

“*Kalam* Calamity?”

By: Luke van Horn and Joshua Rasmussen

Abstract

[Luke and I wrote this paper before our graduate studies at Notre Dame. Some of my thoughts on these topics have evolved since then. I note interesting changes in my thinking in red.]

[My thinking has evolved even more since I wrote the things in red. I make notes of even more recent thinking in blue.

The parts in *green* are not from me, but from someone who wrote a reply to sections of our critique of the *Kalam* argument. I’m actually sympathetic with a number of the points in green, and the very last line was certainly worth me considering.]

Although we are optimistic about the potential success of the *Kalam* cosmological argument [I’m a bit less optimistic these days than I was then.] [I am more optimistic now because I can finally see how to independently answer every objection.], we believe that it is premature to deem it a successful piece of natural theology. The literature is replete with important defeaters of *Kalam*’s premises, many of which have yet to be addressed or which call for further developments. Therefore, our plan is to highlight the major objections in an effort to outline the areas of work that still must be done.

Introduction

[Luke wrote this section] Although we are optimistic about the potential success of the *Kalam* cosmological argument, we believe that it is premature to deem it a successful piece of natural theology. The literature is replete with important defeaters of *Kalam*’s premises, many of which have yet to be addressed or which call for further developments. Therefore, our plan is to highlight the major objections in an effort to outline the areas of work that still must be done. In the interest of space, we shall not present every objection that has been published; in particular, we shall neither address those objections which we think have been successfully disarmed by defenders of the *Kalam* argument (e.g., arguments against the causal principle from quantum

indeterminacy or for a B-theory of time that subvert the claim that a finite past entails a beginning) nor those objections that have yet to be successfully disarmed but which we regard as less substantial (such as Oppy's contention that if time is dense then infinite sequences are completed after any finite interval,

It has never been proven that space and time are composed of real points and instants. Mathematically, this objection is met by distinguishing between a potential and actual infinite. All we need to say is that time and space are logically prior to their divisions so that while conceptual division of time and space can go indefinitely, but time and space will never actually be infinitely divided, and neither does one arrive at an instantaneous point. On this view, specified instants aren't temporal intervals but merely the boundary of intervals which are non-zero in duration.

¹ numerous objections to the Tristram Shandy argument,²

<http://www.reading.ac.uk/AcaDepts/ld/Philos/dso/papers/KCA%20Neither%20Bounded%20nor%20Bowed.PDF>

<http://www.reading.ac.uk/AcaDepts/ld/Philos/dso/papers/Shandy%20reply%20to%20Oppy.pdf>

Swinburne's argument that the past necessarily has no beginning,³

Swinburne confuses an infinite regress of ideas with an infinite regress of temporal events. [How is this distinction relevant?]

Guminski's contention that one can have actual infinities in the real world if one abandons the standard way of applying set theory to real objects,⁴

¹ Graham Oppy, "Time, Successive Addition, and *Kalam* Cosmological Arguments," *Philosophia Christi* 3, no. 1 (2001): 181-91.

² Graham Oppy, "The Tristram Shandy Paradox: A Response to David S. Oderberg," *Philosophia Christi* 4, no. 2 (2002): 335-49 and Wes Morriston, "Must the Past Have a Beginning?" *Philo* 2, no. 1 (1999): 14-7.

³ Richard Swinburne, "The Beginning of the Universe and of Time," *Canadian Journal of Philosophy* 26, no. 2 (1996): 169-89.

To my knowledge Craig hasn't ever replied to Guminski, but another defender of the Kalam indeed has: *The Kalam Cosmological Argument* by Mark Nowacki:

http://www.amazon.com/Cosmological-Argument-Studies-Analytic-Philosophy/dp/1591024730/ref=sr_1_2?s=books&ie=UTF8&qid=1361489798&sr=1-2&keywords=kalam+cosmological+argument

Smith's numerous proposals of atheistic explanations of the beginning of the universe,⁵ his argument against the causal principle from various interpretations of "Hartle-Hawking" cosmology,⁶

<http://www.reasonablefaith.org/site/News2?page=NewsArticle&id=5171>

or his contention that there is no standard theory of causation according to which an agent could have caused the universe to exist⁷).

Here's the argument:

(1) If the claim that God caused the Big Bang cannot be analyzed in terms of extant definitions of causality, then God cannot have caused the Big Bang.

(2) The claim that God caused the Big Bang cannot be analyzed in terms of extant definitions of causality.

(3) Therefore, God cannot have caused the Big Bang.

Is this a sound and persuasive argument? Well, I think not.

Consider premise (1) *If the claim that God caused the Big Bang cannot be analyzed in terms of extant definitions of causality, then God cannot have caused the Big*

⁴ Arnold T. Guminski, "The Kalam Cosmological Argument: The Question of the Metaphysical Possibility of an Infinite Set of Real Entities," *Philo* 5, no. 2 (2003): 196-215.

⁵ Quentin Smith, "Time Was Created by a Timeless Point: An Atheist Explanation of Spacetime" in *God and Time: Essays on the Divine Nature*, ed. Gregory E. Ganssle, 95-128 (New York: Oxford University Press, 2002); idem, "The Reason the Universe Exists Is That It Caused Itself to Exist," *Philosophy* 74 (1999): 579-86; and idem, "A Defence of a Principle of Sufficient Reason," *Metaphilosophy* 26 (1995): 97-106.

⁶ Quentin Smith, "Why Stephen Hawking's Cosmology Precludes a Creator," *Philo* 1, no. 1 (1998): 75-93.

⁷ Idem, "Causation and the Logical Impossibility of a Divine Cause," *Philosophical Topics* 24 (1996), 169-91.

Bang. I see no reason to think that this premise is true. In general, arguments to the effect that some intuitively intelligible notion can't be analyzed in terms of certain philosophical theories should make us suspect the adequacy of those theories rather than reject the common sense notion. The idea that God caused the universe is intuitively intelligible. A cause is, loosely speaking, something which produces something else and in terms of which the thing that is produced can be explained. This notion certainly applies to God's causing the universe. If God's causing the universe cannot be analyzed in terms of current philosophical definitions of causality, then so much the worse for those theories! This only shows that the definitions need to be revised. Indeed, the standard procedure in terms of which proposed definitions of causality *are* assessed is typically to propose some counterexamples in terms of intuitively plausible cases of causation and then show how the definition fails to accommodate these new cases. In the same way, if God's causing the universe cannot be accommodated by current philosophical definitions of causality, then that plausibly constitutes a counterexample to the definition, which shows that it's inadequate as a general metaphysical analysis of the causal relation, however adequate it might be for scientific purposes. Moreover, there's no reason to believe that we have arrived at the final and correct analysis of causation. In fact, as I'll point out in a minute, there's good reason to believe quite the opposite. The point that I'm making, I think, is especially plausible when you recall that the philosophers who drafted the definitions quoted by Quentin were exclusively concerned with natural causes, even physical causes. They weren't even considering such recondite examples as divine causation of the origin of the universe. It's hardly surprising, therefore, that their theories should fail to capture this notion. So I see no reason to think premise (1) is true and good reasons for thinking that it is false.

Now what about premise (2), *The claim that God caused the Big Bang cannot be analyzed in terms of extant definitions of causality?* As it stands, premise (2) is clearly false, and Quentin himself, in effect, admits that it is false. For in his discussion of the analysis of causation in terms of necessary and sufficient conditions, he does not deny that God's willing the universe or the Big Bang is a case that satisfies the definitions proposed. On the contrary, he explicitly states that it *does* satisfy the proposed definitions. Rather he attacks the *adequacy* of the definitions *themselves*. Now that puts an entirely different light on the matter! What Smith is really defending is

(2) The claim that God caused the Big Bang cannot be analyzed in terms of any adequate extant definitions of causality.

