

The Cosmological Push

ABSTRACT: In this paper, I argue that the cosmological argument, in its strongest form, reduces to a conflict of intuitions, of whether an uncaused Big Bang or an uncaused agent that causes the Big Bang is more intuitively plausible. I call this conflict of intuitions the Cosmological Push, and argue that the cosmological argument can get us no further. First, I show that a plausible cosmological argument must meet three criteria of plausibility and show how, as presented, William Lane Craig's Kalām Cosmological Argument meets them. However, when we carefully distinguish between scientific confirmation and interpretation, we must modify the argument, thus arriving at the Cosmological Push. However, I then go on to argue why this is still progress and not to be fretted.

In one of the less-analyzed discussions of the *Dialogues concerning Natural Religion*, Hume's Philo points out that, if we take it that order, complexity, and purposiveness imply a designer, then we must posit a designer for the designing mind, which itself is ordered, complex, and purposive. But then we must posit a designing mind for the designing mind's designing mind, etc., leading to a regress of intellects. What interests me here is not the objection, but the replies. Cleanthes claims that he has found the answer to his question, the explanation of the designed universe, and his inquiry is complete. He does not need to ask about the designer of the designer. But Philo holds no truck with this. He points out that, if we are to allow one instance where we do not have to seek a designer of an ordered, complex, purposive being, why not make that being the universe rather than the designer of the universe?¹

Ultimately, I believe that a similar discussion leads to an analogous result when considering the plausible versions of the cosmological argument. If we are allowed to admit that

¹ Hume, David. *Dialogues Concerning Natural Religion*. In *David Hume Dialogues and Natural History of Religion*, Oxford University Press, New York, New York, 1993, D 4.6-14. To my knowledge, this is the first statement of something akin to what I call the Cosmological Push.

there is exactly one being in our ontology whose existence does not require any external explanation, we could posit an agent to fulfill this role, but we could as easily posit the Big Bang singularity. But unlike Hume's Philo, I present this not as a criticism but as a limitation to what the cosmological argument can teach us and why. It serves to fix our intuitions, but there is no clear winner or clear loser. As such, I call the reduction of cosmological arguments into these conflicting intuitions the Cosmological Push.² In this paper, I will argue first what it would take for a cosmological argument to be persuasive, second, show how William Lane Craig's Kalām cosmological argument, as presented, meets these criteria but, when corrected to reflect consensus in the scientific community, falls short. Further, the way that it falls short is that it cannot get us beyond the Cosmological Push. I will then speculate that cosmological arguments, in and of themselves, cannot get us beyond this point before discussing where this leaves us as far as the role of this type of argument.

I.

Throughout this paper, I will frame the discussion in terms of what it would take in order for a cosmological argument to be *persuasive*. What I mean by this is something less restrictive than deductive soundness. Instead, a "persuasive" argument is one worthy of the attention of its philosophical opponent, in the case of the cosmological argument, the atheist naturalist. By "worthy of attention," I mean that the argument has enough merit to be considered a challenge to the opposing view when it is presented and, as such, the argument must be addressed in order to continue to plausibly maintain that view in an intellectually honest capacity. Note first and foremost that this is not always the intended deployment of a cosmological argument. For

² This is a gambling reference rather than anything to do with an actual clash or conflict. If a roulette wheel has a "push" slot, it means that everyone gets their bets back. There are no winners and no losers.

instance, Thomas Aquinas's Five Ways are precisely what their title suggests. They are *ways* we might argue the existence of a theistic deity independently of revelation.³ The *Summa Theologiae* was not written for an atheist naturalist audience, and Aquinas does not even employ the Ways as persuasive pieces to his Catholic readership. They are quite clearly intended as avenues that may be pursued, but Aquinas himself is not pursuing these avenues in the work. Hence, when I use Aquinas's Ways as examples of unpersuasive cosmological arguments, this does not imply criticism, but is instead analogous to explaining why *Twelve Years a Slave* fails as a comedy. It is simply not the intended project.⁴

