KOONS' COSMOLOGICAL ARGUMENT

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Robert Koons has recently defended what he claims is a successful argument for the existence of a necessary first cause, and which he develops by taking "a new look" at traditional arguments from contingency. I argue that Koons' argument is less than successful; in particular, I claim that his attempt to "shift the burden of proof" to non–theists amounts to nothing more than an ill–disguised begging of one of the central questions upon which theists and non–theists disagree. I also argue that his interesting attempt to bridge (part of) the familiar gap between the claim that there is a necessary first cause and the claim that God exists is beset with numerous difficulties.

In "A New Look at the Cosmological Argument," Robert Koons claims to present "a successful defeasible argument for the existence of a necessary First Cause." (p. 193) My aim is to subject this assessment of his achievement to critical scrutiny. After sketching his argument, I shall present some reasons for thinking that Koons' cosmological argument is less successful than he supposes—and I shall also indicate reasons for thinking that various aspects of his discussion are far more controversial than he seems to suppose.

Without too much injustice, we may represent the argument which Koons proposes to defend as follows:

- 1. There are contingent events. (Premise)
- 2. If there are contingent events, then there is an event which is the sum of all contingent events. (Premise, justified by the general claim that, for any ϕ , if there are ϕ -events, then there is an event which is the sum of all ϕ -events.)
- 3. (Hence) there is an event C which is the sum of all contingent events. (From 1, 2)
- 4. C is a wholly contingent event. (Premise; proved independently by Koons from assumptions which will not here be questioned)
- 5. Every wholly contingent event has a cause. (Premise)
- 6. (Hence) C has a cause. (From 4, 5)
- 7. Causes and effects must not overlap. (Premise)
- 8. (Hence) C has a cause which is a necessary event. (From 6, 7, definition of "wholly contingent".)

Since this looks a little different from the (rather longer) proof which Koons presents, I need to add some further comments.

First, Koons actually casts his proof in terms of "facts" rather than "events". Since he claims that it is a matter of indifference whether one talks about "facts" or "events" or "states of affairs" (p. 196), the change which I have made doesn't matter to him.

However, it does matter to me: I reckon that events obey mereological principles, but facts and states of affairs do not. (One of the commonest complaints that one hears about

the inclusion of facts and states of affairs in one's ontology is that these are entities which obey some weird, non-mereological kind of composition.) Since Koons argument requires mereological principles, I insist that it be framed in terms of events. (Another reason for this insistence is that it is events—not facts, or states of affairs, or propositions—which stand in causal relations. Here again, Koons is indifferent to the choice of terminology, so he can hardly object to my insistence on "events".)

Second, Koons insists that Premise 5 ought to be accepted as a default or defeasible rule. "This means that, in the absence of evidence to the contrary, we may infer, about any particular wholly contingent fact, that it has a cause. This is, however, all that is needed for the cosmological argument to be rationally compelling. The burden will be shifted to the agnostic, who must garner evidence of a positive sort for the proposition that the cosmos really is an exception to the rule. Merely pointing out the defeasible nature of the inference does not constitute a cogent rebuttal." (pp. 196–7) I shall have more to say about this later.

Third, Koons provides a detailed defence of Premise 4 from further mereological and modal premises which I do not wish to investigate here. Koons himself claims that there is no great originality in his argument, beyond the use of three resources—mereology, modern modal logic and non-monotonic logic—which were not available to the classical authors. (p. 195) I think that there is plenty to say against his claim that his argument is "rationally compelling" without worrying about the detailed use which he makes of mereology and modal logic—hence my decision to forgo discussion of Premise 4. However, I shall have more to say about his use of non-monotonic logic.

Koons motivates his "new look" at arguments from contingency by appeal to the "dated" appearance of three objections which Russell raises in his debate with Copleston, viz.:

- (a) There is no intelligible form of necessity other than logical truth.
- (b) There is no reason to suppose that any such thing as "the universe" exists.
- (c) Even if there is such a thing as "the universe", our empirical knowledge gives us no good reason to assume that it has a cause.

