

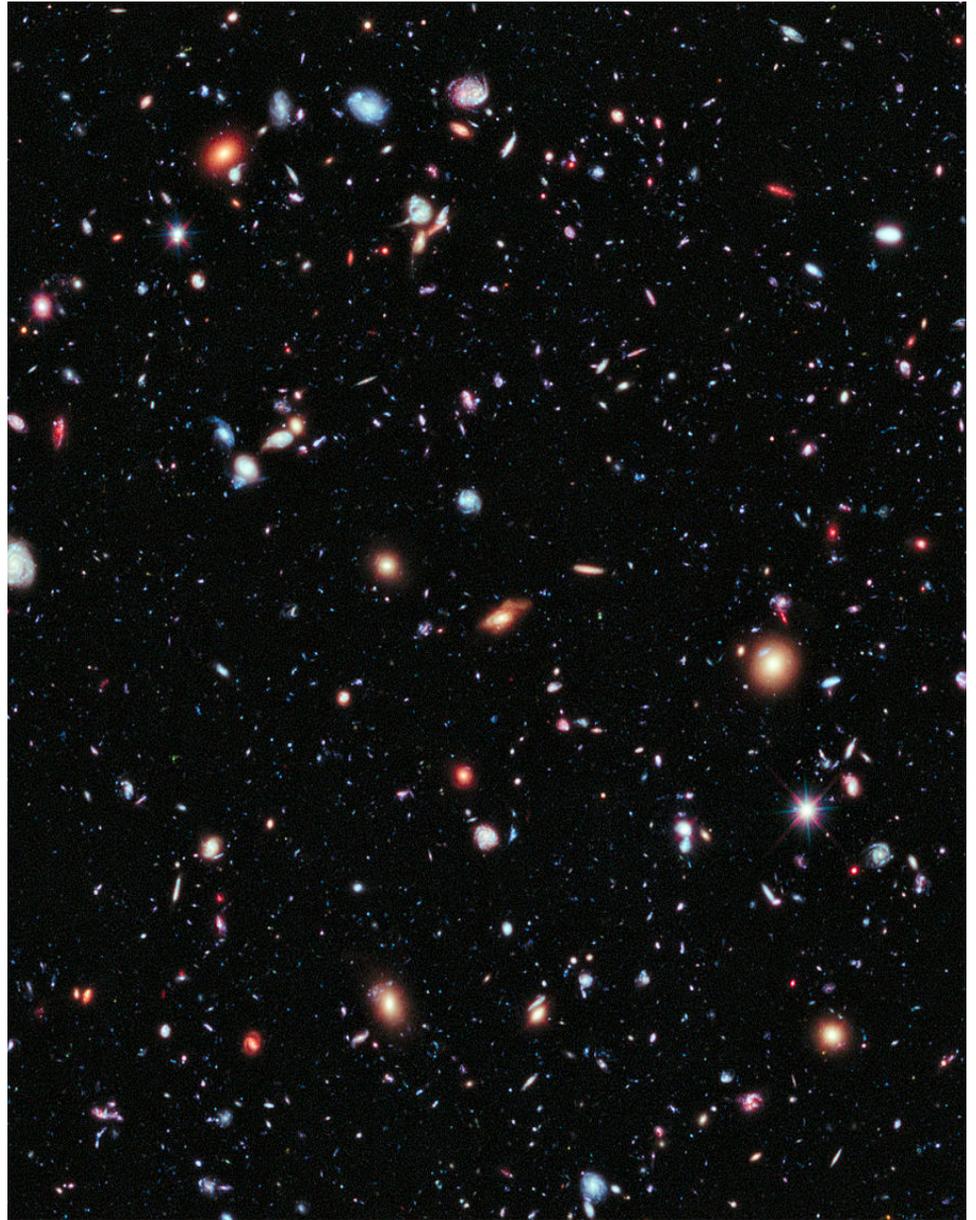
# **Cosmological Arguments**

# Arguments that God exists: Review

- Ontological: the existence of God follows from the very *concept* of God.
  - exp: *Anselm's Ontological Argument*
    - This is the *only a priori* argument for the existence of God.
- Cosmological: The existence of God is posited to explain the existence of (change in) the world.
  - exp: *Aquinas and Clarke*
  - This is an *a posteriori* argument, in that it relies on something we know only from sense experience—namely, that there is change in the world.