But premise (2) is extremely problematic, for it is, I think, generally acknowledged that there is no adequate extant definition of causality to date. The very proliferation of different definitions which were only partially surveyed by Quentin in his talk testifies to the uncertainty and the dissatisfaction which exists in the philosophical community today with proposed analyses of the causal relation. Thus the expression in (2) "adequate definitions of causality" may well be a nonreferring expression, so that (2) cannot be true.

But let's assume that the definitions surveyed by Smith *are* adequate. The fact is that God's causing the universe does satisfy at least some of these definitions, so that (2) is false. Take David Lewis' analysis of causation, for example: According to Lewis, *c* causes *e* if and only if *c* and *e* are both events, and both occur, and if *c* had not occurred *e* would not have occurred. Now God's willing the Big Bang clearly

satisfies this definition. God's willing and a Big Bang are both events which occur, and if God's willing had not occurred, the Big Bang would not have occurred. No problem! But, Quentin rejoins, if the Big Bang had not occurred, God's willing would not have occurred. So is the Big Bang the cause of God's willing? Well, obviously not; but what this calls into question is the adequacy of Lewis' analysis, not whether divine causation satisfies it. Lewis remedies the problem by stipulating that if *e* had not occurred, *c* would still have occurred, a remedy that won't work for divine causation. Actually, Lewis' remedy won't work for many natural causes either, since in some cases the counterfactual, "if *e* had not occurred, *c* would not have occurred" is true. So what Lewis' definition provides is not a definition of "*c* causes *e*," but rather it is a definition of "*c* and *e* are causally related," and it fails to specify the *direction* of causation. But here the theist, you see, faces no problem because it is metaphysically impossible for God's willing to have an external cause. There is no possible world in which the Big Bang causes God's willing or God's volition. Therefore, given Lewis' definition of "*c* and *e* are causally related" and the impossibility of the Big Bang causing God's willing, it follows that God's willing causes the Big Bang, and thus divine causation satisfies Lewis' definition of causality.

Or, again, if we hold with Isaac Newton, Richard Swinburne, Nicholas Wolterstorff, and others that God exists prior to the Big Bang in a metaphysical time, then there's no objection to adopting an analysis of causality which involves the component of temporal priority of cause to effect. God would be temporarily prior to the Big Bang. So it seems to me that the premise (2) fares no better than premise (1). Both premise (1) and premise (2) are false, and therefore the argument against divine causation of the universe is unsound.

Our goal is to bring to light those objections which we think still requires substantial work to be overcome. Since William Lane Craig is the primary defender of the *Kalam* argument, we shall focus on those objections that apply to his formulation of it.

The Universe Began to Exist

The *Kalam* argument can be formulated as follows:

1. Whatever begins to exist has a cause
2. The universe began to exist
3. Therefore, the universe has a cause⁸
4. Only a personal agent can cause the universe to begin to exist
5. Therefore, the cause of the universe is a personal agent

⁸ William Lane Craig, *The Kalam Cosmological Argument* (London: Macmillan, 1979; reprint, Eugene, OR: Wipf and Stock Publishers, 2000), 63.

Following Craig, we shall discuss the second premise first. This premise has been defended on both philosophical and scientific grounds. The philosophical arguments come in two forms: those denying the existence of an actual infinite and those denying that an infinite series can be completed by successive addition. According to the first argument, given that an actual infinite cannot exist, the past must be finite, since an infinite past would entail the existence of an actual infinite number of past moments.

Why think that an actual infinite cannot exist? Craig seeks to establish the impossibility of actual infinities by pointing to various counterintuitive properties infinite sets would have. For example, Hilbert's hotel, having an infinite number of rooms, all of which are occupied, could accommodate an infinite number of new guests by shifting the occupants to different rooms. Similarly, a library with an infinite number of books alternately marked red or black could lose all of its red books and still have the same amount of books in its collection. Craig thinks the most serious problem with infinite sets is encountered when attempting to perform inverse operations on transfinite numbers. For example, what is infinity minus infinity? The answer could be anything. Contradiction lurks, which is why inverse operations are prohibited in standard set theory.

However, as Graham Oppy points out, although inverse operations lead to contradictions for transfinite cardinals, things are not so clear with transfinite ordinals.⁹

It is true that once one takes into account non-denumerable sets, there are in Cantorian set theory infinite sets of different sizes; but infinite sets which are denumerable are all the same size. Thus, the set of even numbers and the set of ordinal numbers both have the same cardinality, aleph-null, that is to say, they both have the same number of members

⁹ Graham Oppy, "Reply to Craig: Inverse Operations with Transfinite Numbers and the *Kalam* Cosmological Argument," *International Philosophical Quarterly* 35, no. 2 (1995): 219-20.

or are the same size, even though the set $\{1, 2, 3, \dots\}$ has all the members which $\{2, 4, 6, \dots\}$ has, plus an infinite number besides.

It is true that standard Cantorian set theory prohibits all inverse operations. But there are non-Cantorian formulations of transfinite arithmetic, some of which allow inverse operations without any contradiction.

Axiomatized Cantorian set theory is the standard form of set theory in mathematics today. Would 'Swinburne' have us go back to pre-Cantorian mathematics with respect to the infinite? If so, how would that serve to vindicate the existence of an actually infinite number of things, since prior to Cantor only potential infinities were recognized? Or does he have in mind some sort of Intuitionist mathematics, which recognizes only infinities that are constructible? Again, it's not clear how this would serve to avert the absurdity attending the existence of an actually infinite number of things.

Another problem with pointing to absurdities generated from infinite sets is that it is not clear that such absurdities have any relevance to an infinite past. The properties of a hotel or library that generate absurdities are precisely those that the past lacks. Shifting, re-locating, and subtracting are possible with hotel guests and library books, but this is not the case with fixed past events.¹⁰ They cannot be reshuffled or removed. Thus, none of these absurdities appear. A proponent of the impossibility of actual infinities must show that these differences between hotels and the past do not affect the soundness of the argument.

Does a prime number that is a prime minister have to have an analogue in reality before we can say that such an object is metaphysically absurd? Even the imagine-ability of

¹⁰ Wes Morriston, "Craig on the Actual Infinite," *Religious Studies* 38 (2002): 148-49.

moving temporal events illustrates the impossibility of an actual infinite. You don't need to move the guests around in order to see that all of the odd numbered guests are equal to all of the odd numbered guests plus the even numbered guests or that if all of the odd numbered guests were to check out there would still be an even number of guests left in the hotel. They don't actually HAVE to check out in order for you to see that; and if on the other hand all the guests in room numbers greater than three were to check out, then there would only be three people left in the hotel. There is nothing about the illustration that necessitates people actually getting up and moving because the comparisons are quantitative and can simply be done in your head. What does moving guests around show? It shows that you could have a hotel that is fully occupied and yet such a hotel could occupy infinitely more people, but you don't have to move the people to see this. In fact, you could do it with doorways.

Craig attempts to show that absurdities still apply to an infinite past by drawing attention to the alleged impossibility of adding to an infinite set.¹¹ Imagine that every book in the infinite library has a number printed on its spine, 0 through infinity. Craig argues that we cannot add another book since every number is used up. Since we can always add another book to a library, an infinite library must be impossible. Here there is no relevant disanalogy to the past, since every new event is an added member to the infinite set of all events.

However, Wes Morriston exposes a problem with this argument.¹² He explains that books in the library can be re-labeled so that a number is freed for the new book. He states, "Contrary to what Craig seems to assume, there is no reason at all to think that the

¹¹ William Lane Craig and Quentin Smith, *Theism, Atheism, and Big Bang Cosmology* (Oxford: Clarendon Press, 1993), 12-3.

¹² Morriston, "Craig on the Actual Infinite," 150.

way in which the books are correlated with the natural numbers...must share the immutability of the natural numbers themselves.”¹³ Thus, if this re-labeling is possible, then there is no problem with adding to an infinite.

