LIBERTY UNIVERSITY

JOHN W. RAWLINGS SCHOOL OF DIVINITY

Modern Critiques of the Kalam Cosmological Argument

A Thesis Submitted to

the Faculty of the Liberty University School of Divinity

in Candidacy for the Degree of

Master of Arts in Christian Apologetics

by

Colby Drew Crawford

Lynchburg, Virginia

April, 2024

To Lacey Lynn, Clara Beth, Allie Jean, and Mi'Kaya Rose for their sacrifice of my time that otherwise would have been spent with them and to Dr. C. Fred Smith without whose encouragement and patience I could not have endured

“Where were you when I laid the foundations of the earth? Tell me, if you know so much. Who determined its dimensions and stretched out the surveying line? What supports its foundations, and who laid its cornerstone as the morning stars sang together and all the angels shouted for joy?”

—Job 38:4-7 (NLT)

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Introduction

> The point of the argument is to demonstrate the existence of a first cause which transcends and creates the entire realm of finite reality. Having reached that conclusion, one may then inquire into the nature of this first cause and assess its significance for theism.
>
> —William Lane Craig, *The Kalam Cosmological Argument*

Statement of the Problem

The Kalam Cosmological Argument (KCA), like all other arguments for the existence of God, is constantly under a microscope.[1] Individuals are continuously struggling to undermine its validity, and until recently they have generally failed in demonstrating that the KCA is irrelevant. Since William Lane Craig revitalized the Kalam in 1979, scientists and philosophers have offered objections against it from all perspectives. However, due to the KCA's modesty and simplicity it has stood the test of time against its critics. That is, it has until now.

In 2017, Craig along with Paul Copan compiled several objections, in a two-volume anthology, against the KCA and responded to them.[2] The problem is that several new expostulations have been raised since their two volumes were published. Moreover, these innovative objections have yet obtained appropriate attention and may contain more legitimacy than the protests of the past. The primary problem, in a laconic synopsis, is the possible legitimacy of these objections. The Kalam has been employed as part of the case against atheism for ages, and it deserves a fair defense when it is up against meaningful accusations.[3]

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[1] Quentin Smith, "Kalam Cosmological Arguments for Atheism," In *The Cambridge Companion to Atheism*, edited by Michael Martin (Cambridge: Cambridge University Press, 2006), 183, accessed August 3, 2023, https://www.cambridge.org/core/books/cambridge-companion-to-atheism/kalam-cosmological-arguments-for-atheism/34B093660E84511E91F2ECBA31D4FD48.

[2] In 2017, Copan and Craig coedited a two-volume anthology: *The Kalām Cosmological Argument: Philosophical Arguments for the Finitude of the Past* and *The Kalām Cosmological Argument: Scientific Evidence for the Beginning of the Universe,* London: Bloomsbury Academic. In the two volumes, they compiled a number of articles and essays that argued against their position to which they responded.

Statement of the Purpose

The key intention of this work is to analyze the most current objections to the KCA, which are substantial and scholarly, to determine their validity or lack thereof. Most substantial critiques of the KCA, prior to 2018, have been addressed in Copan and Craig or elsewhere in the scholarly literature. Thus, it only makes sense to tackle these most current concerns of the KCA which have not yet been dealt with by the key advocates of the KCA. Still, it may turn out to be the case that the KCA needs to be reworked or abandoned all together. Nevertheless, out of respect for such a simplistic argument for God's existence, the KCA is more than deserving of a fair review. Not only is it the purpose of this work to analyze new objections to the KCA and determine their validity, but also to defend the argument where it can be defended, make corrections where any corrections may need to be made, and abolish what needs to be abolished.

Statement of the Importance of the Problem

According to Quentin Smith, philosophers are enamored by the Kalam Cosmological Argument and what it has to offer for the existence of God.[4] Because of that fact, he claims that no other argument for God's existence remotely compares to the KCA within the scholarly literature.[5] The KCA is not only ubiquitous amongst the ivory towers, it is also a predominate argument employed by countless popular-level Christian apologists and evangelists for

[3] Frank Griffel, *Al-Ghazali Philosophical Theology* (New York: Oxford University Press, 2009), ch. 9, accessed September 30, 2023, https://academic.oup.com/book/27461/chapter/197353380. Griffel explains that Al-Ghazali developed a variation of the KCA in the late eleventh or early twelfth century. Romero and Perez have a concurring belief but add that Aquinas and Duns Scotus used a variation of the KCA in the thirteenth century, while Leibniz employed another variation in the eighteenth century. Gustavo E. Romero, and Daniela Pérez. "New Remarks on the Cosmological Argument." *International Journal for Philosophy of Religion* 72, no. 2 (2012): 103–13. http://www.jstor.org/stable/23324792.

[4] Quentin Smith, "Kalam Cosmological Arguments for Atheism," *The Cambridge Companion to Atheism*, ed. by Michael Martin, (Cambridge: Cambridge University Press, 2006), 182.

[5] Smith, "Kalam Cosmological Arguments for Atheism," 183.

demonstrating the plausibility of God's existence. Because the KCA is so heavily debated and concentrated upon amongst both scholars and laypersons, its level of importance is heightened every time an objection is raised against it. In other words, the importance of addressing objections to the KCA is in direct relation to its prevalence.

Statement of Position on the Problem

In view of the following objections to the Kalam Cosmological Argument, it will be shown here that most of the arguments considered in this research are misguided by wrong or implausible presuppositions. One objection consists of a scientific theory that cannot be verified by experimentation, while another complaint raises the need to reword part of the KCA's verbiage. With minor language adjustments, the KCA will continue to stand valiantly victorious at the end of this research, at least in regards to these current objections.

Limitations / Delimitations

Although this research is subject to several limitations, the primary constraint revolves around the availability of information. The nature of this research project is to find current objections to the premises of the KCA and determine their validity. The problem is the nature of scholarly debate. It takes time for articles to become peer-reviewed and published; therefore, there are few responses to the current objections in the scholarly literature, as of yet. Will future scientific endeavors shore up the theories of some of these objections, or will they be found in error? Only time will tell. My attention will be focused on only particular aspects of each objection and not on the wholeness of each article. Such that, in the course of a scholar's work, they mention something that is threatening or helpful to one of Craig's arguments, only that aspect of their work will be deliberated upon. Therefore, the lack of scientific inquiry or peer-reviewed counter arguments should pose little threat to the analysis of this research.

Research Methods

The method of research for this project consists of concentrating on library sources that pertain to each aspect of the Kalam Cosmological Argument. The chief concept is to compile a list of the current (post 2018) scholarly sources that relate to or argue against each premise of the KCA. After sources for each premise have been noted and reviewed, it became compulsory to search for sources that countered each argument or either had something contradictory to say about the premise under question. The purpose of this is to accumulate a list of sources that will be relevant and useful to the research question so that a careful analysis will ensue.

Data Collection

The collection of data for this thesis involves information gathering from the vast online databases at Liberty University's Jerry Falwell Library, as well as purchasing a few books that are unavailable online. For the best results in gathering sources, I focused on information that pertains to the arguments Dr. Craig uses for making his case for the KCA. If a source makes a claim that opposes Craig's arguments, it will be logged and used for analysis. The same goes for sources that shore up Craig's arguments. Depending on the outcomes of the analysis, the use of sources for alternative arguments for and against the KCA will be compiled, compared, and contrasted for deeper analysis and more accurate results.

Data Analysis

After the data is accumulated, it goes through a process of filtering. Not everything in every article is needed, so each piece of evidence needs to be honed down to its specifics. After the specifics are refined to their true meaning, they are then compared to the original arguments and weighed against the laws of logic and nature to determine their validity. Once an argument is found to be valid, it then goes through the plausibility test. Understanding that a theory or idea is

possible is not enough to live one's life by it. It is possible for someone to win the lottery and be able to retire; however, playing the lottery is not a very plausible means of retirement investment. Likewise, the theories posited by objectors of the KCA need to contain credibility, clarity, and coherence. Therefore, during the analysis process each objection and counter argument must answer a series of questions to determine which argument is most plausible given what is known about the world we live in.

Chapter 1

Whatever Begins to Exist Has a Cause

> In the world of sensible things, we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible.
>
> —Thomas Aquinas, *Summa Theologiae*

Introduction

On its face, the claim "whatever begins to exist has a cause" is seemingly straightforward with an obvious aura of accuracy. Since the claim is simple and appears to be veridical not many scholars, today, object to the statement itself; instead, most offer objections to Craig's ratiocination for premise one. Craig typically offers two primary reasons for maintaining that whatever begins to exist has a cause. The first reason, succinctly stated, is metaphysical intuition. Craig argues that things do not come into existence out of nothing, and people understand that fact intuitively.[6] Secondly, Craig maintains that premise one can be verified experientially.[7] People do not experience things coming into existence uncaused and with no purpose.

Imagine how differently life would be lived if it were possible that a grizzly bear would spontaneously begin to exist in the refrigerator as its door is opened. Thankfully, as absurd as the example is, grizzly bears or tyrannosaurus rexes, for that matter, popping into existence out of nothing is not part of what is experienced in the world. On the first premise, Craig seems to have clear, coherent, and comprehensive reasons to back his chief claim. However, the clarity, coherence, and comprehensiveness of Craig's reasoning is not evident to everyone. Plenty of scholars think differently than Craig, which has spurred the current contentions. Therefore, this

[6] William Lane Craig, *Reasonable Faith: Christian Truth and Apologetics*, 3rd ed. (Wheaton: Crossway, 2008), 111.

[7] Ibid., 112.

chapter will describe Craig's arguments for premise one, which will be followed by some objections to his reasoning, and finally rounded out with some rebuttals and insights to the objections.

Craig's Arguments for Premise 1

Metaphysical Intuition

Craig posits metaphysical intuition as the first reason for the first premise of the KCA—whatever begins to exist has a cause. But what exactly is meant by metaphysical intuition? Someone who does not traffic in philosophical circles might think that metaphysical intuition has something to do with an innate or inner knowledge about things beyond physical reality. In one sense, they would not be necessarily wrong; however, there is quite a bit more to it than that. If each of the terms is broken down, a more vibrant picture begins to emerge.

Coming to a consensus on the meaning of metaphysics is inconceivable since so many philosophers have weighed in on the topic without providing clear denotative definitions. In order to best determine the meaning of the term, one must look beyond to its connotative meaning. Originally, metaphysicians like Aristotle were concerned primarily with things like first causes, being as such, and other things that do not change; yet, today metaphysics has somewhat been relegated as a catch-all branch of philosophy concerned with certain aspects of modality: space and time; persistence and constitution; causation, freedom, and determinism; the mental and physical, or the mind-body problem; and even concerns about different societal issues.[8] In other words, metaphysics has morphed into something other than it was originally, but at the same time, it is not altogether different than it originally was. Hamlyn puts it this way in his

[8] Peter van Inwagen, Meghan Sullivan, and Sara Bernstein, "Metaphysics," *The Stanford Encyclopedia of Philosophy*, eds. Edward N. Zalta & Uri Nodelman (2023): 1:1, accessed September 16, 2023, https://plato.stanford.edu/archives/sum2023/entries/metaphysics/.

introductory work on metaphysics, "[O]ne way of construing metaphysics is to say that it is concerned to set out in the most general and abstract terms what must hold good of conscious beings and the world in which they live if that world is to constitute reality for them."[9] If one removes the pluralistic undertones from Hamlyn's definition, they are left with the notion that metaphysics is the practice of getting to the basic elements, or *structures*, of things in the world so as to come to a solid foundation from which to do philosophy.

