In a recent paper, I claimed that if a familiar line of argument against the possibility of a beginningless series of events worked as advertised, it would work just as well against the possibility of an endless series of pre-determined events. The present paper is my response to objections by William Lane Craig. It argues that neither Craig’s claim that an endless series of events is a merely potential infinite nor his claim that future events don’t exist is successful in blocking my original conclusion.

In a recent paper,¹ I claimed that if a familiar line of argument against the possibility of the actual infinite worked as advertised, it would work just as well against an endless series of pre-determined events as against a beginningless series of past events. To make this point, I proposed a thought experiment featuring a pair of angels.

Suppose that God has just decreed that Gabriel and Uriel will take turns praising Him for one minute of celestial time, and that they will do so forever. Gabriel will do the odd-numbered praises and Uriel the even-numbered ones. Let’s go a step further. So as not to leave any opportunity for Gabriel or Uriel to mess things up, let’s suppose that
this is no mere instruction or recommendation, but that God has
exercised His supreme power in such a way as to make it the case that
each praise in the endless series of praises we have envisaged will
occur. Each of them is discrete, wholly determinate, and certain to
occur because God has determined that it will occur (443).

Given assumptions widely shared by theists, a scenario like this is surely possible.
If the future is (or could be) endless, then a pair of angels could be given such a task. And
if God is omnipotent, each of their future praises could be pre-determined. However –
and this was the point of the thought experiment – a scenario like this has many of the
allegedly absurd features that are commonly said to prove that an actual infinite is
impossible. For consider: God could have prevented the first four praises without
decreasing the total number of praises that will be said. Alternatively, he could have
prevented all of Gabriel’s (infinitely many) praises without decreasing the number of
praises that will be said. Then again, God could have made Gabriel skip every other
praise, thereby making room for infinitely many additional praises by a third angelic
being. And so on... If these implications don’t show that the endless series of pre-
determined events featured in my scenario is impossible, then neither do the analogous
implications of a beginningless series of past events show that it is impossible. Or so I
claimed.

In a response to my paper,2 William Lane Craig claims that I have failed to “take
tense seriously,” and that it makes a profound difference what view of time one holds. On
an A-Theory, he says, the series of praises that will be said by either (or both) of the
angels in my imaginary scenario is merely potentially infinite, since it is “composed of a
finite but ever increasing number of events with infinity as a limit” (452). “If this answer is allowed the A-Theorist,” he continues, “then Morriston’s allegedly parallel arguments collapse.” For example:

God could have made room for potentially infinitely many more praises by a third angel, in which case potentially infinitely many praises are “added,” and the praises of all three angels will be sung in the same potentially infinite amount of time. No absurdity there, for the number of praises said by the angels will always be finite, even though increasing toward infinity as a limit (452).

Craig is certainly right about one thing. The number of praises that have been said by the angels in my scenario will always be finite. Right now, the number is zero. Once the praising has begun, the collection of praises that have been said will increase without limit (or, as Craig prefers, “toward infinity as a limit”). But I was not asking for the number of praises that have been said. Instead, I was asking for the number of praises yet-to-be-said – that is, for the number of praises, each of which will eventually be said.

In the world of my thought experiment, the series of praises yet-to-be-said is not growing, is never finite, and does not satisfy Craig’s definition of “potentially infinite.”

Thus far, it might seem that Craig fails to consider – much less answer – the right question. At one point, however, he distinguishes two different questions, and his answer to the second of these is very much to the point.

… [I]n Morriston’s illustrations what is real or actual is always finite.

So in answer to Morriston’s question, “How many praises will be said?”, we should answer, “Potentially infinitely many,” and
distinguish this from the question, “What is the number of praises in the series of future praises?”, the answer to which is “None” (444-5, my italics).

It is not clear to me precisely what question Craig has in mind when he asks, “How many praises will be said?” However, it is the second of the questions distinguished in this passage (“What is the number of praises in the series of future praises?”) that interests me. This question seems to be equivalent to the one I have been pressing (“What is the number of praises yet-to-be-said?”), and Craig’s answer is quite clear. The number of future praises, he says, is “None” – there simply is no such number.