The clear implication of this appeal is that these are the best objections which have been raised against arguments from contingency in the past fifty years; that these are the considerations to which opponents of arguments from contingency continue to advert when objecting to those arguments; and that these considerations are plainly inadequate to refute arguments from contingency.

While (a) and (b) still have their supporters², I am happy to follow Koons in rejecting them—or, at any rate, in allowing that they do not constitute powerful objections to arguments from contingency. Moreover, I am confident that few non–theists in recent times have rested their rejection of arguments from contingency on these grounds.³ However, the status of (c) is clearly quite different: I believe it, and I suspect that almost all non–theists agree with me in this respect.

One characteristic of cosmological arguments is possession of a premise of the form "Every C has a K," where "C" is "contingent event", or "wholly contingent event",

or "spatio–temporal event", or the like, and where "K" is "cause", or "sufficient reason", or "complete explanation", and so on.⁴ It is these kinds of premises which Koons claims are default or defeasible rules. It is also these kinds of premises which non–theists typically and most vehemently dispute: it just isn't so that the universe has a cause, or a complete explanation, or a sufficient reason—so, of course, the universal generalisations in question cannot be true!

This is not to say that non–theists need to deny that these kinds of premises are default or defeasible rules, in something like the sense which Koons intends. At p. 196, he writes: "[A]t the very least, our experience warrants adopting the causal principle as a default or defeasible rule. This means that, in the absence of evidence to the contrary, we may infer, about any particular wholly contingent fact, that it has a cause." Fair enough: in the absence of reason to think otherwise, one should think that a particular wholly contingent event has a cause. (Not "in the absence of evidence to the contrary:" that fails to respect that fact that theoretical considerations—or admixtures of theoretical and evidential considerations—could be defeaters of the rule.) But, at least by the lights of most non–theists, there are good reasons for thinking otherwise in certain cases, including the case of the universe as a whole.

Of course, some opponents of arguments from contingency claim that these causal premises should be viewed as heuristics (canons or prescriptive rules for reason), and not as descriptions of mind–independent reality. Against them, Koons has two objections:

first: "it is hard to see why the abundant success of empirical science .. does not provide overwhelming empirical support for the generalisation to all contingent facts;" (p. 197) and second: "the price of denying this axiom is very steep: embracing a comprehensive

Pyrrhonian scepticism." (p. 197) I think that it is obvious that one can agree with Koons that the correct causal premises should be viewed as descriptions of mind-independent reality, for more or less the reasons that he gives, while nonetheless rejecting the forms of the premises which are required for arguments from contingency.

Here's how. Say that spatiotemporal events are "first events" iff there are no spatiotemporal events which are temporally prior to them. So, for example, all initial "histories" of the universe—even ones which extend right up to the present—are first events. The principle which we want is that, in the absence of reason to think otherwise, we should think that particular, wholly contingent events which are not first events have causes. Plainly, all of the evidence which supports Koons' favored version of the causal principle supports this version of the principle equally well. Equally plainly, this version of the principle offers no comfort at all to Pyrrhonian scepticism. Perhaps Koons might complain that the collection of events which are not first events is "an unnatural and gerrymandered kind"—but I see no reason at all to agree with him. Because the universe has no cause, first events require special treatment when it comes to framing certain causal principles—the natural collection of events for framing certain causal principles is just the collection of events which are not first events.

In sum, then, I think that it is perfectly clear that Koons' argument is not "rationally compelling". Against Koons' claim that the burden of proof has been shifted to the non-theist—"who must garner evidence of a positive sort for the proposition that the cosmos really is an exception to the rule"—I suggest that all we have is a gross begging of the question. How "the rule" is formulated depends upon the view which one

takes of theism: by the lights of non-theists, "the rule" is best formulated in such a way that the cosmos does not even fall in its domain.