As far as the second term goes, intuition is narrowly more definable than metaphysics, but like metaphysics it too is not without its many gradations. For example, intuitions can be derived from *a priori* and/or *a posteriori* means, which is where many of the theoretical debates on intuition from the late 1990's was derived. Although it is somewhat related, another consideration consists of whether the intuition is phenomenologically induced or not.[10] Elliot Paul synthesizes Descartes work into something of a definition by suggesting that intuition is a concept that is intellectual rather than imaginative, clear rather than confused, and it is synchronic in giving all its contents at once.[11] That being stated, intuition still has its skeptics who doubt its reliability as a means of making true and good judgements about things. Charles Darwin expressed such a view in letter written to T. H. Farrer in 1881. Darwin reasoned that he cannot put much stock in the intuitions of the mind because those minds evolved from the minds

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[9] D. W. Hamlyn, *Metaphysics* (Cambridge: Cambridge University Press, 1984), 8, accessed September 16, 2023, https://www.cambridge.org/core/books/metaphysics/introduction/9D51FC491BE2E48AAE99A33391C5C02-0.

[10] John J. Drummond, "Intuitions," *Teorema* 34, no. 3 (2015): 21, accessed September 17, 2023, https://web.s.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=3b2374f2-c522-40a2-b626-5593e3580061%40redis.

[11] Elliot Samuel Paul, "Cartesian Intuition." *British Journal for the History of Philosophy* 31, no. 4 (2023): 693-723, accessed September 17, 2023, https://www.tandfonline.com/doi/full/10.1080/09608788.2022.2142197.

of animals who, in turn, have little to no intuitive capabilities.[12] Craig's view, however, is a bit different and more philosophically elementary than Darwin and other skeptics.

In a podcast, Craig provides an explanation for his insights pertaining to what he means by metaphysical intuition. A listener of the podcast, argued that it is ludicrous to use metaphysical intuition as a reason for the first premise because intuitions "have a less than impressive track record" historically.[13] Craig responded by clearing up what he believes to be a misunderstanding on the listener's part. He states,

> Now I think that the questioner doesn't understand, perhaps, what philosophers mean when they talk about intuition. It's not like women's intuition, some sort of mysterious feeling or something; rather this would be a way of knowing some sort of a truth that is so basic, it's so primitive, that it is grasped as evidently true without needing to provide some deeper proof of it.[14]

Craig is speaking of first principles, the things so basic that philosophy is impossible without them, not a strong intuitive feeling or a moral intuition. He is alluding to something far more basic. From his perspective, understanding that things which begin to exist need a cause is so elementary that no further explanation is required. It is akin to understanding that one plus one is two, or that A cannot be non-A at the same time and in the same sense. In other words, Craig is saying that the first premise is so basic that once it is grasped, it cannot be unbelieved, similar to the laws of arithmetic and logic. Even with a strong case for the use of intuition as a means of understanding things, it is still not enough for some.

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[12] Amos Wollen, "Darwin's 'horrid' Doubt, in Context," *History and philosophy of the life sciences,* 43, no. 1 (2021): 22–22, accessed September 17, 2023, https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=e2de8401-6f55-4a94-97fa-84c90f3f26c6%40redis.

[13] William Lane Craig, "Why Think Whatever Begins to Exist Has a Cause?" *Reasonable Faith* (Podcast) April 9, 2013, accessed September 28, 2023, https://www.reasonablefaith.org/media/reasonable-faith-podcast/why-think-whatever-begins-to-exist-has-a-cause#_ftn1.

[14] Ibid.

During a discussion about intuitions with Craig after a debate, Peter Millican states, "Experience trumps claims to intuition."[15] Fortunately, for students of the KCA, metaphysical intuition is not the only reason Craig offers in support of his first premise. Almost foreseeing Millican's quip, Craig's second line of reasoning is precisely what Millican desires most—experience.

Experience as Evidence

There is no uncertainty that experience plays a crucial factor in a person's understanding of things (Benovsky admitted such in his understandings of metaphysical intuitions as noted in the previous section), and Craig uses this fact to his advantage when providing reasons for the KCA's first premise. In a 2015 lecture at the University of Birmingham, Craig stated, "If something can come into being from nothing, then it becomes inexplicable why just anything or everything doesn't come into being from nothing."[16] In other words, Craig is asking why is it that the universe can come into being from nothing and for no reason while everything else in existence cannot. Craig's statement is derivative of his critics who claim that premise one is only true for things in the universe, but not the universe itself.[17]

Craig argues, with his tongue in cheek, that believing the universe came into existence out of nothing with no cause is worse than believing in magic.[18] Things popping into existence is not something that is experienced, ever. So, why should it be believed that it is only possible for

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[15] Peter Millican, "William Lane Craig vs Peter Millican: "Does God Exist?" Birmingham University, October 2011," (1:57:25), accessed September 27, 2023, https://www.youtube.com/watch?v=fEw8VzzXcjE.

[16] William Lane Craig, "The Kalam Cosmological Argument," *Reasonable Faith* (Transcribed Lecture) 2015, accessed October 12, 2023, https://www.reasonablefaith.org/writings/popular-writings/existence-nature-of-god/the-kalam-cosmological-argument.

[17] Craig, *Reasonable Faith*, 113.

[18] Craig, "The Kalam Cosmological Argument," (Transcribed Lecture) 2015.

the universe itself? At least with magic, there is a magician and a hat, but with the universe there is nothing from which the universe can be initiated.[19] Craig does not put much energy and effort into this argument since it appears so self-evident. In his original argument, Craig devoted only eight pages of text to the entire first premise, as opposed to the seventy-five pages dedicated to the second premise.[20] Since Craig took the first premise of the KCA as self-evident, he did not anticipate many of the objections to it. This may have left him open to scrutiny that otherwise could have possibly been avoided. Nevertheless, there have been many objections to the first premise, most of which have been dispelled in other works; therefore, some of the more modern objections to premise one will be addressed in what follows.

Modern Objections to Premise 1

Doubting Metaphysical Intuition

Metaphysical theories are vast in nature and scope, and no matter where one lands within that scope, in order to draw the conclusions that need to be drawn about their metaphysical theory, one must use both experience and intuition, at least that is the opinion Benovsky purports.[21] Moreover, Benovsky states that what is experienced is not necessarily always true to reality.[22] According to him it could be the case that a person's perceptions of reality are flawed and reality is actually something different than what is experienced. Furthermore, the intuitions people possess are largely related to facts that they have experienced. Accordingly, if it is true

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[19] Craig, "The Kalam Cosmological Argument," (Transcribed Lecture) 2015.

[20] William Lane Craig, *The Kalam Cosmological Argument* (Eugene, OR: Wipf and Stock Publishers, 1979), 141-148; 65-140.

[21] Jiri Benovsky, "From Experience to Metaphysics: On Experience-Based Intuitions and their Role in Metaphysics," *Noûs* 49, no. 4 (2015): 684-697.

[22] Ibid.

that experiences are not in line with reality, then it is quite plausible that intuitions are not trustworthy either.[23]

In 2001, Weinberg, Nichols, and Stich published a study which concluded that individuals from different cultures, socioeconomic statuses, and educational backgrounds draw different conclusions on certain epistemic intuitions.[24] For their study, the trio asked a series of Leher-inspired *Truetemp Cases* to different groups of people in order to determine if previous studies were accurate.[25] The findings of that study seem to concur with the studies of Nisbett[26] and Haidt[27] which suggest that people from different parts of the world, and those with more or less education have different opinions about knowledge and beliefs. Since the publishing of that study, others have weighed in on their perspectives of the reliability of intuition as a means of knowledge.

Knobe, writing in 2019, argued that a robustness in intuition was found across nearly all demographics and that the implications needed to be further examined.[28] Although Stich and

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[23] Benovsky, "From Experience to Metaphysics."

[24] Jonathan M. Weinberg, Shaun Nichols, and Stephen Stich, "Normativity and Epistemic Intuitions," *Philosophical Topics* 29, no. 1/2 (2001): 447-448, accessed September 17, 2023, http://www.jstor.org/stable/43154374.

[25] Weinberg et al., "Normativity," 439.

[26] Richard E. Nisbett, Kaiping Peng, Incheol Choi, and Ara Norenzayan, "Culture and Systems of Thought: Holistic Versus Analytic Cognition," *Psychological review* 108, no. 2 (2001): 291–310. "In this article, [Nisbett et al.] argue that the considerable social differences that exist among different cultures affect not only their beliefs about specific aspects of the world but also (a) their naive metaphysical systems at a deep level, (b) their tacit epistemologies, and (c) even the nature of their cognitive processes—the ways by which they know the world."

[27] Jonathan Haidt, Silvia Helena Koller, and Maria G Dias, "Affect, Culture, and Morality, or Is It Wrong to Eat Your Dog?" *Journal of personality and social psychology* 65, no. 4 (1993): 613–628, accessed September 17, 2023, https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=8b1a16cf-f808-4355-8323-35c6e2fe75ae%40redis. Although Haidt et al. was mostly concerned with moral judgments, their findings still correlate to cultural differences and the way different groups of people think in relation to epistemic intuitions and are relevant to their study.

Machery do not approve of Knobe's analysis,[29] he remains insistent that the similarities in the patterns of intuition between, say, adults and children, are incredible.[30] Knobe never doubts that the conclusions between the sub-groups are not different, he is simply looking beyond the immediate conclusions, to the periphery, and is observing something unique, namely that there exists patterns of thinking about certain situations amongst different demographics. Knobe explains with an example,

> Thus, suppose a mayor believes that the contract he is signing will have the side-effect of helping people. Unbeknownst to him, someone secretly swapped the contract for a completely different one, but – in the usual Gettier twist – it turns out, by sheer coincidence, that this other contract also ends up helping people. Did he know that he would be helping? Participants tend to say no. But what if we now change the case so that he believes that the contract will *harm* people (and actually does harm them)? In that latter version, participants tend to say yes. The moral badness of the side-effect somehow leads them to ascribe knowledge even in what might seem to be a paradigm example of a Gettier case.[31]

According to Knobe's research, this pattern also existed between children and adults as well as westerners and easterners.[32] Although, Knobe cites several studies in his articles that indicate no or little differences among different demographics, other scholars cite more than double the

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[28] Joshua Knobe, "Philosophical intuitions are surprisingly robust across demographic differences," *Epistemology & Philosophy of Science* 56, no. 2 (2019), 29–36.

[29] Stephen P. Stich and Edouard Machery, "Demographic Differences in Philosophical Intuition: a Reply to Joshua Knobe," *Review of philosophy and psychology* 14, no. 2 (2023): 401–434. Stich and Machery are tremendously concerned with Knobe's understanding of the data. Moreover, they accuse him of cherry-picking evidence and abusing the work of other scholars in order to make his claims veridical. Knobe did not feel the same, but has continued with this debate by maintaining his original thoughts. There is little doubt that the discussion between these scholars will continue for some time.

[30] Joshua Knobe, "Difference and Robustness in the Patterns of Philosophical Intuition Across Demographic Groups," *Review of philosophy and psychology* 14, no. 2 (2023): 435–455, accessed September 17, 2023, https://link.springer.com/article/10.1007/s13164-023-00683-z.

[31] Ibid., Knobe cites two studies as examples of where he has found a robustness in intuition among different groups: Wesley Buckwalter, "Gettier made ESEE," *Philosophical Psychology* 27, no. 3 (2014): 368-383, and Yuan Yuan and Minsun Kim, "Cross-Cultural Convergence of Knowledge Attribution in East Asia and the US," *Review of Philosophy and Psychology* 14, no. 1 (2023): 267-294.

[32] Ibid.

number of studies that do show differences.[33] Where does one draw the proverbial line? Will there ever be a sure answer on the reliability of one's intuition?

