

## DOES GOD EXIST?

Does God exist? For many, this question is redundant. The existence of God is a premise they have accepted, often, without challenge. To them, God's existence is self-evident. It is like the law of non-contradiction or the law of identity. Once the terms are understood, one cannot deny that God exist. For others, however, this is a very serious question. The past few centuries have produced numerous thinkers and scientists who say the existence of God has been soundly defeated in both scientific and philosophical arenas. Is this correct? Who is right? In this series of articles, we will look at some of the arguments on both sides of the issue and see where the evidence leads.

### THE COSMOLOGICAL ARGUMENT ARGUING FROM CREATION:

The first argument is the argument from creation or the cosmological argument. The root word of cosmological is the Greek word *cosmos*, meaning world. There are two forms of this argument - the Kalam cosmological argument and the argument from contingency. We will discuss both arguments.

#### The Kalam Cosmological Argument

The Kalam argument takes its name from the Arabic word for eternal. This argument was developed by Muslim and Jewish philosophers during the Middle Ages. Philosopher William Lane Craig is today's biggest proponent of this argument. In its basic form, it is stated:

1. Everything that has a beginning has a cause.
2. The universe had a beginning.
3. Therefore, the universe had a cause.

The first premise is a form of the principle of causality. This principle says that there exists a connection between two events in which the first event brings about the second event. It is commonly stated every effect has a cause.

The second premise is the most contested premise, but it is also the premise to which modern science has provided the most evidence. Proponents of this argument usually delineate several lines of evidence. However, we will look at only four of them.

#### **The Second Law of Thermodynamics**

In the field of physics, there are two laws which are fundamental to the question of the universe's past, current, and future state. The first law states that the actual amount of energy in the universe remains constant. The second law states that the amount of *usable* energy in the universe is decreasing. From this, also comes the principle of entropy; things left to themselves tend toward disorder. When these two principles are combined, the result is the universe is running out of energy, tending towards disorder, and, will one day, completely run out of usable energy. If the universe were eternal, however, it would have already run out of energy. Since there is still usable energy in the universe, the universe is not eternal.

## **The Expansion of the Universe**

The idea of an expanding universe is a result of the work of three scientists. The first is Vesto Slipher who, in 1913, observed several galaxies moving away from earth at rapid speeds. Edwin Hubble later developed Slipher's work and verified his claims. The second scientist was, Dutch astronomer, Willem de Sitter who theorized that the universe exploded into existence, thus causing the galaxies to move away from each other at tremendous speeds. The final scientist was Albert Einstein. His theory of general relativity also provided evidence that universe was expanding. Building on the discoveries of these three men, astronomers are mostly convinced that the universe is expanding. The consequence of the expanding universe is that if time were reversed, the universe would collapse on itself; collapsing back to nothing. All matter, energy, and even time itself began with the Big Bang.

## **The Radiation Echo**

In 1948 two physicists, Robert Herman and Ralph Alpher, predicted that if Big Bang cosmology were correct, then the universe should be bathed with residual radiation from the initial explosion. This theory was validated in 1964 when two more physicists, Arno Penzias and Robert Wilson actually detected this radiation. In 1989, NASA conducted more research using a satellite named COBE. The data from this research also confirmed Herman and Alpher's theory.

## **Impossibility of Infinite Time**

The final line of evidence is not scientific, but philosophical. Stated succinctly, the argument is:

1. It is impossible to transverse and infinite moments of actual moments.
2. If an infinite number of moments occurred before today, then today would not have occurred.
3. However, today has occurred.
4. Therefore, there was not an infinite number of moments before today.

