



PHILOSOPHY & RELIGION | RESEARCH ARTICLE

Toward a new *kalām* cosmological argument

Benjamin Victor Waters

Cogent Arts & Humanities (2015), 2: 1062461



Received: 09 May 2015
Accepted: 11 June 2015
Published: 09 July 2015

*Corresponding author: Benjamin Victor Waters, Department of Mathematics, Rice University, Houston, TX, USA
E-mail: watersb883@gmail.com

Reviewing editor:
Peter Stanley Fosl, Transylvania University, USA

Additional information is available at the end of the article

PHILOSOPHY & RELIGION | RESEARCH ARTICLE

Toward a new *kalām* cosmological argument

Benjamin Victor Waters^{1*}

Abstract: William Lane Craig has revived interest in the medieval *kalām* argument to the point where it is now one of the most discussed arguments for God's existence in the secondary literature. Still, the reception of Craig's argument among philosophers of religion has been mostly critical. In the interest of developing an argument that more philosophers of religion would be inclined to support, I will lay the philosophical groundwork for a new *kalām* cosmological argument that, in contrast with Craig's argument, does not adopt such controversial positions as the dynamic theory of time and the metaphysical impossibility of an actual infinite.

Subjects: Islamic Philosophy; Medieval & Renaissance Philosophy; Metaphysics; Philosophy of Islam; Philosophy of Religion; Post-Aristotelian Philosophy; Religion and Philosophy

Keywords: *kalām*; cosmological argument; God; classical theism; temporal finitism; philosophical theology

1. Introduction

Ever since the publication of *The Kalām Cosmological Argument*, Craig (1979) has notably revived interest in the medieval *kalām* argument to the point where it is now, by at least one count, the most discussed argument for God's existence in the secondary literature. In remarking on this phenomenon, Smith (2007, p. 183) observes that "theists and atheists alike 'cannot leave Craig's Kalam argument alone.'" However, as Oderberg (2002, p. 303) notes, the responses to this revival from other philosophers of religion have been mostly "critical, if not hostile." For many philosophers of religion, it would seem that Craig has managed to capture their interest in his argument, but not along with their support.

I suspect that more philosophers of religion would be inclined to support at least the purely philosophical aspect of Craig's argument if it did not also involve such controversial positions as the dynamic theory of time and the metaphysical impossibility of an actual infinite.¹ Craig has, to be sure, argued for both positions in his published work²; however, the relevant issues are thorny and his arguments



Benjamin Victor Waters

ABOUT THE AUTHOR

Benjamin Victor Waters is a multidisciplinary researcher out of Rice University with broad interests in the fields of philosophy, religion, and mathematics. He currently resides with his family in Owasso, Oklahoma.

PUBLIC INTEREST STATEMENT

The medieval *kalām* argument is but one in a family of cosmological arguments that reasons from some aspect of the world to the existence of a fundamentally different sort of being in God, whose exercise of causal power accounts for the relevant phenomenon in need of explanation. The medieval Muslim theologian and jurist al-Ghazālī is frequently credited with the development of this argument, which is so-called due to its historical association with the *kalām* tradition of Islamic/Arabic philosophical theology. The argument is further distinguished among other cosmological arguments by its temporal emphasis in aiming to show that the universe had a temporal beginning.

are unlikely to settle the matter in either case. Hence, in the interest of developing a more attractive argument, I will lay the philosophical groundwork for a new *kalām* cosmological argument that does not involve a commitment to either position.³

2. God as the timeless cause of the universe

Following the medieval Muslim theologian al-Ghazālī (1962, pp. 15–16), the foundation of any *kalām* cosmological argument is the simple and valid syllogism given below:

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

The universe in (2) is broadly conceived as the entirety of the temporal world, so that if the cause in (3) was temporal, then it would be part of the universe and its own cause. However, following Aquinas, to say that something functions as a cause presupposes that it exists. Hence, to say that something is its own cause is to give a causal account that presupposes the existence of the same entity whose existence is supposedly being accounted for in the first place, but such an account is circular (hence, also incoherent).⁴ In short, the cause in (3) must be timeless.⁵ God is then defined as the cause of the universe, so that the above syllogism is an argument for the existence of God as the timeless cause of the universe.⁶

