

Does God exist?

The first cause argument

St. Thomas was born in 1225 and, while his works were extremely controversial in their time — some were condemned as heretical by the bishop of Paris — he has since come to be regarded as the greatest theologian and philosopher in the history of the Church. His *Summa Theologiae* — from which the arguments we will be discussing were taken — is regarded by many as the definitive philosophical exposition of the Catholic faith.



Here is the central argument of Aquinas' second way - the second of five proofs that Aquinas gave for the existence of God.

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.



The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

What we want to know is: Is this a good argument for God's existence? Is it valid? Is it sound?

But to answer these questions, we first need to figure out what the [premises](#) of Aquinas' argument are.

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

The first two sentences introduce Aquinas' topic; let's look at the **third**.

This seems to state a premise which we could write as follows:

Nothing is the
efficient
cause of
itself.

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

Nothing is the
efficient
cause of
itself.

There are two kinds of premises in arguments: independent premises, which are supposed to stand on their own, and derived premises, which are supposed to follow from other premises. Which do you think this is?

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

Nothing is the efficient cause of itself.

He seems to argue for it in the passage immediately following this sentence, which suggests that it is a derived premise.

What premises do these passages express?

If something were the efficient cause of itself, it would be prior to itself

Nothing is prior to itself.

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

If something were the efficient cause of itself, it would be prior to itself

Nothing is prior to itself.

Nothing is the efficient cause of itself.

We seem to get another premise in the next sentence.

A chain of causes cannot be infinite.

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

If something were the efficient cause of itself, it would be prior to itself

Nothing is prior to itself.

Nothing is the efficient cause of itself.

A chain of causes cannot be infinite.

It is pretty clear that this is a derived premise, since we get a long argument for it in the passage immediately following.

Let's set this passage to the side for now, and see if we can figure out the shape of Aquinas' argument.

If something were the efficient cause of itself, it would be prior to itself

Nothing is prior to itself.

Nothing is the efficient cause of itself.

A chain of causes cannot be infinite.

We've now got some premises on the table. But to figure out whether they make for a valid argument, we need to first figure out what conclusion they are supposed to be an argument for.

Fortunately, this is pretty clear:

There is a first cause.

Let's put our proposed argument in premise/conclusion form.

1. If something were the efficient cause of itself, it would be prior to itself.
 2. Nothing is prior to itself.
 3. Nothing is the efficient cause of itself. (1,2)
 4. A chain of causes cannot be infinite.
-
- C. There is a first cause. (3,4)

Here we represent the fact that (3) is a derived premise intended to follow from (1) and (2) by writing '(1,2)' after it.

Is this argument valid? Does the conclusion follow from (3) and (4)?

It is invalid if we can describe some possible situation in which the premises are true but the conclusion false.

Imagine the following situation: nothing is ever the efficient cause of anything. If nothing ever caused anything, then the two premises of our argument would be true, since nothing would ever be the efficient cause of anything, including itself, and there would be no infinite causal chains, since there would be no causal chains of any sort. But the conclusion would be false: there would be no causes, so there would be no first cause. Hence our argument is invalid.

If your interpretation of an argument is invalid, your first question should be: was the author assuming some extra premise which, if added to the argument, would make it valid?

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

And it is pretty clear if we look at the second sentence that the answer to this question is 'Yes.'

At least one
thing has an
efficient
cause.

Let's add this to our argument and see if it helps.

1. If something were the efficient cause of itself, it would be prior to itself.
2. Nothing is prior to itself.
3. Nothing is the efficient cause of itself. (1,2)
4. A chain of causes cannot be infinite.

C. There is a first cause. (3,4)

At least one
thing has an
efficient
cause.

