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Existence of God: An Examination of the Cosmological Arguments as Proof of the Existence of God

A thesis submitted in partial fulfillment of the requirements for the degree of Bachelor of Arts in Philosophy and the Honors Program

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Abstract

Cosmology is the study of the universe as an ordered and rational system. Cosmological arguments are one of several types of arguments which support the existence of god on the basis that god is the best explanation of the universe. Thomas Aquinas presents three ways which support the existence of an unchanging mover, a first efficient cause and a necessary being. (Aquinas, 25) Bruce Reichenbach also presents arguments that support the existence of a necessary being and the universe as a contingent thing that requires a cause. (Reichenbach, 104, 2004) The arguments presented by Aquinas and Reichenbach provide reasonable proof for the existence of God as a concept which is supported by both theistic and scientific reasoning. Bertrand Russell and David Hume are critical of the cosmological arguments, however, the cosmological arguments of Thomas Aquinas and Bruce Reichenbach are able to overcome the objections presented by Russell and Hume.
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Introduction

The existence of god has been a topic of discussion for centuries. In the Middle Ages Anselm of Canterbury and Thomas Aquinas argued for the existence of God as He was understood by Christians at the time. Anselm argues for the existence of a Supreme Being of which nothing greater can be conceived (Anselm, 119). Thomas Aquinas presents five proofs which support the conclusion that God exists (Aquinas, 24). In the twentieth century, Bruce Reichenbach presents arguments for the existence of a necessary being and the universe’s coming into existence (Reichenbach, 104, 2004). As with any philosophical discussion, arguments for the existence of God are not without their critics. Bertrand Russell argues that the universe does not have a cause and to ask the question is meaningless (Russell, 129). David Hume argues that there is no reason to suppose the existence of a necessary being as the best explanation for the universe as the universe is already fully explained when a full explanation of its parts is established (Hume, 150). The debate over the existence of God has gone on for centuries and will continue to go for centuries to come.

There are multiple types of arguments that support the existence of god. Ontological arguments discuss the nature of god’s being. Who or what is god? Is god a being with divine attributes? Is god infinite in these attributes? Cosmological arguments discuss god as the best explanation of a contingent universe. What caused the universe? Why is there change found in contingent things? Why do things exist the way they do? Why does something exist instead of nothing? Teleological arguments address the inherent design and order that is present in nature and looks for a designer who is responsible for the order.
Other types of arguments include appeals to miracles and to mystical experiences. The first three argument types will be discussed further down.

Many debates, criticism, and responses have been written concerning the strength or soundness of argument concerning the existence of god. However, one aspect that is not commonly discussed is whether or not the arguments in question provide proof for the existence of god in accordance to how they see god? Arguments are presented which conclude that god exists, but what kind of god does the argument support? Do these arguments provide reasonable proof to think God exists or are they theistic dogmas masked as rational thought? Objections and criticisms are brought to question the strength or soundness of particular arguments, but do these objections dismantle the argument to which they are objecting? Can these objections be overcome without abandoning the initial arguments? Cosmological arguments, particularly those presented by Thomas Aquinas and Bruce Reichenbach present reasonable proof to accept the existence of god which can overcome objections brought by philosophers such as Bertrand Russell and David Hume. The arguments given by Aquinas and Reichenbach provide reasonable proof because the arguments support the existence of a concept of god that is supported by religious belief but also a possible concept of god with little to no relation to religion. Before going in depth into these arguments and objections it is important to discuss a few important distinctions that will help in understanding the arguments discussed later.

A Brief Note on Terms

In philosophy there are several distinctions which are used when discussing various topics. These distinctions are particularly important to know when addressing arguments
concerning the existence of god. These are the distinctions between necessary and contingent things, deductive and inductive arguments, and a priori and a posteriori propositions. By discussing these distinctions now, the cosmological arguments that will be discussed further on will be more easily understood.

The first distinction is between necessary and contingent things. Something is considered to be necessary when it is believed to be impossible it could be other than what it is. A necessary thing has to be the way it is. Something is considered to be contingent when there is a possibility for the thing to be other than the way it is. Nevada being the 36th state is a contingent fact. It is quite possible that another state such as, Oklahoma, could have become the 36th state. The key phrase when distinguishing between something being necessary or contingent is that it “could have been otherwise”. If something is determined to be contingent then it requires an explanation for why it is this way.

Both Thomas Aquinas and Bruce Reichenbach apply this distinction to their cosmological arguments. Thomas Aquinas believes if something is necessary then its existence is necessary, meaning it is imperishable and must exist (Aquinas, 25). A contingent or possible thing is that which exists and can cease to exist. Bruce Reichenbach argues for a similar view of necessity and contingency. He defines a necessary being as one that “if it exists, cannot not-exist” and a contingent being as one that “if it exists, can not-exist” (Reichenbach, 2004, 104).

