

LIBERTY BAPTIST  
THEOLOGICAL SEMINARY

AN ARGUMENT AGAINST THE BUDDHIST CONCEPT OF DEPENDENT  
ORIGINATION THROUGH WILLIAM LANE CRAIG'S KALAM COSMOLOGICAL  
ARGUMENT

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## Introduction

The Buddhist concept of the universe and the laws of cause and effect better known as dependent origination leave no real room for the idea of a supreme deity in the role of creator. In fact, Buddhism does not need to deny the existence of a creator God, for its philosophy automatically excludes the possibility of the theory.<sup>1</sup> At the outset it must be realized that the Buddha did not give any specific instruction regarding the creation or formation of the universe, but rather, he laid down his system of philosophy in a way that alludes to the fact of theism being invalid. The Buddha's followers not only followed this system, but also argued against its opponents. Their main issue with having a creator was that they felt he himself would have to be subject to some law by which he could perform the act of creation. Moreover, they argued that the fact of His being requires laws, for to exist is to function, which would require another being or entity to create him. Therefore, Buddhism teaches that there cannot be a first cause or God of the universe. Rather, they believe there must be a prior condition to the existence of anything, including God.<sup>2</sup>

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<sup>1</sup> Francis Story, *Gods and the Universe in Buddhist Perspective: Essays on Buddhist Cosmology and Related Subjects* (Kandy, Sri Lanka: Buddhist Publication Society, 1972), 3.

<sup>2</sup> Ibid, 18.

The Buddha himself did not so much deny the theory of a Creator-God as make the hypothesis not only unnecessary, but actually incompatible with the known facts. Francis Story, a practicing Buddhist and scholar claims that if, in order to exist, the world must have had a pre-existent Creator, how did this Creator himself come into existence, and by what laws was his own nature governed? If such a being were able to exist without a creator, the sole reason for assuming his own existence is removed because the world itself can exist equally well without a prior cause. Thus the Buddhists, through their concept of dependent origination, believe that the universe and the life process had no beginning, and that humans are merely constrained to think in the terms of beginnings only because of the limitations of the mind and not through any evidence.<sup>3</sup>

As a response to the Buddhist teaching of dependent origination, the central aim of this thesis will be to establish that the universe had a beginning and to demonstrate that the beginning or first cause of the universe was and is God.<sup>4</sup> In proving these claims to be true, this work will consider William Lane Craig's kalam cosmological argument. Through this argument Craig points to philosophical arguments view such as the problem

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<sup>3</sup> Ibid.

<sup>4</sup> Paul Copan and William Lane Craig, *Passionate Conviction: Contemporary Discourses on Christian Apologetics* (Nashville, TN: B&H Academic, 2007), 63.

of actual infinities and the impossibility of reaching an actual infinite through successive addition. Based on scientific evidence, he considers the expansion of the universe as well as the laws of thermodynamics. Together, it is Craig's contention that the universe had a beginning or first cause of existence, which would therefore prove the Buddhist concept of dependent origination to be invalid.

The importance of proving a first cause is not only important in proving that the Buddhists are misled when it comes to the beginning of the universe, but also that if a first cause is shown to be necessary, then one can further the argument and show that the first cause has to be God. The concept of dependent origination is essential in understanding Buddhist thought, for it is central to everything that they teach and believe. Without a first cause or God, man is left with no sense of hope or purpose and so the significance of this work.

This thesis will attempt to show that the Buddhist concept of dependent origination is inconsistent based on the philosophical and empirical evidences of William Lane Craig's kalam cosmological argument. Finally, a brief overview of why that first cause must be God will be considered. However, before one proves dependent origination to be invalid, one must understand its teachings and this will be the opening focus of this work.

## Dependent Origination

Dependent origination, or often called dependent arising, is considered by some Buddhist scholars to be the foundation of all other Buddhist study and practice. The concept teaches that cause and effect co-arise and that everything that exists is a result of multiple conditions and causes. Thus, the egg is in the chicken and the chicken is in the egg. Like all else, the chicken and the egg arise in mutual dependence and neither is independent. Dependent origination was the way that the Buddha explained how we experience the world around us, which is both joy and suffering as reality.<sup>5</sup>

Moreover, it is often explained in Buddhist circles by picturing a wheel that has twelve spokes. If one sees the universe just as they picture the wheel, it is clear that everything is linked to something else and that each element of the wheel or (universe) is dependent on the other spokes. Additionally, Buddhism teaches that nothing can or does exist outside of the wheel, for all things are interdependent, arising continually through the influences of causes and conditions.<sup>6</sup>

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<sup>5</sup>Thich Nhat Hahn, *Heart of the Buddha's Teaching Transforming Suffering into Peace, Joy & Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* (New York: Broadway Books, 1999), 221-227.

<sup>6</sup> Timothy C. Tennent, *Christianity at the Religious Roundtable: Evangelicalism in Conversation with Hinduism, Buddhism, and Islam* (Grand Rapids, MI: Baker Books, 2002), 101-102.

Here are the words of the Buddha to his disciple in regards to dependent arising:

"Deep, indeed, Ānanda, is this paṭicca-samuppāda, and deep does it appear. It is through not understanding, through not penetrating this doctrine, that these beings have become entangled like a matted ball of thread, become like *muñja* grass and rushes, unable to pass beyond the woeful states of existence and *saṁsāra*, the cycle of existence."<sup>7</sup>

In other words, the Buddha felt that this doctrine was so important to understand that those who fail to understand its significance will continue to be entangled in the suffering and desire of this world and will never escape the cycle of death and rebirth. Thich Nhat Hahn in his book the "Heart of the Buddha's Teaching" says that all teachings of Buddhism are based on dependent arising, and if a teaching is not in harmony with this concept, it is not a teaching of what the Buddha realized after he was enlightened.<sup>8</sup>

The doctrine of dependent origination is significant, being that any first cause, be it a Creator God or whatever one may conceive it to be, is impossible. In P.A. Payutto's work *Dependent Origination*, he explains that in Buddhism all things are seen as interrelated, that all things exist in relation to each other, that all things exist dependent on determinants, and

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<sup>7</sup> Piyadassi Thera, *Dependent Origination*, Buddhist Publication Society 15 (2008): 3.

<sup>8</sup> Thich Nhat Hahn, *Heart of the Buddha's Teaching Transforming Suffering into Peace, Joy & Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* (New York: Broadway Books, 1999), 226.

that nothing in this universe has enduring existence, not even for a moment, for they have no intrinsic entity. Thus, all things are without a first cause, such as God. He goes on further to state that if one were to trace back along the stream of causes in this universe, no root cause can be found in anything. He adds that the tendency for people to try to find an original cause simply conflicts with the ways and laws of nature and is a form of self-deception caused by the human habit of wanting to know further. Another reason that Payutto believes individuals think that all things have a Creator is because of deductive reasoning that is based on the observation of man's ability to create and produce things. The fact that man can create, design, and build leads one to believe that the world itself must have also been created, designed, and built, but he believes this is also nothing more than self deception.<sup>9</sup>

Taking from the Buddha's teachings of a first cause, he emphatically declared that a first beginning of existence is something simply inconceivable and that if one even attempts to think or speculate on such an idea it may lead them to mental derangement for no truth can be found.<sup>10</sup> Thich Nhat Hanh says

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<sup>9</sup> P.A. Payutto, *Dependent Origination: The Buddhist Law of Conditionality* (Thailand: Buddhadhamma Foundation, 1995), 28.