(One final observation. I have claimed that non-theists have good reasons for supposing that the universe does not have a cause, or a sufficient reason, or a complete explanation, or I do not mean to be taken to be saying that there are reasons which should lead theists to give up their theistic beliefs. There are many, many factors which can be taken into account in judging whether or not God exists, and these factors can be reasonably weighed in different ways by different reasonable people. Moreover, there are typical packages of beliefs which go along with the claim that God exists (and the claim that God does not exist)—and the same point about different reasonable weightings can be made with respect to these packages as well. Since Koons knows perfectly well that non-theists will prefer the kinds of causal principles which I have sketched to the kinds which feature in his argument, it is hard to resist the conclusion that his "new look" at arguments from contingency amounts to nothing more than the argumentative equivalent of stamping your foot. Non-theists have heard all this before—and there is no reason why they should be any more impressed this time around. **

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Even if one were persuaded by Koons' argument for the existence of a First Cause, one might still think that he hasn't come at all close to proving the existence of anything like

the familiar God of the Judeo-Christian tradition. Koons recognises this point, and provides a series of seven "corollaries" to his proof which are intended to establish that the First Cause has at least some of the attributes which are traditionally attributed to God. However, the argumentation in these "corollaries" is quite sloppy, and does not suffice to quieten the familiar suspicion that there is no decent argument from First Cause to God.

Koons' first corollary is that the First Cause includes the existence of a necessary being. In order to establish this, he assumes that "every fact includes at least one being and at least one property of that being," (p. 199) and goes on to infer that "a necessary fact entails the necessary existence of some being." I would like to know more about the "inclusion" relation which holds between objects and facts—I assume that it is not mereological, but beyond that I am rather in the dark. More importantly, the inference here seems to me to be invalid. From the premise that there has to be something, I cannot validly infer that there is something which has to be. Since Koons does not tell us about the truth—makers for modal claims, it may be just that part of the story remains to be told—but, at the very least, there is reason to be cautious about accepting the first corollary.

Koons' second corollary is that <u>the</u> necessary being included in the cause of the cosmos is not a mere aggregate. But there was nothing in the first corollary which ruled out the possibility that there might be many necessary beings involved in the cause of the cosmos. (Koons does mention the possibility of a "system of beings", but I don't see why there couldn't be a quite "unsystematic" collection of necessary beings.) Moreover, I am not persuaded by his claim that a composite or aggregate object cannot exist necessarily

because a constituent part of a mere aggregate can exist in the absence of the rest of the aggregate. Suppose you think that numbers and sets exist necessarily; it seems perfectly consistent with this view that you think that at least some sets of numbers are mere aggregates—and likewise for at least some fusions of numbers. Why shouldn't we think that there can be fusions of necessarily existing objects which, while being merely aggregative, are nonetheless necessarily existent?

Koons' third corollary is that God has all of its basic attributes by necessity.

Koons' characterisation of "basic attributes" is brief and not terribly clear; but, even if we suppose that we know what he means, it seems to me that his argument in support of the third corollary is quite unpersuasive. What he says is that God's basic attributes are all included in the First Cause. But there is something quite mysterious about this claim.

Ordinarily, if an entity is part of an event—say the event involves the entity undergoing some change—we don't have any inclination to say that the properties of the entity are included in the event. When I eat a piece of toast which was purchased at Safeways, we don't have any inclination to say that the property of being purchased at Safeways is included in the event of my eating the toast. Indeed, I don't think I understand the claim that the basic properties of God are included in the First Cause; so I don't see how it can help us to get to the conclusion that God has all of its basic attributes by necessity.

Koons' fourth corollary is that all of the parts of God have all of their attributes by necessity. He claims that, if God has a part, then any attribute of that part corresponds to an attribute of God; whence, by the third corollary, we get the desired conclusion.