This point goes by so quickly that a careless reader might not catch it. But it gives us Craig’s real answer to my argument. If there is no such number as the number of praises yet-to-be-said, we don’t have to worry about the number of praises that would have been pre-determined if, for example, all of Gabriel’s praises had been prevented. Nor do we have to compare it with the number that would have been pre-determined if all praises after the first four had been prevented. The answer to all questions about the number of future praises must be the same – viz., that there is no such number.

Must one give this answer if one accepts an A-Theory of time? Not necessarily. On an A-Theory, temporal becoming is real in the sense that there is an ever-changing fact of the matter about what is happening now, what has happened, and what will happen. By itself this does not entail that the number of yet-to-be-said praises is “None.” Craig, however, makes the further claim that only present objects and events exist. It immediately follows that there are no future events, and from this I think he derives the conclusion that there is no number of future events.
Given Craig’s commitment to presentism, it might seem that he would have to give a similar answer to questions about the number of past events. So why does he think there is a number of (non-existent) past events even though there is no number of future events? The answer seems to be that past events belong to what Craig calls “the actual world,” whereas future events do not.

Everything that has happened has been actualized. As the medievals put it, these events have exited from their causes and are therefore no longer in potentiality. The actual world thus includes both what does exist and what did exist. But events which have yet to take place, being pure potentialities, are, on a tensed view of time, not part of the actual world (445-6).

Could this provide the explanation that’s needed here? Does it make it reasonable to refer to and number past events while insisting that the number of praises yet-to-be-said is “None?” It’s not immediately obvious that it can. In this passage, Craig himself (adopting a bit of medieval terminology) speaks of future events as “pure potentialities” that have not yet “exited from their causes.” One might have thought that such “potentialities” could be referred to and numbered. If we ask how many such potentialities will – at some time or other – be actualized, it is hard to believe that the answer could be “None.”

Recall too that (in my imaginary scenario) each of the future praises is predetermined in such a way that it cannot fail to be actualized. Why should such predetermined “actualizations” be excluded from “the actual world?” True, they have not yet occurred. On the other hand, the fact that they will happen is wholly determined by what
has already occurred. In my imaginary scenario, the facts about Gabriel’s and Uriel’s future praises are “locked in” by what God has already done. They are, indeed, just as locked in as anything that has happened. One might have thought that this would give them enough of a grip on actuality for us to refer to them and to count them. Certainly, we can “count on” them.

It isn’t of course necessary to refer to future events one at a time in order to make inferences that are relevant to their number. If, for example, it’s known that Gabriel and Uriel are going to take turns doing one-minute praises for the next hour, we can infer that each of them will have done thirty praises at the end of the hour. I presume that a Craig-style presentist would not disagree with that. So, then, suppose that they are now beginning their praises and that they will take turns doing one-minute praises forever. Even a presentist must surely agree that for every natural number \( n \) hours from now Gabriel and Uriel will have said \( 30n \) praises each. Recall too that in my scenario, it must be true that:

\[ G. \text{ For every odd number } n, \text{ Gabriel will (eventually) have said } \]
\[ \text{the } n^{\text{th}} \text{ praise in the series of praises that have been said.} \]

\[ U. \text{ For every even number } n, \text{ Uriel will (eventually) have said } \]
\[ \text{the } n^{\text{th}} \text{ praise in the series of praises that have been said.} \]

So even if “there are” no future events, there is still a one-to-one correspondence between the natural numbers and the tensed truths in various relevant series.

Nothing doing, says Craig: the move to tensed truths “makes two unjustified assumptions: first, Platonism with respect to propositions and, second, the actual infinitude of propositions or facts.”
If we accept these assumptions, there is no need for appeal to future-tensed truths in order to designate an actual infinitude of propositions, since for every proposition \( p \) there is the further proposition that \( Tp \), or that \( \text{it is true that } p \). The finitist will therefore either deny Platonism with respect to propositions, taking them to be useful fictions perhaps, or deny that there are an infinite number of propositions, since, God’s knowledge being non-propositional, propositions are the byproduct of human intellection and so merely potentially infinite in number, as we come to express propositionally what God knows in a non-propositional way (454).