<sup>10</sup> Ibid.



this about the Buddha's teaching of the nature of being and the world:

"The Buddha always told his disciples not to waste their time and energy in metaphysical speculation. Whenever he was asked a metaphysical question, he remained silent. Instead, he directed his disciples toward practical efforts. Questioned one day about the problem of the infinity of the world, the Buddha said, "Whether the world is finite or infinite, limited or unlimited, the problem of your liberation remains the same." Another time he said, "Suppose a man is struck by a poisoned arrow and the doctor wishes to take out the arrow immediately. Suppose the man does not want the arrow removed until he knows who shot it, his age, his parents, and why he shot it. What would happen? If he were to wait until all these questions have been answered, the man might die first." Life is so short. It must not be spent in endless metaphysical speculation that does not bring us any closer to the truth."<sup>11</sup>

Another point of contention the Buddha propagated against a first cause of the universe was that if one assumes or even considers there to be a first cause of all things, then one is justified in asking for the cause of that first cause, for according to him nothing can escape the law of condition and cause. Furthermore, one sees in Buddhist thought the idea that in natural law, never-ending causes and effects and nothing else can be seen ruling the universe. Every effect becomes itself a cause, and this cycle goes on forever, or as long as ignorance

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<sup>11</sup> Thich Nhat Hanh and Philip Kapleau, *Zen Keys* (New York: Three Leaves Press, 2005), 42.

and craving continue.<sup>12</sup> Not only does the idea of a first cause in Buddhism make sense philosophically, but even scientifically. As one writer by the name of Piyadassi Thera stated,

"Those who make the mistake of thinking in terms of a first cause are fated never to become men of science. But as they do not know what science is, they are not aware that they are losing anything. To refer phenomena back to a first cause has ceased to be fashionable, at any rate in the West. ... We shall never succeed in changing our age of iron into an age of gold until we give up our ambition to find a single cause for all our ills, and admit the existence of many causes acting simultaneously, of intricate correlations and reduplicated actions and reactions."<sup>13</sup>

Thera further deals the absurdity of there being a first cause by considering *ad infinitum*, which is a Latin phrase meaning "to infinity". He also argues that in every instance humanly conceivable, effect becomes in turn a cause and it goes on forever. One example of this is to consider a coconut which is the principal cause or near cause of a coconut tree. Furthermore, 'X' has two parents, four grandparents, eight great-grandparents, and thus the law of cause and effect extends unbrokenly or *ad infinitum*. Thera concludes by stating that it is natural law that rules the universe, for the ultimate origin

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<sup>12</sup> Piyadassi Thera, *Dependent Origination*, Buddhist Publication Society 15 (2008): 4.

<sup>13</sup> *Ibid*, 3.

of anything, not even a grain of sand let alone human beings, can be traced back to its beginning.<sup>14</sup>

It is interesting to note that the Buddha himself never had a specific teaching regarding the origin of the universe or of life because he felt it was "unanswerable" from the level of ordinary intelligence and the ignorance of man. Early practitioners of Buddhism, because of this silence and unwillingness to attempt an explanation from the Buddha, took their ideas concerning the nature of the universe from the Brahmanical teachings that were already established in India. Vedic teachings claimed that the universe consists of innumerable world systems which come into being and pass away again in an endless cycle covering periods of millions of years. In fact, they had even established units of time so that each cyclic period of a world-system could be calculated. While this system is admittedly complex, the importance of it is that after the destruction of a world system, a long period of time elapses at which a new system is developed. This process is therefore repeated ceaselessly and is taught to have no beginning or end.<sup>15</sup>

While it is true that for empirical and logical reasons the Buddha abstained from any discussion of the problem of the

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<sup>14</sup> Ibid, 4.

<sup>15</sup> Francis Story, *Gods and the Universe in Buddhist Perspective: Essays on Buddhist Cosmology and Related Subjects* (Kandy, Sri Lanka: Buddhist Publication Society, 1972), 37.

origin of the world, he did find it necessary to give a rational explanation of these Brahmanical teachings. Without positing a first cause as the Brahmanical system does, the Buddha described the world as being subject to a process of dissolution and evolution.

"There comes a time,..when, sooner or later, after the lapse of a very long period of time, this world passes away (or is destroyed). And when this happens, beings (who have reached the end of their life span) are reborn in the world of Radiance, and there they dwell; made of mind, they feed on rapture, and self luminous, traverse the air, remain in glory, and thus they stay for a long time. There also comes a time,..when, sooner or later, this world begins to revolve. When this happens, beings who have passed away from the world of Radiance, usually come to life as humans. And they too are "made of mind, they feed on rapture, are self luminous, traverse the air, abide in glory, and remain thus for a long time."<sup>16</sup>

From this statement by the Buddha, one can gather some important facts of Buddhist cosmological speculation. The first important feature is that it implies that the world in which we live is only a small piece of a vast universe. While it has been noted that speculation and questions about the extent of our world system is generally discouraged by the Buddhists, infinite space and time are never truly forgotten. Within that space the Buddhists see a number of worlds where there can be mutual influence among them. Therefore, when the earth someday goes through the process of dissolution, the beings that live here

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<sup>16</sup> David J. Kalupahana, *The Central Philosophy of Buddhism* (Honolulu, HI: University Press of Hawaii, 1975), 111.

will be reborn in another sphere in space until the time where the earth starts revolving and they come back. The Buddha felt that this explanation of no complete extinction of life enabled his philosophy to avoid the question of the beginning of the world and life.

The second feature that one gathers from the Buddha's statement about the cosmos is that the passage emphasizes an immeasurable length of time between dissolution and evolution. Thus, while these eons of time pass, the Buddha maintains that the "self luminous" beings who are capable of becoming human once the earth is reborn simply traverse the air until that time. David Kalupahana, who is a Buddhist scholar from Sri Lanka, explains that the Buddha stayed consistent with his philosophy and thus explained the cosmos in terms of a casual formula. While his explanation of things and account of the world come from a chaotic state and is no more than a hypothetical description (as every description of the origin of the world must be), it is healthier insight and nearer to the facts than what was thought previously.<sup>17</sup>

Turning from the Vedic teaching, one sees that while the Buddhist view adopted much of these same concepts, the difference is that instead of placing any controlling deity for

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<sup>17</sup> Ibid, 111-112.

the world system, Buddhism substitutes the law of cause and effect. In other words, one universe arises from the casual effects of the one that preceded it. While Thera attempts to give some scientific proof for these theories actually being reality, he ultimately goes back to the simple statement that was made by the Buddha, which was: "Whether Buddhas arise or do not arise the law of causality, the principle of the dependence of this upon that, the causal sequence of events, remains a fixed and unalterable law."<sup>18</sup> That being the case, Thera does admit that science does not provide any solution to the issue of a first cause. Rather, it puts forth a tentative theory that still does not answer the question of the beginning of life.

While the Buddhists admit that they cannot ultimately prove their theories through science and the mind, they believe that the theistic religions also fail to answer the question of origin. For them, the issue comes down to the fact that if the origin of living creatures is ascribed to a Creator-god, how and why did that being come into existence? Moreover, they ask the theist if God can exist uncreated, why is there reason to believe that other phenomena of the universe should not exist without being created as well? In Buddhist philosophy, it all comes down to the human mind, which they believe through its

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<sup>18</sup> Piyadassi Thera, *Dependent Origination*, Buddhist Publication Society 15 (2008): 39.

limitations can only conceive of things in their arising, decay, and dissolution. Accordingly, in that circle of casual links, there could not even be the potential for a first cause or universe created out of nothingness.<sup>19</sup>

### **The Benefits of Dependent Origination**

The final aspect of dependent origination that will be addressed is the effect of believing in a cause and effect world where there is no first cause. Buddhist scholar P.A. Payutto states that there are several benefits. The first benefit being that one gains a much broader view of the world. He states that when an individual looks at the universe according to the flow of causes and effects, and realizes that he or she is bound to the conditions found in the natural process and order of things, a lot more is to be gained. In this view of things, there is no Creator or Appointer of things, nor is the world a series of aimless accidents as many others believe. Instead, objectives must be brought about through self-reliant effort based on an understanding of the causes and conditions of this world. Another benefit according to Payutto is that the belief in dependent origination brings about an understanding of the

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<sup>19</sup> Francis Story, *Gods and the Universe in Buddhist Perspective: Essays on Buddhist Cosmology and Related Subjects* (Kandy, Sri Lanka: Buddhist Publication Society, 1972), 41.

natural process of the cause and effect continuum which can then be effective for reducing one's delusion of this life, which then causes one to lessen their clinging to the self. A solid understanding and perspective of the concept of dependent arising enables an individual to have a sounder and more independent relationship with the way things are in the world around them.<sup>20</sup>

Additionally, while Buddhism is independent of a theistic creator and of a soul, it still maintains the validity of moral law. This is seen as a positive, for it places man as the master of his own destiny and the ability to conquer his own mind and the thousands of world systems, just as the Buddha was able to accomplish. Man is therefore the most significant of all beings, including gods, for they are merely temporarily enjoying the results of good actions that they accomplished in the past. The fact that man is in control of his own fate leaves out God as being the cause of happiness or misery, which to the Buddhist is a benefit, for their choices are all based on their own actions.<sup>21</sup>

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<sup>20</sup> P.A. Payutto, *Dependent Origination: The Buddhist Law of Conditionality* (Thailand: Buddhadhamma Foundation, 1995), 23.