However, even if we waive our objections to the third corollary, it isn't clear why we should grant the further assumption which he needs. We know that it isn't always true

that the properties of parts of things are properties of those things—there are parts of my car which weigh less than one kilogram, but my car does not weigh less than one kilogram—so what does Koons mean when he says that attributes of the parts of God correspond to attributes of God? (Let's say, just for the sake of argument, that the Father, the Son, and the Holy Ghost are all proper parts of God. Should we say that God is a proper part of God just because the Son is?¹⁰)

Koons' fifth corollary is that God has only immeasureable attributes. In order to argue for this conclusion, he claims (1) that all measureable quantities are continuous; and (2) that for any measureable attribute A which consists in having determinable D to degree μ, and any being x that has A, there is some degree ε such that it is possible for x to have D to degree μ-ε or μ+ε. Against (1), it seems to me that it is plainly neither necessary nor a priori that all measureable quantities are continuous. Indeed, it seems that quantum mechanics tells us that there are actually instantiated attributes which can only come in quanta. Moreover, it is not uncommon to encounter speculations to the effect that the world is fundamentally discrete, so that all measureable quantities are actually discrete. Against (2)—which Koons takes to be supported by (1)—it seems to me unclear why one should suppose that possession of a measureable quantity to a particular, perfectly precise degree could not be part of the essence of a thing. A mathematical point is essentially of measure zero; likewise for a point particle. Couldn't it be the case that there are particles which are essentially point particles?

Even if we waive these objections to (1) and (2), it still seems very doubtful that Koons' argument for the fifth corollary is any good. From the claim that no measureable attribute can be had by necessity, Koons concludes that if God has a size, it must be

infinitely large; that if God has an age, it must be infinitely old; and that if God has power or intelligence, then God must be infinitely powerful and infinitely intelligent. However, it seems to me that this can't be right. Since size, age, power, and intelligence "all participate in the structure of more or less," surely the right conclusion to draw is that these properties cannot be applied to God. Perhaps Koons might reply that to be infinitely old is not to have an age, that to be infinitely intelligent is not to have an intelligence, and so on. But, if these claims were plausible, we would be completely in the dark as to the nature of the properties which God is supposed to have. (What on earth could infinite age be if is not a limit on the scale of age?) And these claims are not plausible: to be infinitely old is to be <u>older</u> than any thing whose age is finite; to be infinitely large is to be <u>larger</u> than any thing whose size is finite; and so on. (Perhaps it is also worth noting that it is often possible to define mathematical transformations which take infinite values to finite values, and vice versa. So, if there are scales on which measures of certain properties are infinite, there will be other scales on which measures of those properties are finite. Think for example, of proper time versus York time or Milne time—a being can be infinitely old according to Milne time and yet only finitely old according to proper time.)

Even if we waive the objections of the preceding paragraph, Koons' discussion of the fifth corollary is not without difficulty. Koons claims that, if it makes sense to attribute a property to God, then that property must be infinite. Now, it <u>makes sense</u> to suppose that God is ugly, evil, and stupid—and so, since Koons won't let us say that God possesses these properties to degree zero, we are forced into the absurd (and indeed contradictory) position of holding that God is infinitely ugly, infinitely evil and infinitely stupid. Not good. (Quite generally, if a property is possessed to an infinite degree, then

the complement of that property should be possessed to degree zero. But that means that there has to be something wrong with Koons' discussion. Or, at any rate, we need some further account of the nature of "basic attributes" which makes it clear that this objection can be avoided.)¹¹

Koons' sixth corollary is that God is not essentially located in space and time; and his seventh corollary is that God is not essentially a physical object, nor is it essentially constituted by physical objects. His arguments for these corollaries depend upon the earlier corollaries which we have already discussed. The upshot of this discussion is that Koons' has not managed satisfactorily to establish *any* of the corollaries which he announces—and, in pretty much all cases, it is hard to see how his arguments might be repaired. Of course, even if the arguments for the seven corollaries were successful, we should still be a long way short of showing that the First Cause is the God of the Judeo—Christian tradition. But it is worth emphasising, I think, that it is very hard to fill in the gap left by Aquinas' "that all men call God"—even if arguments from contingency were entirely cogent, it is not clear that this would be such a tremendous advance for orthodox theology.