At this point, it may be objected that the above syllogism, even if sound, would still not be a successful piece of natural theology since it only argues for the existence of God as defined above and not the God of religious tradition. Indeed, this objection is common enough that Pruss (2009, pp. 24–26) identifies it as one of the four different problems confronting every cosmological argument and refers to it as the “Gap Problem.”⁷ In response to this objection, I have two things to say. First of all, the purpose of the above syllogism is not to reach such a conclusion *directly*, but to show that there exists an entity *like* the God of religious tradition in some important respects. Moreover, and secondly, further arguments can be given to show that the cause in (3) has some of the other qualities traditionally ascribed to God in an effort to close the aforementioned gap.

Toward that end, I suggest that the most promising approach to accomplishing this is by supplementing the above syllogism with the Thomistic arguments for God’s existence,⁸ which are better suited to argue for God as the cause that both orders the universe and conserves it in existence (Feser, 2011, 2013). Hence, the Thomistic arguments conclude to the same cause as that of the above syllogism, provided the latter argument is sound, since any cause that conserves the universe in existence must also be the same cause that brought it into existence, provided the latter cause exists. It follows that the Thomistic arguments can be used in tandem with the above syllogism to argue for the existence of God as the creator, sustainer, and governor of the universe—the result of bringing together a range of temporal, existential, and teleological insights within a common Aristotelian causal framework.⁹ Although it is ultimately a matter of opinion, such a result, I think, would effectively close the aforementioned gap.

3. The universe began to exist

In support of (2), I first consider the case of an individual named Methuselah, who is stipulated to have been alive for every finitely distant past day. Moreover, throughout his long life, Methuselah has maintained a purely fictional diary in which he records imaginary events that never took place, and where each entry in his diary concerns the imaginary events of some day. With the ability to accurately remember everything he did on the previous day (provided there was one), Methuselah works on entries for his diary at a constant rate of half an entry per day in the following manner: for any finitely distant past day that is not also a first day, if Methuselah remembers working on the first (second) half of an entry for some earlier finitely distant past day on the previous day, then he will

work on the second (first) half of an entry for the same (following) day, otherwise he will work on the first half of an entry for the current day. On the other hand, for a finitely distant past day that is also a first day, Methuselah works on the first half of an entry for that day.

Now, the above scenario is constructed in such a way that the distance between any finitely distant past day *on* which Methuselah is writing and the finitely distant past day *about* which he is writing is always increasing at a rate of one day for every two days of work. But then it also follows that the same distance is similarly decreasing in the direction of the past, so that the above scenario requires the existence of a first day on which Methuselah began working on entries for his diary. Hence, the above scenario is coherent only if the series of finitely distant past days is finite. But now notice that Methuselah's powers of memory and dispositions concerning his diary, although somewhat idealized in the former case and contrived in the latter case, are very much like the sorts of powers and dispositions we could have had (and coherently exercised) if we had Methuselah's life span, which suggests that the aforementioned powers and dispositions ascribed to him form a coherent scenario. And so it seems that there must have been a first day finitely distant in the past, which suffices to establish the finitude of the past.¹⁰

Still, I think the above argument can be used to show that more is true since nothing in it critically depends on the particular series of finitely distant past *days*. Indeed, the above scenario can be recast more generally in terms of a countable series of consecutive finite temporal intervals $\{I_n\}$ that recede into the past (i.e. I_2 is earlier than I_1 , I_3 is earlier than I_2 , etc.) and the same type of argument can then be used to show that the series in question is finite. Hence, what the above argument shows is not just that the series of finitely distant past days is finite, but that any countable series of consecutive finite temporal intervals that recede into the past is finite. It then follows as a corollary that the past history of every temporal entity must have a first moment since otherwise there would be a countably infinite series of consecutive finite temporal intervals that recede into the past.¹¹ Needless to say, the existence of such a first moment for every temporal entity provides us with a natural starting point for identifying when temporal entities begin to exist. Hence, the above argument can also be used to arrive at a straightforward understanding of what it means for a temporal entity to begin to exist at a particular moment (i.e. a temporal entity begins to exist at a particular moment if and only if it exists at that moment and there is no earlier moment at which it exists).¹² In sum, the above argument can be used to show not only that the universe began to exist, but also that this is an instance of a more general result that applies to all temporal entities.¹³