In a statement that is unintentionally related to Craig's argument for metaphysical intuition, Knobe submits that "though other explanations are possible, it seems likely that the correct explanation, whatever it turns out to be, will have important meta-philosophical implications."[34] He is right, whatever the correct explanation turns out to be, there will be serious meta-philosophical consequences.

If those who believe that the differences are more important than the robustness of philosophical intuitions between different demographics win the debate, then it could turn out that Craig's reasoning for premise one is a moot point. If intuition is simply a product of western philosophy and has no grounding in reality, then another argument will need to be hatched for the claim "whatever begins to exist has a cause." On the other hand, the experimental philosophical studies were primarily studies regarding moral intuition whereas Craig's metaphysical intuition is trafficking in first principles. This nuance might make all the difference, but there are no doubts that future studies will have more to say about the reliability of intuition as a means of knowledge. But as it stands, there are some who doubt metaphysical intuition as a reliable method of understanding, and they do have a case.

Doubting Experience Accompanied by an Uncaused Existence

Craig's second reason for the first premise suggests that since one does not experience anything "popping" into existence uncaused out of nothing, then it best follows that the universe, likewise, did not "pop" into existence with no cause out of nothing. Now, it is factual that some

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[33] Stich and Machery, "Demographic Differences in Philosophical Intuition."

[34] Knobe, "Difference and Robustness."

things are true even though they are not experienced. Individuals cannot see, feel, hear, taste, or smell the earth's magnetic fields, yet they exist. That happens to be the most prevalent obstruction to a pure empiricism. Things exist that cannot be observed with the senses. Russell acknowledges this obstruction as he goes further and argues that it is actually impossible for one to know all that they know by evidence alone.[35] Therefore, when Craig states that individuals do not experience things coming into existence out of nothing, so things must not come into existence out of nothing, means very little since there was no one around fifteen billion years ago to experience the universe when it became the universe. That is a fact that many understand as they derive their numerous theories pertaining to the universe beginning to exist uncaused.

One such theory is suggestive of a universe that just is. Sean Carroll argues using quantum mechanics (more specifically quantum vacuums, quantum wave fluctuations, and quantum gravity) to describe how the universe could simply be existent on its own.[36] Within Carroll's understandings of quantum mechanics, physics is consistent with both a universe that has always existed and one that began to exist at some moment in the past.[37] Carroll's conclusion merely states that an external cause of the universe is not needed as an explanation for the universe's existence.

Not surprisingly, most theories in favor of a universe that came into existence without external directives utilize quantum physics to attempt to explain how the universe created itself, or rather emerged. However, things in the quantum realm are not nothing; therefore, the universe

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[35] Bertrand Russell, "The Limits of Empiricism," *Proceedings of the Aristotelian Society* 36 (1935): 131–50, accessed October 25, 2023, http://www.jstor.org/stable/4544270.

[36] Sean M. Carroll, *Why is there Something, rather than Nothing?* (Ithaca: Cornell University Library, arXiv.org, 2018), accessed October 25, 2023, doi:10.48550/arxiv.1802.02231.

[37] Ibid.

coming into existence or emerging, according to those theories, is not a true creation *ex nihilo* event. For these emergence or spontaneity theories of the universe's existence to make sense, 'nothing' must be defined as something other than absolute nothingness. Consequently, for quantum theories to work 'nothing' simply means that no space, nor time, nor matter exists prior to the Big Bang event.[38] However, another theory, one not trading solely in quantum mechanics, has attempted to explain a true creation *ex nihilo* event supplemental to quantum theories.

Lincoln and Wasser point out that the problems with quantum field theories, or theories that utilize an initial condition, is they lack explanatory power since the theories do not explain what created said initial conditions in the first place.[39] Quantum theorists cannot explain what happened before the Big Bang to cause the event; therefore, Lincoln and Wasser attempt to explain the situation prior to Big Bang using information terms to shore-up or complete those theories. Vedral maintains that information is the only concept that can explain its own origins, and Lincoln and Wasser use his arguments to augment their theory.[40]

According the theory, there are infinite bits of positive and negative information, whereby those bits cancel one another out.[41] Since the information bits are infinite, there is the possibility that potential additional elements are derived which will also need to be cancelled out. When all the bits are negated, the situation is static or null (which they refer to as nothingness).[42] However,

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[38] Dongshan He, Dongfeng Gao, and Cai Qing-yu, *Spontaneous Creation of the Universe from Nothing* (Ithaca: Cornell University Library, arXiv.org, 2014), accesses October 26, 2023, https://www.proquest.com/publiccontent/docview/2084014617?accountid=12085&pq-origsite=summon&sourcetype=Working%20Papers.

[39] Maya Lincoln and Avi Wasser, "Spontaneous Creation of the Universe Ex Nihilo," *Physics of the Dark Universe* 2, no. 4 (2013): 195, accessed September 16, 2023, https://www.sciencedirect.com/science/article/pii/S221268641300037X?via%3Dihub.

[40] Vedral, Vlatko. *Decoding Reality: The Universe As Quantum Information* (Oxford: Oxford University Press, Incorporated, 2018), 10, accessed October 29, 2023, ProQuest Ebook Central.

[41] Lincoln and Wasser, "Spontaneous Creation."

when a potential additional bit replaces an opposite bit, it can cause a Spontaneous Symmetry Break (SSB).[43] That SSB, according to the theory, is what initiated the domino effect that caused the Big Bang event from which the universe sprang. Therefore, creation *ex nihilo* is possible without a creator, or so they claim.

These theories are not all encompassing and some create more questions than answers, but they do pose threats to the KCA, however minor they may seem at the moment. If the universe could have been created, or rather emerged, out of nothing without a cause, then the first premise of the KCA is negated. If the first premise of the Kalam Cosmological Argument is lost, then it would be tragic for the argument as a whole. Thus, to shed light on some the questions these objections and theories raise, might prove beneficial and bring about additional insight in favor of the KCA.

Additional Insights/Rebuttals

One definitive take-away from the above section on metaphysical intuition is the fact that the jury is still out regarding the trustworthiness of intuition as a means of knowledge. However, there is also good reason to suspect that a proficient person's metaphysical intuitions are trustworthy. Part of the argument for those who doubt the reliability of metaphysical intuition is that those who are trained in philosophy tend to have a better grasp of epistemic intuitions and arrive at more of a consensus on their beliefs as opposed to those who have little or no philosophical training.[44] Weinberg and his collaborators suggest that fact is due to a type of echo-chamber effect whereby the philosophy students are selected and trained by other philosophers

[42] Lincoln and Wasser, "Spontaneous Creation."

[43] Ibid.

[44] Weinberg et al., "Normativity," 438.

who were selected and trained by other philosophers *ad infinitum*.[45] Weinberg and company cast their argument in such a way as to create doubt in the trustworthiness of the philosopher's intuition. It could be, and is most probably the case, that individuals who are trained in philosophy have already thought about the issues being brought up in the case studies and understand the various distinctions of moral values, which, in turn, assist in formulating their most fundamental beliefs. This is not to say that only trained professionals can intuit properly. Everyone has reasoning faculties and can think about things from different perspectives, but those trained in philosophy have a better understanding of first principles which cause them to be better equipped to arrive at more of a consensus on their intuitions.

Whether or not a consensus of intuition is obtained says little regarding the trustworthiness of intuition as a means of procuring knowledge. In 2020, Bengson, Cuneo, and Shafer-Landau crafted a list of criteria for determining the trustworthiness of intuitions by engaging with six semi-related conditions.[46] After introducing intuitions to the criteria, they established that one's intuition can be very trustworthy. The criteria consisted of a long-standing social acceptance, inescapability—meaning one cannot go through life without intuiting some things, incorporation of sophisticated methods of evaluating its outputs, is used successfully by competent practitioners in a wide variety of contexts, invokes internal harmony, and is coherent with other cognitive practices.[47] By demonstrating the inescapability and the long-standing social acceptance of using intuitions to make important decisions in life is a significant challenge to

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[45] Weinberg et al., "Normativity," 438.

[46] John Bengson, Terence Cuneo, and Russ Shafer-Landau, "Trusting Moral Intuitions," *Noûs* 54, no. 4 (2020): 956-984.

[47] Ibid.

many contemporary experimental philosophers who suggest that a person's intuitions are an invalid means for obtaining a justified true belief.

It is clear some contemporary philosophers possess a piercing denial of intuition as a means of obtaining knowledge. It is also just as clear that additional contemporary philosophers possess a keen understanding that intuition is a useful means of obtaining knowledge. However, after addressing some of the main issues within this modern debate, the thing that stands out most is that a majority of the debate revolves around moral intuitions. In Craig's version of the KCA, he is not much concerned with moral intuitions as much as something else altogether. To be fair, Craig does use moral intuitions in his version of the moral argument, but that fact is not of value for this argument in particular; however, one can see where confusion might arise.[48] Craig is leaning toward more of a basic notion of intuition as first principles. This alone dispels many arguments against the reliability of intuition within the KCA's reasonings.

Although many would suggest otherwise, the use of intuition, as first principles, is a major part of a person's understanding of the world around them, in fact, according to Benson et al., they are inescapable. Craig acknowledged this and incorporated into his first premise. But what is most significant, he did not use an argument from metaphysical intuition alone for one to understand the first premise of the KCA. He appealed to a person's experience as well. Plantinga referred to this as the dual nature of justification —experience coupled with a form of duty or obligation.[49] When Craig reasons for premise one, he is appealing to the whole human and how they come to know things. He does not appeal to intuition alone, nor does he solely appeal to

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[48] Craig, *Reasonable Faith*, 176.

[49] Alvin Plantinga, *Knowledge and Christian Belief* (Grand Rapids: Eerdmans, 2015), 19, accessed October 29, 2023, ProQuest Ebook Central.

experience, both on their own contain uncertainties but coupled together intuition and experience make a strong case for a justified true belief. Plantinga would say that Craig was justified in his belief that the first premise of the KCA is true.

Had Craig attempted to make his case for the first premise by appealing to either intuition or experience by themselves, his critics may have warrant for their objections. However, as it stands, Craig has covered all his bases. He appealed to both sides of human knowledge: experience and intuition. But what does Craig do with the theories pointing to either spontaneous emergence or creation with no creator? If either are true, God is not needed as the creator of the universe.

Karimi describes all modern physical creation models as a creation of something from something or either changing from something to something else.[50] To accomplish this, physicists utilize one of two primary models: Hawking-Harle and Tryon-Vilenkin.[51] However, these are not truly creation *ex nihilo* events. In the quantum realm 'nothing' never refers to actual nothingness, there is either a quantum tunnel, or a quantum vacuum, or a quantum wave fluctuation.[52] Karimi acknowledges the naivety of attempting to explain a creation out of nothing by physical laws is

[50] Mirsaeid Mousavi Karimi, "The Laws of Nature and Creation of the Universe Ex Nihilo," *Journal of Philosophical Theological Research* 25, no. 1 (2023):78, accessed October 29, 2023, https://doaj.org/article/eb1df05178ae45798bc2dc2241ad64da.

[51] Ibid.