In Hilbert’s Hotel (or books in a library), but one of the many absurdities that result is that a hotel that is completely full can still accommodate an infinite number or additional guests. This is not self-contradictory in mathematics, but surely it is metaphysically absurd. With this response Morrison is conflating the distinction between “a contradiction” and “an ‘evident absurdity.’” Hilbert’s Hotel, as an illustrative embodiment of transfinite arithmetic based on axiomatic set theory will of necessity be as logically consistent as that system; otherwise it would be useless as an illustration. But it also vividly illustrates the absurd situations to which the real existence of an infinite multitude can lead. The absurdity is not merely practical and physical; it is ontologically absurd that a hotel exist which is completely full and yet can accommodate untold infinities of new guests just by moving people around.

We think the proponent of this part of the *Kalam* argument is left with quite a few tasks. First, she must either show that non-standard transfinite ordinal arithmetic is inferior to the standard Cantorian analysis, or that the impermissibility of performing inverse operations with only transfinite cardinals is sufficient to show the impossibility of actual infinities. Second, she must either demonstrate that the disanalogies between the past and libraries are not relevant, or else construct arguments that rely upon closer parallels. For example, one might try to argue that re-labeling books in a library to free a number in order to accommodate a new book is in fact impossible, or that perhaps this can be done for books but not for past events.

¹³ Ibid.

Before we leave the subject of actual infinities, we must point out that there do in fact appear to be actual infinities and Craig's treatment of them is at best incomplete. For example, there seem to be an infinite number of numbers, properties, and propositions. Craig's response to these counterexamples is to reject realism about abstract objects and endorse conceptualism.¹⁴

Actually, Craig is a fictionalist with respect to abstract objects who weds this with his conceptualism.

However, in order to avoid an infinite set of concepts in God's mind, Craig must also claim that God's knowledge is purely simple.

One problem with such a proposal is that it is unclear how on conceptualism numbers can be distinct if God's knowledge is simple. To say that the number three is a concept in God's mind is intelligible enough. However, to say that three and four are not distinct concepts is mysterious.¹⁵ Thus, if this sort of conceptualism is to be a theory of abstract objects, much more explanation is required.

Craig doesn't accept Aquinas' strong doctrine of simplicity. Indeed, he acknowledges that omnipotence is not identical omniscience for example and I agree. Instead, Craig maintains that God is simple in the sense that He is not composed of parts. God's knowledge is simple in this sense, and since Craig is a fictionalist, he doesn't maintain that there are abstract objects in the mind of God.

Similarly, if an A-theory of time is correct, then one wonders how God's knowledge can be absolutely simple if parts of it are constantly changing. Craig himself

¹⁴ William Lane Craig, "A Swift and Simple Refutation of the *Kalam* Cosmological Argument?" *Religious Studies* 35, no. 1 (1999): 61-2.

¹⁵ See Erik Sotnak, "The *Kalam* Cosmological Argument and the Possibility of an Actually Infinite Future," *Philo* 2, no. 2 (1999): 43-5, and Morrision, "Craig on the Actual Infinite," 159.

explains that “Any being which *does* know tensed facts cannot be timeless, for his knowledge must be in constant flux, as the tensed facts known by him change.”¹⁶ Thus, Morrision asks, “How, if there is no multiplicity in God’s knowledge, can we distinguish between what does and does not change within it?”¹⁷

One possible answer is to simply deny that part of God’s knowledge is changing while part of it is unchanging by denying that God’s knowledge can be partitioned. However, such a scenario has strange implications, such as that at every moment God’s knowledge is completely different from what he knew only a moment earlier. Perhaps this result is coherent, but it certainly is odd. Clearly this move requires more extensive analysis and defense than has been offered so far.

In my opinion, Paul, an actually infinite number of things does not exist, even in the mind of God. In [*Philosophical Foundations for a Christian Worldview*](#), I write:

some thinkers such as William Alston, while rejecting complete [divine] simplicity, have advocated that God's knowledge be construed as simple. On Alston's view God has a simple intuition of all of reality, which we human cognizers represent to ourselves propositionally. Such a view is in line with Aquinas's adaptation of the Augustinian notion of the Divine Ideas. In order to preserve divine aseity in the face of Platonism, Augustine located the Platonic forms in God's mind as the Divine Ideas. Aquinas went further by contending that God does not, strictly speaking, have a plurality of Divine Ideas but rather an undifferentiated knowledge of truth. We finite knowers break up God's undivided intuition into separate ideas. Similarly, Alston maintains that God's knowledge is strictly non-propositional, though we represent it to ourselves as knowledge of distinct propositions. Thus, we say, for example, that God knows that *Mars has two moons*, and He does indeed, know that, but the representation of His knowing this proposition is a merely human way of stating what God knows in a non-propositional manner. Such a conception of divine knowledge has the advantage that it enables us to embrace conceptualism without committing us to an actual infinite of divine cognitions or Divine Ideas.

¹⁶ William Lane Craig, *Time and Eternity: Exploring God's Relationship to Time* (Wheaton, IL: Crossway Books, 2001), 99.

¹⁷ Morrision, “Craig on the Actual Infinite,” 161.

A nice analogy of God's cognition on the above view would be your visual field, which you see as an undifferentiated whole, but which could be analyzed as composed of pixels.

So, Gordon, when we say that God knows an infinite number of propositions, we are speaking of the *extent* of His knowledge, not the *mode* of His knowledge. There's no reason, by the way, to think that God's cognitive state can't be changing, just as my visual field changes. Indeed, if God is in time, His cognitive state must be constantly changing or He would be in error, still thinking, for example, that it is 3:00 o'clock.

Fortunately there are several moves available to those who wish to deny the existence of actual infinities *pace* the above counter examples. For example, one might argue that although actual infinities of *abstract* objects are possible, there cannot be an infinite set of *concrete* objects.¹⁸ Similarly, one might argue that there is no problem with an actual infinite of conceptual objects in God's mind, but that there can be no infinite extra-mental set. Finally, one could avoid an infinite number of numbers, properties, and propositions by defending nominalism. Obviously, each of these moves involves multitudinous issues that would need to be explored in detail in order to render such moves plausible.

Craig's second philosophical argument in favor of the premise that the universe began to exist is that the past cannot be infinite because the past is created successively, and no actual infinite can be formed successively. It follows that the past must be finite.

Unfortunately, there is a serious objection to this argument. As Morrision explains it, "It is true, of course, that no matter where one starts, it will be impossible to complete a count of all the members of [the set of all negative integers and zero]. But this is no help to Craig's argument unless it can be shown that the count must *start*

¹⁸ Doug Geivett briefly defends this move in "Reflections on the Explanatory Power of Theism," in *Does God Exist?: The Craig-Flew Debate*, ed. Stan W. Wallace (Aldershot, Hants, England: Ashgate, 2003), 51.

somewhere.”¹⁹ In other words, the past cannot be infinite if it began. But the thesis of an infinite past claims that it never began.

Craig has a ready response. He asks, “If one cannot count *to* infinity, how can one count down *from* infinity? If one cannot traverse the infinite by moving in one direction, how can one traverse it by moving in the opposite direction?”²⁰ There is an easy answer, however. One cannot count to infinity because one must start. One can count down from infinity because one does not have to start. If one has always been counting, then one can accomplish the task.²¹

A possible reply would be one suggested by Morrision.²² One might argue that any enumeration may be reversed, at least in principle. [I’d like to record my own tentative feeling here that if the past were infinite, then it should be possible for two particles to collide after having slowly travelled toward each other without ever having started travelling, and I find that scenario at least slightly counter-intuitive.] Thus, if one can count down from infinity, then one can reverse the process and retrace one’s steps in the opposite direction. Unfortunately, we know of no way to argue for the reversibility of any enumeration.