The cumulative argument for (2) developed here has a number of attractive qualities. First of all, so far as I can tell, it does not presuppose any particular theory of time; it does not require, for example, that a series of past times be (dynamically) formed in successive fashion. Secondly, nor does it preclude the metaphysical possibility of there being an actual infinite of some kind, though not a countably infinite series of consecutive finite temporal intervals that recede into the past. Lastly, it provides a straightforward understanding of what it means for some temporal entity to begin to exist at a particular moment that cannot apply to God as defined above, who—being the timeless cause of the universe—is not a temporal entity. On the other hand, the purely philosophical arguments that Craig provides for (2) either presuppose a dynamic theory of time or preclude the metaphysical possibility of there being an actual infinite.¹⁴ Moreover, in addition to being somewhat less than straightforward, Craig's understanding of what it means for something to begin to exist at a given moment both presupposes a dynamic theory of time and arguably applies to his conception of God (Bobier, 2013), raising the possibility that the causal principle in (1) might also apply to God along with the universe.¹⁵

Finally, it might be wondered whether the argument for (2) developed here can be supplemented with evidence from modern physical cosmology as in Craig's argument.¹⁶ Unfortunately, I think this suggestion is problematic on a number of fronts. First of all, modern physical cosmology can at most show that the physical universe had a beginning, but not necessarily that the universe as a whole had a beginning. The problem here, as Morrision (2003, pp. 288–289) observes, is that the beginning of the physical universe is not necessarily the beginning of time itself. Indeed, to borrow an example

from Craig (1992, p. 238), the beginning of the physical universe might have followed a series of temporal events in the mind of its non-physical creator, such as “1, 2, 3 ... *fiat lux!*” If this problem is avoided by redefining the term *universe* to mean the entirety of the *physical* world, then another one presents itself since the cause in (3) might still be *temporal* (though non-physical), and such a cause would have a beginning of its own by the same argument for (2) developed here—hence also a cause of its own by (1)! In short, this approach would require some other argument to the effect that the cause in (3) must be timeless for the whole (*kalām*) argument to be a successful piece of natural theology. To further complicate matters, although it is widely recognized that the past history of the known physical universe is finite according to modern physical cosmology, it remains controversial as to whether a similar statement can be made on behalf of the physical universe as a whole (Morrison, 2013, pp. 20–21; Reasonable Faith, n.d.). And so, for the reasons given above, I do not think that modern physical cosmology is a particularly promising source of evidence within the context of a *kalām* cosmological argument for God’s existence.

4. Everything that begins to exist has a cause

In support of (1), I first note that, intuitively, it does seem that whatever begins to exist has a cause. We do not worry, for example, that a ferocious beast will suddenly begin to exist without a cause somewhere in our vicinity and start feasting on our bones; nor do we worry that a deadly virus will suddenly begin to exist without a cause somewhere in our bodies and start copying itself inside of them; nor even do we worry that a massive black hole will suddenly begin to exist without a cause somewhere in our celestial vicinity and swallow our planet whole. However, if this intuition were any less general in its application from the very small to the very large, then it becomes difficult to explain why we do not worry about at least one of the above three scenarios. Furthermore, even if some temporal entity could begin to exist without a cause, then it becomes difficult to explain why any particular temporal entity does not begin to exist without a cause at any given moment. Ergo, it seems that there are good reasons for accepting (1).¹⁷