The crux of this argument is the impossibility of an actual infinite series. An infinite series is a series of entities (i.e. moments, points, lions, tigers, bears, etc.) which has no beginning and/or ending. There are two kinds of infinite series -- a potential infinity and an actual infinity. A potential infinite is a series which continues to grow by addition. Here an actual infinite is never reached because one could always add one more. Potential infinities also include abstract and mathematical infinities. For example, there are an infinite number of points on a segment between A and B. However, with an actual infinite, all the members of a set must actually exist. So, going back to the example of points on a line, not only should a potential number of points exist, but there must also be an actual infinite number of points on a segment between A and B. This, however, is not possible. There can only be a finite number of actual entities between A and B. Also actual infinities cannot exist because if they did, contradictions would follow. William Lane Craig explains:

But mathematicians recognize that the idea of an infinite number of things leads to self-contradictions. For example, what is infinity minus infinity? Mathematically, you get self-contradictory answers. If you subtract all the odd numbers 1, 3, 5, . . . from all the natural numbers 0, 1, 2, 3, . . . , how many numbers do you have left? An infinite number. So infinity minus infinity is infinity. But suppose instead you subtract all the numbers greater than 2-how many are left? Three. So infinity minus infinity is 3! It needs to be understood that in both of these cases we have subtracted identical quantities from identical quantities and come up with self-contradictory answers. In fact, you can get any answer you want from zero to infinity! This shows that infinity is just an idea in one's mind, not something that exists in reality.<sup>1</sup>

If an actual infinite series is not possible, then the only possibility for an infinite series of

moments is a potential infinite. The conclusion is that time and the universe are not infinite but are finite and had a beginning.

### The Argument from Contingency

While the Kalam argument proves that the universe had a creator, the vertical form proves that the universe has a sustainer. It proves that the universe needs a cause for its current existence. This argument is as follows:

1. Something exist(e.g. I exist.)
2. Each being (thing) that exist is either contingent or necessary.
3. The universe is contingent.
4. Each contingent being is caused by a necessary being.
5. There cannot be an infinite regress of causes.
6. Therefore, the universe needs a first uncaused for its existence.

The first premise is undeniable. In order to deny this premise, one has to exist. This would be a contradiction and contradictions do not exist. The second premise is more difficult. Therefore, some definitions are needed. A contingent being is one that is dependant on another. A necessary being is one that is completely independent of all things. Another way to express this is contingent beings have potentiality while necessary beings are fully actualized. Necessary beings have no potentiality to be actualized. They do not change. Everything that exists falls into either one of these categories.

From this definition, we see that the universe is not a necessary being because it does have potential to be actualized. The universe undergoes change. As pointed out above, it is running out of usable energy. This is a real change. It is susceptible to time. It passes from one moment to another. Therefore, the universe is contingent. But contingent beings are caused by necessary beings. Dr. Norman Geisler explains:

What is but could possibly not be is only a potential existence. It has existence but it also has the possibility of nonexistence. Now the very existence of this potential existent is either self-caused, caused by another, or uncaused; there are no other possibilities. But it cannot be self-caused since this is impossible. Neither can it be uncaused. For if it were uncaused, then mere possibility would be the ground of actuality. But nothing cannot produce something.<sup>2</sup>

We have already shown that an infinite regress (actual infinite series) is not possible. Therefore you cannot have an infinite regress of contingent causes. You must get to a necessary, uncaused cause which is responsible for the existence of the universe.

### Answering Objections

Now that both forms of the cosmological argument have been presented, it is good to present the objections raised and also provide the rebuttals.

#### **Objection One**

One of the most often heard objections to this argument for God's existence is that if everything must have a cause then so must God. If everything that exist needs a God and God is a thing, then it follows that he needs a cause for his existence as well. But if he needs a cause, then so does the thing that causes him. This leads to an infinite regress of causes, which is impossible. Therefore, the argument from creation proves that God cannot exist, not that God does exist.

This objection is based on a misstatement of the argument. The argument states that everything that *begins to exist* has a cause, not everything *that exist* needs a cause. Since theist asserts that God did not begin to exist, but is eternal, he does not need a cause. He is an uncaused being. The theist is willing to admit that universe could be eternal. However, the evidence says that it is not. Therefore, the argument from creation is still valid.

### **Objection Two**

Another objection raised against this argument is to attack the idea of causation. While this principle appears to be self-evident, there has been some objection to it in recent years. Most of the objections revolve around recent quantum theory. According to the quantum theory of gravity, blobs of “spacetime” pop into existence out of nothing frequently. These blobs are uncaused and therefore provide evidence that if the universe is uncaused at its most fundamental level, then the entire universe might also be uncaused.