<sup>21</sup> Francis Story, *Gods and the Universe in Buddhist Perspective: Essays on Buddhist Cosmology and Related Subjects* (Kandy, Sri Lanka: Buddhist Publication Society, 1972), 39.



The Buddhist doctrine of dependent origination is a concept that is completely opposite of what is taught in evangelical Christianity. In Christianity, one is taught that nothing exists apart from God and that everything is dependent upon Him. From obtaining a general knowledge of dependent origination, one can see that it leaves the individual with a sense of hopelessness, for without a Creator there is no true standard of how one should live his or her life. Although the Buddhist's claim to have the ability to maintain the validity of moral law, they fail to communicate where that law came from and how its existence is even possible without a God to whom we are accountable. Moreover, the idea that life has no beginning and no end leaves one to question the purpose for his or her life. Christianity leaves its followers with hope in that in the beginning of time there was God who created the universe and mankind with a purpose because of his love for us. The worldview of an individual is dramatically shaped by whether or not they believe in a creator or "first cause" of the universe and therefore this work shall turn to the kalam argument.

The kalam cosmological argument developed by William Lane Craig is an apologetic that has been used in recent years to prove that there is a first cause of the universe. It shall be considered in depth to prove not only that the idea of dependent

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origination is illogical through both philosophical and scientific proofs, but that the Buddha was greatly mistaken for teaching that thoughts of a beginning are due to the poverty of our mind and imagination.

### **Kalam Cosmological Argument**

The kalam cosmological argument is one of the various versions of the cosmological argument that argues for the existence of God. Each version of the cosmological argument focuses on some feature of the cosmos that implies that the universe was caused to exist. Moreover, each version of the argument aims to prove that what caused the universe's existence was God, who is an uncreated being. While some versions of the cosmological argument focus on issues such as the contingency of the universe which will briefly be considered later, the kalam argument infers the existence of God from the fact that the universe began to exist a finite time ago.<sup>22</sup> The kalam argument sets itself apart from the other cosmological versions in that the central role for proving the existence of God lies with the statement that the universe began to exist. This fact gives the

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<sup>22</sup> Norman L. Geisler, Francis Beckwith, William Lane Craig and James Porter Moreland, *To Everyone an Answer: A Case for the Christian Worldview: Essays in Honor of Norman L. Geisler* (Downers Grove, IL: InterVarsity Press, 2004), 61-62.

kalam argument at least four distinct advantages over the other arguments; therefore it is seemingly the most appropriate when attempting to disprove the Buddhist claims of there being no first cause. The first advantage is that the claim of the universe having a beginning transfers well to the opening statements of the Biblical account. That is, "In the beginning, God created the heavens and the earth." (Gen. 1:1) Secondly, it seems as though the claim that the universe began to exist is initially more intuitively accessible than some of the other cosmological claims. For example, the claim that the universe is contingent would be a little less common sense or general knowledge than what the kalam argument provides. The third advantage is that proving the universe had a beginning is one of the indicators for proving that the universe is contingent; consequently, the kalam argument helps to prove other cosmological arguments within its own argument. Finally, the claim that the universe had a beginning has both philosophical support and validation from science.<sup>23</sup>

Being that the kalam argument seems to have some clear advantages over the other cosmological arguments, one should consider the history and development of the argument and obtain further details on what the argument aims to prove. Taken

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<sup>23</sup> Ibid, 63-64.

literally, the word "kalam" is simply the Arabic word for 'speech' and later came to denote the various points of theological doctrine. While it was later used to denote the statements of an intellectual argument, it ultimately became the name of an entire movement within Arabic thought, which some call Arabic scholasticism.<sup>24</sup> Ishaq al-Kindi is universally recognized as the first true Islamic philosopher of the world, and while other philosophical thinkers such as Plato and Aristotle contributed to his thought, al-Kindi argued that God's existence may be demonstrated by proving that the universe was created in time. Unlike previous philosophers, however, al-Kindi did not believe in the eternity of the universe and matter and instead upheld creation "ex nihilo," or creation out of nothing. Out of this argument, he reasoned that if it may be proved that the universe began to exist a finite number of years ago, then it may be inferred that there is indeed the existence of a Creator.<sup>25</sup> He wrote, "Every being which begins has a cause for its beginning; now the world is a being which begins; therefore, it possesses a cause for its beginning."<sup>26</sup> Thus, credit is given

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<sup>24</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 4.

<sup>25</sup> William Lane Craig, *The Cosmological Argument from Plato to Leibniz* (England: The MacMillan Press, 1980), 61.

<sup>26</sup> William Lane Craig, *Reasonable Faith* (Wheaton: Crossway Books, 1994), 80.

to al-Kindi as developing one of the earliest formations of the kalam argument, for philosophers such as Plato and Aristotle put forth much more general cosmological arguments.<sup>27</sup>

Standing in the gap between the Arabic thinkers and the Christian thinkers who would later develop the kalam were Jewish philosophers. The chief promoter for Jewish thought was Saadia ben Joseph, who presented four arguments from creation for the existence of God, including a proof from the finitude of the world, a proof from composition, a proof from the temporality of accidents, and finally a proof from the finitude of time. According to Craig, the fourth argument is the only one of real interest, being that his own work deals with there being no actual infinities existing, but rather only potential infinities, which would become very important later in history and especially in Craig's own development of the kalam argument.<sup>28</sup>

The last person that will be discussed is al-Ghazali, who was an Arabic theologian and philosopher. Known as the "Proof of Islam" and the "Ornament of the Faith," al-Ghazali is most famous for his work *Incoherence*, which was very important to furthering the legitimacy of the kalam argument. In this book Ghazali takes the position from attack rather than construction,

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<sup>27</sup> Ibid, 79.

<sup>28</sup> William Lane Craig, *The Cosmological Argument from Plato to Leibniz* (England: The MacMillan Press, 1980), 128-129.

for he believes there should be a sense of urgency in proving that the universe had a beginning in time. In his mind the theory that the universe was eternal was equivalent to atheism, and thus it needed be refuted. That being the case, he fervently argued for a temporal beginning of the universe as his argument for God's existence.<sup>29</sup> His argument developed as follows: "Every being which begins has a cause for its beginning; now the world is a being which begins; therefore, it possesses a cause for its beginning."<sup>30</sup> It should be noted that when al-Ghazali says "world," he meant every being except God; furthermore, by "every being which begins," he meant all bodies and their accidents. Through these arguments one notes that Ghazali argues from the impossibility of the infinite number, which establishes that the world had a beginning. Additionally, if the world were to have begun, it is necessary that one being should be given preference over its existence, that being the Creator God.<sup>31</sup>

Now that a brief historical account has been given for three of the kalam's greatest proponents, a critical discussion of the kalam cosmological argument needs be discussed in light of William Lane Craig's contemporary thought. Based upon

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<sup>29</sup> Ibid, 98.

<sup>30</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 44.

<sup>31</sup> Ibid, 49.

arguments in the past, Craig, a contemporary analytic philosopher, developed three arguments that came to be known as the kalam cosmological argument. Craig aims to argue for the existence of a first cause through three premises: first, whatever comes to be has a cause of its coming to be; second, the universe came to be; third, the universe has a cause of its coming to be. When properly understood, this theory has profound implications, for unlike the Buddhist concept of dependent origination, it will prove that the universe did not exist forever but instead came to be. Additionally, it will be understood that this coming to be of the universe is recognized as a coming to be ex nihilo. Finally, it will also be implied that the universe must have been caused by something that transcends the universe itself, rather than through a never-ending cycle of cause and effect.<sup>32</sup> Through arguments from philosophy and science, much of the remainder of this work will be dedicated to proving Craig's three premises, thus making the Buddhist concept of dependent origination both improbable and invalid.

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<sup>32</sup> Mark R. Nowacki, *The Kalam Cosmological Argument for God* (Amherst, NY: Prometheus Books, 2007), 13-14.

