Does God exist?
The cosmological argument
Last time we closed by considering an objection to Aquinas’ assumption that if a first cause exists, then God exists: the objection was that the first cause could simply be some event, like the Big Bang, which is not a plausible candidate to be God.

We then considered one source of dissatisfaction with that reply: namely, that one could still ask of such a first cause why it occurred. It seems as though questions like these should have answers — but it is hard, you might think, to see how we could answer them without appealing to God.

One can think of our topic today — the cosmological argument — as a much more precise and sophisticated version of this intuitive line of thought.
The form of the cosmological argument we’ll be discussing today is due to Gottfried Wilhelm Leibniz was a German philosopher, mathematician, theologian, and scientist, whose achievements included the invention of calculus.

His intellect and achievements were such that they led Diderot, a later French philosopher, to remark that

“When one compares the talents one has with those of a Leibniz, one is tempted to throw away one's books and go die quietly in the dark of some forgotten corner.”
Leibniz’s argument is best thought of as beginning with a question which he poses at the end of the first paragraph of our reading for today:

“Why is there any world at all, and why is it the way that it is?”

Leibniz thought that there must be some explanation of why there is a world at all because he endorsed a certain principle about explanation, known as the principle of sufficient reason.
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The basic idea behind the principle is this: Take any feature of the world. If the world could have failed to be that way, then there must be some explanation of why the world is that way.

So, for example, we might notice that although the sky is blue, it might not have been — the sky on earth could have been red, or green, instead of blue. Given only this, Leibniz concludes that there must be some reason, or explanation, why the sky is blue: some reason why it is blue rather than some other color. And this does seem quite plausible.

Suppose that we were walking on campus and came across a metal sphere on the ground, and you say, ‘I wonder how that got here.’ Suppose that I replied: ‘There’s no explanation for why it is here. It just is.’ Would there be something odd about my reply?

Some have also thought that the PSR is a presupposition of modern science. Why might someone think this?
Leibniz thought that there must be some explanation of why there is a world at all because he endorsed a certain principle about explanation, known as the principle of sufficient reason.

To state the PSR precisely, we’ll need to introduce three terms which will also be important for topics we will discuss later in the course: possible, necessary, and contingent.
Philosophers use the word ‘possible’ in a very broad sense: something is possible just in case it **could have happened** - no matter how absurd, or bizarre, it is. So, for example, it is possible that a pink elephant is presently running through south quad, or that a talking donkey will one day be a professor of philosophy at Notre Dame.

By contrast, it is not possible, in this sense, that there could be a three-sided plane closed Euclidean figure with four angles — it isn’t just that this scenario would be silly or surprising; on reflection, we can see, on the contrary, that the scenario really **does not make sense**. In the same way, we can see that it simply could not be the case that I have an object in my office which is bright red and bright green all over. This is what we mean when we say that the scenario is **impossible**: it could not have been the case.
possible  necessary  contingent

Once you understand what it means for a scenario to be **impossible**, you can understand what it means for a situation to be **necessary**: a situation is necessary just in case its opposite is impossible; or, equivalently, just in case it is impossible for that state of affairs not to be the case.

What are some examples of things that are necessary, in this sense?
A state of affairs is contingent just in case (i) it actually is the case, and (ii) it is not necessary (that is, it is possible that it not be the case).

Can you think of any examples of contingent facts?

Must every contingent fact be possible? Is every possible fact contingent?
Using these terms, we can state the Principle of Sufficient Reason as follows:

**The principle of sufficient reason**

Every contingent fact has an explanation

We have already seen that a strong case can be made that this principle is true. This principle was one of the cornerstones of Leibniz’s philosophy. Let’s see how he puts it to work in the cosmological argument.
As we mentioned, Leibniz’s argument is best thought of as beginning with a question which he poses at the end of the first paragraph of our reading for today:

Why is there any world at all, and why is it the way that it is?

Leibniz’s core thoughts are: (1) that this question must have an answer, and (2) that the only satisfactory answer to this question will imply the existence of God.
His key premise seems to be that if nothing existed besides the sorts of things we find in the world, there would be no explanation of why these things exist.

Leibniz thinks that, even we can explain the existence of each of the geometry books by the one from which it was copied, we can’t explain why these books exist at all.

And what goes for the geometry books, Leibniz thinks, goes for the world as a whole. Even if we can explain every state of the world in terms of the preceding state of the world, we lack an explanation of the fact that there is a world at all.
This is suggestive. But it’s not quite obvious how to turn these thoughts into a clear argument for God’s existence which we could then put in premise/conclusion form, and begin to evaluate.

