Craig/Moreland and Draper on the Kalam Argument
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1. The Kalam Argument is a version of what is sometimes more generally called the "causal argument." And the causal argument is a subspecies of the broader argument of natural theology called "the cosmological argument." The causal argument generally attempts to show that there must be a supernatural cause for the existence of the universe. If anything that exists has a cause, then the total of matter/energy (or "the universe") must have a cause. But since self-causation is impossible, the cause of the total of matter/energy must be something other than matter/energy; that is it must be something beyond the natural order. So there must be a supernatural first cause. This first cause is God.

2. Kalam Argument:
   P1. Whatever begins to exist has a cause.
   P2. The universe began to exist.
   C. Therefore, The universe has a cause.
   Note that the conclusion is not "God exists" but only that the universe has a cause. C&M say "Conceptual analysis of what it means to be a cause of the universe then aims to establish some of the theologically significant properties of this being" (p. 36). At the end of their paper, Craig/Moreland argue that such a cause would have to be aspatial and atemporal, very powerful, and personal.

3. Defense of P1: Rooted in the more general principle that something can't come from nothing. Arguably, any argument for P1 would include premises that are less clearly true than P1 itself. Objections: contemporary physics suggests that there are uncaused events at the subatomic level, that P1 is true only for things in the universe, and P1 is false if the B-theory of time is true.

4. P2 is the really crucial premise. Craig/Moreland give four arguments in favor of P2: (1) the Argument from the Impossibility of an Actually Infinite Number of Things; (2) the Argument from the Impossibility of Forming an Actual Infinite by Successive Addition; (3) the Argument from the Big Bang; and (4) The Argument from the Second Law of Thermodynamics. Draper begs off discussing the two scientific arguments; for the most part, we will too. Let's take these as Paul Draper does—in reverse order.

5. Argument (2):
   P1 The temporal series of events is a collection formed by successive addition.
   P2. A collection formed by successive addition cannot be an actual infinite.
   C1. Therefore, the temporal series of events cannot be an actual infinite.
   C2. Therefore the temporal regress of events is finite.
   [C3. Therefore, the universe began to exist.]

   5a. The problem here is that while it is true that one cannot *begin* a series with an event to which one then adds subsequent events and end up with an actual infinite series of events, the defender of the beginninglessness of the universe doesn't have that picture. For on her picture, the individual events that are added are always added to an infinite series that pre-exists. For if the series of past events is infinite, then there never was a time when there had been only one event which was then followed by another, followed by another, etc. If the universe has an infinite past, then *there has always been* an infinite number of past events. This objection should be construed as denying, or at least casting doubt upon, P1 of Argument (2).

6. Argument (1)

P1. An actual infinite cannot exist.
P2. An infinite temporal regress of physical events is an actual infinite.
C1. Therefore an infinite temporal regress of physical events cannot exist.
[C2. Therefore, the universe began to exist.]

6a. Explication of the Argument: Craig/Moreland are depending on the distinction between actual and potential infinities. An actual infinite series is a series that contains infinitely many members; a potentially infinite series is a series that will never end (although it only contains finitely many members at any particular time). They also say they are content with the coherence of Cantorian set theory; the objections they will give are not to the idea of actually infinite sets, but rather to the possibility of their existence "in the real, spatiotemporal world." Craig/Moreland defend P1 by noting the bizarre consequences of set theory as applied to infinite sets of concrete objects (like hotel rooms). But the fact that they seem to think these consequences are "absurd" makes you wonder how they can say that there objections aren't to set theory in principle.

6b. Let's look at one example similar to Hilbert's Hotel. Suppose you have a library consisting only of a distinct red book for every even positive integer. This library contains infinitely many books. Now suppose you add a single black book. How many books do you have now? Still infinitely many. So the number of books has not increased by adding a book. (Craig/Moreland think this is really enough to cause trouble: how can a given number X and X+1 be the same?) But suppose you add infinitely many black books (perhaps one for every odd, positive integer)? You still have infinitely many books—that is, you have 'just as many' books as you did before. You can add infinitely many colors each with infinitely many books and you still have what you began with: infinitely many books. But this can all seem pretty crazy. If set R is composed of a red book for every positive even integer, and set RB is composed of everything in set R plus a black book for every positive odd integer, surely set RB has more members than set R has. Right? After all, if everything in set A is in set B, and set B includes other things besides, then surely set B *has more members*. But according to standard set theory, that's not right. Both sets are infinitely large.