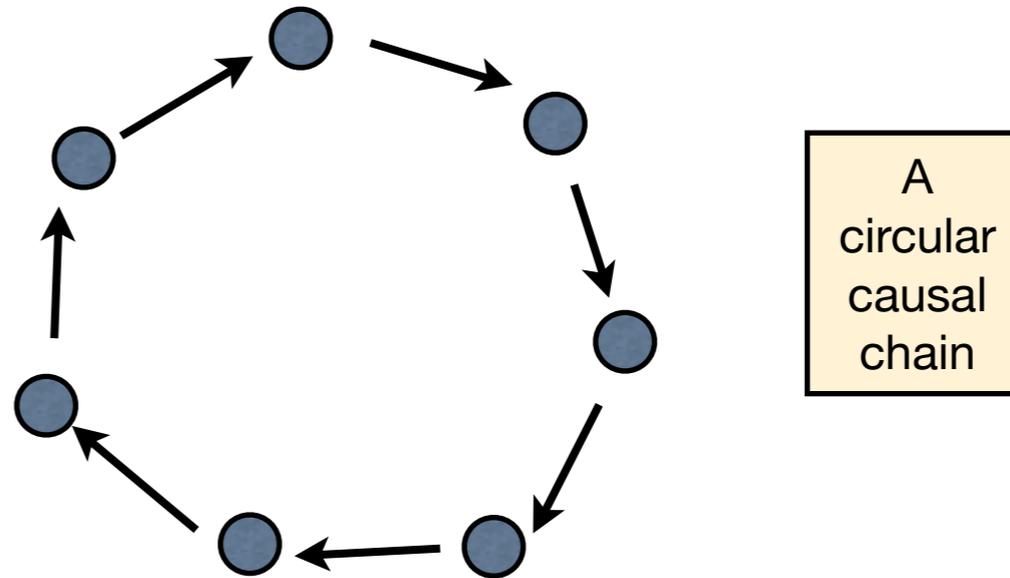
1. If something were the efficient cause of itself, it would be prior to itself.
2. Nothing is prior to itself.
3. Nothing is the efficient cause of itself. (1,2)
4. A chain of causes cannot be infinite.
5. At least one thing has an efficient cause.

C. There is a first cause. (3,4,5)

Is this argument valid?

Again, it seems not, for it seems that we can describe a situation in which the premises of our argument are true, but the conclusion false.

Let “ \rightarrow ” represent efficient causation. Then, for all we have said, a causal chain could look like this:



1. If something were the efficient cause of itself, it would be prior to itself.
2. Nothing is prior to itself.
3. Nothing is the efficient cause of itself. (1,2)
4. A chain of causes cannot be infinite.
5. At least one thing has an efficient cause.

C. There is a first cause. (3,4,5)

In this causal chain, nothing is the efficient cause of itself, since everything is caused to exist by something else; and the causal chain is not infinite, since there are a finite number of causes and effects (7 of each). So all of premises (1)-(5) are true; but there is no first cause, so the conclusion is false. Hence our argument is invalid.

However, it seems that we can again revise our argument to solve this problem.

Plausibly, when he said that nothing could be the cause of itself, Aquinas didn't just want to rule out things being the immediate cause of their own existence; he also wanted to rule out the possibility of something being one of a series of causes one of whose effects is its own existence.

One way to express this idea is as follows: let's say that if A causes B and B causes C, then A, even though not the direct cause of C's existence, A is still **causally responsible** for C's existence. And let's extend this notion of causal responsibility to cover causal chains of arbitrary length, so that if A1 causes A2, and A2 causes A3, and Ay causes Az, A1 is causally responsible for Az, no matter how long this series of causes is.

One way to express this idea is as follows: let's say that if A causes B and B causes C, then A, even though not the direct cause of C's existence, A is still **causally responsible** for C's existence. And let's extend this notion of causal responsibility to cover causal chains of arbitrary length, so that if A1 causes A2, and A2 causes A3, and Ay causes Az, A1 is causally responsible for Az, no matter how long this series of causes is.

1. If something were the efficient cause of itself, it would be prior to itself.
2. Nothing is prior to itself.
3. Nothing is the efficient cause of itself. (1,2)
4. A chain of causes cannot be infinite.
5. At least one thing has an efficient cause.

C. There is a first cause. (3,4,5)

Suppose now that we modify premises (1) and (3) of our argument to talk, not about things being the cause of themselves, but of things being causally responsible for themselves.