We know that Leibniz thinks that the existence of “the individual things, or .. the entire collection and series of things” needs some explanation, which can’t be provided by those individual things.

But what does Leibniz have in mind when he is talking about “the individual things”? **Which** things?
A passage later in the reading suggests an answer.

Therefore, the reasons for the world lie hidden in something extramundane, different from the chain of states, or from the series of things, the collection of which constitutes the world. And so we must pass from physical or hypothetical necessity, which determines the later things in the world from the earlier, to something which is of absolute or metaphysical necessity, something for which a reason cannot be given. For the present world is physically or hypothetically necessary, but not absolutely or metaphysically necessary.

Here Leibniz contrasts two kinds of necessity: **hypothetical** necessity and **absolute** necessity.

Something is hypothetically necessary if it is necessary **given that some other stuff happened**. So, for example, maybe your existence is necessary given certain facts about a sperm and an egg and certain laws of nature. But your existence is obviously not absolutely necessary, since you could have failed to exist.

The point Leibniz emphasizes in this passage is that **the existence of things in the world is not metaphysically necessary**.
The point Leibniz emphasizes in this passage is that **the existence of things in the world is not metaphysically necessary.**

And this, in turn, suggests an answer to our question. When Leibniz says that “the entire collection and series of things” needs some explanation, he is talking about the entire series and collection of things whose existence is not metaphysically necessary - **i.e., the collection of things which exist only contingently.**

This gives us a plausible candidate for a premise of Leibniz’s argument:

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The fact that there are contingent things has an explanation.
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Moreover, given that Leibniz endorses the principle of sufficient reason, we can begin to see how he might argue for this premise.

**The principle of sufficient reason**

Every contingent fact has an explanation

Given the PSR, what assumption would be needed to get us to the conclusion that the fact that there are contingent things has an explanation?

The fact that there are contingent things is contingent.
The fact that there are contingent things has an explanation.

The principle of sufficient reason

Every contingent fact has an explanation

The fact that there are contingent things is contingent.

Now remember the example of the geometry books. Leibniz’s idea there seemed to be that, even if the existence of each geometry book in the (infinite) series could be explained by the one which preceded it, still the existence of the series as a whole cannot be explained by any geometry books in the series.

This seems plausible. It seems that if we want to explain why there are any things of a certain kind, this explanation can’t be given in terms of some thing of that kind.

Suppose that we wanted to explain why rabbits exist in the universe. Our explanation could not begin like this: “Well, there were these two rabbits. And...”
The fact that there are contingent things is contingent.

The fact that there are contingent things has an explanation.

This line of thought seems to suggest the following:

The fact that there are contingent things can’t be explained by any contingent thing.

The principle of sufficient reason

Every contingent fact has an explanation
The fact that there are contingent things has an explanation.

The fact that there are contingent things is contingent.

The fact that there are contingent things can’t be explained by any contingent thing.

The fact that there are contingent things is explained by some thing which is not contingent.

The principle of sufficient reason

Every contingent fact has an explanation.

But this gets us very close to Leibniz’s intended conclusion:

there must exist some one entity of metaphysical necessity, that is, there must be an entity whose essence is existence
The fact that there are contingent things is contingent.

The fact that there are contingent things can't be explained by any contingent thing.

The fact that there are contingent things is explained by some thing which is not contingent.

There is a necessary being which explains the existence of contingent things.

The principle of sufficient reason

Every contingent fact has an explanation.
1. The fact that there are contingent things is contingent.
2. Every contingent fact has an explanation. (PSR)
3. The fact that there are contingent things has an explanation. (1,2)
4. The fact that there are contingent things can’t be explained by any contingent thing.
5. The fact that there are contingent things is explained by some thing which is not contingent. (3,4)
6. The fact that there are contingent things is explained by some necessary being. (5)

C. There is a necessary being which explains the existence of contingent things. (6)

Of course, like Aquinas, Leibniz is interested in arguing for the existence of God; so the representation of the argument at left is incomplete.

Let’s expand it in the obvious way.
1. The fact that there are contingent things is contingent.
2. Every contingent fact has an explanation. (PSR)
3. The fact that there are contingent things has an explanation. (1,2)
4. The fact that there are contingent things can’t be explained by any contingent thing.
5. The fact that there are contingent things is explained by some thing which is not contingent. (3,4)
6. The fact that there are contingent things is explained by some necessary being. (5)
7. There is a necessary being which explains the existence of contingent things. (6)
8. If there is a necessary being which explains the existence of contingent things, then God exists.
C. God exists. (7,8)

We found reason to doubt the idea that, if there is a first cause, then God exists. Do similar doubts apply to premise (8) of Leibniz’s argument?
1. The fact that there are contingent things is contingent.