### **Whatever Begins to Exist has a Cause**

Craig begins his kalam argument with the premise that whatever begins to exist has a cause. One thing that needs clarification when it comes to this first premise is what Craig means by "everything that begins to exist has a cause." This cause is not a sustaining or conserving cause, but rather a creating cause. Therefore, Craig is attempting to prove that something is bringing about the inception of existence of another thing. For example, when it comes to the universe, was the beginning of the universe caused or uncaused?<sup>33</sup> Being that Craig and other scholars believe that this principle is intuitively obvious, Craig spends little time formulating an argument for this premise.

Moreover, from the above description of dependent origination, one could conclude that the Buddhist would also agree with this statement, being that they believe anything and everything that exists has a cause of being. Oliver T. Mazo in his work *The Kalam Cosmological Argument on the Existence of God* gives a justification for the premise being true deductively, and it shall be considered.

When looking at this premise, one first realizes that it can be deductively reasoned, being that it is rooted in the

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<sup>33</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 141.



first metaphysical principle, which is "every effect has a cause, or everything which begins to be is caused."<sup>34</sup> In other words, Craig states that from nothing, comes nothing. While some may consider this to be an intuition, Mazo states that metaphysical principals are necessary conditions that the human intelligence has, to be able to have knowledge of what is real, and as a result, these "principles" have to be more than mere intuitions. Moreover, since this premise is the first principle of metaphysics, it cannot be demonstrated by means of other truths prior to it. However, the fact that it cannot be proven is not to be considered negative, but rather positive, for when a truth is evident by itself and other truths follow its principle, it is neither necessary nor possible to prove it. Consequently, Craig's premise that whatever begins to exist has a cause is so fundamental in humans that even without referring to empirical evidence, one can deduce it to be true from experience. Mazo states that it is so evident, that it need not even be proven through evidence. For only something which is not immediately evident requires proof. If all assertions were to be proven by using other affirmations, we would never arrive at some truths that are evident by themselves.<sup>35</sup>

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<sup>34</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, Excerpta et Dissertationibus in Philosophia no. 18 (September 2008): 16.

<sup>35</sup> Ibid.

While Craig did not spend much time on this premise because he found it so obvious, however, he offered two brief supports for it. The first support states that the argument is based on empirical facts. Craig believes that this causal proposition based on the widest sampling of experience could be defended as a practical generalization. He sees the empirical evidence for his first premise as quite overwhelming to the point where Humean empiricists could demand no stronger evidence in support of any synthetic statement.<sup>36</sup> Therefore, any rejection of this first premise is to be seen as illogical. Finally, Craig states that while philosophers may not be "impressed" by the empirical facts, they too accept the principle based on the fact that it enjoys strong experiential support, and in our everyday lives, it is constantly verified and never falsified.<sup>37</sup>

The second line of support that Craig gives for his premise, "everything that begins has a cause," is the argument from the a priori category of causality. Craig develops this argument based on the work of Stuart Hackett, who formulates a neo-Kantian epistemology and defends the premise based on the operation of a mental a priori category of causality, which the mind brings to experience. Previously, Kant had argued that

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<sup>36</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 145.

<sup>37</sup> Ibid.

knowledge is a synthesis of two factors: the first being the sense data of experience and the second being the *a priori* categorical structure of the mind. Kant saw these categories as forms the mind must possess in order to make logical judgments. Without these categories any intelligible experience would be impossible. Therefore, Kant attempted to compile these categories, one being the judgment type, which was his category of causality.<sup>38</sup> Since causality is a valid derived category, and further, since Kant proved that derived categories reveal the real structure of both thought and world, it follows that his first premise must be an *a priori* proposition based on the fact that the principle is both a universal and a necessary condition.<sup>39</sup>

While it seems that Mazo and Craig have presented rather substantial evidence for proving the first premise, there are of course those who oppose it with the intentions of avoiding the start of a theistic argument. Paul Davies, for example, has made reference to a quantum theory of gravity according to which space time could spring uncaused into being out of absolutely nothing. While he admits that there is still no satisfactory theory of this quantum gravity, such a theory would in fact

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<sup>38</sup> Ibid, 146.

<sup>39</sup> Mark R. Nowacki, *The Kalam Cosmological Argument for God* (Amherst, NY: Prometheus Books, 2007), 29.

allow space time to be created and destroyed uncaused. While particle pair creation and annihilation may sometimes be seen as a quantum phenomenon, it is still philosophically misleading because material only appears to be coming about out of nothing. In fact, all that actually occurs is conversion of energy into matter or vice versa and thus all one is seeing is pre-existing energy become material. Hence, many scientists, including Davies, have greatly misled their readers into thinking that particles can appear out of nowhere without specific causation and that in quantum physics things routinely are produced out of nothing. Craig states it is on the contrary, for the world of quantum physics have never produced something from nothing and the probability of it taking place seems inconceivable. Thus, while men like Davies continue to call the spontaneous springing into being out of non-being a quantum transition, it seems clear that in fact he and others are not actually explaining anything worth discussing when it comes to denying Craig's first premise. Therefore, it seems as though whatever begins to exist has a cause is a necessary truth that is constantly confirmed in our experience. <sup>40</sup>

Being that the first premise of the kalam cosmological argument is so widely accepted and seemingly all previous

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<sup>40</sup> William Lane Craig, *The Existence of God and the Beginning of the Universe*, *Truth: A Journal of Modern Thought* 3 (1991):7-9.

scientific evidence proves that whatever begins has a cause, it is fair to say that its opponents have the burden to prove it to be false. One has seen that philosophically, things do not come into being out of nothing, for being does not arrive out of non-being. Moreover, the principle is obvious, being that no one truly believes or is afraid of something such as a horse popping up in our living rooms. Rather, one would intuitively understand that the horse came from something of somebody. Finally, if the premise is false, everything and anything should come about uncaused, which is obviously not the case in any situation.<sup>41</sup> Having discussed the clearest premise, this work will now turn to the more difficult second premise of the kalam cosmological argument, which claims that the universe began to exist.

### **The Universe Began to Exist**

Anyone who does any study of the kalam argument will find that Craig's second premise is the key syllogism to proving there is a First Cause. According to Craig's argument, the premise that the universe began to exist can be supported by two lines of reasoning: philosophical and scientific. Moreover, if this premise can be proven to be logical, it will show that the Buddhist concept of dependent origination is inconsistent, and

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<sup>41</sup>William Lane Craig, *Cosmological Argument Podcast Lecture 1* available from [http://www.reasonablefaith.org/site/PageServer?pagename=podcasting\\_main](http://www.reasonablefaith.org/site/PageServer?pagename=podcasting_main).

as a result, great detail may be given to showing that the argument stands firm on many grounds.

This work will first turn to two philosophical arguments and reasoning. That is, the argument from the impossibility of the existence of an actual infinite and the argument from the impossibility of the formation of an actual infinite by successive addition. Finally, this work shall consider the empirical evidence for the universe having a finite period of existence by considering the expansion of the universe as well as the laws of thermodynamics.

### **The Impossibility of an Actual Infinite**

Before one is able to examine this philosophical argument, it is necessary to first have a proper understanding of the difference between an actual infinite as opposed to a potential infinite. Simply put, a potential infinite is a compilation which is increasing towards infinity as a limit, but never actually gets there. Such a compilation is really indefinite, and not infinite.<sup>42</sup> An example of this is looking at any finite distance. One can subdivide that distance into potentially infinitely many parts and can continue dividing those parts in half forever. However, in doing so, one will never come up with

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<sup>42</sup> William Lane Craig, *The Existence of God and the Beginning of the Universe*, *Truth: A Journal of Modern Thought* 3 (1991): 2.

an actual infinite number of parts. Thus, an actual infinite is a collection in which the members really are infinite.

Furthermore, unlike the potential infinite, the compilation is not growing towards infinity rather it is infinite. One might say an actual infinite is "complete."<sup>43</sup>

With a proper understanding of an actual infinite, one can now consider Craig's first philosophical argument in support of the premise that the universe began to exist. When proving that it is impossible for an actual infinite to exist, one must understand that while an actual infinite may be both a useful and consistent concept in the world of mathematics, it cannot be translated from the mathematical realm to the real world. Thus, the purpose of this argument is only to prove that the actual infinite is an impossibility in real existence.<sup>44</sup>

In proving that an actual infinite cannot and does not exist in reality, Craig gives two examples which need be discussed. The first example is to suppose that an actually infinite library exists. This library is filled with an infinite denumerable set of books, which means that the set begins with natural numbers. Additionally, the books come in two colors,

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<sup>43</sup> William Lane Craig and Kevin Meeker, *Philosophy of Religion: A Reader and Guide* (Edinburgh: Edinburgh University Press, 2002): 95.