To say that the present has arrived from a beginningless series of past events is like saying that someone has successively managed to countdown all the negative numbers (-infinity, -3, -2 -1) and arrived at 0. Indeed, we could ask such a counter why they didn’t finish yesterday, or a year ago for by then an infinite amount of time would have already elapsed. Even worse, at any point we should look in the infinite past, we

¹⁹ Wes Morrision, “Must the Past Have a Beginning?” *Philo* 2, no. 1 (1999): 10.

²⁰ William Lane Craig, “The *Kalam* Cosmological Argument,” in *Philosophy of Religion: A Reader and Guide*, ed. William Lane Craig (New Brunswick, NJ: Rutgers University Press, 2002), 98.

²¹ Morrision, “Must the Past Have a Beginning?” 11.

²² *Ibid.*

wouldn't find the counter counting down because by any point he should be done since an infinite time would have already elapsed. But this contradicts the notion that such a counter has been counting from all eternity!

The third argument Craig employs to establish the second premise of the *Kalam* argument is that contemporary cosmology makes it highly probable that the universe began to exist. The best supported cosmological theories all involve a finite past for the universe.²³ This being the case, the universe probably began to exist a finite time ago.

However, even granting that there is good evidence within contemporary cosmology for a finite age of the universe, a finite age does not entail that the universe *began* to exist. [This is where I come in. ☺ Luke wrote the previous section.] For, there are two ways for the universe to have a finite past and yet to have never begun to exist: (i) the B-theory of time could be correct, in which nothing begins to exist in the sense of *becoming* actual; (ii) the universe could have an initial timeless state. [I would now add a third way: (iii) the universe' first state is tensed but didn't *become* actual. This option is ruled out by Craig's understanding of tensed states: a tensed state is one that became actual. But I've come to see things differently. I may be wrong, but it seems to me that a state could pass from being actual (obtaining) to non-actual (non-obtaining) and so be tensed without thereby ever passing from being non-actual to actual. Thus, it might be that at the Big Bang, everything was in a state of expansion, and that this was the first temporal state though it never passed from non-actual to actual.] [Well, it *now* seems to me that none of these are relevant. Whatever has a finite age has a cause (to explain why

²³ See William Lane Craig, "Naturalism and Cosmology," in *Naturalism: A Critical Appraisal*, ed. William Lane Craig and J.P. Moreland (London: Routledge, 2000), 215-52, and Arvind Borde, Alan H. Guth, and Alexander Vilenkin, "Inflationary Spacetimes Are Incomplete in Past Directions," *Physical Review Letters* 90 (18 April 2003): 151301.

it starts existing). So we can simply define “X begins to exist” as “x has a finite age.” On this definition, the universe began to exist if the universe has a finite age. Theories of time are irrelevant. Whether time is static or dynamic, things don’t start without a cause. As an illustration of (ii), consider Craig’s model of God’s relationship to time. According to Craig, God has two phases of existence, a timeless state and a temporal state, the latter beginning simultaneously with the first moment of time.²⁴ Since Craig thinks that the past is finite, it follows that God has a finite past, but obviously he did not begin to exist. [Yes, I remember thinking this. But now I think I was making things too complicated by introducing irrelevant factors. God doesn’t have a finite age. Even if time is finite and God exists in time, on Craig’s model, God exists timelessly without the universe. What that means is that if God were not to have created any universe, *God would still exist timelessly*. So, God’s existence didn’t *start* with the universe. God exists no matter what, whether there is time or not. Hence, there is no need to causally explain God’s start. To be precise, then, whatever has a finite age is essentially temporal and exists for a finite duration of time. God isn’t like that.

Similarly, why could not the same be said of the universe? As Morrision queries, “Why should we join [Craig] in supposing that God is the *only* being who exists outside time? Why could there not also have been a timeless ‘stuff’ out of which God ‘formed’ the universe?”²⁵ Of course, as Craig argues, this timeless stuff could not be matter or energy, since they are always changing at the quantum level, and are thus temporal.²⁶ But the timeless stuff could be something other than matter or energy. Admittedly, we

²⁴ William Lane Craig, “God and the Beginning of Time,” *International Philosophical Quarterly* 41, no. 161 (2001): 27-31.

²⁵ Wes Morrision, “Creation *ex Nihilo* and the Big Bang,” *Philo* 5, no. 1 (2002): 28.

²⁶ William Lane Craig, “The *Kalam* Cosmological Argument and the Hypothesis of a Quiescent Universe,” *Faith and Philosophy* 8, no. 1 (1991): 104-8.

have no idea what this stuff could be, but the possibility that universe's first state was a kind of timeless stuff does serve to undercut the contention that contemporary cosmology shows that the universe began to exist. [To former self: what do you mean by "universe"? If we define "universe" as the totality of material and energy, then the universe started to exist a finite time ago. The purpose of the Kalam argument, then, is to show that matter and energy have their ultimate Source in an immaterial, timeless, personal Cause. If you say this "Cause" is still part of some expanded "universe," that's just semantics.]

What options does the defender of the *Kalam* argument have? One possibility is to argue that the universe does not have a timeless state, and thus began to exist, by arguing that nothing that is now material could ever have been timeless. This move is tied to the argument for a personal cause based on the alleged impossibility of an impersonal timeless cause giving rise to a temporal effect, and thus, shall be explored in the third section of this paper. Alternatively, one could argue that even if the universe does have a timeless state, its transition to temporality could only be caused by a person. One could then present a dilemma: either the universe began to exist and so needs a personal cause, or it transitioned from a timeless to a temporal state and so needs a personal cause.

One general comment is in order about (ii) and (iii). The kalam argument isn't a logical proof of God's existence akin to the logical problem of evil. Thus, it is not enough to show that (ii) and (iii) are merely possible, one has to show that they are plausible, and this hasn't been done. In any case (ii) has been shown to be highly improbable given the Borde-Guth-Vilenkin theorem as well as from a consideration that matter and energy are never quiescent, but always changing. (iii) has recently been given a scientific model (--2 Stage Model (Einstein static state-the universe doesn't change size))- Repulsive and attractive gravity can keep the universe the same size. However, the universe is expanding. Thus, this model needs two transitions, a quantum transition from a static state to an expanding state. It is possible for the entire universe to undergo a fluctuation that changes its entire size. However, there is a finite probability that this transition will

occur in a finite number of time which means that the static state must have a finite lifetime, which means that an absolute beginning.

As for (i), all one would have to do is argue for an A-theory of time or as I prefer, point out that it is a misunderstanding to think that on a B-theory of time the universe is past eternal. It is true that it will be future eternal, and it is also true that no matter how far back you go in the past history of the universe every moment of time is equally real, but it doesn't follow from this that the universe has existed eternally in the past because time itself (i.e. the whole 4 dimensional block universe) can, and did begin to exist at the Big Bang. This is true independently of the correct description of physical time. Otherwise, one's metaphysical view of time would overthrow the scientific theory of the Big Bang! Absurd.

Whatever begins to exist has a cause

Why believe the first premise of the *Kalam* argument?

(P1) Whatever begins to exist has a cause of its existence.

The two reasons offered for P1 are i) that P1 is self-evident and ii) P1 can be supported inductively via empirical evidence. Unfortunately, skeptics have raised important objections that undercut the force of both (i) and (ii).