However, despite the intuitive appeal enjoyed by (1), it has attracted a fair amount of criticism in the modern period. And perhaps none has been more influential than that of David Hume, who asserted, in effect, that there is no *contradiction* in supposing that something might begin to exist without a cause since we can *imagine* events of this type. It follows from this, according to Hume (1888, pp. 79–80), that it is “impossible to demonstrate the [logical] necessity of a cause.” But this is not to say that (1) is false, only that it cannot be a logically necessary truth—like, for example, the statement, “No bachelors are married.” Indeed, it is not as if our ability to imagine some type of event is enough reason to think that such an event could actually happen. I can easily imagine, for example, that a ferocious beast will suddenly begin to exist without a cause somewhere in my vicinity, but that is no reason to think that such an event could actually happen; at most, it only shows that such an event is logically possible (or coherent). Hence, the considerations that inform Hume’s argument only suggest that (1) cannot be true in a certain sense (i.e. it cannot be a logically necessary truth), not that it cannot be true in any sense. All this is to say, I submit that there is no real objection to be found against (1) here.¹⁸

Nevertheless, there are other modern criticisms of (1) that do amount to such an objection, and these are typically more scientific in nature.¹⁹ For example, one such objection amounts to the claim that (1) presupposes something like an Aristotelian theory of causation that cannot be right since causes of this sort are not to be found in modern physics, which represents the actual world exclusively in terms of abstract structures expressed in the language of modern mathematics (like, for example, differential equations). This line of criticism has also been quite influential in recent times and goes at least as far back as Russell (1912–1913) in one of his earlier papers.²⁰ The problem with this line of criticism, though, is that it presupposes the dubious claim that modern physics can provide a sufficiently complete description of reality, so that the absence of Aristotelian causation from this description suggests that causes of this sort do not exist in reality. Moreover, as Edward Feser (2014, pp. 12–18) observes, modern physics by its own method of investigation can only uncover that part of the actual world susceptible to quantification, prediction, and control. Hence, modern physics is ideally suited to uncover precisely the logical structure of reality, but not necessarily the *intrinsic character* of that which

has the structure in the first place.²¹ And it is the latter that most plausibly accounts for the fact that physical entities behave in accordance with the abstract regularities that they do (as revealed by modern physics), instead of some other regularities or none at all (Feser, 2014, pp. 69–72; Oderberg, 2007b, pp. 143–151). But if that’s correct, then modern physics cannot provide the kind of sufficiently complete description of reality needed for this objection to be successful.

Finally, another such criticism against (1) is that modern physics has simply shown it to be false. According to quantum mechanics, particles can spontaneously arise out of the quantum vacuum and possibly in a manner that is not deterministic. Indeed, it has even been suggested that the universe as we know it might have arisen in this way (Krauss, 2012). But if some temporal entity can spontaneously arise out of nothing, then it will lack a cause in the relevant sense. However, according to philosopher of science Kanitscheider (1990), the quantum vacuum is a “substratum with a rich physical structure” and, therefore, not *nothing*.²² Hence, particles that spontaneously arise out of the quantum vacuum have a cause for their existence in the quantum vacuum itself. Moreover, the aforementioned causal relationship need not be a deterministic one for (1) to be true (Pruss, 2006, pp. 168–170). In sum, this objection against (1) fails as well.

5. Conclusion

In this space, I have attempted to lay the philosophical groundwork for a new *kalām* cosmological argument that, in contrast with Craig’s argument, does not adopt such controversial positions as the dynamic theory of time and the metaphysical impossibility of an actual infinite. At the same time, I have not attempted to provide a systematic treatment of all the difficult problems raised by this type of cosmological argument, but have been content to provide the main lines of argument that I find most promising along with responses to what I take to be the principal objections to any *kalām* cosmological argument. More fully developed solutions to such difficult problems as God’s relationship to time and the Gap Problem have, at best, only been hinted at here.

In closing, I would like to offer a couple of opinions concerning future work on the medieval *kalām* argument. First of all, I think the kind of argument given for (2) here provides the most promising solution to the temporal version of the Regress Problem. The fact that we live in a world in which individuals can have real knowledge of the past while also being able to act independently of that knowledge in the present seems to have important consequences for the structure of time. Needless to say, more work needs to be done here. Secondly, I am very doubtful as to the ability of modern physics to directly verify or falsify either (1) or (2). As previously argued here, attempts to bring modern physics to bear on these matters have been largely unsuccessful, if not utterly so. In retrospect, this should not come as a surprise since cosmological arguments for God’s existence typically depend on considerations that are ultimately metaphysical in nature and, therefore, outside the purview of modern physics.