4

Koons disagrees. In his view, we should think of cosmological arguments as parts of more embracing arguments which also draw upon teleological considerations in order to establish the properties of God. If we can show that there is reason to attribute intelligence to "the necessary being involved in the First Cause," then we shall be further advanced in our project of showing that the First Cause is God.

I have already argued that Koons has not managed to show either that there is a First Cause, or that there is a unique necessary being involved in the First Cause. So I do not think that his argument from contingency can help teleological arguments in the way that he supposes. But what if I'm wrong? What if his argument from contingency is cogent, and he can go on to establish that there is a unique necessary being involved in the First Cause? Should we then think that the <u>best</u> explanation of the data appealed to in teleological arguments is that this necessary being is the intelligent designer of the world?

In order to think about this question, it will be useful for us to bear in mind two distinct meanings which can be attributed to the word "universe". On the one hand, "universe" can mean "the sum of contingent things." On the other hand, "universe" can also mean "the sum of things which are spatio—temporally and causally connected to us." These two different uses of the word "universe" need not coincide in extension.

Moreover, the cosmological argument is concerned with the "universe" in one of these senses, and the teleological argument is concerned with the "universe" in the other sense. Koons' cosmological argument is concerned with the sum of contingent things; but his teleological argument is concerned with the sum of things which are spatio—temporally and causally connected to us ("physical constants and Big Bang conditions" in our spatio—temporal domain).

The difference between these two senses of "universe" may be important.

Suppose—as Koons does—that we live in a Big Bang universe. Could there be times and

contingent events back before the Big Bang—i.e. times and contingent events which are not parts of our universe? Many people have thought not; many people have thought that it is simply meaningless to suppose that there might be times (and contingent events) back then. But—as John Earman points out—this isn't right:

By itself, a model of the Big Bang .. is neither compatible nor incompatible with the notion that there are instants of time before the initial singularity. The fate of that notion depends on our choice of extendibility conditions. ... It remains open that there is some mathematically meaningful extension .. and that ... other metaphysical causes operate in this mathematical time.¹²

In other words: for all that our best physical theories tell us, it could be that the chain of contingent events extends back far beyond the Big Bang. And in that case it seems that it must remain an open possibility that the First Cause is not the source of the apparent evidence of design which is found in our universe—it could be that there is some other free and contingent being which is responsible for the apparent evidence of design in our universe. (I say seems because it could be that Koons will insist that the First Cause gets the credit for anything which its free and contingent creatures do. Since this isn't orthodox theism, I assume that Koons won't go this way.)

Once one grants this possibility, Humean speculations obtain their usual purchase.

There are ever so many hypotheses which one might frame about possible designers—
and so little in the way of evidence to choose between them! Committees, warring
factions, botchers and bodgers—lots of hypotheses which might better account for some
of the features of the world than does the hypothesis of the God of the Judeo–Christian
tradition. Koons might claim that the hypothesis that the First Cause is the Intelligent

Designer is <u>simpler</u>, and ought to be accepted on these grounds. But, as I have just observed, I do not see that it is at all obvious that this hypothesis is the best explanation of the data. At the very least—given the nature of the hypotheses under consideration—one is asking this appeal to simplicity to do an awful lot of work. Is it really plausible to suggest that it is not rational to fail to accept the hypothesis that the First Cause is the Intelligent Designer in the circumstances which we have been envisaging?