The second distinction is between deductive and inductive arguments. Deductive arguments, if they are both valid and sound, result in the truth of the conclusion being guaranteed (Angeles, 55). To be a valid argument the conclusion must follow logically from the premises given. An invalid argument is one in which the conclusion does not
follow logically from the premises. To be sound, the argument must be both valid and the premises and conclusions must all be true. An argument is considered unsound when at least one of the premises or conclusions is false. Consider the following deducting argument: All men are mortal. Socrates is a man. Therefore, Socrates is mortal. The argument is both valid and sound. The argument is valid because the conclusion that Socrates is mortal follows logically from the premises that “all men are mortal” and “Socrates is a man.” The argument is also sound because both premises and the conclusion are true. Since this is a deductive argument which is both valid and sound, it is guaranteed that Socrates is mortal.

Inductive arguments are weaker than deductive arguments. While deductive arguments can guarantee the truth of a conclusion, inductive arguments can only provide a certain level of probability that the conclusion is true (Angeles, 132). Inductive arguments are considered to be either strong or weak arguments. A strong inductive argument gives a high probability that the conclusion is true. Weak inductive arguments provide a low probability that the conclusion is true. Consider the following inductive argument: Some swans are black. This bird is a swan. Therefore, this bird is black. It is probably true that some swans are black. It is also probably true that the bird I am looking at is a swan. But it is not guaranteed that the bird I am looking at is black. The swan I am looking at may in fact be white. If I am looking at a small group of black swans then I would have a stronger argument that all swans are black, however, this argument does not guarantee that all swans are black.

The third and final distinction is between a priori and a posteriori. A priori is a Latin term which translated means “that which precedes” (Angeles, 17). The truth or falsity of a
priori propositions can be determined with minimal sensory experience (Angeles, 17). Take the proposition, “all bachelors are unmarried men.” I know this proposition is true not because of my experience with bachelors but because I know that by definition a bachelor is an unmarried man. A posteriori is another Latin term which translated means “that which follows after” (Angeles, 15). The truth or falsity of a posteriori propositions is determined directly from sensory experience (Angeles, 15). A posteriori true propositions can be empirically verified. Consider the proposition, “it is raining.” There is nothing contained within the idea of it raining which tells us whether or not it is in fact raining outside. The only way to know whether this proposition is true or false is to go outside and observe the weather. If it is in fact raining, you will be able to see and feel the rain falling down.

To Begin

Why does the universe exist this way when things in it could be different? Why does the universe exist at all? Is there a rational explanation for why it exists or does the universe even need an explanation? Philosophers, from the ancient world to the modern have tried to provide arguments for the best explanation for the universe. Thomas Aquinas, William Lane Craig, and Anselm of Canterbury have concluded that the best explanation of the universe is what we have come to know as god. There are several variations of arguments to support the conclusion that god exists. The most common types of arguments are the ontological, cosmological, and teleological arguments.

Ontological arguments address the ontology, of god. Ontology is the study of the nature of being (Angeles, 198). Ontological arguments attempt to show the nature of the
ultimate being, the existence of all things in the universe are dependent upon it, and the occurrence of this dependency in reality (Angeles, 198). Ontological arguments commonly address the characteristics of god. Does a Supreme Being exist? Is it possible for God to be all-powerful, all-knowing, and possess absolute goodness? Anselm’s argument for the existence of a Supreme Being is an example of an ontological argument.

In *Proslogion*, Anselm of Canterbury argues for the existence of God as a Supreme Being of which “nothing greater can be thought” (Anselm, 117). The Supreme Being is that which is the greatest of all things, whether it exists in reality or solely in the mind. Something is considered to be greater if it actually exists in reality as opposed to only existing in the mind. If God is going to be the Supreme Being of which none greater can be conceived of then He must exist in reality. If God solely exists in the mind, then it is possible for something to exist which is greater than God. God is the Supreme Being which none greater can be conceived therefore, God must exist.

The second type of argument is the cosmological argument. Cosmology is the study of the universe as an ordered and rational system (Angeles, 50). Cosmological arguments attempt to find an explanation for the order and rationality observed in the universe by proving that god is the best explanation of the universe. Cosmological arguments begin with certain facts about the universe such as things that exist in the universe are causally dependent on something else, or the universe as a whole is contingent and it requires a cause for its existence. From these facts, philosophers such as Thomas Aquinas and Bruce Reichenbach conclude that a prime mover, a first efficient cause, or a necessary being exists which is responsible for the creation of the universe. Thomas Aquinas’ five proofs for the existence of God and Bruce Reichenbach’s arguments for contingency and coming into
existence are examples of cosmological arguments. The works of Aquinas and Reichenbach presents only a small fraction of the work carried out by philosophers in favor of the cosmological arguments. Aquinas and Reichenbach works will be discussed further down as their arguments present a clear overview of several centuries worth of debates and discussions on the cosmological arguments.

