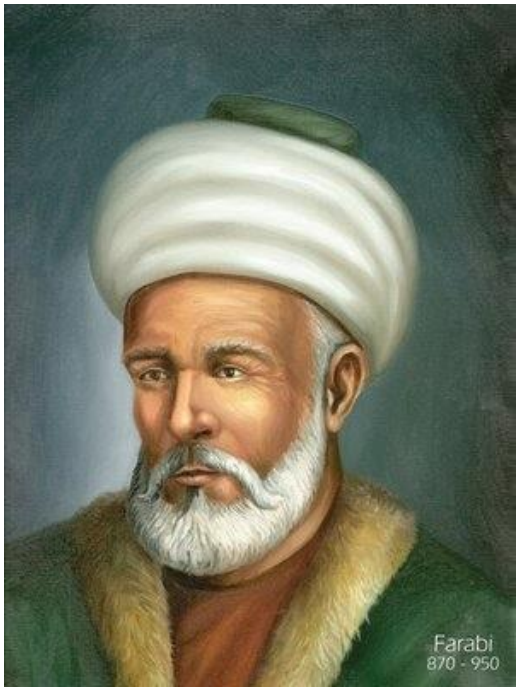
Al-Farabi, 872-950



The Cosmological Argument(s)

Does the cosmos need a foundation?

Argument or proof?

- Proof, in the strict sense (e.g. in math and logic) is rather a high standard.

- Do theists need to *prove* that God exists? (What for?)

- (most) Theists will be happy enough if there are arguments, free of mistakes, that significantly support components of theism.

J. N. Findlay (1948)

"The general philosophical verdict is that **none of these 'proofs' is truly compelling**. … The proofs based on the general facts of existence and motion are only felt to be valid by a minority of thinkers, who seem quite powerless to communicate this sense of validity to others."

J. N. Findlay (1948). "Can God's Existence be Disproved?" *Mind*.

The basic idea of a cosmological argument

- “Where did all this come from? It didn’t just appear, all by itself, so God must have created it.”

- “At the least, there must be *something* behind it all.”

1. Aquinas's version:

1. Everything that exists, but is not self-existent, is caused to exist by something else
2. Some things exist
3. **A regress of causes cannot proceed to infinity**

$\therefore$ There is some self-existent being, namely God

The Al-Farabi Principle

- Al-Farabi gave an argument similar to that of Aquinas, a few hundred years earlier.
- His argument also included the premise:

  - "a series of contingent beings which would produce one another cannot proceed to infinity or move in a circle"

Some terminology

- For thousands of years, people (e.g. St. Anselm) have noticed that some things depend on others for some of their properties (or features).

- E.g. imagine that a rock is near to a blazing campfire, and the rock is warm. Why is it warm?
  - Rocks are not naturally warm. (As Aristotle would say.) The rock needs something else to warm it up.
  - In this case, the fire warmed the rock.
  - The rock's warmth is *dependent* upon the fire.

“from itself” properties

- The hot rock can be used to heat up other things, e.g. a tub of water. (The water then gets its heat, ultimately, from the fire.)
- But why is the fire warm to begin with? Did *something else* warm it up?
  - No (says Aristotle, Anselm, etc.) The fire is hot *by nature*, just as the rock is solid by nature. Cold fire is an impossibility.
  - The fire is hot “from itself”, or ***a se*** in Latin.

Dependent *existence*

- The rock depends on the fire for its warmth, but without the fire the rock would still be there. It would still *exist*.
- Many objects seem to depend on others for their *existence*, however. E.g.?
  - Waves on a lake depend on wind (and the lake itself!)
  - A painting depends on the painter.
  - We often use the word ‘caused’ to describe this relation.

Self existence (aseity)

- We have seen that an object can (apparently) hold certain properties by nature, or "from itself". The object doesn't need anything else to give it that property.
- Could a thing also have *existence* "from itself"?
  - Such a thing would not need a cause to bring it into being. It would be "self-existent", or a "first cause"
  - God is traditionally conceived of as a self-existent being. Thus God has existence *a sei*. This property of self-existence is also called *aseity*.

Back to the cosmological argument

- Any worries about this basic approach (of Al-Farabi and Aquinas)?

1. *Why can't* a regress of causes proceed to infinity? (Why not "turtles all the way down"?)
2. Even if there is such an 'original entity', why should it be God? (E.g. why should it be a *person*, why infinite, good, all powerful, etc.)

- There's a story about American philosopher William James, who (after giving a lecture on astronomy) was told by an old lady that his theory was wrong, since "we live on a crust of earth which is on the back of a giant turtle." James asked the lady what the turtle stands on.

