

## **The cosmological argument**

The question at the heart of the cosmological argument is ‘why does anything exist? why something rather than nothing?’. The argument is that unless God exists, this question is unanswerable. There are different forms of the argument. Two central ones are the *Kalam* argument and the argument from contingent existence. They are usually presented as deductive arguments; an inductive variation is given by Richard Swinburne.

### **THE KALAM ARGUMENT**

The *Kalam* argument observes that

1. of anything that begins to exist, you can ask what caused it. For example, what caused me (my birth)? In a sense, my parents. But then, we can repeat the question: ‘what caused my parents?’ And so on. We can go back to the beginning of the universe, and then ask ‘what caused the universe?’. If
2. the universe began to exist, then
3. it must have a cause of its existence. Something can’t come out of nothing.
4. What we need is something that causes things to exist, but the existence of which isn’t caused itself.
5. Only God could be such a thing.

There are three key issues that need to be addressed to defend the argument. First, is the causal principle, that everything that begins to exist has a cause, correct? Second, does the universe have a beginning? Third, must the explanation be God? We will leave this third question to the very end of this handout.

#### **The causal principle**

Must every event have a cause? David Hume famously argued that we cannot know this. It is not an analytic truth (by contrast, ‘every effect has a cause’ is an analytic truth; but is every event an effect?). ‘Something cannot come out of nothing’ is also not analytic. And Hume argued that synthetic truths are known a posteriori, through experience. And although our experience is that everything so far has a cause, can this principle be applied to the beginning of the universe?

First, the beginnings of universes is not something we have any experience of. Second, the beginning of the universe is not an event like events that happen within the universe. It doesn’t take place in space or time, since both come into existence with the universe. Even if everything within the universe has a cause, that doesn’t mean that the universe as a whole does. We cannot apply principles we have developed for events within the universe to the universe as a whole. Bertrand Russell famously put it: ‘the universe is just there, and that’s all’.

#### **Does the universe have a beginning?**

Rather than challenge the causal principle, we can reject the idea that the universe has a beginning at all. Because time came into existence with the universe, the universe didn’t

'happen' at a time, so in a sense, it has no beginning. We can reply that, even if this is true, science suggests the universe has a finite past (it is about 15 billion years old). Whatever has a finite past must have a cause of its existence. In the case of the universe, that cause can't exist in time if time didn't exist before the universe. But that doesn't mean there was no cause, only that the cause must exist outside time. Which God does, according to many theists.

Alternatively, even if this universe has a beginning, perhaps it was caused by a previous (or another) universe, and so on, infinitely. In other words, rather than infer that God exists, we may think there is just an infinite regress of causes. Something has always existed.

It is, however, difficult to imagine what infinity is; it is not, for instance, simply a 'very long time'. It is very different from a 'very long time' – it means, quite literally, that there was no beginning, ever. Because the universe exists, this response claims that an actual infinity – something that is in fact infinite – exists. This is quite different from talking about the idea of infinity. The idea of infinity makes sense; but does it make sense to think that something infinite exists?

### **Infinity**

For example, the universe gets older as time passes. But this couldn't happen if the universe was infinitely old, because you cannot add any number to infinity and get a bigger number:  $\infty + 1 = \infty$ . So if the universe is infinitely old, it is not getting any older as time passes! Or again, to have reached the present, an infinite amount of time would need to have passed. But it is not possible for an infinite amount of time to have passed, since infinity is not an amount. So if the universe was infinitely old, it could never have reached the present.

Given that science tells us the (this) universe has a beginning, this discussion of something always existing means that we must think of preceding universes. But given that the beginning of this universe was also the beginning of time as we know, we may wonder what sense to make of talking about anything existing before this universe. We should not talk about an infinity of time, therefore, but an infinite series of causes (some operating outside the time of this universe).

But the puzzles arise for an infinite series of causes, too. Each new cause doesn't add one more cause to the series, since  $\infty + 1 = \infty$ . And we would never have reached the point in the series at which we are now if it were an infinite series.

We noted that the question at the heart of the cosmological argument is 'why something rather than nothing?'. If we have an infinite series of causes, although each cause can be explained in terms of the previous cause, we may wonder what explains the whole series. If we say something exists because something has always existed, we still haven't answered the question why anything exists at all. This takes us to the next form of cosmological argument.

## **THE ARGUMENT FROM CONTINGENT EXISTENCE**

This version of the cosmological argument, defended by Frederick Copleston in a radio debate with Bertrand Russell, emphasises the need to explain what exists.

1. Things in the universe exist contingently, they might not have existed or they might stop existing.
2. Something that exists contingently has (and needs) an explanation of why it exists; after all, it is not inevitable.
3. This explanation may be provided by the existence of some other contingent being (as in the example of me and my parents). But then we must explain these other contingent beings.
4. To repeat this ad infinitum is no explanation of why anything exists at all.
5. So what explains why contingent beings exist at all can only be a non-contingent being. A non-contingent being is one that cannot not exist, i.e. it exists necessarily, and doesn't need some further explanation for why it exists.
6. This necessary being is God.

### Objections

Russell accepts that of any particular thing in the universe, we need an explanation of why it exists, which science can give us. But it is a mistake to think that we can apply this idea to the universe itself. A form of explanation developed for the parts of the universe needn't apply to the universe as a whole.

