

Excursus on Natural Theology The *Kalam* Cosmological Argument

Today we turn to a new argument for God's existence – the so-called *kalam* cosmological argument.

As a boy I wondered at the existence of the universe. I wondered where it came from. Did it have a beginning or has it always existed? I can remember lying in bed at night trying to think of a beginningless universe. Every event would be preceded by another event. Back and back with no stopping point (or more accurately, no starting point)! My mind just reeled at the concept. It seemed to me inconceivable. There must have been a beginning at some point, I thought, in order for everything to get started.

Little did I realize that for centuries men had grappled with the idea of an infinite past and whether the universe had a beginning. Ancient Greek philosophers, like Aristotle, believed that matter was necessary and uncreated and therefore eternal in the past. God may be responsible for introducing order into the cosmos, but he did not create the universe itself.

This Greek view was in contrast to the even more ancient Jewish view on the subject. Hebrew writers held that the universe had not always existed but had a beginning point at some time in the past at which it was created by God. As the first verse of the Hebrew Bible states: “In the beginning God created the heavens and the earth” (Genesis 1:1).

Eventually these two traditions (Greek and Jewish) began to interact. There arose within Western philosophy an on-going debate that lasted for well over a thousand years about whether or not the universe had a beginning. This debate played itself out

among Jews and Muslims as well as Christians, both Catholic and Protestant. It finally sputtered to something of an inconclusive end in the thought of the great eighteenth century German philosopher Immanuel Kant. Kant held, ironically enough, that there are rationally compelling arguments for both sides, thereby exposing the bankruptcy of reason itself!

I first became aware of this debate only after graduating from college. One week before graduation I was browsing the clearance tables at the college bookstore and came across this book by one of my former professors, Steward Hackett, entitled *The Resurrection of Theism*. I had heard that this was an important book, and since it was on clearance I decided to buy it. After graduation I began to read it that summer. And I was blown away by its contents. You see, I had been taught in college that there are no good arguments for God's existence – that all of these arguments had been refuted by modern philosophers. Although that seemed to me counterintuitive, nevertheless I had great respect for my learned theology professors and thought that if they said there aren't any good arguments for God's existence, they must surely be right. Then here I discovered in Hackett's book a defense of argument after argument for the existence of God along with detailed refutations of every conceivable objection that might be raised against these arguments. I was absolutely overwhelmed.

Wanting to come to grips with Hackett's case, I decided to do Master's Degree work in philosophy. In preparing for the Graduate Record entrance exams I discovered that the centerpiece of Hackett's book – the so-called *kalam* cosmological argument – actually had a long history in Jewish, Muslim, and Christian

thought reaching all the way back to the early centuries after Christ. I wanted to settle my mind on this argument. So when I applied to do doctoral work at the University of Birmingham in England, I proposed writing my doctoral thesis – or dissertation – on the cosmological argument for God’s existence. I did write on that argument. I was able to explore the historical roots of this argument, as well as deepen the analysis of the argument, and also discovered amazing connections with contemporary astronomy and astrophysics.

Because of its roots in medieval Islamic theology I dubbed this argument the *kalam* cosmological argument to differentiate it from other versions of the cosmological argument like Leibniz’s argument from contingency which we’ve studied. *Kalam* is the Arabic word for medieval Islamic theology. It was medieval Islamic theology that developed this argument to a great degree of sophistication.

This argument – the *kalam* cosmological argument – largely forgotten since the time of Kant is now back at center stage in philosophical discussion. *The Cambridge Companion to Atheism*, published in 2007, reports,

A count of the articles in the philosophy journals shows that more articles have been published about the *kalam* argument that have been published about any other contemporary formulation of an argument for God’s existence. Theists and atheists alike cannot leave the *kalam* argument alone.

What is the argument which has stirred such interest? Let’s let one of its greatest medieval Muslim proponents speak for himself. Al-Ghazali was a twelfth century theologian from Persia, or modern

day Iran. He was concerned that Muslim philosophers of his day were being influenced by ancient Greek philosophy to deny God's creation of the universe.

After thoroughly studying the works of these philosophers, Al-Ghazali wrote a withering critique of their views in the book called *The Incoherence of the Philosophers*, or in Arabic *Tahāfut al-Falāsifa*. This is a fascinating book which is still worth reading today. In this book, Ghazali argues that the idea of a beginningless universe is absurd. He argues that the universe must have had a beginning, and, since nothing can begin to exist without a cause, there must be a transcendent Creator of the universe.

Ghazali formulates his argument very simply. Let me quote from him directly. 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."¹

Ghazali's reasoning involves three very simple steps:

1. Whatever begins to exist has a cause of its beginning.
2. The universe began to exist.
3. Therefore, the universe has a cause of its beginning.