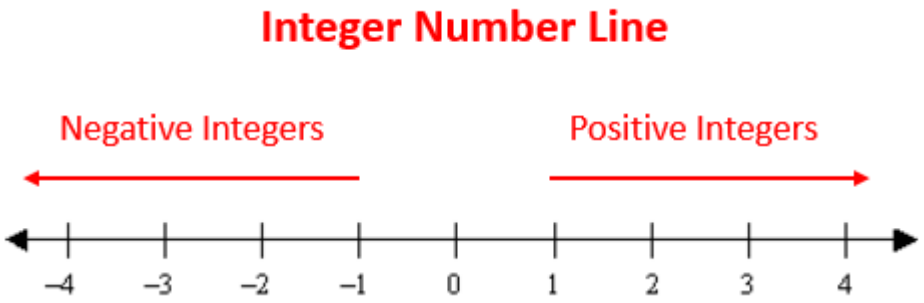
She replied, "The first turtle stands on the back of a second, far larger, turtle, who stands directly under him."

"But what does this second turtle stand on?" persisted James patiently.

To this, the little old lady crowed triumphantly,

"It's no use, Mr. James—it's *turtles all the way down*."

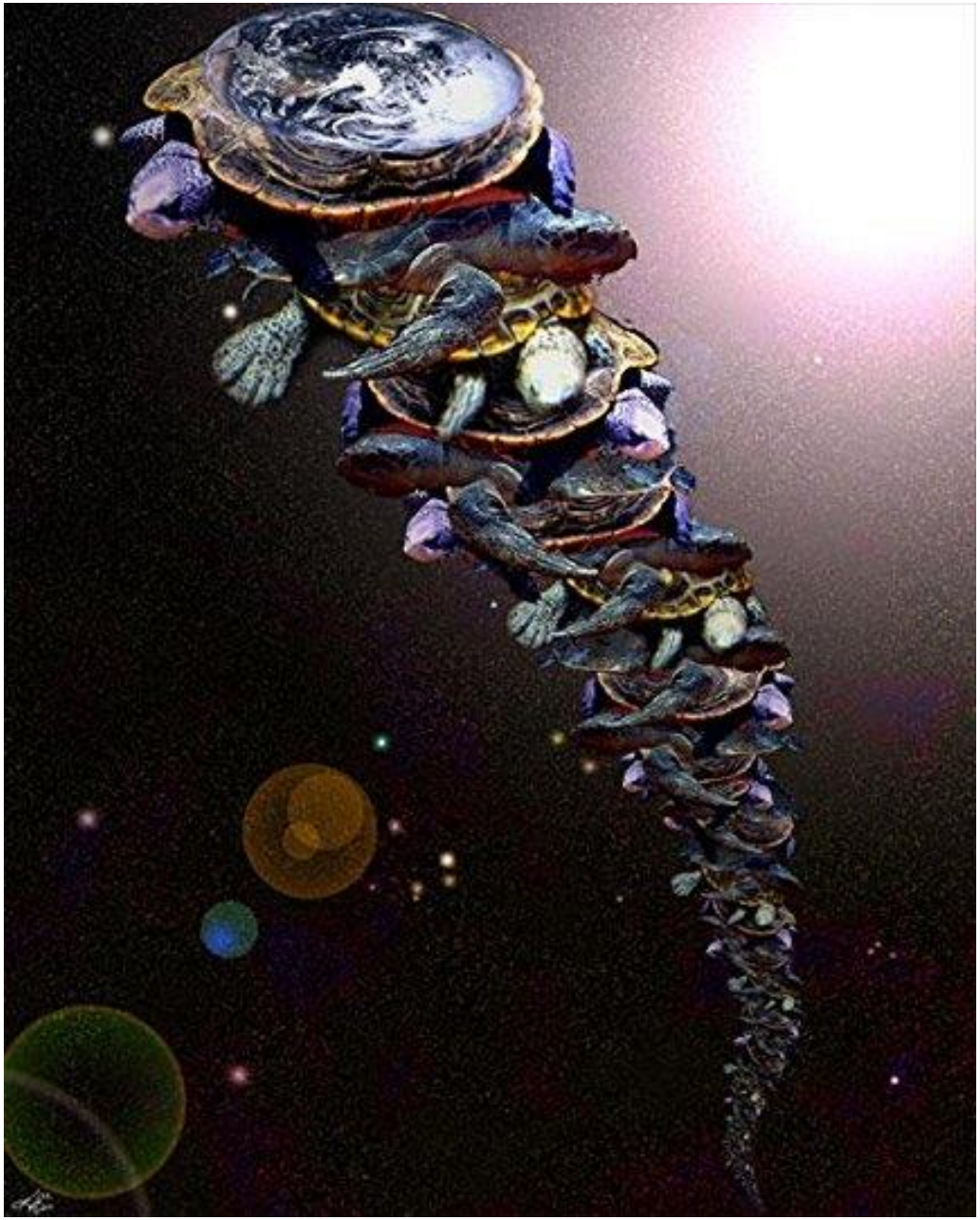
- "turtles all the way down" can refer to the idea that the universe consists of an infinite regress of causes, so that every event in the universe is caused by earlier events. (The universe extends *infinitely* into the past, with no beginning.)