The third type of argument develops out of the cosmological argument and is referred to as the teleological argument. Teleology is the study of phenomena which exhibit order, purpose, design, and ends (Angeles, 290). Teleological arguments begin with particular phenomena and conclude that there is a creator and designer of the specific phenomena. William Paley’s watchmaker experiment is an example of a teleological argument. Suppose you are walking on the beach and see a stone. You might ask where the rock came from or how it got there. It is possible that the answer to this question is that it has always been there. This would be a perfectly reasonable answer, however, what if what you found was not a stone but a watch. You would not be able to just assume that it had always been there. To say so would suggest that the watch had spontaneously been created. But how is it possible for such a crafted piece to just come naturally and by accident? Each part created with a specific purpose in mind. If anything is slightly out of shape or improperly made then the entire mechanism will not work as it was intended. Since this could not have happened by accident there must be a designer and creator responsible for the watch (Paley, 1). As there is plenty of written material on each of these argument types further discussion will focus solely on the cosmological arguments of Thomas Aquinas and Bruce Reichenbach in order to determine whether or not the cosmological arguments can provide rational proof to accept the existence of god.
In the Medieval period, Thomas Aquinas, in his *Summa Theologica*, provided five proofs of attempting to prove that God exists and that He is the best explanation for the universe. Aquinas provides arguments from change, efficient cause, possibility and necessity, gradation of goodness, and the order of the world (Aquinas, 24). Each of his five proofs gives an inductive argument for the existence of what we have come to call God. Aquinas’ first three arguments provide strong proof for the existence of God because each can be supported through scientific explanations. The final two arguments support God’s absolute goodness and God as the creator of the universe. These two arguments are addressed more in depth by ontological and teleological arguments and will not be discussed here.

In a more recent selection titled “Explanation and the Cosmological Argument,” Bruce Reichenbach presents two deductive cosmological arguments. The first is based on the contingency of the universe and the second is based on the universe’s coming into existence. The argument from contingency concludes with the existence of a necessary being which “cannot not exist” (Reichenbach, 2004, 104). The argument from contingency comes to the conclusion that the universe needs a cause for its existence (Reichenbach, 2004, 109). Reichenbach’s arguments are both valid and sound, meaning the conclusion follows from the given premises and that each proposition is true. However Reichenbach’s concept of a necessary being is flawed because it there is still doubt as to whether or not god exists. This issue can be easily resolved by applying Aquinas’ concept of a necessary being to Reichenbach’s argument.

As with any philosophical arguments, the cosmological arguments are not without their objections. Does the universe really need an explanation? Can we not simply explain
the universe by explaining each of its parts? Objections to the cosmological arguments take can object to specific premises or conclusions made in cosmological arguments. Immanuel Kant is well known for his objections against Aquinas and the existence of a necessary being. Other philosophers such as Bertrand Russell and David Hume object to certain aspects of the cosmological arguments as a whole. Since there are numerous objections to the cosmological arguments and to be somewhat brief, only the objections from Russell and Hume will be discussed further.

In his debate with Father Copleston, Bertrand Russell claims that asking for a cause of the universe is meaningless and that it “is just there, and that’s all” (Russell, 134). Another objection comes from the Scottish philosopher, David Hume. In Part 9 of *Dialogues Concerning Natural Religion*, Hume gives multiple objections to the cosmological arguments. First he criticizes the possibility of a necessary being whose non-existence is contradictory. He then criticizes the need of a separate explanation of the universe as a whole, believing that by explaining the cause of each individual part we provide an explanation for the cause of the whole (Hume, 150). These objections do raise strong questions against accepting the truth of the cosmological arguments. However the cosmological arguments presented by Thomas Aquinas and Bruce Reichenbach can overcome these objections and still provide rational proof to accept the existence of god.

**Cosmological Arguments**

Cosmological arguments begin with premises which assume certain facts about the world and proceed to conclude with the existence of a being which is typically referred to as god (Reichenbach, 2013). These facts include the causal dependency of some things in
the world; the contingency of the world as a whole; the universe’s coming into existence. Given these facts, one can conclude in the existence of a being which is a prime, unmoved mover, and an efficient or sustaining cause which is responsible for the creation of the universe.

In *Summa Theologicae*, Thomas Aquinas presents strong inductive arguments for the belief in the existence of a prime mover, an efficient cause, and a necessary being which we understand as God. Thomas Aquinas also presents arguments for a perfectly good being and the universe having a guided purpose. These final two arguments begin to go into ontological and teleological arguments so these proofs will not be discussed here. The first three of Aquinas’ proofs give strong arguments for the existence of God because they are not only supported by theistic belief but also through scientific reasoning as well.

In “Explanation and the Cosmological Argument,” Bruce Reichenbach presents deductive arguments for the belief in a necessary being, a being which “if it exists, cannot not-exist” as well as the need for the universe to have a cause. (Reichenbach, 2004, 104) Both of Reichenbach’s arguments are valid and sound arguments which support the existence of God. However, Reichenbach’s definition of a necessary being requires some alteration if it is going to overcome objections which arise against it.

*Thomas Aquinas*

In *Summa Theologicae*, Part One, Question Two, Article Three, Thomas Aquinas poses the question “Whether God exists?” Aquinas begins this article by presenting two objections to the existence of God. The first objection is directed towards God’s infinite goodness and the second is directed against the need for God’s existence. Aquinas then
presents five proofs for the existence of God. His five proofs are the arguments from change, efficient cause, possibility and necessity, goodness, and design. Aquinas concludes the article by replying to each objection discussed at the start of the article. Since arguments concerning God’s goodness and design are discussed thoroughly in ontological and teleological arguments, respectively, the following discussion will focus on the objection for the need to suppose God’s existence and the first three ways. What makes Aquinas’ arguments strong proof for the existence of God is that they provide proof for the existence of a god who is not required to be the God of Christian theology.