2. Every contingent fact has an explanation. (PSR)

3. The fact that there are contingent things has an explanation. (1,2)

4. The fact that there are contingent things can’t be explained by any contingent thing.

5. The fact that there are contingent things is explained by some thing which is not contingent. (3,4)

6. The fact that there are contingent things is explained by some necessary being. (5)

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C. God exists. (7,8)

If it is valid, then we can turn to the question of whether it is sound. And this boils down to the question of whether all of the four independent premises are true.

Before turning to these, let’s consider a more general objection to the argument:
1. The fact that there are contingent things is contingent.

2. Every contingent fact has an explanation. (PSR)

3. The fact that there are contingent things has an explanation. (1,2)

4. The fact that there are contingent things can’t be explained by any contingent thing.

5. The fact that there are contingent things is explained by some thing which is not contingent. (3,4)

6. The fact that there are contingent things is explained by some necessary being. (5)

7. There is a necessary being which explains the existence of contingent things. (6)

8. If there is a necessary being which explains the existence of contingent things, then God exists.

C. God exists. (7,8)

Before turning to these, let’s consider a more general objection to the argument:

Leibniz demands that everything get an explanation. But then why is the existence of God the one thing that does not need an explanation? Surely if the existence of contingent things needs some explanation, then so does the existence of God - but no religious believer can accept the idea that the existence of God would be explained by something else!

How should Leibniz, or any defender of the principle of sufficient reason, respond?
1. The fact that there are contingent things is contingent.
2. Every contingent fact has an explanation. (PSR)
3. The fact that there are contingent things has an explanation. (1,2)
4. The fact that there are contingent things can’t be explained by any contingent thing.
5. The fact that there are contingent things is explained by some thing which is not contingent. (3,4)
6. The fact that there are contingent things is explained by some necessary being. (5)
7. There is a necessary being which explains the existence of contingent things. (6)
8. If there is a necessary being which explains the existence of contingent things, then God exists.

C. God exists. (7,8)

We’ve already discussed premise (8). Do premises (1) and (4) seem plausible?

If we grant that premises (1), (4), and (8) are true, and that the argument is valid, then the success of Leibniz’s argument hinges on premise (2): the principle of sufficient reason. Let’s turn to two objections to that premise.
The first objection is based on certain interpretations of quantum mechanics, our best current theory of the physical world.

According to the standard interpretations of quantum mechanics - though not all interpretations of the theory - the physical world is indeterministic. That is, what the laws of nature tell us in many cases is not what will happen, but rather just probabilities of various outcomes.

Imagine, for example, that we have some uranium, and we are interested in whether some particular atom will decay in a certain amount of time.

Quantum mechanics will tell us something like this: there is a 12.37% chance that the atom will decay in that amount of time.

Suppose now that the atom does decay, and we ask: why did it decay?

On standard interpretations of quantum mechanics, there is literally no answer to this question. There was a chance that it would, and a chance that it wouldn’t, and it just did — end of story. Is that a problem for the PSR?
A final objection is quite different, and in some ways more worrying.

Let us suppose for purposes of argument that the conclusion of Leibniz’s argument is true, and hence that the following is true:

God brings about the existence of contingent things

This must be either necessary, or contingent. But either path leads to trouble.
God brings about the existence of contingent things.

necessary

then it is a necessary truth that there are contingent things.

contingent

then, by the PSR, there must be some explanation of God’s bringing about the existence of contingent things.

but then premise (1) of the original argument is false.

but what could this be?
God brings about the existence of contingent things

then, by the PSR, there must be some explanation of God’s bringing about the existence of contingent things

but what could this be?

The right hand side of the dilemma might not look too bad at first. We might think, for example, that we can explain God’s creation of contingent things in terms of God’s deciding to create contingent things.
The right hand side of the dilemma might not look too bad at first. We might think, for example, that we can explain God’s creation of contingent things in terms of God’s deciding to create contingent things.

But this just gives us a new fact:

God decides to bring about the existence of contingent things

And this fact must be necessary, or contingent.

If it is necessary, then, again, premise (1) of our initial argument is false.

And if it is contingent, then by the PSR it must have some explanation. But what could this be?