I cannot here attempt to determine the ontological status of propositions. But I’m not sure I need to. In the first place, Craig is now far beyond anything that might be required by an A-Theory of time. My argument will still seem significant to those friends of the kalām argument whose ontologies do not exclude propositions and other abstract objects. It would be news to some of them that the paradoxes of the actual infinite are just as potent (or impotent) against an endless series of future events (or future-tensed truths) as they are against a beginningless series of past events (or past-tensed truths).  

In the second place, the point of my argument was not to establish in the quickest possible way that there is some actual infinite or other. Nor does anything I have said imply that for every proposition \( p \) there is a further proposition that \( Tp \). My argument is concerned with a specific class of truths, and we need to know what Craig has to say about them.
In the third place, I do not think I need to take a stand for or against Platonism. What matters to my argument is that something like the scenario featured in my thought experiment be possibly true, and that such things as the following should be true in that scenario: for every natural number $n$, God has determined that $n$ minutes from now Gabriel (or Uriel) will say a one-minute praise. We can then imagine counterfactual variations on the scenario that reproduce Craig’s worries about the actual infinite. Depending on our ontological commitments, we may not agree about precisely what sort of “thing” is being numbered when we say how many praises are yet-to-be-said. Are we speaking of future events? Of “pure potentialities” that are not yet, but will eventually be, “actualized?” Of tensed truths? But whatever the “deep” structure turns out to be, this much is crystal clear: at no time in the scenario is the number of praises yet-to-be-said either “potentially infinite” or “None.”

In the fourth place, I do not think Craig can easily avoid tensed truths in his own account of “the actual world.” Consider, for example, his claim that “[t]he temporal series of events comprises everything that has happened and nothing more” (445). Presumably, he doesn’t mean to say of past events that they have happened, since that would entail that there are past events of which it is now true that they have happened. To avoid this undesired implication, some rephrasing is required. For example, instead of saying of Jesus’ resurrection that it occurred on the first day of the week, a presentist might say: “It was the case that Jesus rises from the dead on a Sunday.”

Analogous rephrasing would presumably be required for apparent references to future events. Instead of saying of the resurrection of the dead that it will occur at some future time, a presentist might say: “It will be the case that the dead are raised.” And if a
presentist is informed that God has determined that Gabriel and Uriel will soon take turns doing one-minute praises for just one hour, he must not say of sixty future praises that each of them will have been said. He will instead say that there will have been sixty praises an hour from now.

If such future-tensed truths as these count as propositions, then Craig’s own explanation will most likely involve propositions. Even if that is so, however, Craig thinks we should regard them as the “byproduct of human intellection and so merely potentially infinite in number.”

But what, one may ask, are we to say about God’s knowledge? If (as Craig himself has always held) God’s knowledge is complete, then it must embrace everything that can be known (including the whole endless future). And that, it might seem, requires that God know the truth-values of each of infinitely many propositions. In God’s case, at any rate, this could not be a mere potential infinity.

It is in order to deal with this sort of worry that Craig introduces the idea that God’s knowledge is non-propositional. Borrowing from a well-known essay by William P. Alston, he offers the following explanation.

God has a simple intuition of all of reality, which we human cognizers represent to ourselves propositionally… 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. ⁶

This suggests the following picture. God knows the whole of reality by way of a
single, indivisible intuition. His knowledge is not therefore mediated by representations
of any kind. It consists rather in a single two-place relation between God and “all of
reality.” In contrast to this, we finite knowers must carve out propositional bits of what
God knows. But no matter how many such bits we carve out, we shall have carved out
only finitely many. Both the bits and the carvings-out are potentially infinite only. In
some such way as this, Craig thinks he can avoid an actual infinity of propositions
without in any way limiting God’s knowledge.

There are, I think, two critical objections to the application of this idea in the
present context.