Why can't causation have the same structure as the signed integers?

The hard part of the Al-Farabi/ Aquinas cosmological argument is to show that this is impossible.

(More about this later.)



2. Kalaam Cosmological Argument

- (see p. 161)

Everything that begins to exist has a cause
The universe began to exist

The universe has a cause

The Kalaam cosmological argument (favoured today by William Lane Craig) has something *weaker* than the Al-Farabi principle as its second premise.

Stephen Hawking seems to think that the argument is *valid,* at least.

(He disagrees with the 2nd premise though)

- "While many of us may be OK with the idea of the big bang simply starting everything, physicists, including Hawking, **tend to shy away from cosmic genesis**. "A point of creation would be a place where science broke down. One would have to appeal to religion and the hand of God," Hawking told the meeting, at the University of Cambridge, in a pre-recorded speech."

(Grossman, p. 2)

- Craig himself offers further arguments in support of this crucial second premise:

1. An actually infinite collection is impossible.
2. An actually infinite collection cannot be formed by successive addition.
3. Arguments by Alexander Vilenkin.

"Another option is a cyclic universe, in which the … universe goes through infinite cycles of big bangs and crunches with no specific beginning. …

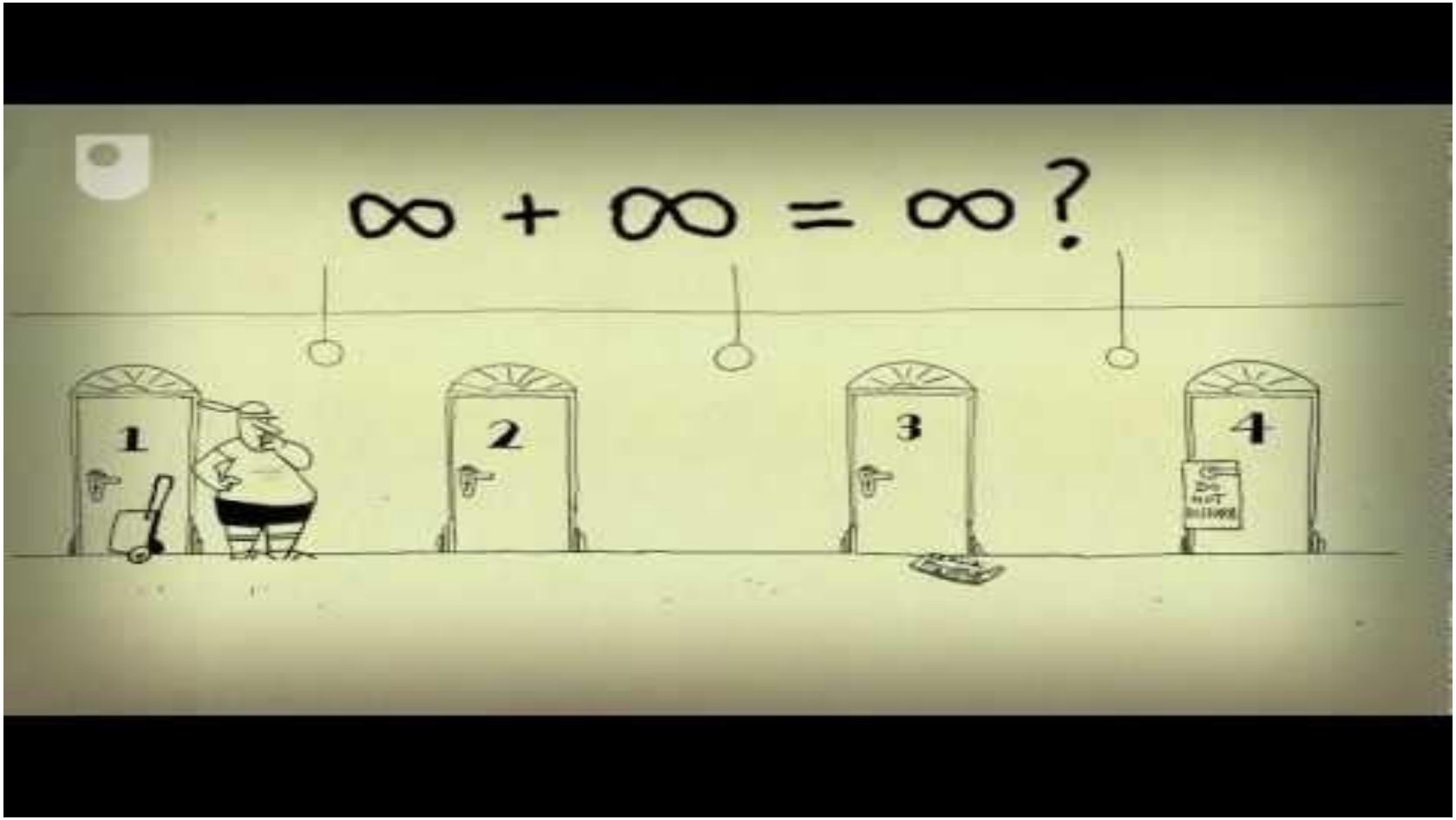
Yet when [cosmologist Alexander Vilenkin of Tufts University] looked at what this would mean for the universe's disorder, again the figures didn't add up. Disorder increases with time. So following each cycle, the universe must get more and more disordered. **But if there has already been an infinite number of cycles, the universe we inhabit now should be in a state of maximum disorder**. Such a universe would be uniformly lukewarm and featureless, and definitely lacking such complicated beings as stars, planets and physicists – **nothing like the one we see around us**."