However, we can reply that the universe is itself a contingent being – if every part of the universe ceased to exist, so would the universe. So as a contingent being, the universe is like its parts. What is wrong with the principle that all contingent beings require an explanation for their existence?

A second objection is that although, as philosophers and scientists, we should look for explanations of contingent beings, we cannot know that in fact, every contingent being has such an explanation. Without this, the argument fails as a deduction. However, this objection can be avoided if we give up the idea that the cosmological argument is deductive, and claim it is an inference to the best explanation instead (see below).

A third objection attacks the conclusion. It is not God but, matter/energy (in some form) that is a necessary being. A fundamental law of physics is the conservation of energy: the total amount of matter/energy in the universe remains constant, it cannot be increased or decreased. If a version of this law applied even at the beginning and end of universes, then matter/energy is a necessary being. However, we have no reason to believe that this law does apply at the beginning (and possibly the end) of the universe. The Big Bang theory suggests that matter/energy was created, along with time and space, i.e. the universe came into existence – so it is contingent.

### **SWINBURNE: AN INDUCTIVE ARGUMENT**

Richard Swinburne claims that the cosmological argument is better understood as an inference to the best explanation (*The Coherence of Theism*). God's existence isn't logically proven, but it is probable, given the premises. Considered on its own, the claim 'God exists' is very improbable, says Swinburne. But in light of the cosmological argument, it becomes more probable, because God's existence is the best explanation for why the universe exists.

An inductive argument for God's existence needs to take into account all the evidence, both for and against. Swinburne does not defend God's existence on the basis of the cosmological argument alone. He combines it with other arguments. There is also a

similar version of the argument from design, viz. that God is the best explanation of the order and purpose that we find. We can add the argument from religious experience and an argument from miracles. Each work the same way: the existence of God is the best explanation for these phenomena. When we put all these arguments together, he claims, it becomes more probable that God exists than that God doesn't.

### Swinburne's cosmological argument

If we look over the two cosmological arguments above, it is apparent that we can't deduce God's existence. But the premises are plausible, and the inferences are intuitive. So although it is not an analytic truth that everything that begins to exist has a cause, it is extremely probable – our experience supports it. And the theory of the Big Bang and the problems with the infinite existence make it more plausible that the universe (or matter/energy) has not existed without beginning, but came into existence. If we reject God as an explanation for the existence of the universe run into problems – if not God, then what?

The second part of Swinburne's argument is that we have reason to believe that no other explanation of the universe will be satisfactory. For instance, any scientific explanation must already assume that something exists, and that whatever exists is governed by scientific laws. If we explain this universe in terms of another universe, we then have to explain the existence of that universe. And science can't explain scientific laws – where they come from or why they are the way they are, because all scientific explanations presuppose laws. Scientific laws are 'brute' – they have no explanation unless we can find some other kind of explanation for them.

Explaining the existence of the universe in terms of God doesn't suffer this problem, because it is not a scientific explanation, but a 'personal' one. We explain the products of human activity – this book, these sentences – in terms of a person. I'm writing things I intend to write. This sort of explanation explains an object or an event in terms of a person and their purposes. The hypothesis that God exists and intended to create the universe (including its laws) provides a personal explanation for the existence of the universe. So, Swinburne argues, it is probable that God exists and caused the beginning of the universe.

### Best explanation

But is this the best explanation, or does it face as many difficulties as scientific explanation? Does invoking God's existence just make us more puzzled?

First, does the argument support the existence of God, as we normally think of God? It doesn't show that there is only one cause of the universe; nor does it show that that cause is perfect, omniscient, omnipotent, or cares about people. The cosmological argument only needs 'God' to be able to create the universe. It doesn't say anything else about God.

However, a good explanation will be simpler than its rivals. 'Simplicity' means not invoking more different kinds of thing than you need to; and attributing only those properties that they need for the explanation to work. So simplicity requires that we shouldn't suppose that two possible causes exist when only one will do. Supposing there is more than one cause of the universe is a worse explanation, because it is not as simple. It is also simpler to suppose that the cause of the universe is itself uncaused, or we have a problem of regress. It is also simpler to suppose that God has infinite power and

intelligence, or we would have to explain why God had just the amount of power and intelligence he has (enough to create the universe, but no more), i.e. what limits God's power and intelligence.

(Swinburne adds infinite goodness to the properties of God, but we can question this – why does God need to be good in order to create the universe? This objection becomes more pressing in light of the problem of evil.)

### The limits of explanation

We can object that Swinburne has not demonstrated that God is the best explanation for the existence of the universe, because we are left with the question 'What explains God?' and this seems to be an even more puzzling question than 'What explains scientific laws?'

Swinburne responds that science will introduce an entity – such as a type of sub-atomic particle – in order to explain something, even though that entity needs explaining itself, and scientists don't yet know how to explain it. So we can still say that God is a good explanation for scientific laws even if we can't explain God.

But if we will always have something we can't explain, why invoke God? Why not just say we can't explain scientific laws? Russell, for instance, rejects the idea of trying to give an explanation for the universe at all. But Swinburne responds that it is a principle of science and philosophy. If you give up on this, you give up on pursuing these forms of thought. If we invoke God, we can explain scientific laws and the existence of the universe, and we should explain as much as we can.