[52] There are several creation models that are currently used to explain how the universe came from nothing, if it can be called nothing. Tyron explained the phenomenon by describing it as a quantum fluctuation of a vacuum, Edward P. Tryon, "Is the Universe a Vacuum Fluctuation?" *Nature (London)* 246, no. 5433 (1973): 396-397. Vilenkin explains the singularity as a tunnel rather than a vacuum prior to Big Bang, Vilenkin, Alexander and Masaki Yamada. *Tunneling Wave Function of the Universe* (Ithaca: Cornell University Library, arXiv.org, 2018), https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/working-papers/tunneling-wave-function-universe/docview/2092754748/se-2. The Hartle-Hawking model explains the quantum state of the universe prior to Big Bang a wave function, J. B. Hartle & S. W. Hawking, "Wave function of the universe," *Phys. Rev. D*, 28 no. 12, (1983): 2960-2975, https://doi.org/10.1103/PhysRevD.28.2960. Nearly all models of creation or emergence using quantum field theories have employed one or several of these models or a derivative thereof.

self-contradictory by nature.[53] After all, if there is something physical so as to have physical laws, then there exists something rather than nothing. Moreover, these physical laws do not explain enough. Although Carroll argues that it is futile to embark on discussions of why the universe emerged, Karimi points out that for a physical theory to be explanatory, it should be able to explain the physical laws pertaining to the event along with why it occurred in the first place.[54] It is obvious that an explanation of how and why is much more comprehensive than a theory that only explains the how. Thus, the quantum theory objections to the KCA are nearly irrelevant, and pose little threat to Craig's reasoning.

As far as the alternative theory of creation *ex nihilo* as information goes, many theists would agree to a degree. In the beginning, God said, ""Let there be light," and there was light" on the first day (Genesis 1:3 ESV).[55] According to theism, God spoke the universe into existence. Perhaps God speaking was the mechanism which caused the SSB that caused the Big Bang event. Nevertheless, information needs an information giver. It was the notion of information in DNA that ultimately led the renowned atheist, Antony Flew, to believe in God.[56] Moreover, information is something. Again, there cannot be an actual creation *ex nihilo* if there was something from which everything came. Although it was a good attempt at showing how the universe might have emerged, it fails too.

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[53] Karimi, "The Laws of Nature," 80.

[54] Ibid., 84.

[55] Unless otherwise noted, all Scripture references will be in the *English Standard Version* (Wheaton, IL: Crossway, 2008).

[56] Antony Flew, *There is a God: How the World's Most Notorious Atheist Changed His Mind* (New York: HarperCollins, 2007), 75.

Chapter 1 Conclusion

To defend the claim "everything that begins to exist has a cause," Craig uses two primary arguments. He maintains that an individual can know the truth of premise one by metaphysical intuition and by their experience of things not coming into existence on their own without a cause. Some objections to Craig's reasoning consist of the unreliability of metaphysical intuition and experience as avenues for deriving beliefs. The objections were demonstrated to be unreliable in themselves, at least as it pertains to Craig's argument. Furthermore, a few additional counterarguments were postulated, claiming the universe could have emerged on its own without a cause. Those arguments too, were dispelled and found wanting. Therefore, it is safe to conclude that Craig's reasoning for the first premise of the KCA is safe for the time being.

Chapter 2

The Universe Began to Exist

> Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause … Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false.
>
> —Thomas Aquinas, *Summa Theologiae*

Introduction

The second premise of the Kalam Cosmological Argument simply states that the universe began to exist. Craig offers four arguments in favor of his position (i.e., an actual infinite number of things is impossible, forming an actual infinite collection of things by adding one member after another is impossible, the expansion of the universe, and the thermodynamic properties of the universe) all of which provide assurance that the universe had a beginning. The first two arguments of Craig's defense are philosophical in nature, while the last two trade in hard sciences. By using both philosophical and scientific evidence Craig attempts to appeal to the intellect of every reasonable person, those persuaded by scientific data and those persuaded by critical thought. In fact, regarding premise two, Craig seems to place most of his eggs in this one basket, for in his original 1979 argument, he passed over the first premise to defend the second premise initially.[57] His assumption was that the second premise was the key to entire argument.

After describing Craig's reasons for the second premise, some current objections will be discussed and weighed against Craig's arguments. Afterward, insights from other scholars will be

[57] Craig, *The Kalam Cosmological Argument*, 65.

offered and considered either against or for the objections. Hopefully, a clear image of the strength of the KCA will be further developed.

Craig's Arguments for Premise 2

An Impossible Infinite

Craig's first argument for the premise that the universe began to exist is that it is impossible to have the existence of an actual infinite.[58] He argues that in mathematics there exists the idea of potential infinites, but something having potentiality is nowhere near the same thing as it being actual.[59] As an example of showing the absurdity of actual infinities, Craig uses a thought experiment. Craig suggests to his audience that if it is possible for an actual infinite to exist, then it would likewise be possible for a library to exist which contains an infinite number of actual books.[60] The obvious concern with this possibility is that the world is not large enough to contain a library with an actual infinite number of books, nor has there been an infinite number of people to write said books. But that is not all, Craig offers another element to add to the absurdity. He continued to suppose that there are two colors of books in the infinite library, black and red, so that there are an infinite number of black books as well as an infinite number of red books.[61] Craig then wonders if it would be believable to say that all the red books by themselves were equal to all the red books plus all the black books in the library.[62] The answer is of course not. In a nut shell, that is the absurdity that comes about from an actual infinite.

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[58] Craig, *The Kalam Cosmological Argument*, 65.

[59] Craig, *Reasonable Faith*, 116.

[60] Craig, *The Kalam*, 82.

[61] Craig, *The Kalam*, 83.

[62] Ibid.

As a second example, and one that is most used on a popular level, Craig describes David Hilbert's paradoxical infinite hotel. Suppose that there is a hotel with an infinite number of rooms and they are all occupied. What would happen if someone walked up to the front desk to inquire about renting a room in the already full hotel? The hotel manager would simply have to move the person in room #1 to room #2 and the person in room #2 to room #3 so forth and so on, out to infinity.[63] Then, room #1 would be cleared away for the person in need of a room. This process could occur to clear space for an infinite number of guests.

Craig concludes, based on the paradoxes above, that an actual infinite cannot exist. If the Infinite Library and Hilbert's Hotel are absurdities, then it logically follows that an actual infinite is absurd.[64] Because an actual infinite is absurd, it would then be absurd to conclude that there existed an actual infinite regress of past events. Thus, Craig concludes that the universe must have begun to exist.[65]

Impossible Infinite by Successive Addition

The second philosophical argument is analogous to the first but also distinct from it. Craig upholds that it is impossible to form an actual infinite collection of things by adding one member after another.[66] This line of reasoning is distinct because it does not deny that "an actually infinite number of things can exist."[67] Even if it is possible that an actual infinite can

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[63] Craig, *Reasonable Faith*, 118.

[64] Ibid., 119.

[65] Craig, *The Kalam*, 102.

[66] Craig, *Reasonable Faith*, 120.

[67] Ibid.

exist, it would still be impossible for an actually infinite temporal series of events to exist by adding one event after another.

Criag contends for his point by arguing that for an element, or event, that can be added to any successive chain of events, another one can be added never being capable of reaching an actual infinite. The only infinite that is possible is a potential infinite that can never be actualized.[68] Thus, Craig believes that a past collection of events is impossible while a future collection of events is merely potential. Furthermore, Craig suggests that the only way to obtain an actual infinite is by it being instantiated in reality all at one moment.[69] To visually picture this thought, Craig brings up the Infinite Library once again. He notes that the only way for the library to be infinite is if it becomes that way all at once.[70] "Even God," he states, "could not instantiate the infinite library volume by volume, one at a time."[71] One more book can always be added.

This simple argument is powerful, but only in an A-Theory of time. Craig notes that a B-Theory of time would not necessitate a successive time line and would not be subject to this line of reasoning.[72] Craig does not fully defend his position in either of his major works on the KCA, although he does provide an extensive treatment of the subject in another work, which will be discussed at the end of this chapter after a rather cursory handling of the B-Theory as an

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[68] Craig, *The Kalam Cosmological Argument*, 105.

[69] Craig, *The Kalam Cosmological Argument*, 104.

[70] Ibid., 104.

[71] Ibid., 105.

[72] Craig, *Reasonable Faith*, 121.

objection to the second premise. But before any objections are raised, Craig's two empirical evidences need to be explained.

An Expanding Universe

Craig's first empirical argument for the beginning of the universe is a byproduct of its expansion. If the universe is indeed expanding, then it follows that the universe began expanding at some point in spacetime. Craig demonstrates that Einstein's General Theory of Relativity along with Hubble's red-shift observation combined with the Friedman-Lemaître's model is, in fact, indicative of a universe that began to exist.[73]

Einstein's general relativity theory is essentially a theory of gravity, and since gravity plays the central role in the structure of the universe along the space-time continuum it is crucial to any cosmological theory.[74] Moreover, Einstein's equations, minus the cosmological constant Λ, (Einstein-de Sitter model) suggested a universe that is not static, but rather one that is expanding throughout spacetime.[75] Hubble confirmed Einstein's theory by observing that distant galaxies are receding away from us because they possess a red appearance. When an object is moving away from a point, light is shifted toward the red end of the optical spectra. Whereas, when an object is moving toward a given point, a bluer shade is observed; this is a product of the Doppler effect.[76] Friedman realized that the solutions to Einstein's field equations would be

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[73] In Craig's original formulation of the KCA in 1979 (*The Kalam Cosmological Argument*) and in his revised version in 2008 (*Reasonable Faith*), he uses these three sources of evidence together as a positive argument for a beginning of the universe. The remainder of his argumentation for the expansion of the universe being evidence for a beginning consists of his dismantling of other theories and cosmological models.

[74] Farook Rahaman, *The General Theory of Relativity: A Mathematical Approach* (Cambridge: Cambridge University Press, 2021), 305, accessed November 21, 2023, https://www.cambridge.org/core/books/general-theory-of-relativity/851FC27F0490300918EEBEEC4380B0D1.

[75] Craig, *The Kalam Cosmological Argument*, 111.

[76] Ibid.

unstable unless the universe was expanding.[77] After Friedman's death, Lemaître continued upon Friedman's work and discovered that Hubble's red shift observation was evidence of an expanding universe.[78]

Each of the three examples Craig employs in his argument are evidence enough to conclude that the universe is indeed expanding, but in conjunction with one another, it is difficult to deny the expansion of the universe. Once one accepts the universe's growth, they are only left with explaining from what point the universe is growing. There are several theories that attempt to explain why and how the universe is expanding, but Craig goes to great length in his 2008 argument to dispense with many of these theories (more on this later). However, Craig was not finished with providing empirical evidence to demonstrate that the universe began to exist. He followed up with a discussion on the thermodynamic properties of the universe and how those properties also point to a beginning.

Evidence from Thermodynamics

In explaining the argument from thermodynamics, Craig explicates four formulations of its advancement. To be clear, however, these are formulations of the second law of thermodynamics. The first formulation, as Craig describes, was shaped by Clausius which stated that the heat of an object only flows from a point of high temperatures to a point of lower temperatures.[79] Furthermore, the opposite of this observation is not possible without the input of additional energy to the object from which the heat is flowing. Boltzmann further developed the second law with his formulation that "all systems have the tendency to pass from a more ordered

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[77] Paul Bruma, *Introduction to Relativity. Volume II: In-Depth and Accessible* (Boca Raton, FL: CRC Press, 2023), 198.

[78] Bruma, *Introduction to Relativity*.

[79] Craig, *The Kalam Cosmological Argument*, 130.

to a less ordered state."[80] The third formulation was the realization that entropy and disorder are connected and that the greater a system is disordered the greater the level of entropy it has.[81] The fourth formulation of the second law of thermodynamics states that in a closed system processes occurring always tend toward a state of equipoise.[82]

Craig argues that without the second law of thermodynamics life would be unlivable. To illustrate his point, Craig asserts that if he possessed a bottle, which was a sealed vacuum, and introduced some molecules of gas into it, the gas would eventually spread itself out evenly inside the bottle.[83] That is why one can be confident that when they step into their bath, they will not have ice on one side and boiling water on the other, for the temperature of the bath water will ultimately spread out evenly.[84] Nevertheless, Craig understands the philosophical implications of such laws.