This is a logically valid argument, so the only question is whether the two premises are more plausibly true than false. Let's look at each of the two premises.

Premise 1

¹ Al-Ghazali, *Kitab al-Iqtisad fi'l-I'tiqad*, cited in S. de Beaucueil, "Gazzali et S. Thomas d'Aquin: Essai sur la preuve de l'existence de Dieu proposée dans l'Iqtisad et sa comparaison avec les 'voies' Thomiste," *Bulletin de l'Institut Francais d'Archaeologie Orientale* 46 (1947): 203.

Premise (1) is “Whatever begins to exist has a cause of its beginning.” Notice that al-Ghazali does not really need a premise which is so strong as premise (1) that *whatever* begins to exist has a cause. His first premise can be more modestly formulated as follows:

1'. If the universe began to exist, then the universe has a cause of its beginning.

This more modest premise doesn't state that everything that begins to exist has a cause of its beginning, but simply that if the universe began to exist, then the universe has a cause of its beginning. This more modest version of premise (1) will enable us to avoid all of the distractions about whether or not subatomic particles which are the result of quantum decay processes come into being without a cause. We can just leave that issue aside as irrelevant to premise (1').

For the entire universe to come into being without a cause would be to come into being from nothing. In quantum decay events, the particles do not come into being out of nothing. As Christopher Isham, who is Great Britain's premier quantum cosmologist, explains:

Care is needed when using the word 'creation' in a physical context. One familiar example is the creation of elementary particles in an accelerator. However, what occurs in this situation is the conversion of one type of matter into another with the total amount of energy being preserved in the process.

In these quantum decay events the particles don't come into being out of nothing. So the alleged exception to premise (1) doesn't

defeat premise (1') as I have formulated it, which would require the universe to come into being out of nothing.

Let me give three reasons in support of this premise (1').

1. *Something cannot come out of nothing.* Think about it. To claim that something can come into being from nothing is worse than magic. When a magician pulls a rabbit out of the hat, at least you've got the magician, not to mention the hat! But to say that the universe came into being without any sort of a cause would be simply to come into being from sheer non-being. That is literally worse than magic. You would have to believe that the entire universe just appeared at some point in the past for no reason whatsoever. But nobody, I think, sincerely believes that things, say, a horse or an Eskimo village, can just pop into being without a cause.

Sometimes skeptics will respond to this point by saying that in physics sub-atomic particles (so-called "virtual particles") come into being from nothing. Or on certain theories of the origin of the universe these are described in popular magazines as getting something from nothing, so that the universe is supposed to be the exception to the proverb "There ain't no free lunch."

I think this skeptical response represents a deliberate abuse of science, as I've already hinted. The theories in question have to do with particles' (or the universe's) originating as a fluctuation of a physical system, such as the vacuum or quantum fields. The vacuum, for example, in modern physics is not what the layperson understands by the word "vacuum," namely, nothing. Rather in physics the vacuum is a sea of roiling energy governed by physical laws and having a physical structure. To tell laypeople that on such

theories something comes from nothing, I think, represents a deliberate misrepresentation of those theories.

Properly speaking, the word “nothing” is a term of universal negation. It means “not anything.” So, for example, if I say, “I had nothing for breakfast today,” I mean, “I didn’t have anything for breakfast today.” If you read an account of World War II and the text says that “Nothing stopped the German advance from sweeping across Belgium,” that means that the German advance was not stopped by anything. If a theologian tells you that “God created the universe out of nothing,” he means that God’s creation of the universe was not out of anything. The word “nothing,” to repeat, is simply a term of universal negation, meaning “not anything.”

There’s a whole series of words like this in the English language – terms of universal negation: “Nobody” means not anybody. “None” means not one. “Nowhere” means not anywhere. “Never” means not ever.

Now because the word “nothing” is grammatically a pronoun, you can use it as the subject or direct object of a sentence. By using these terms of universal negation as words supposedly referring to something, you can generate all sorts of funny situations. For example, if you say, “I saw nobody in the hall,” the wiseacre says, “Yeah, he’s been hanging around there a lot lately!” If you say, “I had nothing for lunch today,” he says, “Really? How did it taste?” It is misusing these terms of universal negation as though they were referring to something.

These kinds of word tricks are as old as literature itself. For example, in Homer’s *Odyssey*, Odysseus introduces himself to the

Cyclops as “No man” or “Nobody.” One night Odysseus puts out the Cyclops’ eye. His fellow Cyclopes hear him screaming and they yell to him, “What’s the matter with you, making so much noise that we can’t sleep?” The Cyclops answers, “Nobody is killing me! Nobody is killing me!” They reply, “If nobody is attacking you, then you must be sick, and there’s nothing we can do about it!”