Funding

The author received no direct funding for this research.

Author details

Benjamin Victor Waters¹

E-mail: watersb883@gmail.com

ORCID ID: <http://orcid.org/0000-0001-9982-2626>

¹ Department of Mathematics, Rice University, Houston, TX, USA.

Citation information

Cite this article as: Toward a new *kalām* cosmological argument, Benjamin Victor Waters, *Cogent Arts & Humanities* (2015), 2: 1062461.

Cover image

Source: William Blake, *Ancient of Days*, frontispiece of *Europe: A Prophecy*, 1794. Lessing J. Rosenwald Collection, Library of Congress. Copyright © 2015 William Blake Archive. Used with permission.

Notes

1. The dynamic theory of time and the metaphysical impossibility of an actual infinite respectively conflict with for example, the static theory of time and Platonism, both of which are significantly held positions within contemporary analytic philosophy (Bourget & Chalmers, 2014, pp. 11–13).
2. For Craig’s assessment of the dynamic and static theories of time, see Craig (2000a, 2000b).
3. Oderberg (2002) arguably develops a *kalām* cosmological argument of his own that employs a substantival theory of time in tandem with a principle of sufficient reason and does not require a commitment to either the dynamic theory of time or the metaphysical impossibility of an actual infinite. But, of course, this is to exchange one pair of controversial positions for another. Moreover, it is doubtful whether the former pair can even be coherently held in tandem in the first place for reasons known to Leibniz (Morrison, 2003, pp. 304–305, n. 17). In any case, I aim to lay the philosophical groundwork

- for a new argument that does not require a commitment to either of the latter pair without also taking on board a new set of controversial positions.
4. cf. Oderberg (2007a, p. 343) and Craig (2008, p. 152), who give similar arguments to the effect that causes must be separate from the entities they bring into existence.
 5. For recent defenses of divine timelessness, see Helm (2011) and McGrew (2014).
 6. Note that this conception of God is compatible with his having temporal parts that come into existence along with the rest of the temporal world, for God's having parts that are temporal does not make him a temporal entity any more than a tree's having parts that are leaves makes it a leaf.
 7. Pruss says that he got the term Gap Problem from Richard Gale. The other three problems confronting every cosmological argument are referred to by the terms Glendower Problem, Regress Problem, and Taxicab Problem.
 8. For a vigorous defense of these arguments and the conceptual apparatus on which they depend, see Feser (2009, pp. 62–130, 2014). See also Oderberg (2007b).
 9. The Thomistic arguments are typically understood to argue for a God who is simple (i.e. non-composite) contra the possibility raised in Note 6; however, I suspect these arguments can be understood to argue for God in terms of his most fundamental *part*, which is simple, timeless, etc. So far as I know, this possibility has been overlooked, most likely due to the considerable influence that the Neoplatonist doctrine of the One has had on this tradition of argument. Indeed, one can appreciate the weight of this influence, I think, by simply observing its impact on Aquinas himself, who confidently argued for a God who is simple, even as he affirmed a doctrine like the Trinity.
 10. For an earlier version of this argument and its relationship to the literature that has accumulated around Craig's Tristram Shandy argument, see Waters (2013).
 11. Suppose there has been a temporal entity that lacks a first moment of its existence and consider some moment at which it exists. Now, since the temporal entity in question lacks a first moment of its existence, there will always be an earlier moment finitely distant in the past at which it exists, and an earlier one still (also finitely distant in the past) for the same reason, ad infinitum. But then this series of moments can be thought of as boundary points for a countably infinite series of consecutive finite temporal intervals that recede into the past.
 12. Note that this understanding of *begins to exist* does not allow for the possibility that a temporal entity can begin to exist multiple times, which is something that Craig and Sinclair (2009, p. 184) allow for in their attempt at defining this concept. In my opinion, allowing for such a possibility is a mistake on the basis that a temporal entity cannot properly be said to *begin* to exist at a particular moment in the case where there is an *earlier* moment at which it exists. However, such a mistake follows from Craig and Sinclair's assimilation of the concept *begins to exist* to the more general concept *comes into existence*, as the latter concept also applies to any possible instances where a temporal entity re-enters existence at a particular moment after a period of nonexistence. cf. Oderberg (2003, pp. 147–148), who makes a similar point.
 13. cf. Plato's claim in *Timaeus* 28 that all sensible entities have a beginning.
 14. See, for example, Craig (2008, pp. 116–124).
 15. Note that this possibility is equivalent to the charge that Craig's argument runs afoul of Pruss's Taxicab Problem (see Note 7).
 16. In particular, see Craig and Sinclair (2009, pp. 125–182).
 17. cf. Craig (2008, pp. 111–116), who gives similar reasons for accepting (1).
 18. Perhaps, then, it should come as no surprise that Hume, in fact, accepted (1), writing in a letter to John Stewart in 1754, "But allow me to tell you, that I never asserted so absurd a Proposition as *that any thing might arise without a Cause*" (Greig, 1932, p. 187).
 19. For a vigorous critique of scientism, see Feser (2014, pp. 9–24).
 20. For a more recent example, see the opening speech of leading cosmologist Sean Carroll in his debate with Craig at the 2014 Greer-Heard Point-Counterpoint Forum (Reasonable Faith, n.d.).
 21. Indeed, as Feser also points out, Russell himself would later come to appreciate this very point, writing as follows:
It is not always realised how exceedingly abstract is the information that theoretical physics has to give. It lays down certain fundamental equations which enable it to deal with the logical structure of events, while leaving it completely unknown what is the intrinsic character of the events that have the structure. We only know the intrinsic character of events when they happen to us. Nothing whatever in theoretical physics enables us to say anything about the intrinsic character of events elsewhere. They may be just like the events that happen to us, or they may be totally different in strictly unimaginable ways. All that physics gives us is certain equations giving abstract properties of their changes. But as to what it is that changes, and what it changes from and to—as to this, physics is silent. (Russell, 1985, p. 13).
 22. A similar point is also made by Albert (2012), who observes that quantum vacuum states are still composed of "physical stuff" in the form of "relativistic quantum fields."