Since the universe is a closed system, and closed systems tend toward equilibrium, it would only make sense that the universe is headed towards its final state of equipoise, arguably its "heat death."[85] If the universe has always existed, then why has "heat death" not yet occurred? The answer appears to be obvious—the universe had a beginning.

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[80] Craig, *The Kalam Cosmological Argument*, 131.

[81] Ibid.

[82] Craig, *Reasonable Faith*, 141.

[83] Ibid.

[84] Ibid.

[85] Ibid.

Modern Objections to Premise 2

Objections to the Impossibility of an Actual Infinite

Craig is met with a good bit of resistance concerning his argument that actual infinites are impossible. Malpass and Morriston argue that if it is impossible for a past series of infinite events to have occurred, then it is also impossible for a future series of infinite events to occur.[86] This line of reasoning seemingly makes sense but in reality, it is fallacious. Craig formulates his argument for the impossibility of actual infinites with the following syllogism,

(1.) An actual infinite cannot exist.

(2.) An infinite temporal regress of events is an actual infinite.

(3.) Therefore, an infinite temporal regress of events cannot exist.[87]

The syllogism is logically consistent and the conclusion follows from the premises, which Malpass and Morriston admit and attempt to use to their advantage with their reformulation of the syllogism. Instead of debating head-on the contention that a temporal regress can exist, they attempt a bait and switch scheme. Malpass and Morriston maintain that Craig cannot have his cake and eat it too; therefore, they suggest that if a temporal regress of events cannot exist, then neither can a temporal progress of events exist. Their syllogism is as follows,

(1.) An actual infinite cannot exist.

(2.) An infinite temporal progress of events is an actual infinite.

(3.) Therefore, an infinite temporal progress of events cannot exist.[88]

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[86] Alex Malpass and Wes Morriston, "Endless and Infinite," *The philosophical quarterly,* 70, no. 281 (2020): 831.

[87] William Lane Craig and James D. Sinclair, "The Kalam Cosmological Argument," *The Blackwell Companion to Natural Theology*, eds. William Lane Craig and J.P. Moreland (Newark: John Wiley & Sons, Incorporated, 2009), 103, accessed October 10, 2023, ProQuest Ebook Central.

[88] Malpass and Morriston, "Endless and Infinite," 831.

Although Malpass and Morriston believe they have Craig on the ropes, it is quite obvious how Craig would respond to their confuting syllogism. Craig would surely deny their second premise for the reason that an infinite temporal progress of events is a potential infinite, as opposed to an actual infinite.[89] Moreover, he would also likely dispute the word infinite in the second premise, since it is more of an indefinite, to be more precise, than an infinite in this instance.[90] Although Morriston understands Craig's perspective on the differences of actual and potential infinitudes, he appears unaffected by its assumptions. He simply transitions from one ineffective argument to another.

Morriston contends that Craig's claim, that if the past was eternal then today would not yet have arrived, is mistaken.[91] Oddly, to do this, Morriston formulates his argument in this manner,

> Let H be the history of everything that has ever occurred up to, and including, the present. To be clear, I am talking not just about our universe, but about whatever has ever happened, regardless of whether it is part of the history of our universe. So, I am including within H the history of any other universes that might ever have existed, as well as the activities of whatever gods or angels or other supernatural beings might ever have existed.[92]

Then, Morriston supposes that H has no beginning and that there is a past time (t) that corresponds to each event in H. If at any t, other than the t of the present, the entirety of H could have been completed, then there is no reason to suppose that the present could not have been completed at some other t.[93] If one accepts Morriston's suppositions, then it is possible that

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[89] Craig, *Reasonable Faith*, 116.

[90] Ibid.

[91] Wes Morriston, "Infinity, Time, and Successive Addition," *Australasian Journal of Philosophy* 100, no. 1 (2022): 70-85.

[92] Ibid.

Craig's argument that today would not be here if there is an infinite regress of past events is false. However, Morriston makes a crucial mistake in this argument as well. Craig is primarily arguing for the beginning of the universe in his second premise, and Morriston must suppose that there were events prior to the universe's beginning in order to argue against one of Craig's rather insignificant contentions. If H must extend beyond a beginning of the universe, Morriston is really making Craig's case for him. It appears Morriston is falling into the devices of his own traps, like the classic cartoon coyote who incessantly misses the Roadrunner and injures himself. But not all objections to Craig's impossible infinities argument fall into such self-imposed snares.

Erasmus and Luna do not believe that the Infinity Argument in Craig's KCA is necessarily unsound; however, they offer two objections because they feel it faces some difficulties.[94] Their first objection to the Infinity Argument describes finite sets as possessing different behaviors than infinite sets.[95] Finite sets when subtracted only remove a particular number from the already established total amount in the set. Infinite sets are not the same in that regard. If one subtracts an infinite amount from an infinite total, they may get varied results. It sounds strange, but that is why the absurdities arise within Hilbert's Hotel. According to Erasmus and Luna, Craig was subtracting infinite amounts using the rules of finites sets.[96] Moreover, they maintain that the real issue with the Infinity Argument is not with "pure logical or mathematical

[93] Morriston, "Infinity, Time, and Successive Addition."

[94] Jacobus Erasmus and Laureano Luna, "A Philosophical Argument for the Beginning of Time," *Prolegomena: časopis za filozofiju.* 19, no. 2 (2020), 164, accessed November 26, 2023, https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=90097b0f-f4e1-4b57-9fba-e135b3b95f5f%40redis.

[95] Erasmus and Luna, "A Philosophical Argument," 164.

[96] Ibid.

modality," but rather with the intuitions of what a person believes to be metaphysically feasible or unlikely.[97] Because the Infinity Argument relies so heavily upon one's intuitions, Erasmus and Luna suggest that Craig's argument will only convince those who share the same metaphysical intuitions as himself.[98]

The second objection to Craig's Infinity Argument consists of the perspective that God predetermined an endless future.[99] This objection is more of a theological dilemma rather than a philosophical objection, but there are some deep implications depending on one's theological beliefs. If the proponent of the KCA believes in an endless future and that God predetermined every future event, then they should accept that all future truths are actually infinite.[100] If the proponents do not, then they are left with either a strange view of God's omniscience (see Erasmus and Verhoef, 2015)[101] or else must claim that God's foreknowledge is not actually infinite. Both options have their own difficulties, but understanding that the Infinity Argument is not without dispute is Erasmus and Luna's primary point. If God's knowledge of an endless future is an actual infinite, then it is at least possible for an actual infinite to exist; and if an actual infinite exists, then Craig is wrong to say that an actual infinite is impossible.

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[97] Erasmus and Luna, "A Philosophical Argument," 165.

[98] Erasmus and Luna, "A Philosophical Argument," 165.

[99] Ibid.

[100] Ibid.

[101] Erasmus and Verhoef "offer a different solution, namely, that God can actualize an endless future without consciously thinking about each future event in it;" however, they did not extrapolate the relationship between knowledge and thoughts. Must one consciously think about something for them to have knowledge of it? Jacobus Erasmus and Anné Hendrik Verhoef, "The Kalam Cosmological Argument and the Infinite God Objection," *Sophia* 54, no. 4 (12, 2015): 411-27, accessed November 26, 2023. https://go.openathens.net/redirector/liberty.edu?url=https://www.proquest.com/scholarly-journals/kalam-cosmological-argument-infinite-god/docview/1771446837/se-2.

Objections to an Impossible Infinite by Successive Addition

In Craig's second philosophical argument, the impossibility of forming an actual infinite by successive addition, he mentions a theory of time that would upend his argument. However, he did not dedicate much time to the theory since he believes that it is false.[102] Since the objection, if proven true, can invalidate the KCA's second premise, it deserves adequate attention.

Craig adheres to what has been expressed as the A-Theory, dynamic time, presentism, or tensed view of time. This understanding describes time as a sequence of events with an objective present, a past that has occurred, and a future that is yet to occur. An alternative view, known as B-Theory, static time, eternalism, or a tenseless view of time purports that all time is all at once and there is no real distinction between past, present, and future. This debate is not insignificant, and it has several implications pertaining to the KCA's formulation.

Presentism, or A-Theory, is known as the commonsense view of time.[103] That is, presentism is the view that is readily experienced by individuals in an everyday manner. It seems obvious that time is something that passes. In the typical human experience, babies are born, they mature into adulthood, then as aged adults they die. They do not exit the womb, mature, and become deceased all at one singular moment. Also, there is the common intuition that there is something special about the present. There seems to be a now that everyone recognizes as now. These two commonsense contentions of presentism are specifically what eternalists attempt to dispute.

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[102] Craig, *Reasonable Faith*, 121.

[103] Juraj Odorčák, "On the Present Limits of Presentism," *Cogito* 12, no. 4 (2020): 25-42, accessed December 10, 2023, https://www.proquest.com/publiccontent/docview/2542464163?accountid=12085&pq-origsite=summon&sourcetype=Scholarly%20Journals.

Regarding the passage of time, Odorčák admits, "Time appears to be a continuous alternation of events, things, objects, actions, a process of gradual becoming, and also a course of subsequent loss of being."[104] However, appearance does not always necessitate ontological reality. According to Power, temporal passage is a perceptual event (one that is not actually occurring), which he claims can either be a case of temporal illusion or temporal anosognosia.[105] Whether it is illusion or anosognosia matters little for the eternalist's view; either way, what appears to be the passage of time is merely an "erroneous experience."[106] Disputing temporal illusion is akin to disputing theories like the simulation hypothesis, since they both contain a sense of cogency and coherence within their frameworks.[107] If one is living and experiencing life in a computer simulation, they would, or could not, know they are not a real actual human being. Likewise, if a person has experienced a temporal illusion, they would only experience life through what appears to be the passage of time. It seems like an argument that is impossible to refute, and that is the primary strength of eternalism.

According to some eternalists, and Einstein's theory, time is also a matter of relativity.[108] As Power explains, in a geocentric model, with the Earth as the ultimate point of reference,

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[104] Juraj Odorčák, "On the Present Limits of Presentism."

[105] Sean Enda Power, *Philosophy of Time and Perceptual Experience* (New York, NY: Routledge, an imprint of the Taylor & Francis Group, 2018), 180-183, accessed December 13, 2023, https://www.taylorfrancis.com/chapters/mono/10.4324/9781351249492-9/temporal-experience-sean-enda-power?context=ubx&refId=dcc74d2f-c92f-4faa-8d22-54745ab212d5.

[106] Ibid.

[107] The simulation hypothesis is the idea that individuals are or may be living in a type of computer simulation, like a video game. However, there are many variants of this hypothesis, with philosophers offering several different versions of the theory. Some books, like Jean Baudrillard, *Simulacra and Simulation* (Ann Arbor: University of Michigan Press, 1994), helped to inspire films like *The Matrix* (1999) which helped to popularize the theory. Another theory, proposed by Nick Bostrom, "Are we Living in a Computer Simulation?" *The Philosophical Quarterly* 53, no. 211 (2003): 243-255, has inspired people like Elon Musk to adhere to and advance these theories to a broader popular-level scientific community.

[108] Power, *Philosophy of Time and Perceptual Experience*, 30.

motion and time would be relative to Earth's motion; however, the geocentric model is an incorrect model, and with that comes no ultimate point of reference to base motion nor time.[109] To demonstrate the problem of having no set frame of reference many physicists have pointed to the "Twin Paradox." Suppose a set of twins (Twin A and Twin B) separate by Twin B climbing aboard a spacecraft and being propelled into space for a significant period. After a long distance has been traversed, Twin B makes an about turn and returns to her sibling who has remained stationary on Earth. From Twin A's perspective, Twin B was moving while she remained static. From Twin B's perspective (since she was moving at a constant rate), Twin A appeared to be moving as Twin B remained stationary.