There are other responses which one might make to Koons' teleological–cum–cosmological argument. Even if one accepts that there is a First Cause—a necessary event which stands at the beginning of the causal network to which all contingent events belong—it seems to me that one could perfectly well suppose that there is no Intelligent Designer. For example, one might suppose that our necessary event is bound to "throw out" all possible universes—and amongst the possible universes, there are bound to be some in which there is life. (Could there be a proof of modal realism which runs along something like the lines of Koons' argument from contingency?)

In closing, perhaps I should emphasise again that it doesn't matter too much if the last few paragraphs of argumentation are mistaken—since there is no doubt that the argument from contingency is no good, there is no way that it can be used to prop up teleological arguments.

In the last part of his paper, Koons considers thirteen objections to the arguments which he defends. I shall only consider the last of these objections here. (For the most part, I do not wish to disagree with Koons' discussion of the first twelve objections. There have been plenty of bad objections laid against arguments from contingency. This last objection claims that the data appealed to in Koons' teleological argument—"cosmic anthropic coincidences"—can be explained (about as well) by appealing to a very large—possibly infinite—ensemble of universes.

To this objection, Koons makes two replies. First, he claims that arguments from contingency rule out this response—given that we know that there is a First Cause, the only reasonable conclusion to draw from the cosmological data is that the First Cause "encompasses the existence of an intelligent designer." To which I say: since the arguments from contingency are not cogent, we have been given no reason to think that there is a First Cause, and so this reply fails. Suppose, however, that we grant that some arguments from contingency succeed. Must we then agree with Koons that the cosmological data strongly supports the claim that the world was designed by an intelligent being which is somehow "encompassed" by the First Cause? I don't think so. For the reasons given in the previous section, it seems to me that there is little reason to be confident that the First Cause and the Intelligent Designer are one; and there is also some reason to think that it could perfectly well be that there is a First Cause and no Intelligent Designer.

<u>Second</u>, Koons claims that "the junky cosmos hypothesis"—i.e. the hypothesis that there is an ensemble of worlds, many of which contain no life—is "the most flagrant

possible violation of Occam's razor and a death sentence to all other uses of that principle." (p. 208) He writes:

This hypothesis postulates an infinity of entities for which there is absolutely no positive evidence, simply in order to avoid the necessity of explaining the anthropic coincidences we have observed. This is the height of metaphysical irresponsibility, far worse than the most extravagant speculations of medieval angelology. Moreover .. if the junky cosmos hypothesis (in its full generality) is true, it is demonstrable that the simplest hypothesis of astronomy or biology is no more likely to be true of our universe than the most complicated Rube–Goldberg constructions. ... It would be arbitrary to use the junky cosmos hypothesis to block the inference to the theistic hypothesis, while modifying it with the explicit purpose of preserving the defensibility of all other well–confirmed hypotheses (pp. 208–9)

I think that most of this is wrong. To begin with, it isn't at all clear that the junky cosmos hypothesis—the hypothesis that there is an ensemble of worlds, many of which contain no life—commits one to an infinity of worlds. Moreover, it is quite clear that acceptance of this hypothesis can proceed according to the normal canons of scientific inference. There is some data to be explained. This data would be explained if there were an ensemble of worlds of the right kind. There is no better explanation to be had. So there is good reason to think that there is an ensemble of worlds. Contra Koons, there is positive evidence for the proposal (the data to be explained), there is no avoidance of explanation of anthropic coincidences (on the contrary, the existence of the ensemble of worlds explains those coincidences), and there is no metaphysical irresponsibility (provided that it is true that there is no better explanation to be had). Since we are just following the

normal canons of scientific explanation, there is no justification for the claim that postulation of an ensemble of worlds is arbitrary, or that it sounds the death knell for scientific explanation.