Regarding (i), we recognize several defeaters that taken together undermine the claim that P1 is self-evident. First, as Morrision points out, an adequate account of the meaning of P1 turns out to be highly complicated and to involve metaphysical commitments that render P1 much less plausible than it may initially have appeared. For example, on Craig's view, we cannot understand "x begins to exist" to simply mean that "x has existed for a finite amount of time" since on a B-theory of time, nothing *begins* to exist, strictly speaking. Similar considerations motivate Craig's latest account of "begins to exist":

A5. x comes into being at $t \equiv x$ exists at t ; t is either the first time at which x exists or is separated from any time $t^* < t$ at which x existed by a non-degenerate, temporal interval; and x 's existing at t is a tensed fact.²⁷

Even this complex definition is not quite adequate since it fails to account for the scenario in which x exists timelessly *sans* the universe and temporal subsequent to the beginning of time. Since, as already mentioned, this is precisely what Craig believes about God, A5 requires further revision.

The *kalam* cosmological argument uses the phrase "begins to exist." For those who wonder what that means I sometimes use the expression "comes into being" as a synonym. We can explicate this last notion as follows: for any entity e and time t ,

e comes into being at t if and only if (i) e exists at t , (ii) t is the first time at which e exists, (iii) there is no state of affairs in the actual world in which e exists timelessly, and (iv) e 's existing at t is a tensed fact

Thus, Morrision thinks that an adequate definition of "begins to exist" is sufficiently complicated such that it is no longer clear that P1 is self-evident.²⁸ Although Craig responds that an analyzed principle need not "have the same epistemic obviousness involved in the *analysandum*" nor be as evident as every metaphysically necessary truth, Morrision counters that nevertheless, our supposed intuitive certainties seem to dissipate once we have adequately defined our terms.²⁹

[I would now define 'x begins to exist' as 'a state of x's existing changed from non-obtaining to obtaining'. And I confess there is some epistemic pull for me to think

²⁷ William Lane Craig, "Must the Beginning of the Universe Have a Personal Cause?: A Rejoinder," *Faith and Philosophy* 19, no. 1 (2002): 99.

²⁸ Wes Morrision, "Must the Beginning of the Universe Have a Personal Cause? A Critical Examination of the *Kalam* Cosmological Argument" *Faith and Philosophy* 17, no. 2 (2000): 149-169.

²⁹ Craig, "Must the Beginning," 94 and Wes Morrision, "Causes and Beginnings in the *Kalam* Argument: Reply to Craig," *Faith and Philosophy* 19, no. 2 (2002): 234.

that whatever begins to exist in that sense would have a cause or explanation. [Okay, it now seems to me incoherent wrong to think that something could come from nothing. The concept “*coming from*” is meaningless if there is nothing to come from. “Coming from” means coming from something.] But as I explained earlier, a finitely old universe does not strictly entail a beginning of the universe in this sense of beginning. [But it *does*, if we are talking about the essentially changing matter & energy. For then the initial state of changing things, is itself a transition of those things from *their non-being*. (I no longer think it makes sense for something that is essentially changing *to* transition to something without transitioning *from* something.) Since something from nothing is absurd, it follows that the initial state is a transition from an immaterial Source.] Also, I suspect that my inclination to accept the causal principle actually stems from my inclination to accept a moderate version of PSR (the principle of sufficient reason). [Perhaps that’s right.] But then why not run an argument from contingency instead and avoid the defeaters raised against the Kalam argument? [I still think this.] (Of course, there are potential defeaters to various arguments of contingency, but for replies, see my [From States of Affairs to a Necessary Being](#).)]

A second undercutting defeater is implicit in Morrision’s question, “Just how much muddying of the waters can we tolerate before we give up on the ‘intuition’ we started out with?”³⁰ One finds that the waters are indeed muddy when wading through the various metaphysical intuitions upon which P1 might be based. For example, Adolf Grunbaum is convinced that P1 is ultimately based on thinking that nothingness is the default state, such that that if something comes into being, there must be a cause to explain why there has been a transition from the default state.

³⁰ Ibid.

This objection is confused on a number of counts. First, it falsely assumes that if a statement A is logically equivalent to a statement B and B is not intuitively obvious, then the intuitive warrant for A is nullified. That is clearly wrong. Think of some complex mathematical equation which is equivalent to $2+1=3$. The opacity of the former does nothing to undermine the intuitive warrant for the latter. In fact, one could quite plausibly argue that the direction of warrant runs the other way: in view of their logical equivalence, the intuitive obviousness of A goes to increase our confidence in the truth of the less obvious B!

Second, you confuse a *definition* with an *analysis*. You aren't really looking for a *definition* of "begins to exist." These words are so simple that a junior high school student understands them. Synonyms would include "starts to exist" or "commences to be." What you're really looking for is a *philosophical analysis* of what it is to begin to exist. Whether there even is such an analysis is open to debate. It may well be that such a concept is primitive and cannot be analyzed in other terms. In my published work, I have tried to provide the following analysis of "begins to exist":

A. x begins to exist at t iff x comes into being at t .

B. x comes into being at t iff (i) x exists at t , and the actual world includes no state of affairs in which x exists timelessly, (ii) t is either the first time at which x exists or is separated from any $t^* < t$ at which x existed by an interval during which x does not exist, and (iii) x 's existing at t is a tensed fact.

It would be obtuse for the argument's detractor to respond that if you substitute the above analysis for "begins to exist" in the original premiss, then the premiss loses its intuitive warrant. Analyses aren't supposed to capture the intuitive obviousness of the terms to be analyzed; on the contrary, they're typically much more complex than the notion being analyzed. What is important for a successful analysis is that the conditions laid down in the analysis do not themselves use the notion under analysis and that they are such that anything meeting just those conditions will, in this case, properly be said to begin to exist.

However, Grunbaum rejects what he terms the "spontaneity of nothingness"; thus, Grunbaum thinks there is no basis for thinking that the temporally finite universe must have an external cause.³¹

<http://www.reasonablefaith.org/site/News2?page=NewsArticle&id=5151>

For those who think that P1 is based on the intuition that *ex nihilo nihil fit* ("out of nothing, nothing comes"), Morrision points out that this intuition is ambiguous between

³¹ Adolf Grunbaum, "A New Critique of Theological Interpretations of Physical Cosmology," *British Journal for the Philosophy of Science* 51, no. 1 (2000), p. 15-6.

the intuition that things cannot come into being uncaused and the intuition that things cannot come into being out of nothing, *whether or not* they are caused. Morrision worries that our intuition that a house, for example, cannot pop into existence uncaused might be solely based on our intuition that a builder cannot cause a house to pop into existence without any materials.³² This later intuition – an intuition which even Craig admits to having – renders *creation ex nihilo* impossible. Thus, Morrision fears that many people may think they believe P1, even though “what they *really* believe in their heart of hearts is that there could not have been a very first moment of time.”³³

The causal premise is a metaphysical principle that one cannot jettison at the origin of the universe. To do so would be to commit the taxi cab fallacy. What this premise says is that everything that beings to exist has an EFFICIENT CAUSE of its existence. It is left open as to whether a material cause is also always needed. So, when we get to the origin of the universe, we know that it would require an efficient cause, and it is an open question as to whether the cause is physical or non-physical.

Finally, although Craig regards skeptics of P1 to be among “a tiny minority of a tiny minority of mankind,”³⁴ the informal surveys of Morrision³⁵ and Smith³⁶ reveal that students and colleagues who understand P1 are *more likely than not* to doubt that P1 is self-evident. To be sure, truth is not determined by the polls. However, polls indicating that those who understand P1 tend not to find P1 self-evident is at least evidence that P1 is not known *a priori*. As a result of these undercutting defeaters, Morrision states that

³² Morrision, “Creation *ex Nihilo* and the Big Bang,” 29.

³³ Morrision, “Causes and Beginnings in the *Kalam* Argument,” 242.

³⁴ Craig, “Must the Beginning of the Universe Have a Personal Cause?” 100.

³⁵ Morrision, “Causes and Beginnings in the *Kalam* Argument,” 243, n. 24.

³⁶ Quentin Smith, “Two Ways to Prove Atheism,”

[http://www.qsmithwmu.com/two_ways_to_prove_atheism_\(1996\).htm](http://www.qsmithwmu.com/two_ways_to_prove_atheism_(1996).htm).