<sup>44</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 69.

black and red, and are arranged in the shelves so that the two colors alternate with every other book being a different color. That being the case, it would seem obvious that the number of red books in the library would be equal to the number of black books. However, Craig asks if one would hesitate if it were said that there are as many red books in the library as there are black and red books added together. While perhaps difficult to comprehend, the statement is true, for in the latter collection, the red books are a subset of the total collection of books. If one were to take away the red books, there would still be an actually infinite amount of black books left over. To further explain this, let us say that another color were added to the library so that green is added and placed as every third book. If the green collection were a denumerably infinite quantity just as the black and red, how many books do we now have? According to Craig, the answer still remains infinite, regardless of how many books are added, being that infinite added to infinite is still infinite.<sup>45</sup>

Furthering this argument through a similar example, let us again consider an infinite collection of books that start with natural numbers. Also, let us say that a unique number has been printed on the spine of each book so that the numbers are

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<sup>45</sup> Mark R. Nowacki, *The Kalam Cosmological Argument for God* (Amherst, NY: Prometheus Books, 2007), 59.



assigned corresponding one by one between the books and natural numbers. Most importantly to the example, since the library collection is actually infinite, this means that every possible natural number is printed on some book, implying that it would be impossible to add another number or book to the library. This is obviously the case, being that there is no unused number we could assign to the new book. Craig points out that this example is absurd, being that real things can always be numbered, yet here we have an example, "book in hand," with no actual number to assign to it. In response, one might suggest that we simply number the new book "number one," and simply add "and one" to every other book thereafter. However, while this would be fine when it comes to the world of mathematics, one could clearly see that it would be impossible in the actual world.<sup>46</sup> To this, Craig states that "in the real world, this could not be done, for an actual infinite amount of objects already exists that completely exhausts the natural number system—every possible number has been instantiated in reality on the spine of a book. Therefore, book number one could not be called book number two, and book number two be called book number three, and so on, to infinity."<sup>47</sup> The point to be taken from these examples is that

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<sup>46</sup> Ibid, 57-58.

<sup>47</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 83-84.

only in a potential infinite, where new numbers are created as the collection grows, could such an account be possible. In an actual infinite set, this would not be possible. Being that through this example an actual infinite in reality seems impossible, let us now turn to a more famous example that has been used to verify that an actual infinite cannot exist.

Another illustration that has been used to prove that an actual infinite cannot be possible is David Hilbert's "Hilbert Hotel". Through this example one will hope to show that the Buddhist concept of infinities when it comes to reality is quite absurd. For this illustration one is asked to first imagine a hotel with a finite number of rooms. With that data let us now suppose that all the rooms in this hotel are full. Thus, when a new guest arrives at the hotel asking to stay in a room, the person at the front desk must apologize because all of the rooms are full and because the guest must be denied accommodation into the hotel. This of course would be the normal things to happen with a fully booked hotel with finite rooms anywhere in the world. For the sake of argument then, let us now consider a hotel with an infinite number of rooms, but yet again, let us suppose that all of the rooms are full; thus, the obvious assumption being that there is not a single vacant room throughout the entire hotel even though there is an infinite

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number. Like our first example, a new guest shows up asking for a room to stay in. Hilbert argues that this time, however, the front desk worker would say, "But of course!," and immediately shift the person in room one to room two, the person in room two to room three, the person in room three to room four, and so on, out of infinity. Furthering this illustration, the room changes performed would result in room one becoming vacant so that the new guest who arrived at the hotel has a place to stay. The key to this, however, is that before this guest arrived, all the rooms in the hotel were full. Also curious, if one were to apply the set theory of mathematics to this problem, one would find that there are now no more persons with the new guest than there were before. The number of guests in the hotel remains simply infinite. This is the case because if the number does in fact change and something is added to the prior state, then that state could no longer be considered infinite, but definite. The question then proposed by Craig is, how can this be that nothing has changed regarding the number, since it is clear that that person working the front desk just added the new guest's name to the hotel? How can there possibly not be one more person staying in the hotel than there was before?<sup>48</sup>

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<sup>48</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, *Excerpta et Dissertationibus in Philosophia* no. 18 (September 2008): 25.

Surprisingly, this situation becomes a little stranger, for let us suppose that an infinite number of new guests shows up at this same hotel and to the same front desk worker, each asking for a room. Like before, the worker is willing to accommodate, but this time he proceeds to shift the person in room one into room two, the person in room two to room four, the person in room three to room six, and so on to infinity, always putting each of the previous occupants into the room twice their previous room numbers. This would be the case because any natural number multiplied by two always equals an even number, and thus all the guests will wind up in even numbered rooms, leaving all of the odd-numbered rooms vacant for the infinite amount of new guests who have arrived at the hotel. Yet again, however, before these new guests came, all of the rooms in the hotel were full. Moreover, while difficult to comprehend, the number of guests that were previously staying in the hotel equals the number that is in the hotel after the infinite amount of new guests checked in. In fact, Hilbert points out that the front desk worker could repeat this process an infinite number of times, and yet, there would never be one single person more in the hotel than before, based on the set theory of mathematics and because infinite remains infinite.<sup>49</sup>

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<sup>49</sup> Heidi Szpek, *Voices from the University: Legacy of the Hebrew Bible* (Lincoln, NE: iUniverse, 2002), 117.

While the point of Hilbert's hotel is evident in these examples, Craig extends it to really drive home the point, and thus one should consider the illustration beyond Hilbert's doings. Suppose now that one of the infinite amounts of guests staying at the hotel decides to check out. The question then becomes, whether or not there is now one less person staying at the hotel than before. Reality tells us the obvious answer is yes, but according to the mathematician, the answer is no. Therefore, even if we were to take the infinite amount of guests that checked into the odd numbered rooms and have all of them check out, there would still be no fewer people in the hotel.<sup>50</sup>

The point in all of this is that no one could actually believe that such a hotel could exist in reality and that Hilbert's hotel is nothing short of absurd. Craig sums up all of these examples and illustrations as such: "These illustrations show that if an actual infinite could exist in reality, it would be impossible to add to it. But it obviously is possible to add to say, a collection of books: just take one page from each of the first hundred books, add a title page, and put it on the shelf. Therefore, an actual infinite cannot exist in the real world."<sup>51</sup> In looking at the possibility of actual infinities,

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<sup>50</sup> Ibid, 36.

<sup>51</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 85.

there is no way to avoid these types of illogical examples, for the actual infinite itself is illogical in the real world. In reality, an actual infinite is unrealizable, for once it is realized, it fails to be infinite. Through these examples and with a brief understanding of natural numbers and set theories, one can clearly see that only potential infinities are possible in reality. Actual infinities cannot be applied to the world we live in, and therefore our understanding of the universe must be that at a finite time it began to exist through a First Cause.

### **Successive Addition**

In furthering the discussion, one may now turn to Craig's second philosophical argument in support of the premise that the universe began to exist, the argument from the impossibility of the formation of an actual infinite by successive addition. While it may contain similar language, this argument is independent from Craig's first argument, being that it does not deny that an actually infinite number of things can exist. Rather, the aim of this argument is to deny that a collection containing an actual infinite number of things can be formed by adding one member or unit after another. The point of this argument is that if indeed an actual infinite cannot be formed by successive addition, then the series of past events must be

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finite since that series is formed by one event occurring after another in time.<sup>52</sup> Like the kalam argument itself, this argument can be formulated in three steps: first, the series of events in time is a collection formed by successive addition; second, a collection formed by successive addition cannot be actually infinite; third, the series of events in time cannot be actually infinite.<sup>53</sup>

With the argument laid out, a further look into each specific argument is needed. Not unlike the first premise of the kalam, which was discussed earlier in this work, the first premise of successive addition seems rather obvious to most people. The statement, "the series of events in time is a collection formed by successive addition,"<sup>54</sup> seems intuitively clear, being that the past did not spring into being whole and in its entirety. Rather, the past was formed sequentially, one event occurring after the other. It is important also to notice that these collections of events are moving forward in direction as time progresses.<sup>55</sup> Although an individual may venture to say

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<sup>52</sup> Paul Copan and William Lane Craig, *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration* (Leicester, England: Apollos, 2004), 211.