The truly remarkable aspect of this paradox is not the minor dispute of who was truly in motion, but that the twins aged differently depending on their respective inertial points of reference.[110] The twin moving with more velocity aged slower than the twin who remained stationary on the earth. The slower aging of Twin B is due to feature of special relativity known as time dilation, which has been evidenced by the Hafele-Keating experiment.[111] If time is different relative to which inertial frame of reference one is located at and the velocity at which it is travelling, how can the passage of said time be precisely experienced instead of perceived?

As for the particularity of the present, even eternalists concede there is something peculiar about the present that is not observed in the past nor the future. For instance, everything that is experienced is experienced in the present. The past can be remembered, the future may be

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[109] Power, *Philosophy of Time and Perceptual Experience*, 31.

[110] Øyvind Grøn, "The Twin Paradox and the Principle of Relativity," *Physica scripta.* 87, no. 3 (2013).

[111] Witold Nawrot, "The Hafele-Keating Paradox—Serious Problems of the Special Theory of Relativity?" *Physics essays.* 27, no. 4 (2014): 598–600.

anticipated, but only the present is "directly and immediately experienced as real."[112] Although this statement sounds intuitive, there may be more to the story than that. It is difficult, even for a hardline presentist to imagine that the present is only one very specific minuscule moment in life, a moment comparable to the flash of a camera. Speaking of cameras, some presentists do, however, hold to the cinematic model in which the present unfolds as a swift successive change of still moments, like old motion pictures.[113] However, within the cinematic model the presentist must concede that what they are actually observing is the perception of motion, which is what they are attempting to deny as it relates to temporal passage. The cinematic model is ultimately a model that shoots itself in the foot. Therefore, most presentists hold to the specious present model, or some derivative thereof.[114] The specious present model consists of short durations of time that individuals experience as the present. Under the umbrella of the specious present model, like most theories, several variants have a been defended. Although there may be many differences between the views of the specious present, the one thing they all agree upon is that the present consists of a duration of non-zero temporality.[115] The problem for this view is that the presentist, again, must borrow from eternalists to hold to their position, namely that the present is perceived as a short duration of time instead of a specified moment.

If temporal passage is illusory, if time is relative, or if the present is merely a perceived event, then B-Theory poses a serious threat to Craig's argument that it is impossible to obtain an infinite by successive addition. If all time is all at once, then there is no real succession

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[112] Olla Solomyak, "Presentism and the Specious Present: From Temporal Experience to Meta-Metaphysics," *Dialectica* 73, no. 1 (2019): 247-266.

[113] Solomyak, "Presentism and the Specious Present."

[114] Ibid.

[115] Ibid.

of days. If time is relative, then time at the Big Bang had something other than a finite origin.[116] If the present is only perceived as the present, but is actually a span of time, perhaps B-Theory is the accurate view and time never truly began. Any of these possibilities are detrimental to the second premise of the KCA, as it stands.

Objections to the Expansion of the Universe Argument

Craig argued that Einstein's general relativity theory, Hubble's red-shift observations, and Friedman-Lemaître's equations are each indicators that underscore the concept of a universe which is expanding; thus, a universe which began to exist. Within his argument, Craig briefly explained the standard Big Bang model proposed by Friedman-Lemaître and described how it explains an absolute origin out of nothing. According to the model, as time advances, the expanse between the galaxies swell.[117] The galaxies themselves do not expand, only the space between them; therefore, as the universe expands it develops less density.[118] This factor of the model is significant in that if the expansion was reversed, the universe would become infinitely dense at the point of singularity, which implies a beginning.[119]

Since Craig's initial work in 1979, many objections have been leveled against his contentions for the Standard Model which he forthrightly addressed in his 2008 work. In that composition, Craig discussed and discredited six competing models. Since this work is mostly concerned with current objections, there is no significant need to dispel the same objections here, other than to list the competing models for the sake of reference: Steady State Model, oscillating

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[116] Daniel Linford, "Neo-Lorentzian Relativity and the Beginning of the Universe," *European Journal for Philosophy of Science* 11, no. 4 (2021).

[117] Craig, *Reasonable Faith*, 126.

[118] Ibid.

[119] Ibid.

models, vacuum fluctuation models, Chaotic Inflationary Model, quantum gravity models, and string scenarios.[120] Although the Standard Model is defended by Craig, it is not without its own complications.

Hugh James raises several concerns with the Standard Model, which happen to be in dire need of explanation if the model is to remain consistent. Shortly after the initial Big Bang, the universe would have needed to be expanding at a rate much faster than the current expansion rate to account for the space-time curvature to be at near zero.[121] Also, the microwave background radiation is consistent in all directions from Earth's perspective; therefore, either the Earth is situated in a very unique place or all parts of the universe were in contact at some point in the past.[122] According to James, both of these problems could be solved by an inflationary model which would describe the universe as expanding very quickly near the Big Bang, then abruptly switching to the constant that is observed today, similar to the way an airplane decreases thrust when it reaches its cruising altitude and speed.[123]

Craig did not dispute all inflationary models in his work. He confronted one specific model, Linde's Chaotic Inflationary Model, which has little to do with what James is suggesting. However, James is not advocating for an inflationary model per se, but rather a completely new model with an inflationary component baked in—the simple dynamic model. The explanatory power of the dynamic theory, as James proffers, is adequate to support almost every aspect of

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[120] Craig, *Reasonable Faith*, 128-137.

[121] Hugh James, "Accounting for the Expansion of the Universe Using an Energy/Momentum Model to Construct the Space-Time Metric," *F1000Research.* 11 (2022).

[122] Ibid.

[123] Ibid.

modern cosmology and physics combined. However, explaining the model in detail would be out of the scope of this work except for where the model overlaps with Craig's reasoning.

Instead of a linear expansion from one point moving outward, in the fashion of a balloon being blown up, the simple dynamic model advocates for a radial expansion from the point of singularity.[124] In this model, general relativistic effects can be ignored since everything is in constant radial motion, thus special relativistic principles are more applicable.[125] The red-shift observed by Hubble can be explained in the Standard Model as either a receding velocity or by a gravitational pull. In a dynamic model, the red-shift is always due to a receding velocity stemming from the angle radial motion makes with an observer at any point in the universe (a geometric-based phenomena).[126]

It is important to note that a simple dynamic model still alludes to a universe that has a beginning (which is Craig's overall point); therefore, the second premise can still be defended. However, if the dynamic model is correct, each point Craig makes would be inaccurate and invalidated, especially regarding Einstein's theory of General Relativity and the standard model. Though the dynamic model is cutting-edge and has not been fully scrutinized and thoroughly debated within the ivory towers of academia, there is little doubt that the future will be tasked with further developing or disproving this modern cosmological model. Nevertheless, if the dynamic model is truly the way the universe functions, Craig would need to alter his basis for the defense of premise two.

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[124] James, "Accounting for the Expansion of the Universe."

[125] Ibid.

[126] Ibid.

Objections to the Thermodynamics Argument

In a 1996 lecture, Stephen Hawking quoted Sir Aurthur Eddington as saying "Don't worry if your theory doesn't agree with the observations, because they are probably wrong. But if your theory disagrees with the Second Law of Thermodynamics, it is in bad trouble."[127] Hawking believed the Second Law of Thermodynamics is enshrined in scientific truth, so much so, that its implications are undeniable. He agreed with Craig's contention, that the universe began to exist, based solely on the evidence from the Second Law of Thermodynamics.[128]

Craig and Hawking are not alone in their observations relating to the Second Law of Thermodynamics, most cosmologists and physicists are in agreement with them. Yet, others abscond to oppose the mainstream consensus of scientific theory. In fact, Ben-Naim refers to the Second Law of Thermodynamics as the greatest blunder in scientific history.[129] He upholds that the Second Law of Thermodynamics has been misapplied and misused over the course of the last century of scientific thought. Accordingly, nearly every conclusion, based on entropy, is wrong to a fault.

Ben-Naim claims that Eddington's association between entropy and time is unfounded and misleading.[130] According to Ben-Naim, time has nothing to do with the Second Law of Thermodynamics and the amount of entropy in the universe.[131] Moreover, Boltzmann blundered his H-Theorem equations. Ben-Naim contends that Boltzmann believed that -H (*t*) behaved like

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[127] Stephen Hawking, "The Beginning of Time," *Stephen Hawking Academic Lectures*, (1996), accessed January 20, 2024, https://www.hawking.org.uk/in-words/lectures/the-beginning-of-time.

[128] Stephen Hawking, "The Beginning of Time."

[129] Arieh Ben-Naim, "Entropy and Information Theory: Uses and Misuses," *Entropy* 21, no. 12 (2019): 1170.

[130] Ben-Naim, "Entropy and Information Theory."

[131] Ibid.

entropy and interpreted the similarities accordingly; however, it was a serious mistake in the interpretation of the -H function.[132] Finally, Ben-Naim takes exception with the many claims that apply the Second Law of Thermodynamics to living systems. In his opinion, these claims are primarily nonsensical since there cannot be a decrease in entropy. In living systems, it is common to equate an organism taking on food as equivalent with negative entropy, but there is no such thing as negative entropy.[133]

If Ben-Naim is correct, and the Second Law of Thermodynamics is the most misapplied and misinterpreted theory in modern science, what does that say about Craig using the Second Law of Thermodynamics in his KCA? On one level, it would be just one more blunderous misapplication to add to the list; but on another level, it would render Craig's strongest empirical evidence for a beginning of the universe as unsubstantiated. Therefore, understanding who or what to trust becomes a most essential endeavor.

Additional Insights/Rebuttals

Craig's first argument for the second premise is that it is impossible to have an actual infinite, which Erasmus and Luna primarily denied on the basis of intuition. Oddly, their contention was not on the grounds of intuition being unreliable, it was that individual's will only believe what they have previously determined to be metaphysically possible or not; therefore, according to Erasmus and Luna, Craig should abandon this particular argument in defense of premise two because it is essentially "inconclusive."[134]

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[132] Ben-Naim, "Entropy and Information Theory."

[133] Ibid.

[134] Erasmus and Luna, "A Philosophical Argument," 166.

Perhaps Erasmus and Luna too hastily championed a renunciation of the relevance of Craig's Infinity Argument since it is highly plausible that myriad individuals have never much thought about the issue of infinitudes; they very well may not possess a prior notion of the possibilities of actual infinities. Because Erasmus and Luna enjoy an *a priori* of what is metaphysically possible does not mean that everyone else does. In all honesty, Craig's argument should remain in the KCA if for no other reason than the causation of unassuming individuals beginning to ponder what is metaphysically possible for the first time. If Craig were to abandon his argument, there ought to be a much more sound justification than assuming other's prior knowledge, or lack thereof.

If there is a justifiable reason to doubt the second premise, it likely revolves around which theory of time is true. A-Theory contains the intuitive experiential effects of reality, whereas B-Theory possesses strong arguments for how ultimate reality may be. This debate is not insignificant, and according to Craig, it poses a threat to his version of the KCA; therefore, it is worthwhile to dive a little deeper into the subject.

The plethora of differing views within each theory of time is, essentially, limitless. Philosophers of all stripes have concocted, debated, and adopted many different detailed models within the wider theoretical scope of which time theory is most accurate, or at least the theory most compatible to their respective worldviews. However, the only models that upend the KCA are those which suggest that time is static and comprises no progression nor movement. Afterall, if time is static, then there would be no moments or events prior to the now; thus, no beginning of the universe and no second premise of the KCA.