- Grossman, pp. 2-3.

Craig's arguments against actual infinity

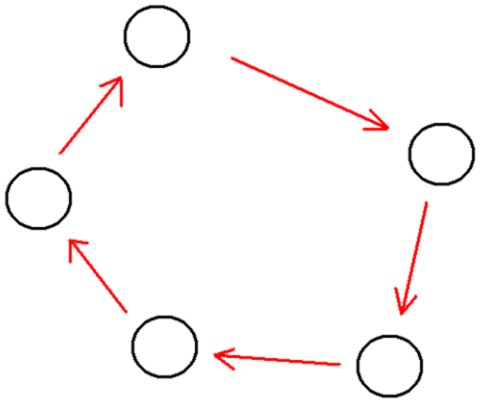
1. An actually infinite collection is impossible.
   - Infinite collections lead to "absurdities", as in Hilbert's hotel. (Or just oddities?)
2. An actually infinite collection cannot be formed by successive addition.
   - The real question is whether an actual infinite series of *causes* can extend into the *past*.

1. Hilbert's hotel



Infinite and circular regresses

- Recall that Al-Farabi ruled out not just an infinite regress of causes, but also a *closed circle* of causes



Maybe if we can show that a causal circle is impossible, then the *same* argument will rule out an infinite regress?

Composition argument

- In the case of the closed loop, we might object to it on the grounds that *the whole system is also a dependent being*.

- (Why is the whole system a dependent being? Because it is composed of events that are all dependent.)

- In that case, the loop itself requires a cause (from outside) which it lacks.

Composition principle

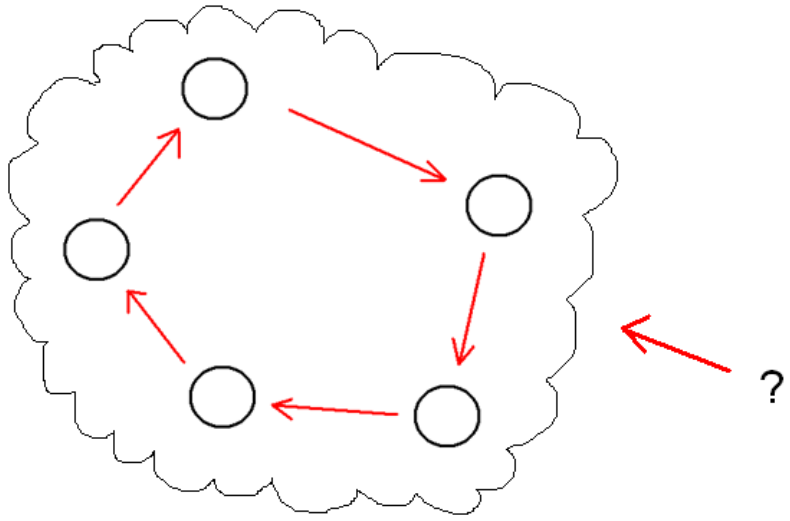
- Is this a general rule: (?)

  Any collection of dependent beings is itself a dependent being.

- If it is, then a closed causal loop is *impossible*.