In Euripides’ version of this same story, he composes a sort of Abbott and Costello “Who’s on first?” routine. Here’s how it goes in Euripides:

“Why are you crying out, Cyclops?”

“Nobody has undone me!”

“Then there is no one hurting you after all.”

“Nobody is blinding me!”

“Then you’re not blind.”

“As blind as you!”

“How could nobody have made you blind?”

“You’re mocking me! But where is this Nobody?”

“Nowhere, Cyclops!”

The use of these terms of negation as substantive words referring to something is a joke. *It is a joke!*

How astonishing, then, to find contemporary popularizers of science, whose mother tongue is English, using these terms precisely as substantive terms of reference. For example, Lawrence Krauss, a fine physicist, has told us with a straight face, for example:

“There are a variety of forms of nothing, [and] they all have physical definitions.”

“The laws of quantum mechanics tell us that nothing is unstable.”

“70% of the dominant stuff in the universe is nothing.”

“There's nothing there, but it has energy.”

“Nothing weighs something.”

“Nothing is almost everything.”²

All of these claims take the word “nothing” to be a substantive term referring to something, for example, the quantum vacuum or quantum physical fields. These are physical realities and therefore clearly not nothing – they are something. To call these realities “nothing” is at best misleading, guaranteed to confuse laypeople, and at worst it is, as I say, a deliberate misrepresentation of the science involved.

2. If something can come into being from nothing, then it becomes inexplicable why just anything and everything doesn't come into being from nothing. Think about it: why don't bicycles and Beethoven and root beer come into being from nothing? Why is it only universes that can come into being from nothing? What makes nothingness so discriminatory? Obviously, I am being facetious here, because nothingness isn't anything; it has no properties. It is just a term of universal negation. There isn't anything to be constrained. “Nothing” means not anything. If things can just come into being out of nothing without a cause then all kinds of things ought to be doing this all the time.

² All of these statements belong to atheist physicist Lawrence Krauss. For references see the transcript of our dialogue, “Why Is There Something rather than Nothing?”

At this point the atheist is very likely to retort, “All right, if everything has a cause then what is God’s cause?” I’m always amazed at the self-congratulatory attitude with which students pose this question. They imagine that they’ve said something really important or profound, when all they’ve done is just misunderstand the premise. Premise (1) does not say that everything has a cause. It says that everything that *begins to exist* has a cause; or that if the universe began to exist, it has a cause. But something that is eternal wouldn’t need a cause, because it never came into being.

Al-Ghazali would respond to this question by saying that God is eternal and uncaused. Notice this isn’t special pleading for God, because this is exactly what the atheist has traditionally said about the universe: the universe is eternal and uncaused. The problem is, I think, we have good evidence that the universe is not eternal in the past but had a beginning, evidence that we will look at during the coming weeks. That then backs the atheist into the corner having to say the universe sprang into being without a cause, which to my mind is absurd.

3. *Common experience and scientific evidence confirm the truth of premise (1).* Premise (1) is always verified and never falsified. It is hard to understand how anyone committed to modern science could deny that premise (1) is more plausibly true than false in light of the evidence.

I’ve heard some Internet skeptics respond to this third point by saying it commits the fallacy of composition. What is that? The fallacy of composition involves inferring that because every part of a thing has a certain property, therefore the whole thing has that property. For example, somebody might say because every part of

an elephant is light in weight therefore the whole elephant is light in weight. That would obviously be fallacious. That commits the fallacy of composition. This third point that I am making – that common experience and scientific evidence support the truth of premise (1) – doesn't reason by composition. It doesn't infer because every part of the universe has a cause therefore the whole universe has a cause. It doesn't even refer to parts of the universe!

Rather this third point is a case of what is called inductive reasoning which underlies all of science. One infers from a representative sample of items some property which is shared by items of that sort. In this case the sort in question is things that begin to exist. When we look at things that begin to exist, scientific evidence and common experience is that they always have causes. The generalization “Whatever begins to exist has a cause of its beginning” is a very powerful inductive inference. You infer this general truth based upon a random sample of typical cases. This objection is, I think, just based on a confusion between inductive reasoning (which is sound reasoning) and reasoning by composition (which is fallacious reasoning). This third argument is not an instance of reasoning by composition.

To my mind, I think this first premise has a very good claim to being true. If the universe began to exist then the universe had a cause of its beginning.

I will be back next Sunday, and we will then move to the defense of the really key premise in this argument which is that the universe began to exist.