As noted above, Craig critiqued a static view of time while vying for a dynamic view in an earlier work, *Time and Eternity: Exploring God's Relationship to Time*.[135] Although this work is dated, some of the objections are still germane to the discussion of which theory of time comprises genuine reality. Power argued that relativity is one of the leading factors of why one should dismiss a dynamic theory of time since time is dependent upon which inertial frame of reference one is in. Craig does not deny that relativity is a key factor when considering a proper theory of time, and he understands the static-time implications of the typical use of Minkowskian space-time relativity, which primarily trades in special relativity. However, Craig argues for a Lorentzian relativity that is amply companionable with dynamic theories of time.[136]

As opposed to Power's Minkowskian understanding of relativity and time, a Lorentzian interpretation allows for different inertial reference frames but also includes an absolute time which is independent of any individual frame of reference.[137] Although the clocks ran slower during the Hafele-Keating experiments causing those in flight to age less quickly, in absolute time those in flight aged the same as everyone else. In fact, Craig argues that the interpretation of the results of experiments like Hafele-Keating are flawed since "the measuring devices used by such observers are distorted in virtue of their motion relative to the privileged reference frame."[138] Therefore, time dilation and relativity might not be strong enough evidence to outright deny an A-Theory of time, providing Craig's argument that it is impossible to obtain infinity by successive addition more credence and plausibility.

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[135] William Lane Craig, *Time and Eternity: Exploring God's Relationship to Time* (Wheaton, Ill: Crossway Books, 2001).

[136] William Lane Craig, *Time and Eternity*.

[137] Ibid.

[138] Ibid.

As far as the objections to Craig's scientific evidence for his second premise goes, a radial expansion is still evidence for a universe's beginning to expand and Ben-Naim is almost alone in his contention that the Second Law of Thermodynamics is the most misapplied theory of modern science. If James is correct and his dynamic cosmological model is found to be superior to the Standard Model, then a worst-case scenario for Craig would be for him to recalibrate some of his argument from expansion to a beginning. The conclusion would remain the same: the universe is expanding; therefore, the universe began to expand at some point in the past. The only thing Craig would need to do is alter his explanation of how the universe is expanding.

Ben-Naim's contention is that the Second Law of Thermodynamics is the most misapplied theory in science; however, Haddad states, "Thermodynamics is universal, and hence, in principle, it applies to everything in nature—from simple engineering systems to complex living organisms to our expanding universe."[139] According to Haddad, thermodynamics is undeniable and it affects everything. Accordingly, Craig is safe with his argument from thermodynamics. In fact, this argument is probably his strongest and most universal case for a universe that began to exist.

Chapter 2 Conclusion

In this chapter, Craig laid out a four-fold argument for his second premise that the universe began to exist. Craig argued that it is impossible for an actual infinite to exist by demonstrating the absurdities of the Infinite Library and Hilbert's Hotel paradoxes. Then, Craig added to his first argument by suggesting that even in the case that an actual infinite is possible, it would be impossible to obtain an actual infinite by successive addition. After which, Craig employed two arguments from science that point to the universe's beginning to exist: the

[139] Wassim Haddad, "Thermodynamics: The Unique Universal Science," *Entropy* 19, no. 11 (2017): 621.

expansion of the universe and the universe's thermodynamic properties. Craig's four-fold case for premise two is strong but it is not without its objections.

Erasmus and Luna argued that intuition plays a significant role in what a person believes to be metaphysically possible; therefore, the infinity argument should be abandoned because individuals will not be persuaded beyond what they already believe to be possible. However, this argument was found unpersuasive. Not all individuals have rationally thought about their positions about infinitudes; thereby, not having preconceived notions of what is metaphysically possible or not possible regarding the infinite. The strongest objection to Craig's second premise revolves around which theory of time is truly correct. Craig advocates for an A-theory of time whereby time advances from the past to the present toward the future. Others advance the B-theory of time claiming that all of time is at one moment and that the present is illusory. There are solid arguments for both theories. Although the A-theory seems most plausible, it is difficult to outright deny the possibility of a B-theory, making this the strongest objection to the second premise and the entire case for the Kalam Cosmological Argument. The two scientific arguments are very strong and the cases against them are weak at best. Therefore, as long as an A-theory represents actual reality the second premise is true.

Chapter 3

The Universe Has a Cause

> Therefore, it is necessary to admit a first cause, to which everyone gives the name of God.
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> —Thomas Aquinas, *Summa Theologiae*

Introduction

After addressing the first two premises of Craig's KCA, concentrating upon current objections to each, there seems to be no solid reason to totally abandon the argument. Therefore, after understanding causality and that the universe began to exist, it necessarily and logically follows that the universe, does in fact, have a cause too. But, realizing the existence of a cause is not the same thing as understanding the nature of the cause.

Craig's Argument for the Cause of the Universe

In Craig's original work on the KCA, he concluded that the cause of the universe consists of a personal creator who existed timelessly and changeless before creation, and one who is in time after creation.[140] Beyond that scope, Craig did not inquire. However, in his subsequent works, Craig has argued for a creator who not only is personal and oddly related to time, but one who also transcends space, who is beginningless and without cause, one who is incredibly powerful, and one who possess libertarian free-will.[141] According to Craig's inferences, the cause of the universe's inception is remarkably analogous to the person everyone refers to as God.

A Personal Creator

As for the personhood of the universe's creator, Craig appeals to Swinburne who argues that there are two types of causal explanations. There are scientific explanations, which consist of

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[140] Craig, *Kalam Cosmological Argument*, 152.

[141] Craig, *Reasonable Faith*, 152.

laws and initial conditions, which explain how an effect was caused; then, there are personal explanations, consisting of agents and their motives, which explain who and why an effect was caused.[142] Typically, both explanations are legitimate for answering different types of questions.

For instance, if someone were to inquire about an old photograph on the wall, the photographer might reply by saying that the photo came about by light entering through the lens of a camera, which redirected the light to a single point near the back of the camera which then etched the image onto a section of film; afterward, the film was developed through a chemical process and printed into the image that is now observed on the wall. Or the photographer might respond by saying that she snapped the picture to always remember the momentous occasion of her child's first steps. Both answers are authentic, but the type of answer afforded is usually dependent upon the type of inquiry that is offered. Although it is perfectly legitimate to respond with a scientific or personal reason for most causal explanations, that is not so with the first state of the universe. Since, there was nothing before the universe's existence (no laws to operate on any initial conditions) there cannot be a scientific explanation for the cause of the universe. Therefore, the cause of the universe can only be explained with a personal explanation.[143] As long as Swinburne did not create a false dichotomy with his two-explanation hypothesis, it seems that Craig's reasoning is sound and the only explanation for the cause of the universe is personal.

Moreover, since God, as the cause of the universe, existed prior to the creation of space, time, and matter, he is not comprised of either three; therefore, he would be spaceless, timeless, and immaterial. Craig points out that the only entities with such attributes are either minds or

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[142] Craig, *The Kalām Cosmological Argument: Scientific Evidence for the Beginning of the Universe*, vol.2, ch. 11.

[143] Craig, *Reasonable Faith*, 153.

abstract objects, and since abstract objects cannot be the causal agents of anything, it follows that the creator of the universe "must be of the order of mind."[144]

A Timeless, Changeless, and Free Creator

It is straightforward to understand that the cause of the universe is beyond space, time, and matter, if space, time, and matter came about at the instant of creation. If there were no moments of time before the initial effect, the cause must be outside of time, and therefore, timeless. If there were no material prior to creation, it follows that the cause is also immaterial. If there were no matter (or time) before the first effect, the cause must also be changeless prior to creation.[145] Understanding God's timelessness and changelessness, as the nature of the case, is where things get admittedly odd for Craig.[146] For how can it be that a cause is eternal and changeless, yet cause something to come into existence a finite time ago? There must have been some type of change prior to creation or else there would have been no creation.

Craig explains this conundrum by elucidating causal relationships. There are event/event causal relationships whereby one event causes another event to occur.[147] Think of a nail going into a car tire causing it to go flat. These types of causation necessarily involve an element of time, since those events must happen at specific times.[148] Then, there is state/state causal events, where one state of affairs is caused by another state of affairs. Craig demonstrates this type of causal relationship by pointing out that a piece of wood floating on water is caused by water

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[144] Craig, *Reasonable Faith*, 153.

[145] Ibid.

[146] Ibid.

[147] Ibid.

[148] Ibid., 154.

displacement.[149] This kind of causal relationship is not affected by time, as was the event/event causation, since in theory, the piece of wood could have been floating forever.[150] As Craig points out, the odd thing about the causation of the universe is that there seems to be an incomparable case of state/event causation.[151] To avoid the contradiction of having a state/event causal creation, Craig suggests that the causal relation must be that of "agent causation" where the agent who brought about the effect freely chose to do so.[152]

Although these attributes are inferred from the outcomes of the KCA, not everyone agrees with them. There have been several objections raised in light of Craig's conclusions (most notably, Adolf Grunbaum's); however, those have been dealt with in some of Craig's earlier works.[153] Therefore, as is the purpose of this thesis, it is necessary to address modern objections to the conclusion that the cause of the universe is a personal agent comprised of several characteristics commonly attributed to a theistic God.

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[149] Craig, *Reasonable Faith*, 154.

[150] Ibid.

[151] Ibid.

[152] Ibid.

[153] Adolf Grunbaum, "The Pseudo-Problem of Creation in Physical Cosmology," *Philosophy of Science* 56, no. 3 (1989): 381-383, accessed March 3, 2024, https://www.jstor.org/stable/187991?saml_data=eyJzYW1sVG9rZW4iOiJmNzY0NGU4OC1iMTE1LTQ3NWQtOTg5YS02ZTFjOWRlNjA3ZjYiLCJpbnN0aXR1dGlvbklkcyI6WyJjNGZjMjNmMC01MDQzLTRiOWMtYjgzNS0wZTBkZDBhMDA2MjMiXX0&seq=11. Grunbaum's objections were placed into three different categories in his original argument. Group I objections (according to Grunbaum commit the fallacy of composition) cast doubt on the concept of causation. Group II objections seek to combine causality with temporal series of events, such that God as the uncaused cause is unacceptable as the answer for the first cause, thereby stressing that God should have a cause as well. Group III objections focus on the all too often used claim that creation from nothing surpasses all understanding; if, afterall, creation ex nihilo is not understandable, then it is of no use as a doctrine. In *Reasonable Faith* (2008), Craig pointed out the problems with Grunbaum's logic and misunderstandings on all three types of objections. In "Libertarian Agency and the Craig/Grünbaum Debate about Theistic Explanation of the Initial Singularity," *The Kalām Cosmological Argument: Scientific Evidence for the Beginning of the Universe* (2017), J.P. Moreland addresses the debate between Craig and Grunbaum and points out several issues with Grunbaum's contentions as well.

Modern Objections to Craig's Conclusion

There is little doubt as to the elephant in the room concerning a sincere objection to Craig's conclusions. Craig points to it himself when he notes the oddity of having an eternal cause that produces a finite effect.[154] To offer an answer, Craig puts forth the argument that God is timeless prior to creation and temporal subsequent to creation.[155] Erik Wielenberg suggests that Craig not only fails to adequately explain his position, but also commits two contradictions in the explanation he does provide.

The first contradiction Wielenberg addresses is the impossibility that God is both timeless and temporal simultaneously at the moment of creation.[156] According to Wielenberg, God cannot be timeless at creation while being temporal since the two are opposites. However, that appears to be exactly what Craig is arguing for—albeit inadvertently. In Wielenberg's understanding, Craig is saying that prior to creation God needs to be timeless in order to possess the power to create time at the moment of creation (t1).[157] For whatever creates time must be beyond it. Also, he suggests that Craig is saying that at t1 God becomes temporal, which would mean that at t1 there is at least a moment where God is both timeless and temporal—a contradiction.[158]

The second contradiction Wielenberg identifies in his paper entails God's agent-causation of the universe to be both caused and uncaused.[159] To make this case, Wielenberg must maintain

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[154] *Craig, Reasonable Faith*, 153.