Of course, Koons will not agree that there is no better explanation to be had. However, the crucial question is whether non–theists cannot reasonably believe that there is no better explanation to be had. I don't see why this could not be the case. After all, it seems to be clearly a matter for judgement whether one thinks that postulation of an ensemble of worlds is preferable to postulation of (say) the familiar God of the Judeo–Christian tradition. (Once one reflects on the problem of evil, the problem of reconciling human freedom with divine foreknowledge, the doctrines of the Trinity and the Incarnation, angelology, and so on, one might well reasonably think that the postulation of an ensemble of worlds is cheap at half the price. Or, at any rate, so non–theists might reasonably suppose.)

This is not to say that non-theists must suppose that there is an ensemble of worlds. One might think, for example, that there has to be a better explanation of the anthropic coincidences than either theism or postulation of an ensemble of worlds provides—and then confess that one does not know what form that explanation might take. Provided that one thinks that theism and the postulation of an ensemble of worlds are roughly on an explanatory par, one who follows this line cannot be charged with any doxalogical malpractice. And nor can one who holds that the theistic hypothesis is better than the postulation of an ensemble of worlds, but that its prior probability is extremely low—if all one has is a bunch of bad theories, then one ought not to infer to any of them.¹⁴

Koons concludes his paper with the claim that "the future progress of science, and the successful defense of science against its post–modernist and relativist opponents, depends on the severing of the mistaken connection between science and the Chance–creation myth [=the claim that there is no First Cause]." (210) I doubt it. Almost all of science is independent of the view which one takes about the causal status of first events; in all the sciences, there have been important contributions from theists and non–theists alike—believers in caused and uncaused first events alike—and no doubt there will continue to be so. Moreover, opposition to science has been—and no doubt will continue to be—neither the special preserve of theists nor non–theists. And there are plenty of theists amongst the legions of "post–modernists and relativists" who are reputed to be milling outside the gates of science.

Unlike Koons, I have no grand concluding claims. I would like to suggest that a fresh look at arguments from contingency will confirm what most people have known all along—these arguments are no good, and there is no prospect that they might be made better. I would also like to hope that this article will help to ensure that we shan't hear a great deal more about them in the coming years (though I would not be holding my breath). But, of course, nothing that I have said in this paper establishes that arguments from contingency could not be resurrected—i.e., I do not suppose that my arguments

against Koons show that arguments from contingency are no good. What these arguments do show, I think, is that Koons' attempt to revive arguments from contingency is unsuccessful. 15

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NOTES

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¹ R. Koons (1997) "A New Look at the Cosmological Argument," <u>American</u>

<u>Philosophical Quarterly</u> **34**, 2, pp. 193–211. All page numbers in the text refer to this article.

² E.g., for (a), see B. van Fraassen (1977) "The Only Necessity is Verbal Necessity,"

<u>Journal of Philosophy</u> **73**, pp. 623–32; and for (b), see B. van Fraassen (1995) "World is not a Count Noun," <u>Nous</u> 29, pp. 139–57. Perhaps Koons thinks that van Fraassen's version of logical empiricism is "quite dated".

³ In <u>The Miracle of Theism</u> (Oxford: Oxford University Press, 1982), J. L. Mackie claims that we need to be shown that it is possible that there be a necessary being (in the sense which arguments from contingency require). Mackie's claim does seem to rest on scepticism about the notion of a "broadly metaphysically necessary" being, and hence might be taken to involve commitment to (a). However, Mackie also insists strongly on (c)—i.e. his rejection of arguments from contingency does not rest on (a) alone.

⁶ Curiously, there are a couple of places where Koons explicitly notes that we do not need to suppose that all events have causes in order to do science and avoid Pyrrhonian scepticism. At p.197: "Without the conviction that all (or nearly all) of these have causes...;" and at p.202: "We know that all (or nearly all) wholly contingent facts have causes" Given these parenthetical remarks—and given that we <u>can't</u> say that a significant proportion of events are first events—it is hard to see what non–question–begging objection he could have to the revised rule.

⁷ It could be, for example, that these reasons derive from global theoretical considerations

about the superiority of naturalistic theories; in that case, these reasons might have no role to play in dialectical disputes between theists and non–theists (because these may just be matters for judgement about which reasonable people can reasonably disagree).