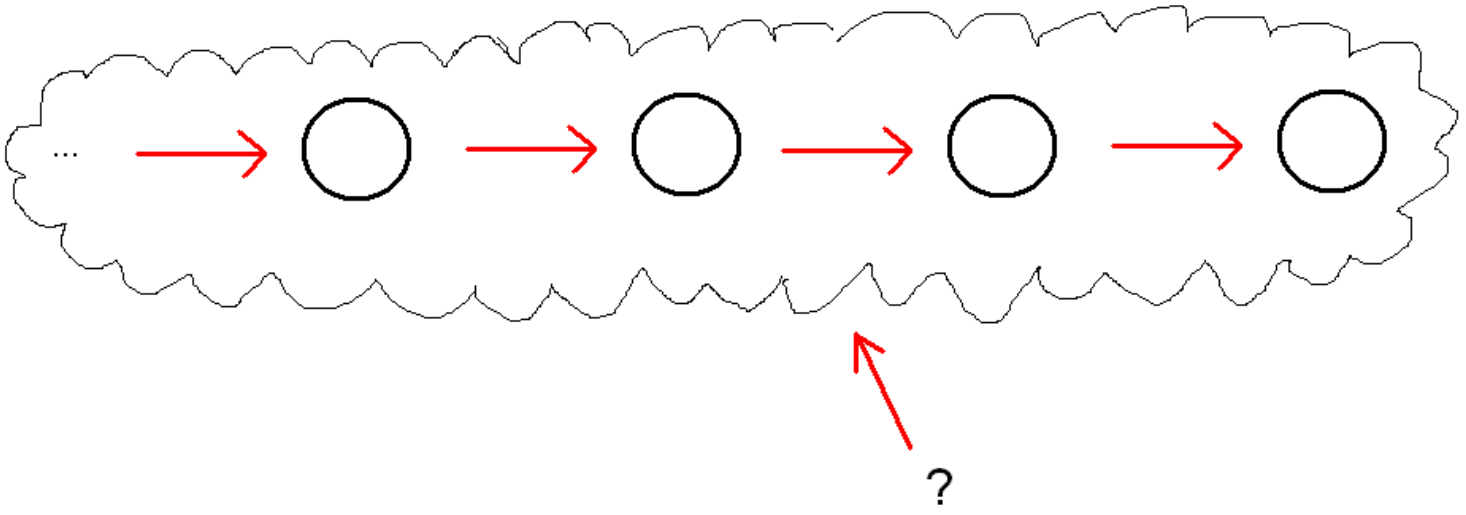
1. Since the whole loop is a *dependent* being, it requires a cause in order to exist.
2. But a closed causal loop has no such external cause. (That's the whole idea!)

∴ A closed causal loop is impossible



Infinite regresses are also impossible

- If the composition principle holds, then an infinite regress of causes is also a dependent being, and hence impossible in the same way.



David Hume disagrees

"Also: in such a chain or series of items, each part is caused by the part that preceded it, and causes the one that follows. So where is the difficulty? **But the *whole* needs a cause! you say**. I answer that the uniting of these parts into a whole, like the uniting of several distinct counties into one kingdom, or several distinct members into one organic body, is performed merely by an arbitrary act of the mind and has no influence on the nature of things. **If I showed you the particular causes of each individual in a collection of twenty particles of matter, I would think it very unreasonable if you then asked me what was the cause of the whole twenty**. The cause of the whole is sufficiently explained by explaining the cause of the parts." (*Dialogue,* p.36)

Hume-Edwards principle

- William Rowe refers to this as the **Hume-Edwards principle**, and summarises it as:

- *If the existence of every member of a set is explained, the existence of that set is thereby explained*.

Questions?

- Is this a sound principle?