[155] Ibid.,156.

[156] Erik Wielenberg, "Craig's Contradictory Kalam: Trouble at the Moment of Creation," *TheoLogica: An International Journal for Philosophy of Religion* 5, 1 (2021), 80, accessed March 14, 2024, https://doi.org/10.14428/thl.v4i3.55133.

[157] Ibid., 81.

[158] Ibid., 82.

[159] Ibid., 86.

that the event of God agent-causing the universe to begin to exist is equivalent to the universe beginning to exist.[160] However, this is a gross misrepresentation of Craig's view. Craig does state that God creating the universe could be simultaneous to the Big Bang, but simultaneity does not necessitate equivalence.[161]

It is possible that two events can occur at the same time and remain two separate events. For instance, a mother could have given birth at 2:58 PM on Monday December 1, 2009, and that same mother could have began crying at 2:58 PM on Monday December 1, 2009 as simultaneous events. No one would think for a moment that a crying mother is the same thing as a child being born. Although the two events occurred at the same moment, they remain two different events. Likewise, God causing the universe to begin is not the same as the universe beginning to exist, even if they both occurred at the same instant.

Although Wielenberg may have missed the mark with his second contradiction, he did reveal incongruities regarding God's timelessness and temporality at the moment of creation. When God exercised his causal powers, he likely brought himself into time.[162] But how can there be time before time exists—if time began to exist at the moment of creation? Moreover, and more to the point, whatever created the universe must be beyond time for the KCA to stand.

Additional Insights/Rebuttals

Wielenberg raises some serious questions in his article about God's relationship to time at and around the creation of the universe. Was God temporally prior to the existence of time? How

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[160] Wielenberg, "Craig's Contradictory Kalam," 84.

[161] Craig, *Reasonable Faith*, 156.

[162] Craig made this statement in a footnote on p. 154 in *Reasonable Faith*, "Such an exercise of causal power plausibly brings God into time, if He was not temporal already."

did God change from timeless to temporal and at which point did the change occur? Hopefully, some additional insights will clear up any confusion unattended in the conclusion of the KCA.

To be sure, Craig briefly responded to Wielenberg's article, whereby he defended his position and more clearly articulated his view. Considering the first contradiction, Craig irradicates any confusion by pointing out that Wielenberg essentially misconstrued his argument. Craig, in fact, does not hold that God must be timeless at creation in order to have the power to create the universe.[163] Craig clarifies that even in possible worlds where God may never exist in time, He would still possess the power to create since God's omnipotence is a modal property.[164] Therefore, Wielenberg's claim of Craig's contradiction is false. However, Craig does reiterate the notion that his hypothesis that God exists timelessly sans creation and temporally in creation is strange, even though he finds no inconsistencies within it.[165]

What Craig does do in his response to Wielenberg is emphasize that the KCA is compatible with multiple theories of God's eternality. The KCA stands whether God is and always has been timeless or if He became temporal prior to or at the moment of creation. There are several theories of divine timelessness that are adequate for explaining the beginning of the universe and God never becoming temporal. Elenore Stump and Norman Kretzmann offer such a view of God's timelessness that is simultaneous with creation's temporal existence.[166] In their view, God is outside of time and has remained that way even after God created the universe,

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[163] William Lane Craig, "No Trouble: A Reply to Wielenberg," *TheoLogica: An International Journal for Philosophy of Religion and Philosophical Theology*, *5*(1) (2021), 90, accessed April 1, 2024, https://doi.org/10.14428/thl.v4i3.58143.

[164] Ibid.

[165] Ibid.

[166] Eleonore Stump and Norman Kretzmann, "Eternity," *The Journal of Philosophy* 78, no. 8 (1981): 429-458.

thereby strictly adhering to the classical doctrine of immutability. However, Stump and Kretzmann differ from the classical theory of divine timelessness in that they promote a temporal existence for creation while God remains in His original timeless state (Eternal-Temporal simultaneity).[167] Since they adhere to a dynamic theory of time, in regards to creation, their view is compatible with the KCA.[168]

However, Andrew Loke might have some additional insights that shore up what Craig has been saying, or attempting to say. Loke clarifies that there is no inherent reason to suggest that causes must be relationally temporal or that they must be events.[169] The only contingent property of a cause is that it brings about an effect. Beyond that, the objector must provide strong reasons to believe otherwise. Therefore, according to Loke, God could have remained timeless, since causation does not necessarily imply a temporal event, as He freely willed the universe into being.[170] So, it could be that God caused the universe to exist, by His free will, and remained timeless until the precise moment of creation where He entered a temporal state. But does God entering a temporal state imply a change in God?

At first blush, it appears that God changing from timelessness to temporality would cause serious problems with the theistic doctrine of divine immutability. However, as Craig points out, the change that occurs with God at the moment of creation is an extrinsic change rather than an intrinsic one.[171] This difference would also clear up some confusion with Wielenberg's

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[167] Stump and Kretzmann, "Eternity," 436.

[168] It should be noted that theories which argue for a static theory of time, such as Brian Leftow's *Time and Eternity* (Ithaca, N.Y. : Cornell University Press, 2009), are incompatible with the KCA.

[169] Andrew Loke, *God and Ultimate Origins: A Novel Cosmological Argument* (Cham, Switzerland: Palgrave Macmillan, 2017).

[170] Loke, *God and Ultimate Origins*, ch. 1.

aforementioned first-contradiction. God is not timeless and temporal at the same instant, but rather enters time because of the extrinsic change of the universe beginning to exist. Similar to when a female's egg has been fertilized, she becomes a mother. She is not a mother and a non-mother at that very same instant. She becomes a mother as a result of her egg being fertilized and a wholly new being beginning to live. Moreover, there is not a change in the mother's constitution, per se, rather the thing that changed her from childless to a mother is an extrinsic change, namely that of another being developing inside her. Likewise, God is not timeless and temporal at the same moment, God simply changes from timelessness to temporality because of His free choice to initiate creation. Therefore, the conclusion of the Kalam Cosmological Argument stands even against the objections facing it.

Chapter 3 Conclusion

If everything that begins to exist has a cause and the universe began to exist, it follows logically that the universe has a cause. However, the nature of the universe's cause was the primary subject of this chapter. Craig discussed how the cause must be personal, possessive of free-will, timeless, and changeless. Of course, God possesses many more attributes than these four, but these are implicative of the KCA. Although it is obvious that Craig went to great pains to develop his conclusion as clearly as he philosophically and theologically could, not everyone is always satisfied.

Wielenberg took exception to the KCA's conclusion and argued that Craig committed two contradictions: God is timeless and temporal at the same moment and that the universe is both caused and uncaused. To demonstrate that the first contradiction was false, Craig pointed out that he does not hold that God must be timeless in order to have the power to create, which is a

[171] Craig, *Time and Eternity*, 60.

primary factor in Wielenberg's case. Then, Craig pointed to the malleability of the KCA and how different views of God's timelessness is compatible with the KCA's premises and conclusion (all except those views which promulgate a tenseless or B-theory of time). Concerning the second contradiction, Wielenberg mistakenly equated simultaneous events as the same events to make his case. It was demonstrated that events which occur simultaneously are not necessarily the same events. Moreover, Loke addressed the concept of causes not necessarily being events but rather something that produces an effect. Therefore, the exceptions to the KCA's conclusion are misguided at best and do not in any way affect the outcome of the argument. The conclusion remains standing—so long as the premises are true.

Conclusion

> We ought to ponder long and hard over this truly remarkable conclusion, for it means that transcending the entire universe there exists a cause which brought the universe into being *ex nihilo*.
>
> —William Lane Craig, *The Kalam Cosmological Argument*

In 1979, Craig revived a rather simple ancient argument for God's existence with a simple syllogism that can be easily remembered and regurgitated:

1. everything that begins to exist has a cause;
2. the universe began to exist;
3. therefore, the universe has a cause.

The argument is simple, it is straightforward, and its conclusions are incredible. Yet, this simple, straightforward, and incredible argument has met resistance for forty-five years by the best and brightest philosophers and theologians the world over. The KCA's significance and strength can be witnessed by the record of challenges it has faced over the decades since its resurrection. Afterall, if an argument is still being contended with after nearly a half-century, that says something about its efficacy. Although it has dealt with decades of debate, new objections are leveled against it each year with no signs of clear skies on its horizon. Those new objections are what this work attempted to dispel, or accept, based on the rationality of each argument.

In chapter one, dealing with the KCA's first premise, it was found that probably everything that begins to exist has a cause (emphasis on the word probably). Craig's primary argument for premise one ultimately traffics in intuition and everyday experience; however, those two items are not satisfactory enough to convince everyone that the first premise is true. Many suggest that metaphysical intuition is unreliable and that some experiences may actually shroud reality. Nevertheless, solid arguments and studies were offered which uphold the

trustworthiness of a person's intuitions as a means of procuring knowledge. Furthermore, most experiences correlate to reality, while only some of them hide it. Together, however, intuition and experience provide rather strong evidence of the way the world truly is. Therefore, the first premise is far more likely true, than it is false. However, more studies need to be conducted on the trustworthiness of intuitions. Hopefully, those will clear up any doubts that are left open to the skeptics.

In chapter two, Craig offered four arguments to show that the universe began to exist: two philosophical and two scientific. The issue with the scientific evidence is that science does not explain anything, only the scientists do the explaining. Therefore, their philosophical underpinnings will likely dictate their scientific explanations. That is why two opposing conclusions may be drawn from the same data. But the philosophical arguments appeal to the mind of man, then reach out to touch his heart. Craig's philosophical arguments for the second premise consist of the impossibility of an actual infinite and the impossibility of an actual infinite by successive addition. As to the first of the two philosophical arguments, mathematicians argue that it is not impossible to obtain an actual infinite, but numbers are abstract, not actual, objects. Although some would argue that Craig was dealing with infinite sets using finite mathematics in his reasoning, Craig is ultimately correct. No matter how one slices it, the universe is only a certain size (albeit a rapidly expanding size) and it can only contain a finite amount of anything at any one particular moment within it.

The second of the philosophical arguments is where the primary debate should lie. Craig suggests that it is impossible to obtain an actual infinite by successively adding one member after another. This is only true using an A-theory of time. If a B-theory is true, then this second argument is false and entire KCA will crumble to the ground. It was demonstrated that there are

solid arguments for a B-theory of time; primarily arguments appealing to the relative nature of time and the fact that one cannot deny the possibility that the passage of time is illusory. However, one cannot deny their experience of the passage of time either. Ultimately, the arguments in support of an A-theory outweighed those supporting a B-theory; thereby, giving the credence to Craig's second premise.

If a person's intuitions are trustworthy and an A-theory of time is the accurate view of reality, the conclusions Craig draws are accurate. In chapter three, the nature of the cause of the universe was discussed. It was shown that whatever caused the universe to come into existence is personal because the first cause had to be accomplished by agent-causation. Moreover, the implications of the KCA point to a creator who is timeless, powerful, and changeless. Although Wielenberg attempted to extrapolate two contradictions in Craig's work, he ultimately failed and Craig's conclusions were upheld.

Although there may be room for improvement in the Kalam Cosmological Argument (namely more proof for the reliability of metaphysical intuitions, which would also enhance the arguments for an A-theory of time) the argument is left standing victorious, even against the formidable foes of the modern objections leveled against it. The KCA is a beautifully simplistic argument that children can remember and scholars can debate, its breadth spans from philosophy to science, and its depth reaches from the tiniest molecules in the universe to brink of heaven itself. The beauty of the KCA, however, is not found in its strength, its simplicity, its breadth, nor its depth; its beauty is found in who it paints a portrait of.

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