Given this qualification, it seems to me that there are three significant necessary conditions for persuasiveness in a cosmological argument,⁵ and any argument that falls short of one or more of these three should not trouble an atheist naturalist's conscience. The requirements, as I see them, are 1) deductive validity, 2) relying only on a weak version of the Principle of Sufficient Reason and 3) having a conclusion incompatible with atheist naturalism. Since I take it that all cosmological arguments, traditionally conceived, are deductive,⁶ the first requirement is trivially true, and I will not defend it here. Recalling the clarification and

³ Thomas Aquinas, *Summa Theologiae*, Part I, Question 2, Article 3

⁴ I would surmise that Aquinas probably believed that they could be transformed into something persuasive, but since the effort is never attempted, I have no comment on how successful they would have been, other than to speculate that they would have ended in a position no better than the *Kalām*, for reasons discussed below.

⁵ Three, that is, besides obvious ones such as not having wildly improbable premises, not committing informal fallacies, etc.

⁶ I firmly hold that we must classify arguments of natural theology by their exemplars. Hence, the design and teleological arguments should be inductive, as well as fine-tuning arguments, etc. As such, I do not think there is anything problematic about classifying cosmological arguments as deductive. However, for completeness sake, I hold that what makes an argument cosmological in nature is that it is deductive, *a posteriori*, and uses the Principle of Sufficient Reason to argue that some very general, cosmological fact(s) about the world implies some first being. However, what is also indicative of cosmological arguments is that they take further argument, that is, it is beyond the scope of the cosmological argument itself, to conclude the God of Theism or something similar. I think this characterization has general, if not unanimous support in the literature, and I will continue to employ it is given and unproblematic.

discussion above, and with respect to his work, I will appeal to the first three of Aquinas's Five Ways as a heuristic device to draw out the other two requirements.

Aquinas' arguments From Motion and From Efficient Cause both require as a premise that an infinite regress is impossible in order to arrive at the conclusions that there is an unmoved mover and that there is an uncaused cause. Most deniers of an infinite regress, including Aquinas, will appeal to the fact that an infinite regress would violate a version of the Principle of Sufficient Reason (PSR), because we do not have a complete explanation as to why the *n*th member of a series occurred. Though I have my doubts about whether this represents such a violation, let us assume it to be true. The question becomes, why should we accept such a strong reading of PSR when there are other readings available? We can support PSR as the claim that everything has an explanation without supporting that everything has a *total* explanation. Call these Weak and Strong PSR respectively. Hume briefly discusses the relative merits of these versions in the *Dialogues*.⁷ Both concur that things do not just happen or appear uncaused, but their metaphysical commitments only really part ways when it comes to infinite regresses. Consider an infinitely long line of falling dominoes, where an infinite number have already fallen. This picture clearly does not violate Weak PSR, because there is an explanation for why each and every domino has fallen. For all *x*, we can explain *x*'s falling by its being struck by domino *x*-1. No domino fell uncaused, hence an explanation for every event. The problem only arises if we demand something more in our answer, if our explanation must also explain why any member of the series fell. But it is far from obvious that such a demand is reasonable, and it seems to rise or fall on the basis of people's deep metaphysical intuitions about

⁷ *Ibid.*, D 9.9 Of course, this discussion is much older than Hume, but his discussion is especially lucid, as it makes the point clear without any Scholastic baggage. (See, for instance, Francisco Suarez's distinguishing the relative efficient cause from the *adeaequate et secundum se totam* in *The Metaphysical Demonstration of the Existence of God: Metaphysical Disputations* 28-29, J. Doyle (editor and translator), Indiana University Press, South Bend, IN, 2004, pages 69-70.) As such, my example here follows Hume's in its structure.

explanation rather than any tight argument. Further, very few people have strong intuitions about such a metaphysical principle. (Personally, I have been working in analytic metaphysics for years, and when someone asks me whether an infinite regress is impossible, I answer honestly that I have no idea.) Hence, if a theist presents an argument to an atheist naturalist that requires this strong version of the Principle of Sufficient Reason as a premise, she has skipped a crucial step (and probably *the* crucial step). If the best conclusion a cosmological argument can arrive at is, if you think that an infinite regress is impossible, you should believe in an intelligent first being, well, as the saying goes, one person's *modus ponens* is another's *modus tollens*. For such arguments to succeed, Aquinas must be preaching to the metaphysical choir, which means that these two arguments fail at least one of the criteria of persuasiveness limned above.