The second objection Aquinas presents, criticizes the need to suppose that God exists at all. The need to suppose God’s existence is based on the assumption that the world cannot be fully accounted for without God existing. However, the world can be accounted for by principles without supposing God exists. All natural things can be reduced to nature itself and all voluntary things can be reduced to human reason, or will (Aquinas, 24). Since everything can be reduced to either nature or human reason, it would be superfluous to suppose the existence of God. Aquinas responds to this objection by providing three arguments which show the need to suppose God exists.

**Proof 1**

The first proof is Aquinas’ argument from change and proceeds as follows:

1. It is evident to our senses that some things in the world undergo change.
2. Whatever is undergoing change is changed by another, which is itself already undergoing change.
3. If the cause of the change has also undergone change then its change is caused by yet another thing.
4. If this were to go on to infinity then there would be no first cause of the change.
5. Therefore, it is necessary to come to a first change that is itself not changed by anything.

6. This is what everyone understands as God. (Aquinas, 24)

For Aquinas, change is “simply to bring [something] from potentiality to actuality” (Aquinas, 24). A log, which is potentially hot, when acted upon by fire, which is itself actually hot, also becomes actually hot. Actuality and potentiality are contrary states. This means an object can be in a state of actuality or a state of potentiality but not both at the same time in the same respect. For example, a log can be both potentially hot and actually cold at the same time. However, this same log could not be potentially hot and actually hot at the same time. To undergo the change from being potentially hot to actually hot, the log must be acted upon by something, a flame, which is actually hot. This causes the log to change from being potentially hot to actually being hot. At the same instance, the log is changing from being actually cold to being potentially cold.

Likewise a particular thing cannot be the thing undergoing change as well as the thing causing the said change. It is not possible for something to be the sole cause of its change. A log will not suddenly burst into flames. It must be acted upon by something else, a flame or a spark, for example. But what about a person changing himself/herself? An individual who is overweight may decide to get in shape and lose some weight, but what causes this change? Changes such as this will only occur if there are other forces revealing the need to lose weight. Perhaps it is a doctor recommending a healthy lifestyle or difficulty climbing a set of stairs. This change in will would not occur unless something was acting on the will.
Since everything is undergoing change is changed by some other thing, we are left with an infinite series of causes of change and things undergoing change. But, if we have an infinite series, then there is no first cause of change, which is itself unchanging, to begin the series and therefore no consequent things undergoing change. Because there are things which are currently undergoing change, there must be a first, unchanging cause to kick start the entire series. This first cause of change is what Aquinas argues to be what we understand as God.

**Proof 2**

Aquinas’ second argument of efficient cause, which takes a similar form to his argument from motion, proceeds as follows:

1. There is an order of efficient causes.
2. A thing cannot be the cause of itself.
3. If there is no first cause then there are no consequent efficient causes or effects.
4. There are efficient causes and effects.
5. Therefore there must be a first efficient cause.
6. This is what we understand to be God. (Aquinas, 25)

We can see cause and effect all around us. If I put a piece of bread in a toaster and turn it on, a few minutes later I will have a nice piece of toast for breakfast. If I forget to pay my power bill then the toaster in my house will not work when I put the bread into the toaster and flick the switch. I exist today because my parents chose to have a second child. We have plenty of cases where a thing or event is caused by another thing or event. There is not, however, any case where a thing or event causes itself. Even self-motivation is at least partially caused by something else. The motivation to get an assignment finished for a class is not solely caused by the self. External forces, parents or the professor for example, apply
pressure to complete assignments and to do well in courses. If these assignments are not completed then it is possible to fail the course. If something is the cause of itself then it must exist prior to itself, which is impossible according to Aquinas. It would mean saying I am the cause of my own existence, which is completely absurd. How can I exist before I exist?

Just as we cannot have an infinite series of changers and thing being changed, we cannot have an infinite series of causes and effects. If there is an infinite series of causes then we would have no first cause. If we do not have a first cause then we have none of the intermediate or ultimate causes that follow it. My parents are an important part of the cause of my existence. Without them I would not exist. Likewise my grandparents are a crucial part of the cause of my parent’s existence. If my grandparents did not exist then neither would my parents nor I exist. This is why it is necessary to accept a first efficient cause. This first efficient cause is what Aquinas refers to as God.