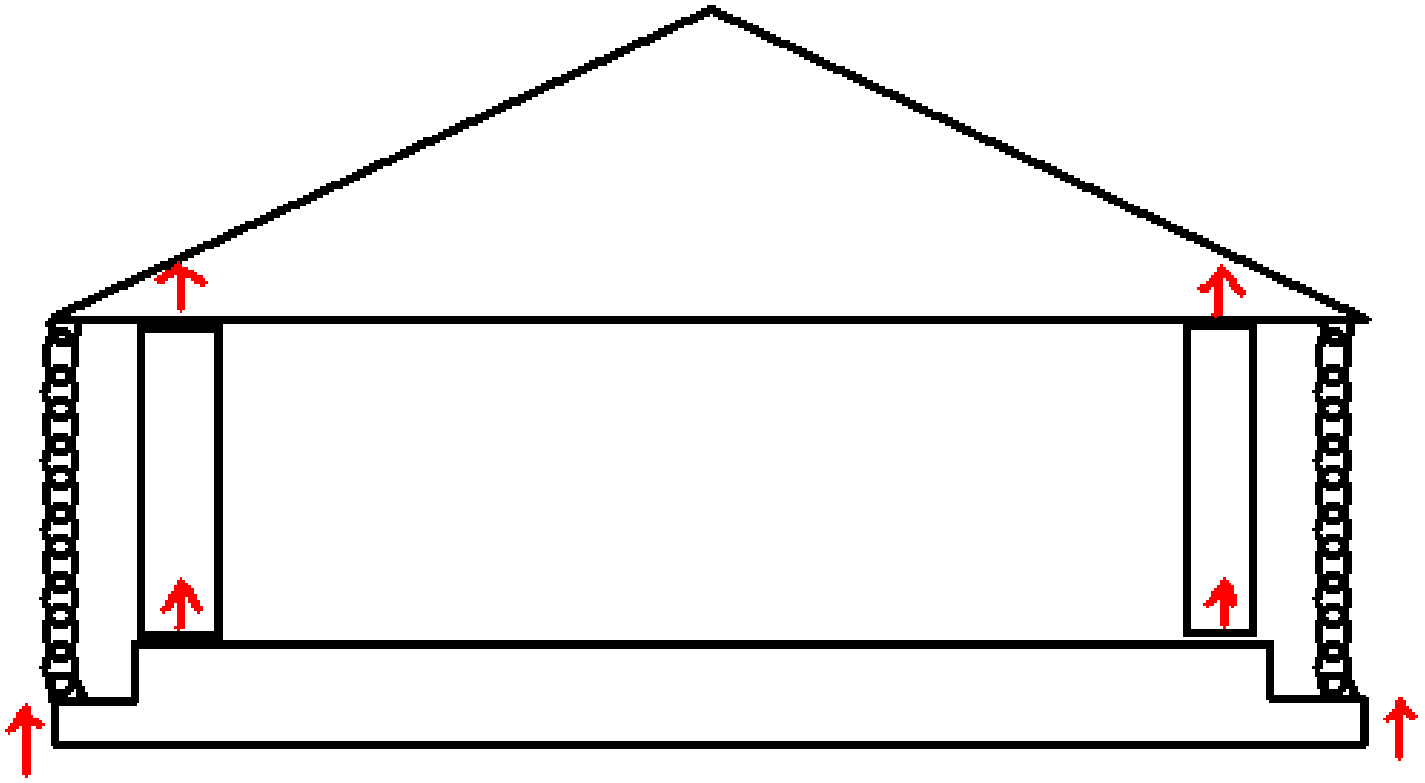
House in the Sky analogy

- Suppose you hire an architect to build you a house in Vancouver for only $500,000.

- He says, for that price, you can't built it on land. It'll have to be built in the sky, 100 feet up in the air, with rope ladder access.

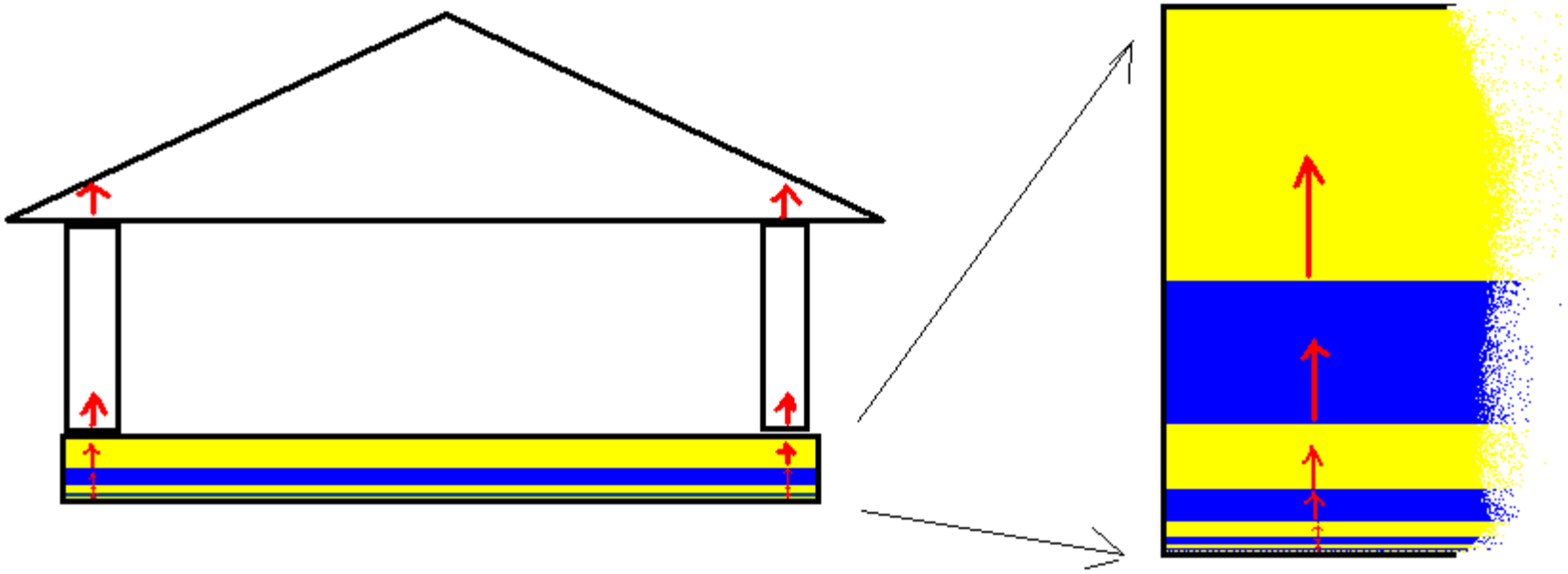
- He says it's easily done, as long as each part of the structure is supported.