“when all the pertinent distinctions are made, I believe that many (I do not say all) intelligent, well-informed, and honest people will have reasonable doubts about the metaphysical necessity of P1.”³⁷ Unfortunately, we find no published response to Morrision’s latest defense of these defeaters by defenders of the *Kalam* argument.

We recognize two possible strategies for defending P1 on *a priori* grounds: (i) defend a general principle, such as the principle of sufficient reason, which entails P1, or (ii) provide a precise account of P1 and the intuition behind P1, such that those who understand P1 and the intuition behind it are more likely than not to affirm P1.³⁸ Until the fruit of such moves is brought to bear, we remain skeptical of the claim that P1 is self-evident.

Even considered on its own merits, however, Morrision's argument is unconvincing because it is predicated upon a flawed methodology. He compares the causal principle to a truth like "The surface of an object cannot be both red all over and partly green at one and the same time" and finds that the causal principle lacks the selfevidence and perspicuity of this truth. We could argue about how successfully the causal principle measures up to these criteria,¹⁶ but I suspect that such a debate would be fruitless. The more important shortcoming of Morrision's argument is its methodological assumption that all intuitively grasped, metaphysically necessary truths are alike in their selfevidence and perspicuity. As we have seen, some metaphysically necessary truths may be grasped only *a posteriori* and be quite debatable. Others may be grasped *a priori* but have varying degrees of selfevidence and perspicuity. For example, the truth "No event precedes itself" is, I think, a synthetic, metaphysically necessary truth which we intuitively grasp, but it does not have the selfevidence or perspicuity of Morrision's red and green example. We can imagine a circular time in which an event precedes (and succeeds) itself, but I see no reason to think that such a representation is metaphysically possible. Or again, the statement "Torturing a child for fun is wrong" seems to me to be a metaphysically necessary truth which I intuit, despite my ability to imagine in my mind's eye a nihilistic world without value. Examples could be given of a whole range of synthetic, metaphysically necessary truths, from the wholly obscure to the overwhelmingly selfevident, and it is no indictment of the causal principle that it does not match the epistemic luminosity of the statement that something cannot be both red and green

³⁷ Morrision, "Causes and Beginnings in the *Kalam* Argument," 242.

³⁸ For example, I (Josh) provide a *sui generis* account of "begins to exist" in my paper "The Beginning of the Universe Without a Personal Cause: A Reply to Wes Morrision" at The Evangelical Philosophical Society, Western Conference, Spring, 2003.

all over. What Morrision needs to do to undercut the causal premiss of the *kalam* cosmological argument is to show that its contradictory is as intuitively obvious as it is, which he has not even tried to do.

Morrision thinks that anyone who claims that we have a metaphysical intuition of the truth of the causal principle is obliged to explain why other equally wellinformed and intelligent people do not share this intuition.¹⁷ This is an odd assertion, since a philosopher seems hardly obliged to give an account of the sociological and psychological factors which lead other philosophers to disagree with him. Perhaps Morrision's point is best interpreted as inductive evidence against the claim that the causal principle is intuitively true. But so construed, the shoe is on the other foot: it is Morrision who is obliged to explain why he and a handful of other philosophers fail to see what the majority of philosophers and the overwhelming majority of mankind do see. The philosophers who deny that everything that begins to exist has a cause are a tiny minority of a tiny minority of mankind. Go ahead: name all the philosophers who believe that something can come into being without a cause or who are even agnostic about the matter. But be careful! Do not include Hume or Mackie.¹⁸ Do not include quantum physicists.¹⁹ The final list will be short, indeed. Morrision protests that he is not denying the truth of the causal principle, but merely that we have an *a priori* intuition of it.²⁰ But, as I say, it is a matter of indifference to me whether we come to grasp this principle *a priori* or *a posteriori*. I think it unlikely that the principle is for most of us an empirical generalization, for we instinctively apply it in unfamiliar situations, and the idea that something could come out of nothing is more than empirically repugnant. Since Morrision goes on to deny that we do know this principle empirically, he is unlikely to say that the conviction of mankind is based, not on intuition, but on empirical evidence. So it seems to me that the sociological evidence is quite consistent with the claim that the causal principle is intuitively obvious, and if there is any explaining to be done, it falls to Morrision to explain why his little band of skeptics fail to see what the vast majority of people, both philosophers and nonphilosophers, do claim to see and to explain how the bulk of mankind, in his view, can be so deceived.

The second reason for thinking that P1 is true is based on the empirical evidence which constantly confirms but never falsifies P1.³⁹ Unfortunately, the observed cases of events or beginnings may not be a “representative sample of the whole territory.”⁴⁰ As Morrision puts it, “the First Moment *differs* from later ones. It differs with regard both to *content* (what happened at that moment) and with regard to its position within the *context* of the whole natural order.”⁴¹ In addition, Morrision points out that the principle, “at least part of the total cause of every event precedes it in time,” enjoys the same empirical

³⁹ Craig, *The Kalam Cosmological Argument*, 145.

⁴⁰ Morrision, “Causes and Beginnings in the *Kalam* Argument,” 239.

⁴¹ *Ibid.*, 237.

support as P1 and yet contradicts *Kalam*'s second premise that there is a first moment of time.⁴² Therefore, it appears that observed cases for P1 are unrepresentative of the whole class about which P1 is supposed to generalize, and the challenge for those who think P1 can be known *a posteriori* is to demonstrate otherwise.

Finally, Morrision disputes our warrant for accepting the causal principle even as an empirical generalization.²¹ This I find amazing; how can anyone deny in light of our empirical experience that the causal principle is more plausible than its contradictory? Here Morrision falls back on his distinction between temporally embedded events and events occurring at a first moment of time. Since we have experience only of temporally embedded origination events, Morrision questions whether we have evidence that origination events at a first moment of time require causal explanation. As we have already seen, however, this appears to be a distinction without a difference (The history of twentieth century astrophysical cosmology belies Morrision's claim that people have no strong intuitions about the need of a causal explanation of the origin of time and the universe.

Perhaps Morrision would say that we *should*, at least, have no strong intuitions concerning the need of a cause of the beginning of time. But why not? What is the relevant difference between something's coming into existence within time and something's coming into existence at the beginning to time? If the universe could not come into existence uncaused at t , where t is preceded by earlier moments of time, why think that if we were to annihilate all moments earlier than t , then the universe could come into existence uncaused at t ? How could the existence of moments earlier than an uncaused event be of any possible relevance to the occurrence of that event?

Indeed, given a dynamic or tensed view of time, every moment of time is a fresh beginning, qualitatively indistinguishable from a first moment of time, for when any moment is present, earlier moments have passed away and do not exist. Thus, if the universe could exist uncaused at a first moment of time, it could exist uncaused at any moment of time. There just does not seem to be any relevant difference. It follows that if the latter is metaphysically impossible, so is the former.

Perhaps Morrision's difficulty is that he thinks of the causal principle as akin to a law of nature, like Boyle's Law or the Second Law of Thermodynamics, which hold only within our universe. But the causal principle is not a physical principle, but a metaphysical principle. Being does not arise from nonbeing; something cannot come from nothing. These are putative metaphysical claims, unrestricted in their application. Such claims are not contingent upon the properties, causal powers, and dispositions of the natural kinds of substances which happen to exist. Morrision has given no good reason for construing such claims as merely physical rather than as metaphysical claims.

⁴² Ibid., 240.

Hence, until Morrision is able to show us the relevant difference between embedded moments of time and a first moment of time, I see no reason to think it more plausible that things can come into being uncaused at a first moment than at a later moment of time). Morrision misleads when he labels the one case *intratemporal* coming to be and the other *extratemporal* coming to be, for both are cases of events which are temporally located at some time t . The only difference is that in one case t was preceded by moments of time $t^* < t$ and in the other case it was not. How this could be relevant to the occurrence of an uncaused event at t is wholly mysterious.

