

## Theistic Arguments: The Craig Program, 2

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### Cosmological Argument

- # God makes sense of the *origin of the universe*.
- # *Kalam* cosmological argument.  
[Craig 1979]
- # *Kalam*: An Arabic term meaning “argue” or “discuss” or “speak.”  
More broadly, means “natural theology” or “philosophical theism.”
- # Used by Islamic philosophers about a thousand years ago.

## The Argument

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- # Whatever begins to exist has a cause.
- # The universe began to exist.
- # Therefore, the universe has a cause.
- # (*A deductive argument.*)

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## Universe Began to Exist

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- # The Big Bang.
  - Astrophysical evidence suggests a point around 15 billion years ago when the universe began to exist.
- # Nonexistence of actual infinities.

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## Actual Infinities

- # If the universe did not begin to exist, then the number of past events in history is infinite.
- # David Hilbert: "The infinite is nowhere to be found in reality. It neither exists in nature nor provides a legitimate basis for rational thought. The role that remains for infinite to play is solely that of an idea."
- # Operations involving infinity cannot be put in correspondence with the real world (e.g., subtraction and cardinality of sets).
- # Past events are not just ideas, but are real. Therefore, the number of them must be finite.

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## Whatever Begins to Exist Has a Cause

- # An intuitively plausible metaphysical principle.
- # *Ex nihilo, nihil fit.*
- # Anthony Kenny (philosopher): "A proponent of the big bang theory, at least if he is an atheist, must believe that the universe came from nothing and by nothing."
- # Kai Nielson (atheist philosopher): "Suppose you suddenly hear a loud bang ... and you ask me, 'What made that bang?' and I reply, 'Nothing, it just happened.' You would not accept that. In fact, you would find my reply quite unintelligible."
- # Arthur Eddington (scientist): "The beginning seems to present insuperable difficulties unless we agree to look on it as frankly supernatural."

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## The Cause

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- # Immediate conclusion from first two premises: the universe has a cause.
- # The cause must be uncaused, changeless, timeless, and immaterial.
- # But more can be said ...

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## Personal Cause

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- # The cause cannot be “mechanical;” must be “personal.”
- # A mechanical cause cannot exist without its effect. (But the cause of the universe existed timelessly without the universe.)
- # A personal cause is associated with a free agent.
- # The only way for the cause to be timeless and the effect to begin in time is for the cause to be a personal agent who freely chooses to create an effect in time without any prior determining conditions.
- # Thus, we are brought, not merely to a transcendent cause of the universe, but to its *personal* creator.

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## Counter-Arguments: Premise 1

- # Whatever begins to exist has a cause?
- # Sub-atomic events are said to be uncaused.
- # Premise 1 is true only for things *in* the universe, but it is not true *of* the universe.

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## Answers (Premise 1)

- # *Sub-atomic events are said to be uncaused.*
- # Not all scientists agree with this “Copenhagen Interpretation” of subatomic physics (e.g., [David Bohm]).
- # Even with the above interpretation, particles do not come into being out of *nothing*, but out of the energy fluctuations in the sub-atomic vacuum. The same can be said about theories of the origin of the universe out of a primordial vacuum.
- # Robert Deltete (philosopher of science): “There is no basis in ordinary quantum theory for the claim that the universe itself is uncaused, much less for the claim that it sprang into being uncaused from literally nothing.”

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## Answers (Premise 1) [cont'd]

- # *Premise 1 is true only for things in the universe, but it is not true of the universe.*
- # This objection misconstrues the nature of the premise: it is a *metaphysical* principle (a principle about the very nature of reality).
- # J. L. Mackie (atheist): "I myself find it hard to accept the notion of self-creation *from nothing*, even given unrestricted chance. And how *can* this be given, if there really is nothing?"
- # On the atheistic view, there wasn't even the *potentiality* of the universe's existence prior to the Big Bang, since *nothing* is prior to the Big Bang.

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## Counter-Arguments: Premise 2

- # The universe began to exist?
- # There are alternative theories to the Big Bang that do not involve a beginning.
- # Actually infinite number of things can exist.

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## Answers (Premise 2)

- # *There are alternative theories to the Big Bang that do not involve a beginning.*
- # The overwhelming verdict of the scientific community is that none of them are more probable than the Big Bang theory.
- # Theories like the Oscillating Universe (which expands and re-contracts forever) and Chaotic Inflationary Universe (which continually spawns new universes) do have potentially infinite future but turn out to have only a finite past.
- # Vacuum Fluctuation Universe theories (which postulate an eternal vacuum out of which our universe is born) cannot explain why, if the vacuum was eternal, we do not observe an infinitely old universe.
- # Quantum Gravity Universe theory [Stephen Hawking], if interpreted realistically, still involves an absolute origin of the universe.
- # Hawking: "Almost everyone now believes that the universe, and *time itself*, had a beginning at the Big Bang."

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## Answers (Premise 2) [cont'd]

- # *Actually infinite number of things can exist.*
- # For example: the number of members in the set of natural numbers  $\{0, 1, 2, 3, \dots\}$  is infinite.
- # Not all mathematicians and philosophers agree.
- # Potential infinities vs. actual infinities.
- # Existence in the mathematical realm does not imply existence in the real world.

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## Other Counter-Arguments

- # *Just because we can't explain it doesn't mean God did it.*
- # Misconstrues the argument: this argument is deductive. If the premises are granted, the conclusion follows; it doesn't matter if it's explanatory or not.
- # The argument does not postulate God to plug up a gap in our scientific knowledge. The scientific evidence is used only to support the plausibility of the truth of premise 2 (which is a religiously neutral statement and can be found in any textbook on astronomy).
- # The hypothesis of God is, in fact, genuinely explanatory (though not scientific, but personal). It explains some effect in terms of an agent and his intentions.
- # Personal explanations are valid and used all the time. Example: "Why is the kettle boiling? Because I put it on to make a cup of tea."
- # Richard Swinburne (philosopher): there *cannot* be a scientific explanation of the first state of the universe. So, without a personal explanation, there is no explanation at all—which is metaphysically absurd.

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## Other Counter-Arguments [cont'd]

- # *A cause must come before its effect, and there is no moment before the Big Bang.*
- # Many causes and effects are simultaneous.
- # The moment of God's causing the Big Bang just is the moment of the occurrence of the Big Bang.
- # God's existing alone without the universe is either before the Big Bang, not in physical time, but in metaphysical time, or else is strictly timeless but enters into time at the moment of creation.

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## Other Counter-Arguments [cont'd]

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- # *If the universe must have a cause, then what is God's cause?*
- # Reveals an inattentiveness to the formulation of the argument.
- # Not “Whatever *exists* has a cause” but “Whatever *begins to exist* has a cause.”
- # God never began to exist, and hence would not require a cause.
- # This is not a special pleading for God, since the atheist who believes in an eternal and uncaused universe relies on this too.

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## Other Counter-Arguments [cont'd]

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- # *Isn't God infinite? So how can God exist?*
- # The argument was that an actually infinite *number of things* cannot exist. God is not a collection of an actually infinite number of things!
- # In theology, “God is infinite” in a qualitative, not quantitative, sense. (God is absolutely holy, all-powerful, all-knowing, etc.)

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## Further Reading

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- # William Lane Craig, *The Kalam Cosmological Argument*, Wipf & Stock Publishers, 2000.
- # Wes Morriston, "A Critique of the Kalam Cosmological Argument," in *God Matters*, Ray Martin and Christopher Bernard, eds., Longman, 2002, pp. 95–108.  
<http://spot.colorado.edu/~morr isto/kalam-not.html>