7. Draper's objections: Paul Draper notes that these problems arise if we assume the following three statements to be true:

S1: A set has more members than any of its proper subsets.
S2: If the members of two sets can be placed in one-to-one correspondence, then neither set has more members than the other.
S3: There are actually infinite sets.

Here's how the problems arise: assume there are actually infinite sets and compare the following two sets: A: {1,2,3…} and B: (1,3,5…}. B is a proper subset of A. So if S1 is true, then A has more members than B. But A and B can be placed in a one-to-one correspondence, so if S2 is true, then A does not have more members than B (since neither set has more members than the other). So we get a contradiction by assuming S1, S2, and S3 (that's what Draper means by calling those three statements an "inconsistent triad").

7a. An aside: notice again that the difficulties here are generated not by any assumptions about "entities that exist in reality" but simply by the assumption that there are actual infinite sets. So even though Craig/Morland claim their objection is to actually infinite sets of real things, there argument is much more general than that. It is an objection to standard set theory.

7b. Craig/Moreland think that what has to go is S3. But Draper thinks Craig/Moreland do not show that this is there is reason to drop S3 rather than S1 or S2. And since Craig/Moreland are

using this issue to defend premise two of the Kalam argument, the ball is in their court to show why S3 is the thesis that has to go. Draper argues that there is no good reason to dump S3 rather than S1 or S2. Here's his line of reasoning. First, there is no doubt that S1 and S2 are true for finite sets of real things. But what about for infinite sets of real things (if there were any)? The notion of "having more members" has a clear and well-defined sense when the sets in question are finite—it means "has a greater number." But if that is what "more" means, then it just isn't true that one set with infinitely many members has a greater number than another infinite set. That is, although set A contains every member that set B contains, and a whole lot of others besides, it is not true that the number of members of set A is greater than the number of members of set B, since *there is no number that is the number of members of either set; to say that a set has "infinitely many" members is, in part, to say that there is no specific natural, rational, or real number that is the number of the members of the set*. So if "has more members" just means "has a greater number," then S1 simply can't be true if it is possible that there are infinite sets. On the other hand, if Craig/Moreland respond that "more members" here just means "has every member the other set has and then some" then S1 is probably right but S2 will have to go. This is so because, as we've seen, the members of A and the members of B can be put in a one-to-one correspondence even though A contains every member of B plus a whole lot more. So if "has more" just means "has all and then some" it will turn out that A has more members than B even though A and B can be put in a one-to-one correspondence—that is, that S2 is false. Once we see that the nature of infinity will reasonably require us to reject the standard notion of "has more members" as applied to infinite sets, we can see that either rejecting S1 (if we stick with the standard notion of "has more") or rejecting S2 (if we alter the notion of "has more" when applied to infinite sets so that "has more" just means "has all and then some") is at least as reasonable as rejecting S3.

8. Draper begs off analyzing Craig/Moreland's scientific arguments, but he wants to show that even if they work, they wouldn't properly support premise two of the Kalam argument because Craig/Moreland commit the fallacy of equivocation. Consider again:

    2. The universe began to exist.

    That could mean either that the universe began to exist *within time* (which would imply there was a time at which the universe didn't exist) or it could mean that the universe began to exist *within or with time*. But there is nothing in Craig's argument that suggests he has in mind the former, stricter interpretation; and his Big Bang argument requires the broader, latter understanding. So this premise should be understood as:

    2.* The universe began to exist within or with time.

    Let's now look at the first premise:

    1. Whatever begins to exist has a cause.

    But one argument that Craig/Moreland give for this premise is that it is well confirmed empirically. But experience only supports the premise if it is read

    1.* Whatever begins to exist in time has a cause.

    But then argument is invalid:

    1.* Whatever begins to exist in time has a cause.

    2.* The universe began to exist within or with time.

    C. Therefore, the universe has a cause.

    The conclusion would only follow from the premises if there were no equivocation on what it is for something to begin to exist.