# Cosmology:

- Study of the origins of the universe
  - How did the world begin?
  - Where did everything come from?
- **Aquinas**: If the things we see were caused to exist by things that already existed;
  - And if those things were caused to exist by things that already existed; etc., etc.,
  - Doesn't that mean there must have been a "first cause?"
    - An *uncaused causer*?
  - (Or could the series of "prior causes" go on *to infinity*?)



# The Cosmological Argument:

- An *a posteriori* argument because it begins with a premise, based on observation, that the universe exists, and is subject to change.
- It tries to show that for this to be so there must exist something *outside* the universe which can cause or explain its existence.

# Aquinas' First Cause

From *The Five Ways*

St. Thomas Aquinas

1225-1274

# Aquinas's Second Way:

- 1. Some things are caused to exist.
  - And causes precede their effects.
- 2. Nothing can cause itself to exist. (If so, it would have to “*precede itself.*”)
- 3. This cannot go on to infinity.
  - (His argument for this is on the next slide.)
- So, there must be a *first cause*—an *uncaused causer*.

*“This cannot go on to infinity.”*

*“Such a series of [prior] causes must however stop somewhere.... Now if you eliminate a cause, you also eliminate its effects, so that you cannot have a last cause [or “last effect”] ... unless you have a first. Given therefore ... no first cause, there would be no intermediate causes either, and no last effect.”*

- i.e., without a first cause, nothing else would have happened, and so nothing would be happening now.
- But things are happening now.
- So, the series cannot go on to infinity.

# Why must the series “*stop somewhere?*”

- Aquinas’ Answer:
  - Because without a first cause, nothing else would ever happen
    - (but, as we know by experience, things *have* happened).
- But what is Aquinas trying to prove?
  - That there must be a first cause of the existence of thing, i.e.,
    - that *without a first cause, nothing else would ever have happened!*
- What is wrong with the reasoning here?

# What is wrong with this?

- Aquinas is trying to prove that there must be a first cause. The only alternative to this is that the sequences of causes goes backwards in time to infinity.
- He reasons that the series of causes cannot go backwards in time to infinity because, if it did, there would be no first cause.
- Therefore, he reasons, there must be a first cause.

# Past Infinity

- If the series of previous causes goes backwards infinitely in time,
  - Then every cause is preceded by a previous cause, which is in turn preceded by a previous cause, etc. to infinity.
    - In this case, there is *no such thing* as a “first cause,” as every event has a previous cause.
      - So, if the universe has an infinitely long past history, there is a cause for everything, and yet there is no first cause to “eliminate.”
  - Things would be happening now without a first cause, because the series of prior causes would extend infinitely into the past.

# “Begging the Question”

- An argument “begs the question” when it implicitly assumes the very point it is trying to prove.
  - An argument that begs the question is still *valid*—i.e., if the premises are true, the conclusion must also be true. After all, the “conclusion” *is* one of the premises.
  - But such arguments don’t *prove* anything, since the “conclusion” is simply *assumed* to be true.
  - Can you see where Aquinas begs the question?

# Aquinas Begs the Question

- Aquinas is trying to prove that there must be a “first cause.”
  - He argues there must be a first cause because otherwise the series of causes would go on to infinity.
  - He argues the series of causes cannot go on to infinity because then there would be no first cause.
- This amounts to arguing that there must be a first cause because otherwise there wouldn't be first cause.

# *Why* did Aquinas Beg The Question?

- This is a good question.
  - Can we really understand what it would mean for “the series [of past events] to go to infinity?”
  - Can we really understand what it would mean to say that an *infinite* amount of time has *already taken place*?
  - Aquinas never even saw this as an option.
  - Since Aquinas’ time, this has seemed like a viable option.

# Aquinas' Assumption

- We asked why Aquinas begged the very question he set out to show.
- Aquinas assumed without argument that an infinite past history was impossible.
- So, Aquinas assumed that everything must have a cause/explanation (we'll come back to this), and that this series of causes/explanations cannot involve an infinite past history.