But even if Aquinas could sufficiently establish only this result, it would still be marked progress. If the only concern with cosmological arguments is that we must figure out whether infinite regresses are possible, that would still advance the discussion significantly. But we have a much more serious problem than that in the three Ways. This is because they still fail the third criterion in that they have conclusions compatible with atheist naturalism. The atheist naturalist could (and generally does) easily say, "Of course there was an uncaused cause. It was the Big Bang," or "of course there was an unmoved mover, it was the Big Bang," or appealing to the conclusion of the Third Way, "Yes, I believe in a necessary being. It was the Big Bang Singularity." If Aquinas's arguments only bring us to a conclusion that is accepted by the theist and the atheist naturalist alike, this means that the arguments do not constitute evidence supporting one position over the other and hence, should not alter our beliefs in this debate.

II.

As Craig presents it, the Kalām Cosmological Argument avoids these worries and meets the necessary conditions for a persuasive cosmological argument. The argument may be constructed as follows:

- 1) Everything that begins to exist has a cause.
- 2) The universe began to exist.
- 3) Therefore, the universe has a cause.⁸

The argument is clearly valid, and premise (1) is just a statement of Weak PSR. Regresses do not enter into it. Lastly, the conclusion is logically incompatible with atheist naturalism, because to posit a cause of the universe is to posit something outside of and distinct from the universe, a move unacceptable to a naturalist ontology.

In older works, Craig thinks that everyone must grant premise (1), but one can rarely get away with such sweeping generalizations in philosophy, and intelligent descent against (1) has been raised. I set aside such details for now though, because even if we restrict the conclusion of the Kalām to the claim to the hypothetical: if everything that begins to exist has a cause, then the universe has a cause, the atheist naturalist view is sufficiently challenged so as to merit a reply (and below, I will argue that said reply brings us to the Cosmological Push). Hence, I will spend the bulk of my analysis of the Kalām as Craig does, on premise (2), though my discussion will ultimately lead back to (1).

It is not my intent to criticize or examine all the objections and replies here. Such projects have been accomplished admirably by others.⁹ Instead, I wish to emphasize that, of the

⁸ William Lane Craig, *The Kalām Cosmological Argument*, Wipf and Stock Publishers, Eugene Oregon, 1979, page 63. Though Craig has refined his support for the argument almost continuously since its original publication, the form of the argument itself remains unchanged.

four supports that Craig offers for (2), the only one generally thought to be potentially persuasive to an atheist naturalist is his appeal to Big Bang Cosmogony. So as to not leave it completely unaddressed, however, I will mention at least the standard reasons for this verdict. Briefly, Craig gives two “philosophical arguments” and two “empirical confirmations” for his premise (2). His two “philosophical arguments” simply fail. First, he asserts that a completed infinite is impossible based on intuition-based appeals to Hilbert’s Hotel-type scenarios, but this has three major problems- first, it would be strange for Craig to even support this assertion, because the being he posits as the cause of the universe would have an intellect that would count as a completed infinite.¹⁰ Second, many mathematicians disagree with Craig about what conclusions we should draw from his Hilbert’s Hotel examples- it is more standard to take it to show the impossibility of supertasks, that is, tasks involving an infinite number of steps, completed in a finite amount of time. Finally, Paul Draper rightly points out that Craig only shows an inconsistent triad between three propositions: that a set has more members than any of its proper subsets, that if two sets can be placed in a one-to-one correspondence, then neither set has more members than the other, and that there are infinite sets, but Craig chooses a non-standard candidate to reject.¹¹ His second argument that we cannot achieve an infinite by successive addition seems to beg the question by assuming that we begin the count at some finite number. Much more plausible are Craig’s “empirical confirmations,” the first of which appeals to the fact that, were the universe infinitely old, all energy would have equalized, according to the Laws of Thermodynamics. However, this confirmation holds no force in and of itself because, if there

⁹ For an excellent, more up-to-date back and forth, see *Theism, Atheism, and Big Bang Cosmology*, Clarendon, Oxford University Press, New York, NY, 1995, by William Lane Craig and Quentin Smith.