**Proof 3**

Aquinas’ third argument is from possibility and necessity. It runs as follows:

1. We find in nature things that are possible to be and not to be.
2. If things found in nature can cease to exist then it is possible that at some point these things did not exist.
3. Therefore, if it is possible for things to cease to exist, then it is possible that at some point in time nothing existed.
4. That which doesn’t exist only begins to exist by something that already exists.
5. Therefore, if at one time nothing existed, then it would be impossible for anything to come into existence and even now nothing would exist.
6. Therefore, not all beings are possible, but something must exist which is necessary.
7. Every necessary thing’s necessity is either caused by itself or another thing.
8. If all necessity is caused by another thing then we are left with an infinite series of necessary things.
9. If an infinite series exists then there is no first necessary thing whose necessity is self-caused.
10. Therefore, there must be a thing which is necessary that causes its own necessity and the necessity in other things.
11. This is what we speak of as God. (Aquinas, 25)

There are some things in nature that are contingent; which are possible to exist and to not exist. Natural things, even our planet as we know it, at one point in time came into existence and at some point it will cease to exist. Since contingent things come into and go out of existence, it is impossible that they have always existed. Therefore it is possible that at some point in time in the past nothing existed. If nothing existed in the past then nothing would exist now because something cannot come from nothing. It is absurd to think nothing exists today, because at the very least I like to think, at the very least, I exist. Since something exists today then there must be something that is necessary. Aquinas’ concept of necessity should be taken as an Aristotelian view where being necessary is taken to mean a thing exists which cannot cease to exist (Geach, 115). If something is necessary then it is either given its necessity by something else that is also necessary or it is the cause of its own necessity. If a thing’s necessity is caused by another necessary thing we potentially are left with an infinite series. Matter and energy could be considered necessary things according to Aquinas. Modern science accepts that energy and matter are neither created nor destroyed. As they are necessary things, their necessity is either caused by another necessary thing or is self-caused. As with an infinite series of movers, if we have an infinite series of necessary things then there is nothing that is in fact a necessary thing. That is why
Aquinas argues for the existence of a necessary thing that is the cause of its own necessity and the necessity in others. This necessary thing is what Aquinas understands to be God.

**Conclusion**

After giving his arguments as proof of the existence of God, Aquinas gives a final reply to the objections stated at the beginning of the article. He says:

> Since nature works for a determinate end under the direction of a higher agent, whatever is done by nature must needs be traced back to God, as to its first cause. So also whatever is done voluntarily must also be traced back to some higher cause other than human reason or will, since these can change or fail; for all things that are changeable and capable of defect must be traced back to an immovable and self-necessary first principle. (Aquinas, 27)

It is necessary to suppose God exists because nature and human reason are constantly changing, fallible, and perishable. The world around us is constantly changing. This constant change and cycle of life and death must have started somehow. If something was not there to start everything off, then there would still be nothing in existence today. No motion, no cause and effect, and no things coming into existence would exist now. But what about the possibility that the universe is eternal or that an infinite series does exist? Aquinas makes the assumption that the world is not eternal and that an infinite series is impossible. However, the question can still be asked, why does an infinite series exist? Why not another infinite series, or nothing at all? These questions still create the need for an explanation of the world regardless of the occurrence of an infinite series. What makes Aquinas’ arguments appealing is that the god which is supported by these arguments does not have to be the God of Christian theism or any god whatsoever.
Aquinas’ proofs provide reasonable proof for the existence of God because they do not strictly support the existence of the God of Christian theism but rather a concept of god which is much more universal. These cosmological arguments and others like them attempt to provide an explanation for the existence of the universe. Theists such as Aquinas, used these arguments to support the existence of God as Christianity believes Him to be. However, even an atheist could accept these arguments without completely turning 180 degrees on his views. The cosmological arguments attempt to provide an explanation for the world and what is in it. While theists go beyond just an explanation for the existence of the world to the existence of God, it is possible to stop at a necessary thing or event. The Big Bang for example, which is responsible for being the first cause which is itself uncaused, or the prime mover which moves itself. In this way, the Big Bang itself, could potentially be what we have come to understand as God.

*Bruce Reichenbach*

In “Explanation and the Cosmological Argument,” Bruce Reichenbach presents two deductive cosmological arguments. Reichenbach’s first cosmological argument is from contingency. Reichenbach argues for the existence of a necessary being which “if it exists, cannot not-exist” (Reichenbach, 2004, 104). His second cosmological argument is from coming into existence. In this argument Reichenbach argues that there is a cause of the universe’s existence. Reichenbach’s deductive arguments are both valid and sound. However his argument from contingency quickly runs into problems because of his definition of a necessary being. By simply altering his definition of a necessary being we can establish an argument which is much more easily accepted.
Argument from Contingency

Bruce Reichenbach’s argument from contingency is similar to the argument from contingency presented by Thomas Aquinas and proceeds as follows:

1. A contingent being (a being which, if it exists, can not-exist) exists.
2. This contingent being has a cause or explanation of its existence.
3. The cause or explanation of its existence is something other than the contingent being itself.
4. What causes or explains the existence of this contingent being must either be solely other continent beings or include a non-contingent (necessary) being.
5. Contingent beings alone cannot cause or explain the existence of a contingent being.
6. Therefore, what causes or explains the existence of this contingent being must include, a non-contingent (necessary) being.
7. Therefore, a necessary being (a being which, if it exists, cannot not-exist) exists. (Reichenbach, 104, 2004)

Reichenbach’s initial argument is a valid deductive argument. The conclusions that “the explanation of a contingent being requires a necessary being” and that “a necessary being exists” follow logically from the given premises. The argument is valid but is it sound? Premise 1 is Reichenbach’s definition of a contingent being and can be easily accepted as true. Premise 2 is based upon the Principle of Causation which states that “whatever exists contingently cannot have its existence from itself but is dependent upon something else for its existence” (Reichenbach, 2004, 99). Premise 2 is also true. If a contingent being is one which can cease to exist then it is reasonable to ask why it exist and what caused it. Premise 4 is also easily acceptable. Everything which exists is either necessary or contingent. Premise 4 is true as well. Everything which exists is either necessary or contingent. Since we are looking for the thing which caused or explains the existence of the contingent being then we are looking for something which is either contingent or necessary.
Premises 3 appears to be true but objections can be raised regarding its truth or falsity. Can a contingent being be explained by explaining its parts? This objection will be discussed in more detail further down. However, by explaining the parts of a contingent being we cannot explain the entire whole because there are certain things which we can only learn about a contingent being by looking at it as a whole. If we cannot fully explain the whole by explaining its parts then premise 3 is true.