<sup>53</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 103.

<sup>54</sup> William Lane Craig and Kevin Meeker, *Philosophy of Religion: A Reader and Guide* (Edinburgh: Edinburgh University Press, 2002): 98.

<sup>55</sup> *Ibid.*

that he or she may think of the past by subtracting events from the present, when one says that an event happened ten years ago, it is quite clear that the series of events that took place were formed by the addition of one event after another. When dealing with the issue of successive addition, it is crucial that one distinguishes between the realm of thought and reality. While our thoughts may regress in time as we mentally go over past events, the series of events is itself progressing in time in reality. Thus, an infinite past would be an infinite temporal progress of occurring events where there is no beginning and with its end in the present.<sup>56</sup> Being that we are speaking primarily of events and distinct happenings that occur in real time, one can see that temporal series of events can only be a collection formed by successive addition.<sup>57</sup>

The key step in this argument is the second premise, which states that a collection formed by successive addition cannot be actually infinite. At times, this is simply called the impossibility of counting to infinity. This impossibility has nothing to do with the issue of time one has, for regardless of time available, an actual infinite can never be reached. This is

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<sup>56</sup> Paul Copan and William Lane Craig, *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration* (Leicester, England: Apollos, 2004), 212.

<sup>57</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 103.



clearly understood, being that no matter how high a person counts or how many steps an individual takes, one can always count one more number or take one more step before reaching infinity. While this idea seems to be valid, Craig points out that some have argued that although an infinite collection cannot be formed by beginning at a point and adding members, it could be possible if one decided not to start at a beginning, but rather at the ending point and count backwards from infinity to what would be zero. The problem with this theory, however, is if one is not able to count to infinity in the first place, how is one able to count down from infinity and even find the end point? Thus, regardless of the direction you try to count, infinity cannot be reached.<sup>58</sup>

Being that these ideas are somewhat complex, let us consider an illustration as we did for arguing the impossibility for an actual infinite. Craig uses a man named Tristram Shandy, who in the novel by Sterne, writes his autobiography at such a slow pace that it actually takes him an entire year to only record the events of a single day. "If Tristram were immortal, then the entire book could be completed, since by the principle of correspondence, one year would correspond to each day to each

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<sup>58</sup> Paul Copan and William Lane Craig, *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration* (Leicester, England: Apollos, 2004), 212-213.

day, and both are infinite."<sup>59</sup> However, this assertion is by all means impossible since the future is only a potential infinite. Though Tristram may write forever, he would only get farther and farther behind so that rather than never finishing the autobiography, he would instead progressively approach a point in which he was infinitely far behind. As a result, he would never be able to reach this point, being that the days of his life would always be a finite number.<sup>60</sup>

To fully help one understand this concept, Craig turns the story around so that Tristram has now been writing from eternity past at the rate of recording one day per year of writing. Even in this example, Tristram would still be infinitely behind, for if he has lived an infinite amount of years, then he has recorded an equally infinite number of past days based on the illustration. Being that he keeps track of every day consecutively, Tristram would have recorded an infinite series of days. Therefore, the days could only be infinitely distant from the present, for there cannot be a day on which Tristram is writing, which is finitely distant from the last recorded day. To put it simply, the more that he writes, the farther he gets

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<sup>59</sup> Ibid, 213.

<sup>60</sup> Ibid.

behind and at no point will he ever finish the book, regardless if he has been writing from eternity.<sup>61</sup>

The final illustration to show that a collection formed by successive addition cannot be an actual infinite is quite simple. Imagine a man running through empty space but on stone slabs. This path is made so that each time his foot hits a stone slab, a new one appears immediately in front of him. From this example, one finds that regardless if the man runs for eternity, he will never be able to run across all of the slabs, for they continue forever.<sup>62</sup> The point made here is that it is an impossible to try to form an actually infinite collection of things by successive addition regardless of the time available. This is because the essence of the infinite itself does not allow for completion by successive addition.

Based on the explanation of the first two premises for proving the impossibility of forming an actually infinite collection of things by successive addition, one can conclude that that the series of events in time cannot be actually infinite. Thus, it leads one to the conclusion that if the universe did not begin to exist a finite time ago, then the present moment would never arrive. However, everyone is

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<sup>61</sup> William Lane Craig and Kevin Meeker, *Philosophy of Religion: A Reader and Guide* (Edinburgh: Edinburgh University Press, 2002): 99-100.

<sup>62</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 104.

obviously living in that moment, and we can be certain that the universe is finite in the past and began to exist, proving once again that the Buddha and his followers are mistaken in thinking that the universe consists of an endless series of causes and effects and has no beginning.<sup>63</sup>

Being that some individuals may not be persuaded through philosophical arguments concerning the universe, Craig moves towards more scientific and empirical evidences for proving that the universe began to exist. While there are numerous evidences that Craig has given over the past thirty years, this work will focus solely on the argument from the expansion of the universe as well as the argument from thermodynamics. Through these two arguments, one hopes to solidify the fact that it is logically consistent that the universe had a beginning and that based on that fact, the concept of dependent origination cannot stand on any solid foundation.

### **The Expansion of the Universe**

The argument of the expansion of the universe really goes back to Einstein and his theory known as the general theory of relativity. According to this theory, Einstein believed that

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<sup>63</sup> William Lane Craig and Kevin Meeker, *Philosophy of Religion: A Reader and Guide* (Edinburgh: Edinburgh University Press, 2002): 101.

first of all, the universe was homogeneous and isotropic and that, secondly, the universe is in a steady state. In short, one finds that Einstein realized through data that his initial theory was both incorrect and insufficient, for it did not describe or permit a consistent model of the universe. However, a man name de Sitter assisted with this problem, and in turn, they ended up with a model of an expanding universe instead of one that was static. Through this work others in the field of mathematics and astronomy began to develop these theories, and in the 1920's solutions came about confirming and predicting the same type of expanding universe. The key figure in all of this, however, was Edwin Hubble, who showed that there was a red shift in the optical spectra of light from distant galaxies and that this was a constant feature in all measured galaxies and was proportional to their distance from us. This was highly significant in proving expansion of the universe, for experiments show that in space, when an object or source is moving toward the observer, there is a blue shift in the spectral line; however, when the source is receding, a red shift occurs, and this is exactly what he found. Not only had Hubble discovered a universe which is expanding, but also a universe whose expansion is isotropic. That is, regardless of the direction or angle you view the universe, it appears the same. This discovery was considered by some scientists and

philosophers, including Craig, to be one of the biggest turning points in the history of science.<sup>64</sup>

From the discovery of the expansion of the universe, the obvious question for our discussion is how long has the universe been expanding? One means of finding this answer would be to calculate the recessional velocity, or rate, at which the galaxies are moving away from the earth and determine how long it takes for them to reach their present positions at their present velocities. This is what Craig refers to as Hubble time.<sup>65</sup> The implication of this for Craig "is that one is able to come to a point in time at which the entire known universe was contracted into an arbitrarily great density."<sup>66</sup> Perhaps a simple illustration is needed for explanation. Think of the universe as a movie playing. Throughout the movie we see expansion, and everything moving apart from everything else. But what then happens when we rewind the movie? Another example is to consider an inflated balloon with several buttons glued to it. If one were to deflate that balloon, the buttons would of course come to a point. In both examples, one finds that everything becomes

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<sup>64</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, *Excerpta et Dissertationibus in Philosophia* no. 18 (September 2008): 347-348.

<sup>65</sup> William Lane Craig, *The Kalam Cosmological Argument* (England: The MacMillan Press, 1979), 113.

<sup>66</sup> *Ibid.*

closer and closer to everything else that was expanding until we reach the end of what science is able to explain. That moment at the end has come to be referred to as the Big Bang theory in science.<sup>67</sup> While many evangelicals do not hold a conviction for the big bang theory, one may find that whatever one calls the account, the implications are a requirement for creation out of nothing. Moreover, while Craig and many in the field of science hold to an old earth of roughly fifteen billion years ago while many evangelicals hold to a new earth date roughly six thousand years ago, the implications for the purpose of this work remains the same, for we are only trying to prove that the earth began to exist.

