) Abraham had a wife; (12) Abraham was prevented by an angel from killing Isaac, etc. These are the sorts of propositions that we naturally think of when we think of truths *about* Abraham. Along this line, we naturally think of (9) as a truth about Elizabeth. And, of course, if we think of 'truths about *X*' in this way, we will be inclined to say that (9) does explain why there are any truths about Abraham. For it explains why Abraham exists. And the proposition 'Abraham exists' is a truth about Abraham. So, we might reason, since (9) is not what we initially take to be a truth *about* Abraham, and since (9) does explain the fact that Abraham exists, (9) can explain why there are truths about Abraham. What could be clearer than that? But we must keep before our minds what we here mean by 'a truth about Abraham'. And what we mean is such that (9) itself is a truth about Abraham.

Another temptation to think that (9) explains why there are any truths about Abraham is this: (9) does explain a very fundamental truth about Abraham—the truth that Abraham exists. We might also reasonably argue that (9) plays an important role in explaining why there are *many* truths about Abraham. But we can, I think, have an explanation of why there are *many* truths about Abraham without thereby having an explanation of why there are *any* truths about Abraham. Consider the following proposition:

12. God effectively willed that many logically independent propositions that entail that Abraham exists should be true.

Suppose we agree that there are many truths about Abraham just in case many logically independent propositions that entail that Abraham *exists* are true. If so, then we can perhaps agree that (12) explains why there are many truths about Abraham. But if a proposition explains why there are *many* truths about *X*, doesn't it seem that it also must explain why there are *any* truths about *X*? But again, by my lights, it is not clear that the answer is yes. For (12) is itself, if true, a truth about Abraham. Consider the analogy with thesis I. Let us say that Dumbo's prolific activity explains why there are many elephants. Nevertheless, although Dumbo's prolific activity in generating many elephants may explain why there are *many* elephants, it cannot explain why there are *any* elephants at all. For Dumbo himself is an elephant.

All I am doing here is trying to explain why I believe that the truth that Elizabeth begat Abraham fails to explain why there are any truths about Abraham. It does explain why Abraham exists. And, therefore, it seems right to say that it explains something that is necessary for there to be *any* truths about Abraham. But none of this implies that the truth that Elizabeth begat Abraham explains why there are *any* truths about Abraham. In fact, so long as we hold that an explanation cannot be circular, and that a truth about Abraham is any truth that entails that Abraham exists, the only conclusion we can reach, I think, is that there cannot be an explanation (in the strong sense required by PSR) of why there are any truths about Abraham. The same reasoning leads to the conclusion that there cannot be an explanation (in the strong sense required by PSR) of why there are any positive contingent truths.

We've looked at three serious objections to PSR. Since PSR plays a crucial role in the most interesting and appealing cosmological arguments advanced by Leibniz and Clarke, must we conclude that these arguments are without hope? No. For the premises of these cosmological arguments may find sufficient support in weaker principles of explanation than PSR, principles that are not subject to objections of the sort that appear to be decisive against PSR.

In *The Cosmological Argument* I suggested one such principle which I will now formulate as follows:

- A: For every kind of being such that beings of that kind can be caused to exist or can cause the existence of other beings, there must be a suf-

ficient reason for the existence of each being of that kind and for the general fact that there exist beings of that kind.

This principle is at least as initially plausible as PSR. What distinguishes it from PSR is that it does not require that every fact, or even every contingent fact, has an explanation. Also, it does not imply that every positive contingent state of affairs has an explanation. But since it is a fact that there are dependent beings, Principle A requires that there be a sufficient reason (full explanation) for the fact that there are dependent beings. So Principle A, rather than the much stronger PSR, is all we need in order to justify the second premise of Clarke's cosmological argument: Not every being can be a dependent being. For as we've seen, if every being were dependent any proposed explanation of why there are dependent beings would be viciously circular. Thus, if every being (that can be caused or can cause other things to exist) were dependent, there would be a kind of being (dependent) such that the fact that there are beings of that kind would have no explanation. Also, so long as the first premise of Clarke's argument is restricted to beings that either can be caused or can cause the existence of other beings, Principle A will justify the first premise: Every being is either a dependent being or a self-existent being. I might add that Principle A, unlike PSR, does not raise problems for free acts of will. While there may be a determining cause of an individual being free (in the incompatibilist's sense) to will or not will, there can be no determining cause of the agent's freely causing one volition rather than another. It was this issue that made Clarke hesitant to fully endorse Leibniz's statement of the Principle of Sufficient Reason. Principle A does not conflict with the existence of free acts of will. God's freely choosing to create Adam may constitute a determining cause of the existence of Adam. And this may be true even though there is no determining cause of God's freely choosing to create Adam.