This leaves premise 5 which is the single premise which can cause the most problems for the soundness or Reichenbach’s argument. Can contingent beings or things provide a complete cause or explanation of a contingent being? The Principle of Sufficient Reason (PSR) requires there to be a full and complete explanation for why an existing thing or fact is the way it is and not some other way (Reichenbach, 2004, 98). A strong version of the principle would require everything which exists to have a full explanation while a more moderate version, commonly referred to as the Principle of Causation, only requires a full explanation for everything which is contingent. A full explanation is defined as one which includes a full cause and why the cause resulted in the effect that it did (Reichenbach, 2004, 104). Since Reichenbach applies the moderate version of PSR in premise 2, it will also be used in premise 5.

Premise 5 can be proven true by considering the universe as the contingent being in question. If we consider the universe to be the contingent being in premise 1 then we are looking for an explanation for all contingent beings. This explanation cannot solely include contingent beings as it is all the contingent beings which we are trying to explain. An explanation of why there is gravity is not complete unless we can explain why gravitational
forces exist in the first place. The explanation of the universe then requires something that is a non-contingent or necessary being to provide a full explanation.

Reichenbach’s argument as he presents it is both valid and sound. However, the necessary being which he is defending the existence of is problematic. Reichenbach defines a necessary being as a being “which, if it exists, cannot not-exist” (Reichenbach, 2004, 104). The issue with Reichenbach’s definition of a necessary being is that its existence is still contingent. The argument as a whole attempts to prove that a necessary being exists and provides a full explanation for the existence of contingent beings. If this necessary being is also contingent then it also requires an explanation which does nothing but continue the series of causes and explanations of those causes. This problem can be easily overcome by adopting the definition of a necessary being used by Thomas Aquinas which defines a necessary being as one which exists and cannot cease to exist (Aquinas, 25). By using Aquinas definition of a necessary being, premise 7 concludes in the existence of a necessary being which cannot not-exist.

**Argument from Coming into Existence**

The argument from coming into existence is deceptively simple and is used to demonstrate the existence of a first cause which is responsible for the creation of the universe and everything in it (Craig, 64). Also referred to as “the Kalam Cosmological Argument,” the argument from coming into existence is developed out of the argument from contingency and focuses specifically on the universe as a whole. Developed in Arabic philosophy, the Kalam Cosmological argument takes the argument concerning a first cause and applies it specifically to the universe. The argument is short and proceeds as follows:
1. Whatever begins to exist must have a cause of its existence.
2. The universe began to exist.
3. Therefore, the universe has a cause of its existence. (Reichenbach, 2004, 109)

The argument from coming into existence is a simple argument, yet it is both valid and sound. The first premise is another formulation of the Principle of Causation, which requires everything which comes into existence to have a cause of its existence. The cause must either be the thing itself or some other thing which is also caused. As discussed previously, if everything is caused by another we are faced with an infinite series of causes and effects. The existence of an infinite series will only be possible if the universe is eternal, as anything which exists in the universe would begin to exist simultaneously with the beginning of the universe. If the universe is eternal then it is not possible for the universe to come into existence.

The second premise states that the universe came into existence. This premise is supported by current cosmology which supports the theory that around 15 billion years ago the universe “exploded into existence” in an event known as the “Big Bang” (Reichenbach, 2004, 109). Scientific studies, performed at Bell Laboratories have provided evidence of background radiation which was left by the explosion is still present in the universe today. This evidence proves the truth of the theory and supports the conclusion that the universe itself has a cause of its existence (“Newly Discovered Radio Radiation”). Since the universe is believed to have a beginning then it is not eternal and therefore must have a cause. By showing that the universe has a cause, the argument from coming into existence leads to the question of who or what brought the universe into existence. If the cause of the
universe is the first efficient cause then it must be a necessary thing or being, which is understood to be god.

**Conclusion**

What makes Bruce Reichenbach’s argument’s reasonable proof for the existence of God is that these arguments, as with Aquinas’, support a concept of god which does not necessarily imply the God of Christian theism. Reichenbach’s argument from contingency supports the idea that something exists which cannot nor could have begun to exist. Something which exists must be eternal. This could be God, as understood by theists, or it could be something such as matter or energy. It could be an event which could not have happened any other way, the “Big Bang” for example. The universe itself could be eternal and does not have an explanation. The argument from coming into existence proposes that this last option is not possible. If the universe is eternal then it could not have begun to exist. Modern science tells us that the universe did come into existence in a massive explosion and therefore cannot be eternal. This means the universe is contingent and requires an explanation. To reject these arguments it must be proven that the universe does not have nor does it need an explanation which is outside of itself. If an explanation is possible it is given through a complete explanation of its parts.