(i) It gets Craig’s presentist (or, indeed, anyone who denies the existence of future
events) into trouble right away. On Craig’s view, future events do not belong to “all of
reality.” So even if God has a complete and direct “intuition” of the latter, this tells us
nothing about how he knows the future. Elsewhere, Craig explicitly rejects a “perceptual”
model of God’s knowledge of the future on the ground that, “since future events do not
exist, there is nothing there to perceive.” Nevertheless, he says that “there are truths about
future events” and that “God knows all truths concerning future events.” ⁷ To explain how
God could know future contingents, he then appeals to God’s knowledge of the
counterfactuals of freedom. Perhaps there is a way to combine these things in a single coherent package, but Craig surely has a good deal of explaining to do.8

(ii) Waiving the first point, let us suppose that God (somehow) has a complete and direct intuition of all that will be – a Truth that is in no way broken up into propositional units. With this picture in mind, let’s return to my angelic praise scenario. Although God’s knowledge of what Gabriel and Uriel will do is not propositional, we can also be sure that neither the Truth about what they have been determined to do, nor God’s intuitive knowledge of it, leaves anything out.

So consider the above-mentioned propositions – (G) and (U). On Craig’s view, neither of them can be the content of any divine cognitive state, since God’s knowledge is non-propositional. On the other hand, they are surely among the “truths” that we can be said to know; and they are a perfectly legitimate (though “human”) way of stating some part of “what God knows non-propositionally.” It is therefore far less misleading to say that God knows that (G) and (U) are true than to say without qualification that he does not know these things. (Just as it’s less misleading to say that God knows that Mars has two moons than to say that he doesn’t know this.)

But as noted above, (G) and (U) deliver a straightforward correspondence with the natural numbers. If, for every odd number \( n \), Gabriel will (eventually) have said the \( n^{th} \) praise, then we have a number of “truths” about what Gabriel will have said that is the same as the number of natural numbers – viz., the first transfinite cardinal number (\( \aleph_0 \)). (And the same goes, mutatis mutandis, for Uriel and the even numbers.) What we think these “truths” are is an interesting and important question. But as long as they are true – as long as each of them would, if abstracted from the object of God’s “undivided
intuition,” have the same standing as Mars has two moons – it will be easy to do the
counterfactual variations on my imaginary angelic praise scenario that drive my original
argument.

Whether we choose to call an endless series of pre-determined praises an “actual
infinite” will depend partly on how that expression is defined and partly on our
ontological commitments. But whether or not we think it counts as an “actual infinite,” it
will have the paradoxical implications that Craig finds so absurd. In this respect, an
endless series (of pre-determined events) is on the same footing as a beginningless one –
and that is all I meant when I (rhetorically) asked, “What difference could a mere change
of tense make?”9

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NOTES

1 “Beginningless Past, Endless Future, and the Actual Infinite,” Faith and Philosophy,

2 “Taking Tense Seriously in Differentiating Past and Future: A Response to Wes

3 This inference may be a bit too quick. Suppose, for example, that it has been determined
that Gabriel and Uriel will take turns doing one-minute praises for just one hour. Would
Craig say that there is no number of future praises in that case? Presumably, he would not
say of their sixty future praises that they are yet-to-said or that their number is 60. On
the other hand, I assume that he would have no problem with doing a bit of simple
arithmetic and concluding that the two angels will have done sixty praises at the end of the hour.


5 William P. Alston, “Does God Have Beliefs?” Religious Studies, 22:3 (1986), 287-306. The suggestion Craig finds so attractive is that God has a non-propositional and “direct” intuition of the world – an idea that Alston sharply distinguished from the Thomist view that God knows the world by virtue of knowing his own simple self. Perhaps it should also be remembered that Alston did not himself endorse the view that God’s knowledge is non-propositional. The thesis of his paper was that God does not have beliefs, and that this is so whether or not God’s knowledge is propositional.


7 The three quotations in the previous two sentences are from the same page of the same source. See William Lane Craig, “The Middle Knowledge View,” in Divine Foreknowledge: Four Views, ed. James K. Beilby and Paul R. Eddy (Downers Grove, IL: InterVarsity Press, 2001), 133.

8 My guess is that Craig would say of the counterfactuals of freedom what he says of propositions generally – that they are a merely “human” way of saying (some of) what God knows non-propositionally. I have no idea how to work out the mechanics of middle knowledge in these terms. On the other hand, I don’t claim to have proved that such an account would have to be incoherent, and it would be interesting to hear in detail how Craig thinks the story is supposed to go.
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