Design 1: Circular support



"The roof is supported by the walls. The walls rest upon the foundation. And the foundation hangs from chains secured to the roof."

House in the Sky with infinite regress



- "The foundation slab is made of layers sandwiched together. The top layer is ½ m thick, the next ¼ m, then 1/8 m, 1/16 m, 1/32 m, etc. to infinity. There is no bottom layer, and the total slab thickness is 1 m."

- *Each layer is supported by the one just below it*.

Conclusion

- Obviously the first house will plummet to the ground. What about the second one?

- It will also fall, just as surely as the first. The fact that the house has an infinite stack of foundation slabs makes no difference at all.

- This is only an argument from analogy, so nowhere near conclusive, but it supports the view that even an infinite collection of dependent beings is itself dependent.

Analogy with construction

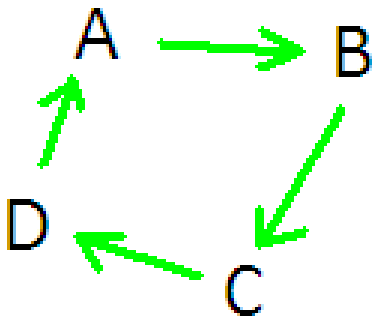
- Does Hume's objection work in the case of construction?

- "If I showed you the particular supports of each part of a building, I would think it very unreasonable if you then asked me what was the support of the whole building. The support of the whole is sufficiently explained by explaining the support of the parts."

- No, it *fails*.

2nd Analogy: evidential support

- "Every statement, to be worthy of belief, requires evidential support".



- Can you have circular support?
- Can you have an infinite regress of support?

… → D → C → B → A

- No, and no! In logic, the whole set of statements requires support as well. (E.g. proof by induction requires a foundation.)

Analogy with evidential support

- Does Hume's objection work in the case of evidential support?

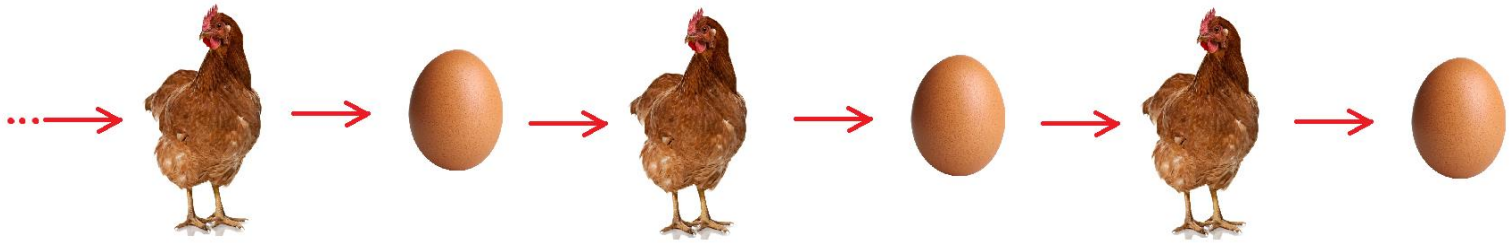
- "If I showed you the particular evidence of each part of a theory, I would think it very unreasonable if you then asked me what was the evidence for the whole theory. The evidence for the whole is sufficiently explained by explaining the evidence for the parts."

- This fails too, though coherence in a theory can *help* to justify it. (Consider a solution to a crossword puzzle.)

- So the two analogies examined support the proposed composition rule:

- **Any collection of dependent beings (whether finite or infinite) is itself a dependent being.**

Pruss: chicken-egg argument



- Consider a chicken-egg causal sequence, as shown above, that has no beginning.
- Now consider {chickens} and {eggs} in the sequence.
  - {chickens} caused {eggs}
  - {eggs} caused {chickens}
- (So we also have a causal circle!)

- Alexander R. Pruss (1998), "The Hume-Edwards Principle and the Cosmological Argument", *International Journal for Philosophy of Religion*.

The whole cosmological argument

1. Let “the universe” be the collection of all dependent beings.
2. Any collection of dependent beings (whether finite or infinite) is itself a dependent being.
3. The cause of an object must be external to that object.