¹⁰ As would an eternal being that exists in time, although Craig “solves” this problem by positing a being that is atemporal “until” creation. This is a peculiar notion indeed, and is discussed in more detail below.

¹¹ The first worry of God as a completed infinite goes back to the medieval period, but for concise expositions of this last criticism and of the denial of a completed infinite by successive addition begging the question, see Paul Draper, “A Critique of the Kalam Cosmological Argument,” in *Philosophy of Religion: An Anthology*, edited by Louis P. Pojman and Michael Rea, Thomson Wadsworth publishing, Belmont, CA, 2008.

were some huge infusion of energy fourteen billion years ago, then this conclusion would not follow, and of course, there was. Hence, his appeal to the Laws of Thermodynamics is subsumed under his appeal to Big Bang Cosmogony. Given the probable failure (at least as persuasive pieces) of his two philosophical arguments against an infinite past and the fact that his appeal to the laws of thermodynamics is parasitic upon denying his appeal to Big Bang Cosmogony, I will focus on the latter as the real mete of his support for the Kalām.

First, it is important to acknowledge that the occurrence of the Big Bang approximately 13.8 billion years ago is a scientifically confirmed fact.¹² As such, a denier of the Kalām cannot adequately discharge his epistemic responsibility of considering the argument by denying that the event occurred. However, I believe that there a crucial slip here about which Craig’s conclusion seems incautious: This is the difference between scientific fact and *interpretation of* scientific fact, specifically, the Big Bang as the beginning of the universe and the Big Bang as the beginning of the universe *as we know it*. There are difficulties here that muck the waters.

First, we must clarify notions of time. For instance, Einsteinian General Relativity Theory tells us that both time and space are relative to the objects in them, which means first, that the Big Bang marked the beginning of *space*, not just the objects of space, and that space itself has been expanding ever since.¹³ And if that is not sufficiently complicated, this also means that there is an important sense in which the Big Bang represents the beginning of time itself, and to talk about “before the Big Bang” is to literally spout an incoherence. Hence,

¹² Sadly, we do not live in a world where this entails that it is accepted by everyone. Instead, I only wish to draw attention to the fact that resistance to its occurrence is entirely faith-based. There is no dissention within the scientific community, and the Big Bang’s occurrence is confirmed by overwhelming evidence. Note however, that I say there is no dissention about the event’s *occurrence*. There are disagreements about *how* the event unfurled, especially beyond the particle horizon, but Craig’s Kalām does not require consensus about the nuts and bolts, so to speak.

¹³ The best explanation of these difficult concepts and of an overview of Big Bang Cosmology of which I am aware is *Cosmic Jackpot* by Paul Davies. Though the philosophical argument in the second half of the text is relatively weak, the scientific exposition is crystal clear.

physicists often take it that Big Bang cosmology entails this application of the B Theory of Time. But this need not be the case. For instance, it is coherent to posit *both* A and B Theories of Time, where the Big Bang and the events causally posterior to it can be seen as occurring in B-Time, whereas it is still possible to take a (pardon the pun) god’s eye view of absolute or A-Time. For instance, the oscillation model of the universe, where there is a series of Big Bangs and Big Crunches, uses this hybrid model.¹⁴ We might also posit an singularity that has been located in A-Theory time for any amount of time before it Bangs, and then there are multiverse theories (such as Susskind’s) that posit a *much* larger universe, where our own Big Bang Expansion is but one of many, like one bubble expanding like a giant bubble bath, which then requires a notion of time beyond the B-Theory time of this universe.

However, any of these models quickly crosses from astrophysics into speculative cosmology, because of the particle horizons across which information cannot cross.¹⁵ Hence, science certainly confirms that the Big Bang was the start of the universe as we know it and the start of B-Theory Time, but is very limited (though not powerless) in considering any theory of “before the Big Bang.” However, Craig accepts (with some argument) that the Big Bang is the beginning of the universe, full stop, but this simply is not a consensus in the scientific community and marks a point of interpreting the data, rather than the data itself. The observable universe need not represent the entire universe.