References

- al-Ghazālī, A. H. (1962). *al-Iqtisād fī l-i'tiqād* [The median in belief]. Ankara: Nur Matbaasi.
- Albert, D. (2012, March 23). On the origin of everything. [Review of the book *A universe from nothing: Why there is something rather than nothing*, by L. M. Krauss]. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/03/25/books/review/a-universe-from-nothing-by-lawrence-m-krauss.html>
- Bobier, C. A. (2013). God, time, and the kalām cosmological argument. *Sophia*, 52, 593–600. doi:10.1007/s11841-013-0362-4
- Bourget, D., & Chalmers, D. J. (2014). What do philosophers believe? *Philosophical Studies*, 170, 465–500. doi:10.1007/s11098-013-0259-7
- Craig, W. L. (1979). *The kalām cosmological argument*. London: Macmillan.
- Craig, W. L. (1992). The origin and creation of the universe: A reply to Adolf Grünbaum. *The British Journal for the Philosophy of Science*, 43, 233–240. doi:10.1093/bjps/43.2.233
- Craig, W. L. (2000a). *The tensed theory of time*. Dordrecht: Kluwer Academic. <http://dx.doi.org/10.1007/978-94-015-9345-8>
- Craig, W. L. (2000b). *The tenseless theory of time*. Dordrecht: Kluwer Academic. <http://dx.doi.org/10.1007/978-94-017-3473-8>
- Craig, W. L. (2008). *Reasonable faith: Christian truth and apologetics* (3rd ed.). Wheaton, IL: Crossway Books.
- Craig, W. L., & Sinclair, J. D. (2009). The kalām cosmological argument. In W. L. Craig & J. P. Moreland (Eds.), *The Blackwell companion to natural theology* (pp. 101–201). Chichester: Blackwell. <http://dx.doi.org/10.1002/9781444308334.ch3>