That being the case, one finds through Hubble time that the universe must have come into being a finite time ago, and hence it cannot have an eternal past like the Buddhists claim. Moreover, as was just previously mentioned, Craig argues that this finding posits a necessity for absolute origin out of nothing. The big bang findings emphasize that at this singularity, space and time came into existence. That is, literally nothing existed before this singularity, so that if the universe originated at such an event, we would truly have

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<sup>67</sup> Paul Copan and William Lane Craig, *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration* (Leicester, England: Apollos, 2004), 222.

creation *ex nihilo*. Therefore, according to the model, there could be no earlier space time point and nothing could have existed prior to this single event.<sup>68</sup> In an attempt to avoid creation *ex nihilo* because of its implications, many scientists have begun postulating models such as the oscillating universe, which teaches that the universe expands and re-contracts forever. This model is probably the closest scientific evidence that the Buddhists have, being that they teach that the universe and everything in it just continues until it is destroyed and then a new one is formulated. The problem with this theory, however, is that while the theory may propose a potentially infinite future, it still must have a finite past or beginning for the first universe that existed.<sup>69</sup> In summation for this argument, one has seen that evidence points to an expansion of the universe as well as an absolute beginning for it a finite time ago. That being the case, one can conclude, just as the previous philosophical arguments have proven, that the universe began to exist.

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<sup>68</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, *Excerpta et Dissertationibus in Philosophia* no. 18 (September 2008): 349.

<sup>69</sup> *Ibid*, 350.



### **Evidence from Thermodynamics**

The second scientific evidence, which is commonly presented in the kalam argument for proving that the universe began to exist, is based on the evidence from thermodynamics. According to the second law of thermodynamics, processes taking place in a closed system always move towards a state of equilibrium. An example of this could be found if one had a bottle containing a sealed vacuum and within that bottle some molecules of gas were introduced. The gas would spread itself out evenly throughout the bottle, and it would be impossible for the molecules to retreat; as a result, they would remain in one corner of the bottle. This law is also applied when a person walks into a room. The air in that room never separates suddenly into oxygen at one end of the room and nitrogen at the other. Moreover, it is also why one can be confident when they take a bath that one end of the tub will not be freezing cold while the other side is scolding hot. These are just some examples that are seen throughout everyday life that make it clear that a world not governed by the second law of thermodynamics would be impossible.

Being that the kalam argument centers around the universe's existence, the interest of thermodynamic law for this work is what happens when it is applied to the universe as a whole. Being that one can consider the universe a gigantic closed

system, since it is everything that is and nothing is outside of it, scientists have found that the law is able to apply for the whole. What this law seemingly implies for the universe, then, is that given enough time, the universe and all its processes will run down, and the entire universe will come to equilibrium.<sup>70</sup> Furthermore, this state in which the universe reaches equilibrium means that everywhere will be the same in composition, temperature, pressure, etc. It would be a state in which the universe would be considered dead, being that there will be no more movement or objects. Logically, because it is in complete equilibrium, absolutely nothing will take place anymore, and no further change is possible. Therefore, this is also known as the heat death of the universe, being that the universe is dead.<sup>71</sup>

To answer a follow up question to this scientific fact, Craig asks, "If, given enough time, the universe will reach heat death, then why is it not in a state of heat death now, if it has existed forever, from eternity?"<sup>72</sup> If the Buddhist beliefs

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<sup>70</sup> Paul Copan and William Lane Craig, *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration* (Leicester, England: Apollos, 2004), 241.

<sup>71</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, Excerpta et Dissertationibus in Philosophia no. 18 (September 2008): 353.

<sup>72</sup> Paul Copan and William Lane Craig, *Creation Out of Nothing: A Biblical, Philosophical, and Scientific Exploration* (Leicester, England: Apollos, 2004), 241.

and many other philosophies are true in that the universe did not begin to exist, then why does empirical evidence show us that at this very moment, we should now be in a state of equilibrium? As one scientist stated, since it has not yet run down like a ticking clock, in some ways the universe must have been wound up. Moreover, because our universe has not yet reached heat death, this means our universe is presently in a state of disequilibrium. This points to the fact that the universe has not been continuing forever, and it is only at some point in the finite past that it was put into motion and has been running down since that time.

Some theorists, however, have concluded that the universe escaped heat death; consequently, that needs to be addressed. That theory can be seen by those who see the oscillating model of the universe. As was shown in the argument from the expansion of the universe, the oscillating model claims that the movement of the universe is cyclical and thus has existed forever without a beginning or an end. The claim, therefore, is that heat death would never be a fate for the universe, being that it simply goes through a process of expanding and contracting that never ends. While it was briefly shown above why this model seems to be both physically and observationally impossible, one finds a few more problems with the model when using it to explain thermodynamics. The first problem one finds is that though it

may be possible for the universe to contract, there are no known physical laws that could ever reverse a cosmic contraction. Consequently, there is no evidence that the universe could ever go back to a state of expansion. All we are left with by the oscillating model are mere hypothetical possibilities.<sup>73</sup> Secondly, if one were to suppose that the universe does oscillate between expansion and contraction, the fact still remains that the thermodynamic properties of this model still imply the beginning of the universe, which they are trying to avoid. This is the case because in an oscillating model, thermodynamics show us that the universe expands farther and farther with each cycle. Thus, if one were to trace back through the cycles of time, one would find that the universe gets smaller and smaller, meaning that while the oscillating model may provide an infinite future, it only provides a finite past.<sup>74</sup>

Whichever scenario or model of the universe one selects, the second law of thermodynamics still implies that the universe began to exist a finite time ago. Additionally, being that a universe existing for infinite time could not now be in the state of disequilibrium, one can conclude that the universe

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<sup>73</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, Excerpta et Dissertationibus in Philosophia no. 18 (September 2008): 354.

<sup>74</sup> William Lane Craig, *The Existence of God and the Beginning of the Universe*, *Truth: A Journal of Modern Thought* 3 (1991): 6-7.

began to exist. As physicist P.C.W. Davies once stated, "even though we may not like it, we must conclude that the universe's energy was somehow simply 'put in' at the creation as an initial condition."<sup>75</sup>

In an attempt to prove William Lane Craig's second premise of the kalam cosmological argument that the universe began to exist, one has considered both philosophical and scientific evidences. This work has argued from the impossibility of actual infinities, from the impossibility of the formation of an actual infinite by successive addition, from the expansion of the universe, and finally from the argument of thermodynamics. While one could most assuredly argue this premise from other avenues, it seems that these four distinct arguments justify the fact that the universe began to exist. Thus, it has been shown that everything that begins to exist has a cause of existence and that the universe began to exist, which will now lead us to the "therefore" of Craig's kalam argument.

### **The Universe Has a Cause of Existence**

Since this investigation has surmised that everything that begins to exist has a cause of its existence, and that the universe began to exist, one can conclude the third premise of

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<sup>75</sup> Ibid.

the kalam cosmological argument, which is that the universe had to have had a first cause of its existence. The question then becomes, if the universe did begin to exist, was its coming into existence merely a fact and accident, which means that there was no external influences, or rather is there some external influence that intervened so as to realize it's becoming?<sup>76</sup> Craig and many others have argued that in fact there must have been an external influence or creator God and thus this work while not going into specific detail, will consider why the first cause of the universe must have been a creator God and why that God does not need a cause of existence.

### **The Creator of the Universe**

Given that one has seen that the universe has a cause of existence, the question may be asked, what is the nature of that cause? According to Craig, the cause of the universe must be something that is both beyond and greater than it. If the universe has an ultra-mundane cause, then this cause must be an uncaused, personal creator of the universe that exists. Moreover, that creator must be changeless, timeless, spaceless,

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<sup>76</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, *Excerpta et Dissertationibus in Philosophia* no. 18 (September 2008): 358-359.

and enormously powerful.<sup>77</sup> Therefore, by definition, the creator must be a necessary being, or God.

This assumption by Craig is shown through Aquinas' argument from contingency versus necessity, for it proves, as Craig stated, that if the universe has a cause, then this cause must be beyond it, greater than it, and uncaused. Winfried Corduan in his book, *No Doubt About It*, gives a brief approach to proving that God must be the first cause of the universe, and thus his work shall be considered. The first premise that Corduan defends is merely that something exists. Since we have already shown from the kalam argument that the universe exists, this premise is easy to accept. However, if one has doubt about this claim, then Corduan argues that his or her doubt exists, which is all that is necessary in proving the validity of this first premise.<sup>78</sup> The second premise was Aquinas' argument that everything that exists must be either contingent or necessary. By being contingent, it means that something is dependent on something else, and by necessary it means that something is totally independent of everything else. The point to make here is that these two properties or type of "things" are mutually exclusive, being that the properties are contradictory with one

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<sup>77</sup> Ibid, 359.