Hence, the supporter of the Kalām faces a dilemma. If it is claimed that science confirms that the universe had an absolute beginning, this claim is simply false, leaving premise (2)

¹⁴ Significantly, there are theists and atheists willing to adopt A-theory time, so one’s temporal theory does not stand and fall with theism.

¹⁵ Generally, information can never travel faster than the speed of light. But even more difficult in this case, there was a time in the very early universe where temperatures were so hot that matter formed a soup so thick that light could not travel through it. It was only after an estimated 380,000 years that matter de-ionized to allow light to pass through it. As such, nothing about the period before this could possibly be confirmed using known physics.

unsupported and the argument unsound. However, the other option is to modify premise (2) into what *is* confirmed by the evidence. In doing so, we would have to change it into something like (2*) The universe *as we know it* began to exist. But once we have made this change, we must similarly modify the conclusion, to preserve validity. The conclusion to be drawn validly using (2*) as the minor premise would be (3*) The universe *as we know it* had a cause. But once we have performed this necessary modification, we have once more arrived at a conclusion compatible with atheist naturalism. “Of course the universe as we know it had a cause. I call it the Big Bang.” If we *interpret* the Big Bang as the beginning of the universe, then, with Craig, we support the Kalām if we also accept (1). If we only acknowledge that the Big Bang is the start of the universe as we know it, and are still open to the possibility of the observable universe not representing the entire universe, or if we are comfortable denying (1) and saying the occurrence of the Big Bang happened uncaused, then we need not accept his conclusion. As such, our position regarding the Kalām is determined by our intuitions, not any type of “empirical confirmation.” To say the Big Bang is or is not the beginning of the universe is to go beyond the empirical and offer a metaphysical interpretation of the cosmos. Hence, we may describe the Cosmological Push as follows:

The theistic supporter of the cosmological argument finds the notion of an eternal, infinite agent less strange than saying there was a brute singularity from which the Big Bang occurred uncaused. The atheist naturalist believes the reverse, that an uncaused Big Bang is less strange than an eternal, infinite agent.¹⁶ Now, let me clear on two points: First, just because a debate reduces to conflicting intuitions doesn’t guarantee that the sides must agree to disagree,

¹⁶ I want to emphasize that in discussions such as this, intellectual honesty demands that we couch language in terms of “less strange”, because any talk of eternity, infinity, uncaused causes, etc., is so far beyond our normal scope of experience and intellectual capacities so as to render talk about normalcy in such a context metaphysical hubris.

that there is no fact of the matter, or that it is always epistemically appropriate to withhold judgment. Rather, it means that to move past any of these claims would be to give reasons or argument as to why one is a better intuition to hold than the other, that is, some grounds for objective preference. But with the cosmological argument, this seems difficult, for reasons discussed below. Second, this is where intuitions lie after *only* considerations of the cosmological argument. For instance, it is certainly possible in principle to break the Cosmological Push by appealing to other evidence, such as the problem of evil, design arguments, religious experience, incoherence arguments, etc. My claim is only that the cosmological argument, by itself, cannot get us beyond this point.

III.

Why then, might we think that when it comes to cosmological arguments, there is no clear winner of the Push? First, consider the areas in which there seems to be a tie. The theistic supporter of the cosmological argument posits exactly one being whose existence does not demand explanation, God. The atheist naturalist posits exactly one being whose existence does not demand explanation, the Big Bang Singularity.¹⁷ And while the atheist naturalist certainly posits something peculiar in citing an exception to even the weak version of the Principle of Sufficient Reason, that there was an instance where something just appeared or just happened (depending on the interpretation of the Big Bang), the theist also does something strange in positing an eternal agent. An eternal agent must be either eternal in time or eternal outside of time. Eternal in time can certainly be a mind-bender. Imagine a being who could always

¹⁷ Technically, there may be a minor tie-breaker here if we appeal to parsimony. The theist posits God, the Big Bang Singularity, and everything that follows. The atheist naturalist only posits the Big Bang Singularity and everything that follows, hence providing a slightly leaner ontology. However, the theistic retort is generally that an agent is in some ways simpler or more satisfying than a random event. See, for instance, Richard Swinburne's *The Existence of God*, Oxford University Press, Oxford, U.K., 2004, page 35.