∴ 4. The universe is a dependent being (from 1, 2)

∴ 5. The universe has a cause (that’s what ‘dependent’ means)

∴ 6. The cause of the universe is external to the universe (3)

∴ 7. The cause of the universe is a self-existent being (1, 6)

Bertrand Russell Disagrees

- Russell argues that the inference:

Every part of the universe is a dependent being

$\therefore$ The universe is a dependent being

is a fallacy, the "fallacy of composition". E.g. since every human has a mother, therefore the human race has a mother. *Is it a fallacy*?

(I think we can agree that in the two analogous cases above, the composition inference isn't a fallacy. Russell's case is not analogous at all, since 'mother of' isn't even a transitive relation.)

Dawkins on the Cosmological Argument

- "All three of these arguments rely upon the idea of a regress and invoke God to terminate it. They make the entirely unwarranted assumption that God himself is immune to the regress."

(Dawkins, *The God Delusion* p. 101)

- Is this is good criticism?
  - (No, since what stops the regress is a *self-existent* being, i.e. a being that, by definition, doesn't require a cause.)

J. L. Mackie

- Mackie (in *The Miracle of Theism*, pp. 81-95) considers various versions of the Cosmological Argument, including the "first cause argument" – roughly the main one we have looked at.

- In the discussion of this argument (pp. 172-174) he refers to "al Farabi's principle":

> "a series of contingent beings which would produce one another cannot proceed to infinity or move in a circle"

And says "… this principle is at least highly plausible".

- Thus, Mackie concludes, it is *reasonable* (though not certain) to infer that some self-existent object must exist.

- "But the greatest weakness of this otherwise attractive argument is that some reason is required for making God the one sole exception to the supposed need for something else to depend on: why should God, rather than anything else, be taken as the only satisfactory termination of the regress?"

  (Mackie)

- N.B. God *is* traditionally conceived as a self-existent being. (Any being that was brought into existence by something else doesn't fit our concept of God.) Mackie isn't questioning that.

- Mackie is probably asking:
  - Why should a self-existent being be thought to have all the *other* traditional divine attributes?
  - I.e. why can't something other than God (e.g. a primordial chaos) be self-existent?

Why *God*?

- I.e. even if we conclude that a self-existent being exists, why call it "God"? In particular:

1. Why should there only be *one* such object?
2. Why should the object be *living* and *personal*? (I.e. conscious, rational, making choices, etc.)
3. Why should it be *morally good*?
4. Why should it be *omnipotent*, *omniscient*? (Etc.)
5. Why should it have *necessary* existence?

- (More arguments are needed for these.)

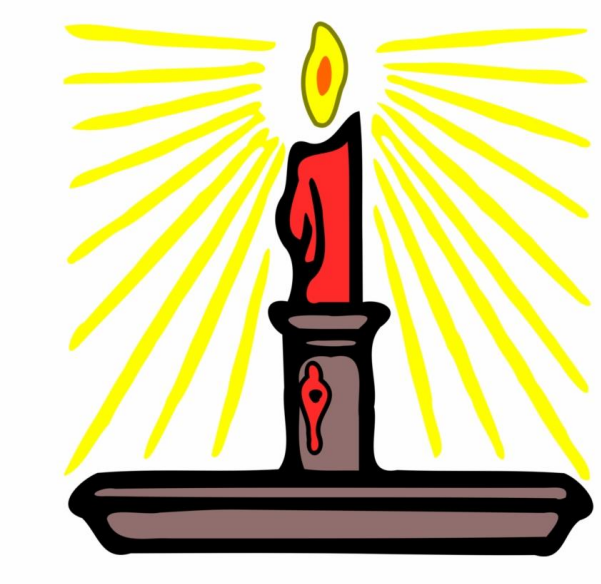
Self-existent vs. necessary

- The last question, number 5, might seem silly or redundant. Surely, if a being is self-existent, then it necessarily exists?
  - Not so fast. (Here it gets a little tricky.)

- The cosmological argument only shows (even if it succeeds) that *if* there are dependent beings, *then* there must be a self-existent being as well. But there seems to be no logical reason why a self-existent being has to exist. After all, it seems quite conceivable that *nothing should exist at all*.

- The cosmological argument gives no reason at all to think that “nothing exists” is impossible.
- So even a self-existent being might just happen to exist?

- Also, the concept of a *dependent and necessary* being seems perfectly conceivable.



- According to the Christian doctrine of the Trinity, God the Son is “eternally begotten” of the Father, which seems to mean that the Father *necessarily* causes the Son.
  So the Son is a *dependent* being, but still a *necessary* being.

Leibniz's cosmological argument

1. Every contingent fact has an explanation (PSR)
2. There is a total contingent fact that includes all other contingent facts.

∴ There is an explanation of this total fact.

∴ This explanation must involve a necessary being.

(I'm putting this argument in the next lecture, on the ontological argument, since it argues for a *necessary* being rather than a *self-existent* one.)