**Objections to the Cosmological Arguments**

As with any philosophical topic, cosmological arguments for the existence of god are not without their objections. Objections to the cosmological arguments take issue with several different points within the arguments. Objections may be made regarding specific arguments such as the existence of a necessary being, or objections may focus on the
proposition that the universe requires an explanation independent of itself, if at all. Bertrand Russell and David Hume both present objections to the cosmological arguments which focus on the need for an explanation of the universe. In a debate with Father F.C. Copleston, Bertrand Russell argues there is no reason to believe the universe, as a whole, has a cause and it just is and nothing more (Russell, 129). David Hume’s objection also addresses the cosmological arguments as a whole. However, Hume does believe the universe has an explanation. Hume argues an explanation which requires a necessary being independent of the universe is unnecessary as it is possible to full explain the whole by explaining its individual parts (Hume, 150).

Bertrand Russell

One objection to the cosmological arguments is presented by Bertrand Russell. In a debate on the existence of God, which was originally broadcasted in 1948 with Father F.C. Copleston, Russell argues there is no reason to think the universe has a cause and the concept of cause is derived by our observation of particular things (Russell, 130). Russell believes to ask for a cause of the universe as a whole is to commit the Fallacy of composition. However, there are certain properties of parts of a whole which are transferred to the whole. Having a cause is one such property.

Bertrand Russell argues that there is a need to suppose the universe has a cause. He argues that the concept “is one we derive from our observation of particular things” (Russell, 130). He is correct. The idea that the universe as a whole requires a cause is derived from observing particular things and seeing that these things are contingent and have a cause. Since everything in the universe is contingent it is also believed the universe
itself is also contingent. Russell denies this leap and believes those who make it commit the Fallacy of Composition. The Fallacy of Composition concludes that since the parts of a whole have a certain property then the whole likewise has the same property. (Reichenbach, 2004, 105) It is reasonable for Russell to apply the fallacy to the assumption that the universe is contingent. But is it possible to safely assign a property to the whole when it is true for the part?

Imagine a wall which is twenty feet long and fifteen feet high and made of brick. We can look at a single brick and see that it is small. If we were to say the wall is also small because the bricks which make it up are small would be to commit the fallacy. However, if we see that the bricks are composed partially of clay then we would also be able to conclude that the wall is partially composed of clay without committing the fallacy. The question then is whether contingent things needing a cause is like the first example or the second. The universe’s need for a cause is similar to the second example. As it has been stated previously, the universe is considered to be the totality of all contingent things. Particular things in the world are considered to be contingent because they at one point came into existence and can easily perish and cease to exist. As contingent things come into existence it is probable that at one point nothing existed. If nothing existed then the universe itself would not have come into existence. Since somethings, including the universe, exist today there must be a cause as well as an explanation for why these things exist. If the universe requires an explanation, then why can the explanation not be found in an explanation of its individual parts?
David Hume

A second objection is presented by David Hume. In Part 9 of *Dialogues Concerning Natural Religion in Focus*, David Hume presents a dialogue concerning the cosmological arguments between three characters, Demea, Cleanthes, and Philo. Demea supports the argument from a first cause and believes that the succession of causes and effects must trace back to an ultimate cause that exists necessarily (Hume, 148). Cleanthes and Philo both object to Demea’s argument and pose several objections to the argument. One objection in particular is Cleanthes’ objection that an explanation for the universe can be given by explaining the parts without the need to look for some being that exists outside of the universe. This objection would discredit the need for the existence of a necessary first cause, only if everything which can be discussed about the whole can also be addressed by discussing the parts.

Demea addresses the argument that everything which exists must have a cause or reason for its existence and that it is impossible for a thing to produce itself, or be the cause of its existence (Hume, 148). Now if we trace each effect back to its immediate cause we are faced with either an infinite series of causes and effects or an ultimate cause which exists necessarily. In an infinite series each single effect can be traced back to its direct cause. The series proceeds to infinity as the series never traces back to a first cause. If there is an infinite series then this series must be indeterminate and have no cause or there is a cause for the series as a whole. The need for an explanation is still reasonable as it is possible for the infinite series to be other than what it is or to not even exist at all. Even an infinite series requires an explanation and an ultimate cause for its existence.
Cleanthes argues that it is absurd to ask for the cause of an infinite series as it would be eternal and would thus have no beginning nor end. Cleanthes believes that the uniting of individual parts into a whole is an “arbitrary act of the mind” and does not influence the nature of things (Hume, 150). Since this uniting is simply an act of the mind, explaining each individual part is sufficient to explain the whole. If we can explain each individual effect with a prior cause within the infinite series then there is no need to revert to a cause which necessarily exists independent of the infinite series.

Cleanthes’ objection appears to be convincing however, it is only successful if it is true that the uniting of the whole is arbitrary and provides zero additional information which cannot be provided by the parts. If we look at the individual parts of an object and provide a full explanation of each part, our explanation of the whole would be incomplete. Why? Explaining the parts of a whole does not explain why each part is there rather than another or why there is something there instead of nothing.