# **“A Modern Formulation of the Cosmological Argument”**

Samuel Clarke

1675-1729

# Clarke's Cosmological Argument

- Aquinas didn't seriously consider the possibility that the universe might have had an infinitely long past history.
  - Whether or not it could have is the “question” he “begged.”
- Clarke says that even if the universe has existed for eternity, we still need to posit the existence of God to explain the existence of the entire infinite series of causes and effects—that is, of the universe as a whole.

# Clarke's Cosmological Argument:

- 1. Suppose (for *reductio*) that everything there is is part of an infinite series of dependent things
  - (*where each and every thing is dependent for its existence upon the existence of some previous thing, ad infinitum.*)
  - that is, suppose that nothing (nothing outside the natural world) caused the world.

# Clarke's Cosmological Argument:

➡ c ➡” means *causes*

∞” means *infinity*

D<sub>-n</sub>” means *Dependent Event*

∞ ... ➡ c ➡ D<sub>-3</sub> ➡ c ➡ D<sub>-2</sub> ➡ c ➡ D<sub>-1</sub> ➡ c ➡ Now<sub>0</sub>

An infinite series of dependent events

# Clarke's Cosmological Argument:

- 2. Then the series as a whole has no cause “*from without*” (because it is hypothesized to include everything there is), and
- 3. The series as a whole has no cause “*from within*” (If it had a cause from within, then that thing would be its own cause, making it a necessary being, violating the assumption).

# Clarke's Cosmological Argument

➡ c ➡ means *causes*

∞ means *infinity*

$D_{-n}$  means *Dependent Event*

∞ ... ➡ c ➡  $D_{-3}$  ➡ c ➡  $D_{-2}$  ➡ c ➡  $D_{-1}$  ➡ c ➡ Now<sub>0</sub>

An infinite series of dependent events:

What caused *it*?

# Clarke's Cosmological Argument:

- 4. So the whole series is without any cause.
- 5. But this cannot be, and so we must posit the existence of God to explain the existence of this infinite series.

# Question:

- But *why* must “the series as a whole”
  - that is, a series of past events, where each is caused by a previous past event, which is in turn caused by a previous past event, and so on to infinity-  
have a cause or explanation?
- Can we (must we) explain *everything*?

# Must *the whole series* have a cause?

- There is a deep question here about how much we can explain.
- *Within* Clarke's "infinite series," every individual thing has a cause.
- Must the *series* of individual things also have a cause?

# Causes and Explanations

- We want to explain things.
- The Cosmological Argument  
“posits” (hypothesizes) the existence of God to explain where the universe (the “cosmos”) came from.
- But how much can we explain?

# The Principle of Sufficient Reason (PSR)

- *Everything has a cause or explanation.*
  - This is a deep principle of explanation. It doesn't say that we can always *know* what the cause or explanation of something is, but only that everything *has* some cause or explanation.
    - So, nothing “just happens.”
    - The (true) answer to “Why?” is never “Just because.”

# Principle of Sufficient Reason

## Weak vs. Strong

- Weak Version: *There must be a cause or explanation for the existence of every individual thing and event.*
- Strong Version: *There must be a cause or explanation for the existence of every truth or fact.*

# Weak or Strong?

- Aquinas appeals only to the weak version of the PSR.
  - That is, he requires only that every individual thing must have a cause.
- Clarke needs the strong version of the PSR.
  - He thinks we must explain not just every individual event, but why there are any events at all.

# Clarke's Cosmological Argument

➡ c ➡ means *causes*

∞ means *infinity*

$D_{-n}$  means *Dependent Event*

∞ ... ➡ c ➡  $D_{-3}$  ➡ c ➡  $D_{-2}$  ➡ c ➡  $D_{-1}$  ➡ c ➡ Now<sub>0</sub>

An infinite series of dependent events:

What caused *it*?

# How much can we explain?

- If every fact must have an explanation, where can we stop?
  - If we need God as an explanation of the infinite series, don't we need an explanation of God?
  - If some things (like God) don't need an explanation, why does the infinite series need an explanation?
- Which is harder to accept?
  - That some facts cannot, even in principle, ever be explained; or
  - That there must be some single being that explains everything, *including itself*?

# What about *God*?

- To explain the existence of the entire series of things and events, Clarke argues
  - we must assume the existence of God.
- But ...
  - If we must explain the existence of *everything*, mustn't we also explain the existence of God?
  - If we don't have to explain the existence of God, why should we have to explain the existence of an infinite series of things and events?