

Was the Universe Created, or does it exist by chance?

Notes are available on the
Philosophy and Ethics
website at:
www.mel-thompson.co.uk

Why is there anything at all?

- Science gives explanations of things **within** the universe, but can the universe **as a whole** have an explanation?
- Does the existence of the world suggest the existence of a creator God?
- Cosmological Argument – not 'Does this prove that God exists?' but '**What sort of "God" does this argument present?**

Ockham's razor

- 'Entities are not to be multiplied beyond necessity.'
- Keep this principle in mind: **Do we need 'God' as an explanation, or is there a simpler one?**

The Kalam argument

- Everything that begins to exist has a cause for its existence.
- The universe began to exist.
- Therefore the universe must have a cause.

Basic question: If you have a sequence of events, stretching back in time – **can that sequence be infinite?**

- Since the time of Aristotle, philosophers have argued that an **actual** infinity cannot exist, and if it did, how could we know? It is not the same as being without discernable limit.

You can therefore present the argument like this:

- an actual infinite number cannot exist
- therefore there must be a finite sequence of causes for the world
- therefore the world began to exist at some point in the past


Thomas Aquinas (1225 - 74)

- Aquinas presented **Five Ways** in which he believed the existence of God could be shown. They are:
 1. The argument from an unmoved mover.
 2. The argument from an uncaused cause.
 3. The argument from possibility and necessity.
 4. The argument from degrees of quality.
 5. The argument from design.


Cosmological argument

- Everything that moves is moved by something.
- That mover is in turn moved by something else again.
- **But** this chain of movers cannot be infinite, or movement would not have started in the first place.
- **Therefore** there must be an unmoved mover, causing movement in everything, without itself actually being moved.
- This unmoved mover is what people understand by 'God'.


- The second argument has the same structure:
- Everything has a cause.
- Every cause itself has a cause.
- **But**, you cannot have an infinite number of causes.
- **Therefore** there must be an uncaused cause, which causes everything to happen without itself being caused by anything else.
- Such an uncaused cause is what people understand by 'God'.
- **Don't think of a sequence of causes going back into the past (as the Kalam argument) but a sequence moving outwards in the present – like ripples on water.**




- Individual things come into existence and later cease to exist.
- Therefore at one time none of them was in existence.
- But something comes into existence only as a result of something else that already exists.
- Therefore there must be a being whose existence is necessary, and that all would understand to be 'God'.
- **Everything is only fully understood in terms of the whole. But how is the whole to be understood? THAT is the cosmological question.**




- David Hume (1711-1776) - All knowledge is based on observation; we generally see cause and effect following one another
- **But**, in the case of the world as a whole, we have a unique 'effect', and cannot observe its cause.
- **We cannot get 'outside' the world to see both the world and its cause, and thus establish the relationship between them.**



- Kant (1724-1804) argued that the whole notion of cause and effect was one of the ways (along with the concepts of space and time) in which our minds interpret the world - we cannot help but impose causality upon our experience.
- **If Kant is right, then an uncaused cause is a mental impossibility.**




- Bertrand Russell – the world is just there, a brute fact.
- Wittgenstein – the world is all that is the case. Whereof we cannot speak, thereof we must remain silent.
- **In other words, if we can only know what we can experience, how can we talk about what causes that experience?**



The Anthropic Principle

- The structure of the universe is determined by some fundamental constants – of which the most significant for our purposes is the Gravitational Constant.
- IF gravity were a fraction less powerful than it is, the universe would have expanded outwards in a way that would have prevented the formation of galaxies. If a little more, it would have collapsed back in upon itself without having got to this point.



The 'weak' form of the argument (or the 'sensible' form!)

- 'The universe you observe = the one that permits you to exist.'
- In other words, the properties of the universe are self-selected by the fact that we are here to observe it. **If the universe were different, we wouldn't be here**; but we are here, so it wasn't different.
- 'Strong' version – the universe must have been such as to make it inevitable that observers would have been created within it at some stage. In other words, the universe could not have failed to be life creating.

But '**must**' the universe have been like that?

- Example – 'If you were here on time you must have caught the 8 o'clock train.'
- (If you didn't catch it, you wouldn't be here. But you didn't **HAVE** to catch it.)
- Another one – 'In order for you to exist, your parents must have had sex at least once. But that does not mean that they were **forced** to have sex.'

Past events can be necessary in order to explain the present – that's what the Anthropic Principle is about – but they did not **have to be** as they were

So did the universe come about purely by chance?

- That's a crazy question – everything happens by chance, and nothing happens by chance.
- Given the billions of people in this world, each with his or her own genetic code, and given the infinite number of circumstances that led to your parents, grandparents etc meeting, it is utterly unlikely that you are born. You are completely the product of chance.
- On the other hand, if I knew all about everyone in your past, you are absolutely inevitable.
- **It's much the same with the universe, except that we can't get outside it to take a look at the other possibilities.**
