
Answering the Critics

If God Created the Universe, Then Who Created God?

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A number of sceptics ask this question. But God by **definition** is the **uncreated** Creator of the Universe, so the question 'Who created God?' is illogical, just like 'To whom is the bachelor married?'

So a more sophisticated questioner might ask: 'If the Universe needs a cause, then why doesn't God need a cause? And if God doesn't need a cause, why should the Universe need a cause?' In reply, Christians should use the following reasoning:

- (1) Everything **which has a beginning** has a cause.¹
- (2) The Universe has a beginning.
- (3) Therefore the Universe has a cause.

It's important to stress the words in **bold type**. The Universe requires a cause because it had a **beginning**, as will be shown below. God, unlike the Universe, had **no beginning**, so doesn't need a cause. In addition, Einstein's general relativity, which has much experimental support, shows that time is linked to matter and space. So **time itself** would have begun along with matter and space. Since God, by definition, is the Creator of the whole Universe, He is the Creator of time. Therefore He is not limited by the time dimension He created, so has **no beginning** in time — God is 'the high and lofty One that inhabiteth eternity' (Isaiah 57:15). Therefore He doesn't have a cause.

In contrast, there is good evidence that the Universe had a beginning. This can be shown from the **Laws of Thermodynamics**, the most fundamental laws of the physical sciences:-

1st Law: The **total** amount of mass-energy in the Universe is **constant**.

2nd Law: The amount of energy **available for work** is running out, or **entropy** is increasing to a maximum.

If the total amount of mass-energy is limited, and the amount of usable energy is decreasing, then the Universe cannot have existed forever, otherwise it would **already** have exhausted all usable energy — the 'heat death' of the Universe. For example, all radioactive atoms would have decayed, every part of the Universe would be the same temperature, and no further work would be possible. So the obvious corollary is that the Universe began a finite time ago with a lot of usable energy, and is now running down.

Now, what if the questioner accepts that the Universe had a beginning, but not that it needs a cause? But it is self-evident that things that begin have a cause — no-one really denies it in his heart. All science and history would collapse if this law of cause and effect were denied. So would all law enforcement, if the police didn't think they needed to find a cause for a stabbed body or a burgled house. Also, the Universe cannot be self-caused — nothing can create itself, because that would mean that it existed before it came into existence, which is a logical absurdity.

IN SUMMARY

- (1) The Universe (including time itself) can be shown to have had a beginning.
- (2) It is unreasonable to believe something could begin to exist without a cause.
- (3) The Universe therefore requires a cause, just as Genesis 1:1 and Romans 1:20 teach.
- (4) God, as Creator of time, is outside of time. Since therefore He has no beginning in time, He has always existed, so doesn't need a cause.

OBJECTIONS

There are only two ways to refute an argument:-

- (1) Show that it is logically invalid.
- (2) Show that at least one of the premises is false.

(1) Is the **argument valid**?

A valid argument is one where it is impossible for the premises to be true and the conclusion false. Note that validity does not depend on the truth of the premises, but on the form of the argument. The argument in this paper is valid; it is of the same form as: All whales have backbones; Moby Dick is a whale; therefore Moby Dick has a backbone. So the only hope for the sceptic is to dispute one or both of the premises.

(2) **Are the premises true?**

- (a) Does the Universe have a beginning?

Oscillating Universe ideas were popularised by atheists

like the late Carl Sagan and Isaac Asimov solely to avoid the notion of a beginning, with its implications of a Creator. But as shown above, the Laws of Thermodynamics undercut that argument. Even an oscillating Universe cannot overcome those laws. Each one of the hypothetical cycles would exhaust more and more usable energy. This means every cycle would be larger and longer than the previous one, so looking back in time there would be smaller and smaller cycles. So the multicycle model could have an infinite future, but can only have a finite past.²

Also, there are many lines of evidence showing that there is far too little mass for gravity to stop expansion and allow cycling in the first place, that is, the Universe is 'open'. According to the best estimates (even granting old-Earth assumptions), the Universe still has only about half the mass needed for re-contraction. This includes the combined total of both luminous matter and non-luminous matter (found in galactic halos), as well as any possible contribution of neutrinos to total mass.³ Some recent evidence for an 'open' Universe comes from the number of light-bending 'gravitational lenses' in the sky.⁴ Also, analysis of Type Ia supernovae shows that the Universe's expansion rate is not slowing enough for a closed Universe.^{5,7} It seems like there is only 40-80 per cent of the required matter to cause a 'big crunch'. Incidentally, this low mass is also a major problem for the currently fashionable 'inflationary' version of the 'Big Bang' theory, as this predicts a mass density just on the threshold of collapse — a 'flat' Universe.

Finally, no known mechanism would allow a bounce back after a hypothetical 'big crunch'.⁸ As the late Professor Beatrice Tinsley of Yale explained, even though the mathematics **says** that the Universe oscillates, *'There is no known physical mechanism to reverse a catastrophic big crunch'*. Off the paper and into the real world of physics, those models start from the Big Bang, expand, collapse, and that's the end.⁹

(b) Denial of cause and effect.

Some physicists assert that quantum mechanics violates this cause/effect principle and can produce something from nothing. For instance, Paul Davies writes:

'... spacetime could appear out of nothingness as a result of a quantum transition. . . . Particles can appear out of nowhere without specific causation . . . Yet the world of quantum mechanics routinely produces something out of nothing'.¹⁰

But this is a gross misapplication of quantum mechanics. Quantum mechanics **never** produces something out of nothing. Davies himself admitted on the previous page that his scenario *'should not be taken too seriously'*.