NOTES

1. See, for example, Quentin Smith, "Infinity and the Past," *Philosophy of Science* 54 (1987): 63–75.

2. His argument is presented in Samuel Clarke, *A Discourse Concerning the Being and Attributes of God*, 9th ed. (London, 1738), reprinted in *British Philosophers and Theologians of the 17th and 18th Centuries* (New York, 1978).

3. Gottfried Leibniz, *Monadology* (1714) in *Leibniz Selections*, ed. Philip P. Wiener (New York, 1951), paragraph 32.

4. Samuel Clarke, and Gottfried Leibniz, *The Leibniz-Clarke Correspondence* (1717), ed. H. G. Alexander (Manchester, 1956), third reply.

5. Clarke held that in the case of two choices, where nothing recommends one over the other—for example, choosing either of two pawns to put on a particular square—that there is no sufficient reason for the will contingently making the *particular* choice that it makes. See Clarke's third reply, *The Leibniz-Clarke Correspondence*. Clarke's reservations concerning the application of PSR to all contingent facts are, I believe, of some importance, particularly in light of the decisive objections to PSR. I will return to this point later.

6. A full explanation of some fact, as opposed to a partial explanation, is an explanation

that logically implies the fact it explains. See Richard Swinburne, *The Existence of God* (Oxford, 1979), chapter 2.

7. For a critical discussion of this view of mine, see Richard Gale, *On the Nature and Existence of God* (Cambridge, 1991), 265–71.

8. Actually, we can't be absolutely certain that Clarke's argument is sound if PSR is true. For PSR is insufficient to justify the second premise of Clarke's argument: Not every being can be a dependent being. PSR requires that there be a sufficient reason for the existence of dependent beings. Since no dependent being exists necessarily, and since no dependent being could explain why there are dependent beings, Clarke thinks the only *possible explanation* left is the causal activity of a self-existent being. But he overlooks the idea that although no dependent being necessarily exists, it might, nevertheless, be *necessary* that some dependent being exists. We know that although no horse in a given race necessarily will be the winner, it is, nevertheless, necessary that some horse in the race will be the winner. Can we be sure that, although no dependent being necessarily exists, it isn't, nevertheless, necessary that some dependent beings exist? For my part, I am quite willing to agree that it is a contingent fact that dependent beings exist. It seems clear to me that there is a possible world in which no dependent being exists. But I know of no proof that this is so. In any case, I will here proceed on the assumption that it is a contingent fact that dependent beings exist.

9. Versions of this objection have been developed by Bennett, Ross, and Van Inwagen. See Jonathan Bennett, *A Study of Spinoza's Ethics* (Indianapolis, 1984), 115; James F. Ross, *Philosophical Theology* (Indianapolis, 1969), 298–302; Peter Van Inwagen, *An Essay on Free Will* (Oxford, 1983), 202–204.

10. See *The Cosmological Argument* (Princeton, 1975), 145–48.

11. *Ibid.*, 103.

12. *Ibid.*, 106.

13. See *The Philosophical Review* (July 1978): 445–50.

14. *Ibid.*, 447.

15. Quentin Smith, "Explanatory Rationalism and Contingent Truths," *Religious Studies* 31 (1995): 237–42. A similar paper was the occasion of a colloquium at the APA Central Division meeting in Chicago, April 1995. I served as commentator.

16. *Ibid.*, 239.

17. *Ibid.*, 240.

18. *Ibid.*

19. At a colloquium of the APA Central Division meeting in Chicago, April 1995.

20. Comments by Quentin Smith at a colloquium of the APA Central Division in Chicago, April 1995.

21. I am indebted to David Widerker for this example. My own counterexamples were more complicated and, therefore, less clear than this example.

22. The example was introduced by Bill Hasker during discussion at the colloquium referred to above. I'm indebted to Hasker for helpful correspondence on some of the issues discussed in this essay.