- Feser, E. (2009). *Aquinas*. Oxford: Oneworld.
- Feser, E. (2011). Existential inertia and the five ways. *American Catholic Philosophical Quarterly*, 85, 237–267. doi:10.5840/acpq201185214
- Feser, E. (2013). Between Aristotle and William Paley: Aquinas's fifth way. *Nova et Vetera*, 11, 707–749.
- Feser, E. (2014). *Scholastic metaphysics: A contemporary introduction*. Heusenstamm: Editiones Scholasticae.
- Greig, J. Y. T. (Ed.). (1932). *The letters of David Hume* (Vol. 1). Oxford: Clarendon.
- Helm, P. (2011). *Eternal God: A study of God without time* (2nd ed.). Oxford: Oxford University Press.
- Hume, D. (1888). *A treatise of human nature*. Oxford: Clarendon.
- Kanitscheider, B. (1990). Does physical cosmology transcend the limits of naturalistic reasoning? In P. Weingartner & G. J. W. Dorn (Eds.), *Studies on Mario Bunge's treatise* (pp. 346–374). Amsterdam: Rodopi.
- Krauss, L. M. (2012). *A universe from nothing: Why there is something rather than nothing*. New York, NY: Free Press.
- McGrew, L. (2014). Before the mountains were brought forth: A defense of divine timelessness. *The Christendom Review*, 6, essay 2. Retrieved from http://www.christendomreview.com/Volume006Issue001/essay_002.html
- Morrison, W. (2003). Must metaphysical time have a beginning? *Faith and Philosophy*, 20, 288–306. doi:10.5840/faithphil200320338
- Morrison, W. (2013). Doubts about the kalam argument. In J. P. Moreland, C. Meister, & K. A. Sweis (Eds.), *Debating Christian theism* (pp. 20–32). New York, NY: Oxford University Press.
- Oderberg, D. S. (2002). Traversal of the infinite, the 'big bang' and the kalām cosmological argument. *Philosophia Christi*, 4, 303–334.
- Oderberg, D. S. (2003). The beginning of existence. *International Philosophical Quarterly*, 43, 145–157. doi:10.5840/ipq20034325
- Oderberg, D. S. (2007a). The cosmological argument. In C. Meister & P. Copan (Eds.), *The Routledge companion to philosophy of religion* (pp. 341–350). London: Routledge.
- Oderberg, D. S. (2007b). *Real essentialism*. London: Routledge. <http://dx.doi.org/10.4324/9780203356753>
- Pruss, A. R. (2006). *The principle of sufficient reason*. New York, NY: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511498992>
- Pruss, A. R. (2009). The Leibnizian cosmological argument. In W. L. Craig & J. P. Moreland (Eds.), *The Blackwell companion to natural theology* (pp. 24–100). West Sussex: Blackwell. <http://dx.doi.org/10.1002/9781444308334.ch2>
- Reasonable Faith. (n.d.). *God and cosmology: The existence of God in light of contemporary cosmology* [Debate transcript]. Retrieved from <http://www.reasonablefaith.org/god-and-cosmology-the-existence-of-god-in-light-of-contemporary-cosmology>
- Russell, B. (1912–1913). On the notion of cause. *Proceedings of the Aristotelian Society*, 13, 1–26. Retrieved from <http://www.jstor.org/stable/4543833>
- Russell, B. (1985). *My philosophical development*. London: Unwin Paperbacks.
- Smith, Q. (2007). *Kalam* cosmological arguments for atheism. In M. Martin (Ed.), *The Cambridge companion to atheism* (pp. 182–198). New York, NY: Cambridge University Press.
- Waters, B. (2013). Methuselah's Diary and the finitude of the past. *Philosophia Christi*, 15, 463–469. Retrieved from <http://philpapers.org/archive/WATMDA-2.pdf>



© 2015 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:

Share — copy and redistribute the material in any medium or format
Adapt — remix, transform, and build upon the material for any purpose, even commercially.
The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.
You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
No additional restrictions

You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.



Cogent Arts & Humanities (ISSN: 2331-1983) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com