<sup>78</sup> Winfried Corduan, *No Doubt About It: The Case for Christianity* (Nashville, TN: B&H, 1997), 109-110.

another and that "things" must be either one or the other; that is, caused or uncaused.

Moreover, contingent beings are sustained. Contingent beings would not continue to exist if it were not for sustaining causes. A human being continues to exist among many other factors by the food one eats, the medicines one takes, along with the laws of the universe in which all are a part. Finally, when it comes to understanding contingent beings, one must conclude that contingent beings are determined. Humans, as well as other species, do not choose what they exist as. If one is born Irish with blue eyes and brown hair, one must conclude that this was determined or forced onto that person by causes and sustaining factors. At least one of these factors, according to Corduan, is found in all contingent beings, and thus, for the premise to remain consistent, one can also conclude that a necessary being is something that fits none of these categories.<sup>79</sup>

The third premise is that a necessary being would have to be God. By the definition that was already given and by what we know of contingent beings, a necessary being is uncaused, unsustained, and undetermined. One could say that it is a being that is completely separated from any external factors. Additionally, this being would have to be independent, infinite,

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<sup>79</sup> Ibid, 110-112.



eternal, omnipresent, immutable, pure actuality, and, finally, in possession of all of its properties in unlimited ways. All of these qualities listed are the normal qualities that one associates with God, and thus the reason for concluding that the only necessary being could be God.<sup>80</sup> While some have argued that the universe could be a necessary being, this claim has already been proven false in that it is not infinite. Thus, the universe, like everything else except one necessary being, is a contingent being.

This leads to the argument that there can only be one necessary being. While this argument has knowingly not yet put itself in a position to say that there actually is a necessary being, this premise still aims to show that if there is one, that there could only be one. This argument can be proven with the proper understanding of the principle of the identity of indiscernibles, which was proposed by a philosopher in the seventeenth century known as Gottfried Wilhelm Leibniz. Leibniz proposed that if two things are supposed to be different from one another, then they must be different from each other in some way, shape, or form. If they do not differ, however, then the two things must be one and the same thing. Using this principle one can see that it is not possible for there to be two necessary beings. First of all, given the principle of identity

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<sup>80</sup> Ibid, 113.

of indiscernibles, if there were two necessary beings, they would have to differentiate in at least one property. Thus, one of the necessary beings would be lacking something that the other one has. Given the definition of a necessary being that Corduan provided, such a thing would be impossible, for a necessary being is unlimited and cannot lack any properties appropriate to it. Therefore, since a necessary being must have all the proper qualities to make it necessary, and there is no way for two to differ, there can only be one necessary being.<sup>81</sup>

Furthering the argument, Corduan shows that there cannot be any contingent beings unless there is a necessary being. This premise aims at showing that the existence of a necessary being is a necessary condition, which is the crux of this argument. To understand this argument, an illustration of the authors is appropriate. Suppose there is a railroad train to which you notice the caboose at the end. While one might ask the question as to what is pulling the caboose, it is generally understood that at the end of all of the other railroad cars, there must be a locomotive in the front; for unless there is something pulling the train, the train would not be able to move. This illustration shows that without an original cause, there would be no movement, or anything at all. Along the same thought

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<sup>81</sup>Ibid, 114-116.

pattern, one can look at a chain of contingent beings. By its very nature, a contingent being needs to be caused and ultimately lead to a necessary being. While there may be a long line of contingent beings that may seem countless, one could see in Craig's proposal of the kalam that an actual infinite cannot exist and thus there must be an end to contingent beings.<sup>82</sup>

Based on the above claims, one can conclude that a necessary being exists. Additionally, not only does that being exist, but it caused all contingent beings to exist. It is infinite, omniscient, omnipresent, omnipotent and is reflected in its creation. All the properties that can be seen in creation came from this necessary being, whether it is love, beauty, personal, and the like. It is a being that is the uncaused cause.<sup>83</sup> Being that a necessary being has to be God and that one can see that a necessary being exists, one can then easily understand the eighth point, which is that God exists. At this point, one can see that there is substantial evidence for proving that the first cause of the universe is God. For, if there were no God, there could not be the possibility of a universe and everything in it.<sup>84</sup>

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<sup>82</sup> Ibid, 116-119.

<sup>83</sup> Ibid, 119.

<sup>84</sup> Ibid.

## The Infinite God

The last item that this work will deal with is important, being that it is probably the most common question that the Buddhist raises concerning the kalam cosmological argument and the proofs of a first cause. That is, if in order to exist, the world must have had a pre-existent Creator, how did this Creator himself come into existence?<sup>85</sup> In their attempts to defend dependent origination, this is often their response, for if an actual infinite cannot exist, and if everything has a cause, God could not be infinite, and God has to be caused.

There are a few problems with these assumptions and questions, beginning with the fact that they are based on a confusion of the terms "infinite" and "actual infinite." For while an actual infinite is a technical concept that is found in set theories and collections, God, on the contrary, is a being, meaning He is not a set or collection of things. Thus, even Craig would agree that God cannot be an actual infinite and is not actually infinite. Rather, when the claims are made that God is infinite, the evangelical is referring to one of his qualities rather than to his quantity.<sup>86</sup> However, for some, the

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<sup>85</sup> Francis Story, *Gods and the Universe in Buddhist Perspective: Essays on Buddhist Cosmology and Related Subjects* (Kandy, Sri Lanka: Buddhist Publication Society, 1972), 35.

<sup>86</sup> Oliver T. Mazo, *The Kalam Cosmological Argument on the Existence of God*, Excerpta et Dissertationibus in Philosophia no. 18 (September 2008): 333.

argument that God is not an event and thus does not need a cause is not enough. Thus, R. Douglas Geivett furthers the argument as to why God does not need a cause and is infinite.

Geivett argues that when the universe begins to exist, time itself begins to exist. Being that God created the universe, God must have been before time, and therefore, He is timeless.

However, He began to exist in time at the moment when he created the universe and time itself. For that reason, God's beginning to exist in time entails that God begins to exist. In the kalam argument, one was presented with the term "begins to exist," and that argument appeals to our ordinary intuitions about what it means for something to begin to exist. That being the case, one might say that God began to exist only at the point in which He created time.<sup>87</sup> Being that it has already been shown that there must be a necessary being that is God and that He has to be timeless and outside of the universe, it makes sense for God not to need a cause and still have the property of being infinite. Therefore, while the Buddhists may question the theories of there being a first cause, one can be confident through various evidences that not only is a first cause necessary, but that the

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<sup>87</sup> Norman L. Geisler, Francis Beckwith, William Lane Craig and James Porter Moreland, *To Everyone an Answer: A Case for the Christian Worldview: Essays in Honor of Norman L. Geisler* (Downers Grove, IL: InterVarsity Press, 2004), 67.

first cause is a God who is infinite and not dependent on a cause for His existence.

### **Conclusion**

Through the work of this thesis, one has obtained a description of dependent origination and has seen through this philosophical teaching why it is neither necessary nor valid to place God, or anything else, as the first cause of the universe. As a response to this philosophy, this work looked at the development of the kalam cosmological argument and provided detailed argumentation as to why a beginning of the universe and first cause is necessary through both philosophical and scientific arguments.

Through deductive and intuitive reasoning, it first was proven that whatever begins to exist has a cause. Secondly, it was shown that through the impossibility of an actual infinite, the impossibility of the formation of an actual infinite by successive addition, the expansion of the universe, and through evidence from thermodynamics that the universe began to exist. Being that these two premises were shown to be true, it was then concluded that the Buddhist philosophy of dependent origination must be inconsistent and invalid, for the universe must have had a cause of existence out of nothing. Finally, through the development of Aquinas' argument from contingency, it was shown

that if the universe had a cause of existence as the kalam argument proves, that cause must be God based on the fact that there must and can only be one necessary being.

Through a proper understanding of dependent origination, one learns that man is the center of the universe and is left with no sense of hope or purpose for his or her life. Therefore, it is the contention of this thesis that an argument such as the kalam cosmological argument is crucial to understand if one wishes to defend the fact that there is a God who created the universe that we live in and that because of this fact, we are accountable to Him in all that we do.

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