Theories that the Universe is a quantum fluctuation must presuppose that there was something to fluctuate — their 'quantum vacuum' is a lot of matter-antimatter potential — not 'nothing'. Also, I have plenty of theoretical

and practical experience at quantum mechanics from my doctoral thesis work. For example, Raman spectroscopy is a quantum mechanics phenomenon, but from the wave-numbers of the spectral bands, we can work out the masses of the atoms and force constants of the bonds causing the bands. To help the atheist position that the Universe came into existence without a cause, one would need to find Raman bands appearing without being caused by transitions in vibrational quantum states, or alpha particles appearing without pre-existing nuclei, etc. If quantum mechanics was as acausal as some people think, then we should not assume that these phenomena have a cause. Then I may as well burn my Ph.D. thesis, and all the spectroscopy journals should quit, as should any nuclear physics research.

Also, if there is no cause, there is no explanation why **this particular Universe** appeared at a **particular time**, nor why it was a Universe and not, say, a banana or cat which appeared. This Universe can't have any properties to explain its preferential coming into existence, because it wouldn't have **any** properties until it actually came into existence.

Is Creation by God Rational?

A last desperate tactic by sceptics to avoid a theistic conclusion is to assert that creation in time is incoherent. Davies correctly points out that since time itself began with the beginning of the Universe, it is meaningless to talk about what happened 'before' the Universe began. But he claims that causes must precede their effects. So if nothing happened 'before' the Universe began, then (according to Davies) it is meaningless to discuss the cause of the Universe's beginning.

But the philosopher (and New Testament scholar) William Lane Craig, in a useful critique of Davies,¹¹ pointed out that Davies is deficient in philosophical knowledge. Philosophers have long discussed the notion of **simultaneous causation**. Immanuel Kant (1724-1804) gave the example of a weight resting on a cushion simultaneously causing a depression in it. Craig says:

'The first moment of time is the moment of Gods creative act and of creation's simultaneous coming to be'.

Some sceptics claim that all this analysis is tentative, because that is the nature of science. So this can't be used to prove creation by God. Of course, sceptics can't have it both ways: saying that the Bible is wrong because science has proved it so, but if science appears consistent with the Bible, then well, science is tentative anyway.

FURTHER READING

More information can be found in the following works. Unfortunately they are too friendly towards the unscriptural 'Big Bang' theory with its billions of years. But the above arguments are perfectly consistent with a recent creation in six consecutive normal days, as taught by Scripture,

(a) Craig, W. L., 1984. **Apologetics: An Introduction**,

Moody Press, Chicago.

- (b) Craig, W. L., online article. **The Existence of God and the beginning of the Universe**, <<http://www.leaderu.com/truth/3truth11.html>> (at Feb. 19, 98).
- (c) Geisler, N. L., 1976. **Christian Apologetics**, Baker Books, Grand Rapids, Michigan.

REFERENCES

1. Actually, the word 'cause' has several different meanings in philosophy. But in this article, I am referring to the **efficient cause**, the chief agent causing something to be made.
2. Novikov, I. D. and Zel'dovich, Ya. B., 1973. Physical processes near cosmological singularities. **Annual Review of Astronomy and Astrophysics**, **11:401-402**.
3. Schramm, D. N. and Steigman, G., 1981. Relic neutrinos and the density of the Universe. **Astrophysical Journal**, **243:1-7**.
4. Watson, A., 1997. Clusters point to never ending Universe. *Science*, 278(5342): 1402.
5. Perlmutter, S. *et al.*, 1998. Discovery of a supernova explosion at half

- the age of the Universe. **Nature**, **391** (6662): 51.
6. Branch, D., 1998. Destiny and destiny. **Nature**, **391** (6662):23-24.
 7. Glanz, J., 1997. New light on the fate of the Universe. **Science**, 278(5339):799-800.
 8. Guth, A. H. and Sher, M., 1983. The impossibility of a bouncing Universe. **Nature**, 302:505-507.
 9. Tinsley, B., 1975. From Big Bang to eternity? **Natural History Magazine**, October, pp. 102-105.
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Craig, W. L., 1984. **Apologetics: An Introduction**, Moody Press, Chicago, p. 61.
 10. Davies, P., 1983. **God and the New Physics**, Simon and Schuster, p. 215.
 11. Craig, W. L., 1986. God, creation and Mr Davies. **British Journal of Philosophical Science**, 37:163-175.

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**QUOTABLE QUOTE:
The Theory of Evolution**

NO DOUBT, the theory of evolution will continue to play the singular role in the life of our secular culture that it has always played. The theory is unique among scientific instruments in being cherished not for what it contains, but for what it lacks. There are in Darwin's scheme no biotic laws, no Bauplan as in German natural philosophy, no special creation, no elan vital, no divine guidance or transcendental forces. The theory functions simply as a description of matter in one of its modes, and living creatures are said to be something that the gods of laws indifferently sanction and allow!

Berlinski, David, 1996. The deniable Darwin, *Commentary*, 101(6):3.

**QUOTABLE QUOTE:
'Missing Link' Debunked**

'Exactly 1 year ago, paleontologists were abuzz about photos of a so-called "feathered dinosaur", which were passed around the halls at the annual meeting of the Society of Vertebrate Paleontology (Science, 1 November 1996, p. 720). The Sinosauropteryx specimen from the Yixian Formation in China made the front page of The New York Times, and was viewed by some as confirming the dinosaurian origins of birds. But at this year's vertebrate paleontology meeting in Chicago late last month, the verdict was a bit different: The structures are not modern feathers, say the roughly half-dozen Western paleontologists who have seen the specimens.'

Gibbons, Ann, 1997. Plucking the feathered dinosaur. *Science*, 278(5341): 1229.