Morrision also opposes two other empirical generalizations to the causal principle which he thinks enjoy comparable support but are allegedly incompatible with the *kalam* argument, to wit (i) *Everything that begins to exist has a material cause*, and (ii) *Causes always stand in temporal relations to their effects*.²² Notice, however, that neither of these principles is incompatible with the causal principle enunciated in premiss (1). Morrision, in truth, offers no defeater at all for the argument's causal premiss, taken as an empirical generalization.

As defeaters of the conclusion (3) of the *kalam* argument, moreover, (i) and (ii) are not compelling. The evidence for (i) is, indeed, impressive. But it is not unequivocal or universal.²³ More importantly, (i) is in my view simply overridden by the arguments for the finitude of the past. For if it is impossible that there be an infinite regress of past events, it is impossible that the First Cause be a material object, since matter/energy is never quiescent.²⁴ As for (ii), the problem here is that (ii) appears to be an accidental generalization, akin to *Human beings have always lived on the Earth*, which was true until 1968. There does not seem to be anything inherently temporal about a causal relationship. More importantly, however, (ii) is not at all incompatible with the *kalam* argument's conclusion, since its defender may hold that God exists timelessly sans creation and temporally at and subsequent to the moment of creation, so that His act of causing the beginning of the universe is simultaneous with the universe's beginning to exist.

Not only are there undercutting defeaters of P1 that require more attention, but William Rowe has raised a *rebutting* defeater of P1 by pointing to what appears to be a clear counter-example to P1. Rowe points out that if every beginning has a cause then the beginning of the event which is *an agent's causing his lifting his arm* has a cause.⁴³ But if this sort of event has a cause, then it looks like we must posit a further event: *the causing of the agent's causing his arm to rise*, and this event too would require a cause, *ad infinitum*. Thus we are faced with either positing an infinite regress of causes for

⁴³ William Rowe, "Reflections on the Craig-Flew Debate," in *Does God Exist?: The Craig-Flew Debate*, ed. Stan W. Wallace (Aldershot, Hants, England: Ashgate, 2003), 73.

every time an agent performs an action or else redefining P1 so that it does not require that *every* beginning have a cause.

P1 of the kalam doesn't say that every EVENT has to have a cause, it says that actual THINGS that begin to exist require a cause. As for a POSR that circumvents Rowe's objection, all one would have to do is modify Leibniz' strong version with a weaker version such as:

Any THING that exists must have an explanation of its existence either in the necessity of its own nature, or in an external cause OR

For any contingent state of affairs, there is an explanation for that state of affairs, or there is an explanation for why there is no explanation (i.e. quantum indeterminacy & Heisenberg Uncertainty Principle OR Agent Causation & Self-Causation).

One possible revision might be to borrow from defenders of Leibnizian-type cosmological arguments and claim that only things which begin to exist and *possibly* have a cause actually have a cause.⁴⁴ Another option, suggested by Craig is to modify P1 to be "if the universe began to exist, then the universe has a cause of its existence."⁴⁵ However, more work would need to be done to show that such formulations do not amount to special pleading.

The cause of the universe is a personal agent

In response to "Hume's Stopper" (that there is no reason to think that a cause of the universe is God), defenders of the *Kalam* argument have followed the lead of al-Ghazali in arguing that the cause must be a personal agent based on the Principle of

⁴⁴ Alexander Pruss, "A Restricted Principle of Sufficient Reason and the Cosmological Argument," *Religious Studies* (forthcoming).

⁴⁵ William Lane Craig, "A Reply to Objections," in *Does God Exist?: The Craig-Flew Debate*, 157.

Determination (PD).⁴⁶ Craig defines the PD as follows: “If two physical states of affairs, S and not S, are physically possible at a time t and S obtains at t, then there must be a personal agent who, by the free choice of his will, instantiates S rather than not S at t.”⁴⁷ The argument then is that since it was physically possible at the first moment of time that the first event not exist (that is, no state prior to the first event *necessitated* the existence of that event), it follows by PD that only the free choice of a personal agent can account for the existence of the first event.

There are two important objections to the argument from PD, which we believe currently lack adequate responses. First, the proposition that no previous state *necessitated* the existence of the first event is based on an under-developed intuition that state-event causation is impossible. Craig explicates the intuition as follows: “If the unchanging cause is sufficient for the production of the effect, then the cause should not exist without the effect.”⁴⁸ But we side with Morrision and Quentin Smith in their failure to see why an eternal cause cannot be sufficient for a temporal effect. Smith for example, proposes that the first state of the universe was a timeless point from which its first temporal state emerged.⁴⁹

Again, given what we know about matter and energy, this is not metaphysically possible. I explained why the initial cosmological singularity cannot be the ultimate cause of the universe, since it is either unreal or else part of the universe and therefore itself in need of explanation of its coming into being. The sense in which the singularity is “timeless,” Shah, is a highly technical sense in that in the General Theory of Relativity, it is not a point *in* spacetime. Rather it is a point on the boundary of spacetime. But it is not eternal in the ordinary sense of the term, namely, it is not

⁴⁶ Craig, *The Kalam Cosmological Argument*, pp. 14-15.

⁴⁷ William Lane Craig, “Design and the Cosmological Argument,” in *Mere Creation: Science, Faith and Intelligent Design*, ed. William A. Dembski (Downer's Grove, Ill.: InterVarsity Press, 1998) 338.

⁴⁸ Craig, “Must the Beginning of the Universe Have a Personal Cause?” 102.

⁴⁹ Smith, “Atheistic Versus Theistic Explanations of the Beginning of Spacetime,”

http://www.qsmithwmu.com/atheistic_versus_theistic_explanations_of_the_beginning_of_spacetime.htm.

permanent. On the contrary, it is fleetingly evanescent. It is therefore temporal and began to exist and therefore requires a cause. Indeed, the only way that the universe can have a finite past and not also have an absolute beginning is if time is circular, but nobody thinks that. But now the problem is that there's just no evidence whatsoever that the initial singularity has such extraordinary properties. Nothing in classical or quantum cosmology even suggests that the singularity is metaphysically necessary. In fact, there's no evidence to suggest that the singularity is even nomologically necessary. That is to say, it's not even necessary according to the laws of nature. The laws of nature permit all sorts of non-singular cosmological models. Thus, the singularity cannot be metaphysically necessary.

Moreover, there's no reason to think it exists a se either. Quite the opposite is true: the singularity is the boundary of the space-time manifold; so if the manifold didn't exist, neither would its boundary points. Quentin, in his written work³, admits that the space-time universe did not have to exist; but he imagines that its singular boundary point, like the smile of the Cheshire cat in *Alice in Wonderland*, would still continue to exist even in the absence of the reality it bounds! But there is no physical reason to believe such a remarkable assertion.