remember the day before, or a being that is a perfect intellect, but seemed to arbitrarily decide that the time to create was 13.8 billion years ago, after doing nothing we know of for, well, eternity. An eternal being outside of time can be even more of a mind-bender. Kai Nielsen, for instance, finds the notion of atemporal causation incoherent, as even the most minimalist notion of cause and effect requires the cause to temporally precede the effect. He also questions the coherence of positing an atemporal agent, as any type of agency or thought with which we have experience is essentially temporal.¹⁸ But notice that the atheist naturalist need not even go as far as Nielsen here. All that is required is that the notion of an eternal deity is a harder metaphysical bullet to bite than is an uncaused Big Bang. Similarly, the theist need not say that an eternal being is plausible or intuitive, only that it is more so than a violation of weak PSR.

Thus far, I have mainly argued that Craig's Kalām argument, properly supported, (and to a lesser extent, Aquinas's first three Ways) lead to the Cosmological Push. However, as mentioned above, I wish to make a stronger claim, specifically, that this is the best that *any* cosmological argument can hope to accomplish. As such, I now need to make the inductive step, which I will do by considering four points. The first and least substantive point is what we might call a Unicorn Argument. Just as I believe with inductive certainty that there are no unicorns based on the fact that I have never experienced one and have no reliable account that there is one, so too do I believe that there is no cosmological argument that gets beyond the Cosmological Push, because I have never experienced one and have no reliable account that there is one. A second, stronger point is to remember why I spent so much time addressing Craig's Kalām specifically, that it does not run into the typical weaknesses, and represents what I take to be the most plausible cosmological argument to date. A stronger reason still is in *how*

¹⁸ Kai Nielsen, *Naturalism without Foundations*, Prometheus Books, Amherst, NY, 1996, Chapter Three.

Craig's Kalām is properly supported, by appealing to Big Bang Cosmogony. Big Bang Cosmogony is too overwhelmingly supported by the evidence to be brushed aside, and it seems that any contemporary cosmological argument must, in some way, revert back to discussion of the Big Bang. The involvement of any first being must be at minimum, present there. For instance, to revise a Thomist cosmological argument that discusses an unmoved mover or an uncaused cause without somehow locating it in this event would be preposterous, returning the cosmological argument to abstruse, *a priori* metaphysical musings rather than grounding it in reality. But at best, this would lead us to a much less evenly matched opposition of intuitions, where the supporter is claiming that *a priori* metaphysical intuitions are so strong as to render all the findings of science moot. This leads to the fourth and final reason, which is what the cosmological argument does and what it does not do. It is not an ontological argument, and cannot and should not have us eschewing the world. But nor is it a design argument, where we infer a designer inductively based on inductive fit. As such, a *cosmological* argument cannot break a push by talking about how fine-tuned the Big Bang appeared, etc. Hence, for a cosmological argument to be classified as such, it can lead us to a first being, but no further. It requires additional support, in whatever form, to get beyond that barebones conclusion. The question is whether that being is an agent or an exploding singularity.

Having argued that the cosmological argument can lead us only so far, I now wish to emphasize why that is not a bad thing. First and foremost, it gives us important information; it fixes our intuitions in this regard. This is significant not only for consistency of thought, but much more importantly in the God Debate, it helps us establish our prior probabilities. For instance, if you find an uncaused Big Bang extremely more implausible than an eternal agent,

then this means that an atheist naturalist trying to sway you to her side would have much more work to do than if you were closer to fifty-fifty.

Second, it advances the conversation. Taking opposing sides on the Cosmological Push isolates precisely where the debaters must agree to disagree, and identifying it as a reasonable conflict in intuitions should help reduce tensions. If both sides posit something utterly peculiar, and it is intuition that tells us which is less peculiar, then it becomes very difficult to call one's opponent wildly irrational while touting one's own position as the paragon of sensibility. Hence, even though I believe that any well-constructed cosmological argument will lead us to the Cosmological Push through considerations of Big Bang Cosmogony, and can get us no farther, this is a success for the dialogue rather than a failure for the argument.