This objection, however, is based on two misunderstandings. First, the jury is still out on whether it is actually the case that subatomic particles are uncaused. Many physicists do not hold to the popular theory of quantum theory, which has produced this idea. Second, the objector also commits a fallacy by equivocating on the term *nothing*. When the scientist uses the term *nothing*, he does not mean literally nothing as the philosopher means. Instead, he is referring to subatomic energy. The philosopher, on the other hand, means that there is no being or substance which has the power to cause being. Therefore, quantum physics does not refute the principle of causality, and therefore cannot be used against this argument.

### **Objection Three**

The third objection is derived from the first law of thermodynamics. Objectors claim that the first law of thermodynamics says that energy can neither be created nor destroyed. If this is true, then energy is eternal and therefore there is no need for a creator.

This objection is flawed because stating the first law as stated above is actually a philosophical assertion not a scientific one. The statement is talking about the *nature* of energy. However, the nature of things falls into the category of philosophy not science. From a scientific standpoint, the scientist can say that as far as has been observed, there is no new energy coming into the universe and there is no energy leaving the universe. The actual amount of energy in the universe remains constant. He is not allowed to discuss the nature of energy, not as a scientist anyway. Finally, this law has no impact on the truth of the second law. While the actual amount of energy is the same, the amount which can be used is diminishing. Therefore, this objection does not work.

### **Objection Four**

Another objection has to do with alternate models of the universe. There are some alternate models which are no longer used. For example, Fred Hoyle’s Steady State theory was once used, but was shown to be untenable. However, there are other models which one can adopt that allow for an eternal universe. Most notable are the oscillating universe and Stephen Hawking’s model. Neither of these models require a creator. The oscillating model states that the universe will continue to expand, but in time will slow down. Once it slows down significantly, the force of gravity will cause the universe to collapse back on itself. This collapse will cause the all the conditions which were present in the Big Bang to happen again, creating a brand new universe. This cycle continues indefinitely throughout eternity. Stephen Hawking’s view is best understood using the analogy of the earth. Hawking asserts that the earth is finite, but without limits because the earth has no edge. Therefore, one can travel around it indefinitely.

If one takes this idea and applies it to the universe, the universe is also “spherical,” without edges. It is a closed system, needed no creator or sustainer.

While these models have popular appeal, they have both been shown to be untenable. First, the oscillating model still does not escape the second law of thermodynamics. While the energy in the universe might increase during the next “bang,” the energy will be less each time. Eventually, the universe will still wind down. This is analogous to throwing a tennis ball off the roof of the Empire State’s Building. Once the ball hits the ground (assuming no one is standing under it) it will rebound, but each successive rebound will be less. Second, one still has to ask, “what caused the first bang?” Going back to the evidence for the Kalam argument, one still has to concede that time is not eternal which means that there was a first “bang.” Finally, some astronomers and astrophysicists do not believe that the universe is capable of rebounding. They contend that too much of the universe’s energy has been used. Going back to the Empire State analogy using a lump of wet clay as opposed to the tennis ball, the result would be a splat rather than a bounce.

In order for Hawking’s model to work, he has to employ the notion of imaginary time. This is the equivalent to imagine numbers in mathematics. However, Hawking admits that once one converts imaginary time to real time, his model fails. There are also a host of other issues with Hawking’s model which can be viewed here ([insert a link to](#) ).

### **Objection Five**

The final objection is addressed to the vertical form of the cosmological argument. The objection states that a cause might have been needed for beginning the universe, but this does not prove that the universe needs a cause right now.

This objection misunderstands the nature of contingent beings. If a being is contingent, then it is always contingent (e.g. always dependant). The only way for this being to no longer be contingent is for it to cease to exist or to become a necessary being. The former proposition is possible, but is not actual. The universe still exists and has not gone out of existence. The latter proposition, however, is not possible. A contingent being cannot become a necessary being because a necessary being always exists independently of anything else. Therefore, the universe is always contingent and therefore always dependant on a necessary being for its existence.

### **Conclusion**

Several conclusions can be deduced from this argument. First, the universe is not eternal. It had a beginning and if it had a beginning, it must have had a Beginner. This Beginner must have been eternal because it existed outside of time. This Beginner was also uncaused for it was the cause of all that exists. None of the current models of the universe compare to the Big Bang model, which supports the theists assertion that God caused the universe to exist.