Moreover, Morrision cites God's timeless will to create as an example of a sufficient condition that is eternal but whose effect is temporal.⁵⁰

I am inclined simply to deny that God's eternally willing to create the universe, properly understood, is sufficient for the existence of the universe. As J. P. Moreland explains, in the case of personal causal explanations, the salient factors are the existence of an agent with his relevant properties and powers, the agent's intention to bring about some result, an exercise of the agent's causal powers, and in some cases a description of the relevant action plan. So "a personal explanation (divine or otherwise) of some basic result R brought about intentionally by person P where this bringing about of R is a basic action A will cite the intention I of P that R occur and the basic power B that P exercised to bring about R."²⁷ Notice that it is insufficient for P to have merely the intention and power to bring about R. There must also be a basic action on the part of P, an undertaking or endeavoring or exercise of P's causal powers. Thus, it is insufficient to account for the origin of the universe by citing simply God, His timeless intention to create a world with a beginning, and His power to produce such a result. There must be an exercise of His causal power in order for the universe to be created. That entails, of course, an intrinsic change on God's part which brings Him into time at the moment of creation. For that reason He must be temporal since creation even if He is timeless sans creation.²⁸ Such an account of the origin of the universe will work only for agent causation, for only a libertarian agent could interrupt the static reign of being of the First Cause sans the universe. It

⁵⁰ Wes Morrision, "Must the Beginning of the Universe Have a Personal Cause? A Critical Examination of the *Kalam* Cosmological Argument," *Faith and Philosophy* 17 (2000): 165.

is for that reason that we should conceive of the First Cause as personal. Hence, the failing of Morrision's objection is that in speaking of God's willing that the universe exist, he does not differentiate between God's timeless intention to create a temporal world and God's undertaking to create a temporal world. Once we make the distinction, we see that *creation ex nihilo* is not an instance of state-state causation and is therefore not susceptible to Morrision's objection.

[Well, I'm now skeptical that 'x is timeless' even expresses a proposition at all because I'm inclined to think that 'is' here simply expresses the relation of exemplification and there is only one such relation. There isn't a timeless version of as well as a present-tensed version of it. Moreover, to say that something is 'present' is just to say that it is included in a state of affairs that is actual, I say. It follows from my understanding of these terms that 'x is timeless' is meaningless or absurd: it entails that x is both present and timeless. Note: it doesn't follow from all this that 'presentism' is trivially true. For one, my view about the meanings of these terms is not itself trivially true. Second, I don't even know what "presentism" means (I blame this condition of mine on my advisor, van Inwagen), so I surely do not think it is trivially true.]

Although Craig disputes both alleged examples of state-event causation, we suspect along with Morrision and James Still⁵¹ that the intuition against state-event causation results from an equivocation on the notion of eternity. For, only when eternity is conceived as beginningless duration might it be evident that an eternal sufficient condition produces only an eternal effect. But Craig understands eternity as timelessness, and we fail to see why a *timelessly* eternal sufficient condition cannot give rise to a temporal effect. The argument that no matter when the effect occurs, a sufficient

⁵¹ James Still, "Eternity and Time in William Lane Craig's *Kalam* Cosmological Argument," http://www.infidels.org/library/modern/james_still/Kalam.html.

impersonal cause would have *already* caused the effect is only applicable on a *sempiternal* account of eternity. But in *timeless* eternity there is no time at which the effect does not yet exist, and thus, there is no time at which the cause would have *already* caused the effect. Therefore, we see no reason to think that state-event causation is impossible if the state is a timelessly eternal state.

In order for a defender of the *Kalam* argument to successfully reach the conclusion that the cause is a personal agent, more work needs to be done to explicate a relevant difference between agent causation and non-agent causation, according to which only the former can involve a timeless cause of a temporal universe. Alternatively, one might argue that physical time was preceded by a deeper metaphysical time. On this scenario, an eternal state would have beginningless duration, and thus, the intuition against state-event causation would be restored. A major task for one who makes this move is to provide an account of the metaphysical time such that no philosophical argument for a finite past succeeds in showing that metaphysical time is finite.

The second objection to the argument for a personal agent is that PD is based on the unfounded assumption that impersonal causes must be sufficient for their effect. Not only does such an assumption commit one to denying that the causal indeterminacy in quantum mechanics is ontic, Robert Koons provides a *philosophical* argument, which if sound, entails ontic indeterminacy. [I was a little naive in my talk of “ontic indeterminacy”, though my excuse is that most philosophers are on this point. “Ontic indeterminism” according to the standard, Copenhagen interpretation in quantum mechanics is an indeterminism between *types* of states. But I didn’t realize then that it is wholly consistent with ontic indeterminism that *token* causal acts be sufficient for their

effects. Also, it's presently an open question to me whether a token causal act really could arise from a non-volitional agent if the act itself were not deterministically governed by the nature (or type) exemplified by the cause. In other words, it's an open question to me whether "indeterministic causation" really does entail volitional agency. However, none of this helps the Kalam argument as far as I see because I see no really good reason why a "timeless" cause, if there were one, could not be connected to a temporal effect by way of a deterministic relationship between the type of cause and type of effect. (I once presented a paper [now lost!] arguing that there could be no nomological connection between a timeless state and temporal one, but I'm not sure I was right about that.)] Koons argues that the basis for the asymmetry between the past and the future is that physical causes do not necessitate their effects while effects do necessitate their causes.⁵² If Koons is right, then PD is false since PD entails that all impersonal causes necessitate their effects. Since we find no objections to Koon's account of causation by advocates of PD and his account seems plausible [Fair enough, but I'm less optimistic about Koons' account of time these days. For one, I no longer find it plausible that time ought to be analyzed in terms of causation.], we remain skeptical of any argument for a personal agent based on PD.

Since there is neither a timeless state of the universe, nor circular time, the only way in which the universe can be eternal in the past is if the universe was composed of a beginningless duration of past events. With respect to Wes's first point, he's quite right to note the difference between a timeless cause and a sempiternal cause (one that has existed temporally and beginninglessly). But this difference is incidental to the argument. What

⁵² Robert C. Koons, "Defeasible Reasoning, Special Pleading and the Cosmological Argument," www.leaderu.com/offices/koons/docs/defeasible.html.

is common to both kinds of being and key to the argument is that in either case the cause exists beginninglessly and changelessly. It is consistent with the *kalam* cosmological argument to maintain with Alan Padgett that God exists changelessly sans creation in an amorphous time in which temporal intervals cannot be distinguished, and the same question will still arise as to how an effect with a beginning can arise from a beginningless cause. [My two cents]: Analogies are never perfect, and if Wes is going to strain this analogy, then I think that forces us to get technical and state very clearly what we are talking about again: The properties of the cause of the universe are that it is beginningless, changeless, immaterial, and timeless. Now, I think there are actually three options for a timeless cause giving rise to a temporal effect: 1) impersonal causally sufficient, or determinate, conditions; 2) impersonal causally insufficient, or indeterminate, conditions; 3) free personal agent. Craig rules out (1) correctly, but skips (2). However, since the cause is changeless and matter/energy is never quiescent, it follows that the cause can't be of the (2) sort. Moreover, the cause of the universe is non-physical and non-spatial so how in the world could it be (1) or (2) since those both presuppose a timeless state of the UNIVERSE, but the universe began to exist! Lastly, since the cause of the universe is beginningless and changeless, it follows that it is also timeless, but as Ian Hinckfuss has argued, even if the universe were frozen into immobility, there would still be time because temporal duration and measurement are not dependent upon the continuous operation of a clock throughout that time. Thus, we are left with 3 as the best option.

Conclusion

None of the arguments we have discussed in this paper strike us as devastating to the *Kalam* argument. Nevertheless, in the absence of newly formulated replies, these counter-arguments are sufficiently strong that we think they have effectively undercut the force of the *Kalam* argument. We have attempted to suggest possible responses one

might try to defend. Certainly, there are others we have not mentioned as well. It is our hope that proponents of *Kalam* will take up the task of crafting responses to the issues mentioned in our paper in the near future. [See how optimistic I was! ☺] Nevertheless, until such a task is performed, the *Kalam* argument cannot be regarded as a successful piece of natural theology.

I really hope that in light of modern developments such as the BGV theorem, and the plausibility of premise1 (recall that Craig has three points that support this argument: self-evidence, empirical confirmation, and the inexplicability of why only universes and not other things come into being out of nothing without a cause) as well as the two other arguments Craig has for a personal cause of the universe (all of which weren't addressed in this paper) still gives you confidence in the kalam. Also, we all undoubtedly succumb to the form of bias that springs from wanting the social acceptance of our academic institution and its professors and I hope that that is something you take into consideration as well.