Take the United States of America, for example. Fifty states that are all brought together to form a single nation. We could sit and discuss each state, its history, its people, its culture, even how it became a state. Even if we did this for all fifty states it does not fully explain the nation. Why are there fifty states and not fifty-one? Why does the United States even exist? When we think of a specific state, California, for example, we may think of surfing or giant redwoods. Then when we think of another state, New York, we may think of skyscrapers and pizza. But when we think of the United States, we think of a nation rather than individual states. We may think of a nation built upon personal liberty and democracy or a nation that is strongly patriotic and nationalistic, things which are not always thought of when thinking about specific states.
Remember the brick wall discussed previously? Imagine you are sitting at a bus stop looking at the brick wall across the street. The wall is made up of several hundred red bricks and mortar between each brick. Now we could sit there and explain how each brick is made from clay and baked in an oven until it becomes hard. We could explain how a group of builders spent a certain amount of time placing each brick in its spot and securing it with mortar. We could create a complete explanation for each brick in the wall but is the explanation of the wall complete? Since each brick is red we can know the wall is mostly red, but what about the size of the wall? If each brick is small, then the wall would also be considered small, but if the wall is, in fact, ten feet high and twenty feet long then it seems we have a problem.

Some of the information we can gather about the brick wall can only be gained by looking at the wall as a whole and not simply as a collection of bricks. The size of the wall, for example, cannot be found simply by knowing the dimensions of each brick. How thick is the wall? Perhaps the wall is two or three bricks thick. How can we know this just from the thickness of each brick? To understand the dimensions of the wall, we must look at the wall as a whole, just as we would look at the United States as a whole. Since there is information which we can learn from looking at the whole then an explanation of the existence of the whole is incomplete until we address the cause of the whole.

**Conclusion**

Both Russell and Hume give objections to the cosmological arguments. Russell argues that the universe does not require an explanation and Hume argues that the explanation of the universe is found by explaining its parts. These arguments fail to
dismantle the cosmological arguments provided by Aquinas and Reichenbach. Russell argues that the need for an explanation of the universe is fallacious. This is true only if the universe is eternal. It has been shown by science that the universe did in fact come into existence and therefore could not have come into existence. This allows us to ask the question, “why it came into existence” and search for an explanation of its existence.

David Hume argues that the universe is explained by explaining its parts. He considered it unnecessary to ask for an explanation of the universe because a full explanation is given by providing a full explanation of its parts. This would be true only if everything we can know about the whole is made known to us by its parts. This is not true as properties such as a wall’s dimensions, or a national identity can only be known by looking at the wall or nation as a whole. If some properties can only be explained by examining the whole then it is reasonable to ask for an explanation of the whole, despite having a complete explanation of its parts. As these objections fail to dismantle the cosmological arguments, they still provide reasonable proof to accept the existence of god.

**Conclusion**

Cosmological arguments are one type of argument that explains the order and rationality in the universe by proving that god is the best explanation of the universe. Thomas Aquinas presents three cosmological proofs that provide reasonable proof to accept the existence of God. The proofs include arguments from change, efficient cause, and necessity. These proofs support the existence of god as the thing responsible for the change in particular things; as the first cause which is responsible for every succeeding cause and effect; as the necessary being who causes the necessity in other necessary beings;
as the thing responsible for all contingent things in the universe. Bruce Reichenbach also presents an argument from contingency to support the existence of god. His argument provides reasonable proof for the existence of god as a thing which cannot not-exist. Since the universe and everything in it are contingent it is probable that at some point nothing contingent existed. For contingent things to have come into existence, a necessary thing must have existed which has always existed. Reichenbach’s argument from coming into existence supports the premise that the universe is contingent. Everything which comes into existence has a cause and requires an explanation because it is possible that nothing could have come into existence. Because the universe came into existence there is a cause and explanation for its existence. These arguments support the existence of god as a concept which can be supported by theists and atheists alike. The concept of god supported by the cosmological arguments is one that can be supported by both theists and atheist alike because it does not claim anything about god beyond god being the best explanation of the universe. God is not required to be a being who is all-powerful or all-knowing as theists believe. It is possible that god is simply the Big Bang which brought the universe into existence.

Bertrand Russell and David Hume each present an objection to the cosmological arguments that fails to dismantle the arguments presented by Aquinas and Reichenbach. Russell argues that the universe does not need an explanation and that it is just here. The universe needs an explanation of its existence because it is contingent and therefore has a cause. It is not fallacious to assume that the universe is contingent because it has a beginning. David Hume also argues that the universe does not need its own explanation. To do so, according to Hume, is unnecessary as the universe is fully explained by
explaining each individual part. Explaining the parts does not provide a full explanation of
the whole because examining the whole provides information which cannot be acquired by
examining individual parts. Since the objections brought by Russell and Hume do not
dismantle the cosmological arguments presented by Aquinas and Reichenbach, the
cosmological arguments provide reasonable proof to accept the existence of god. From
here we can then begin to examine the nature of who or what god is.
Works Cited