8 In a footnote, Koons acknowledges his debt to "Norman Geisler, Mortimer Adler, William Lane Craig and Stanley Jaki, who are largely responsible for keeping the tradition of the cosmological argument alive in the latter half of the twentieth century."

(211n1) This list is seriously incomplete: Barry Miller, David Braine, Robert Meyer,

Bruce Reichenbach, Brian Davies, and many others have provided serious defences of

⁴ Strictly, some of the quote–marks here are Quinean corner–quotes: those who worry about such niceties should make the appropriate substitutions.

⁵ Another approach which non–theists might take is to concede that the collection of events which are not first events is slightly less natural than the collection of events simpliciter, but hold that, overall, non–theistic theories score best on the appropriate weighting of theoretical desiderata: naturalness, simplicity, explanatory scope, explanatory power, and so on.

cosmological arguments in recent times. More importantly, there is something odd about the idea that an argument which is so good should be so poorly regarded. What does Koons suppose that non–theists do when they think about this argument? Surely the treatment which it has received it fair evidence that it is not a good argument. (That's not to say that it is not unfairly or unreasonably dismissed by some. But, given that one is not drawing attention to new evidence or new considerations which have hitherto been overlooked, one needs to make some pretty big assumptions about the integrity and competence of philosophers at large in order to account for the large–scale rejection of the argument.)

⁹ Given the Barcan principles, this inference would be justified. Koons gives himself the Barcan principles in his modal logic for facts. But he should not want to give himself these principles in the case of the modal logic of individuals: theists typically do not want to hold that all objects are necessary existents (nor that there could be no other objects apart from the ones which actually exist). (The Barcan principle says: if everything is necessarily, then it is necessary that everything is And the converse Barcan principle says: if it is necessary that everything is, then everything is necessarily In order to allow that both these principles are logical theorems, one needs to insist that one has exactly the same objects in each possible world. Cf. G. Hughes and M. Cresswell An Introduction to Modal Logic (London: Methuen, 1968), pp.142–4, 170–1. If you think that existence is a predicate—as orthodox theism seems to demand—then the mere *truth* of one instance of the Barcan principles is enough to yield the same result, at least granted the apparently evident claim that it is necessary that everything exists.)

¹⁰ The example here is rather unorthodox. However, I believe that it is orthodox to hold that God has no parts—so Koons' fourth corollary is already a departure from orthodoxy. Perhaps the example in the text could be evaded by placing limitations on the kinds of attributes for which it is true that attributes of the parts of God "correspond" to attributes of God. However, I think we need clarification before we can proceed to look for other kinds of counterexamples.

Note, by the way, that it is no objection here to say that it is fairly uncontroversial to claim that it is logically impossible for God to be ugly, evil and stupid (and hence that these attributions to God make no sense). Koons is in the middle of an attempt to establish that his First Cause—which I have followed him in calling "God"—does indeed have the attributes which traditional theology attributes to God. Given what Koons has established so far, it seems plainly logically possible that his First Cause is ugly, evil and stupid. Moreover, it is part of Koons' project to show that his First Cause does not have these properties; it would be self—defeating for him simply to assume that it does not have these properties because God does not have them.

¹² J. Earman, <u>Bangs, Crunches, Shrieks and Whispers</u> (New York: Oxford University Press, 1995) p. 207.

¹³ Note that I'm not saying that I agree with everything that Koons has to say, nor even that all twelve of these objections are mistaken. Some of them plainly are mistaken; some of them may just require more argument.

¹⁴ For further discussion of these issues, see my "Hume and the Argument for Biological Design," Biology and Philosophy **11**, 1996, pp. 519–34.

15 I would like to thank the Editor and three anonymous referees for helpful and encouraging comments which led to various kinds of improvements over the initial version of this paper. As usual, the remaining flaws are all my own fault.