- 1*. If something were causally responsible for itself, it would be prior to itself.
 2. Nothing is prior to itself.
 - 3*. Nothing is causally responsible for itself. (1*,2)
 4. A chain of causes cannot be infinite.
 5. At least one thing has an efficient cause.
-
- C. There is a first cause. (3*,4,5)

Now, at last, it seems that we have a valid argument, since the following assumption seems very plausible:

Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.

Since our argument seems to depend on this assumption, we may as well make this explicit by adding it as a premise to our argument — even though it is not something which Aquinas explicitly says.

- 1*. If something were causally responsible for itself, it would be prior to itself.
 2. Nothing is prior to itself.
 - 3*. Nothing is causally responsible for itself. (1*,2)
 4. A chain of causes cannot be infinite.
 5. At least one thing has an efficient cause.
 6. Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.
-
- C. There is a first cause. (3*,4,5,6)

Does this argument show that there is **at least one** first cause, or **exactly one** first cause?

This argument seems pretty clearly valid. But it also seems pretty clearly incomplete as an interpretation of Aquinas. Why?

1*. If something were causally responsible for itself, it would be prior to itself.

2. Nothing is prior to itself.

3*. Nothing is causally responsible for itself. (1*,2)

4. A chain of causes cannot be infinite.

5. At least one thing has an efficient cause.

6. Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.

C. There is a first cause. (3*,4,5,6)

Aquinas' ultimate aim is not to argue for the existence of a first cause; his ultimate aim is to argue for the existence of God.

So the thing we have labelled as a conclusion must actually just be a (derived) premise in the overall argument.

How can we get from our argument to the conclusion that God exists?

- 1*. If something were causally responsible for itself, it would be prior to itself.
 2. Nothing is prior to itself.
 - 3*. Nothing is causally responsible for itself. (1*,2)
 4. A chain of causes cannot be infinite.
 5. At least one thing has an efficient cause.
 6. Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.
-
- C. There is a first cause. (3*,4,5,6)

How can we get from our argument to the conclusion that God exists?

The simplest way is to add a premise which Aquinas seems to assume:

If there is a first cause, then God exists.

- 1*. If something were causally responsible for itself, it would be prior to itself.
2. Nothing is prior to itself.
- 3*. Nothing is causally responsible for itself. (1*,2)
4. A chain of causes cannot be infinite.
5. At least one thing has an efficient cause.
6. Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.
7. There is a first cause. (3*,4,5,6)
8. If there is a first cause, then God exists.

C. God exists. (7,8)

This is a valid argument, and seems to be a plausible interpretation of the piece of text with which we began.

- 1*. If something were causally responsible for itself, it would be prior to itself.
2. Nothing is prior to itself.
- 3*. Nothing is causally responsible for itself. (1*,2)
4. A chain of causes cannot be infinite.
5. At least one thing has an efficient cause.
6. Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.
7. There is a first cause. (3*,4,5,6)
8. If there is a first cause, then God exists.

C. God exists. (7,8)

But who cares whether this is a valid argument for the conclusion that God exists? What we care about is whether the conclusion is true - and to be sure of that, we need to know that the argument is sound. Validity is only half the puzzle; the premises also have to be true.

- 1*. If something were causally responsible for itself, it would be prior to itself.
2. Nothing is prior to itself.
- 3*. Nothing is causally responsible for itself. (1*,2)
4. A chain of causes cannot be infinite.
5. At least one thing has an efficient cause.
6. Every causal chain must be (i) circular, (ii) infinite, or (iii) have a first cause.
7. There is a first cause. (3*,4,5,6)
8. If there is a first cause, then God exists.

C. God exists. (7,8)

Suppose that someone objected to the argument by saying that, while it is valid, it has a single false premise — premise (7).

Why would this be confused?

So to defend Aquinas' argument, we just need to defend its **independent** premises — (1*), (2), (4), (5), (6), and (8).

Which of these look the most questionable?

I suggest that we focus in
on premises (4) and (8).

4. A chain of
causes
cannot be
infinite.

8. If there is a first
cause, then God
exists.

4. A chain of causes cannot be infinite.

You might remember that I said that Aquinas gave us an argument for (4), which is expressed in the passage highlighted in yellow.

The second way is from the nature of efficient cause. In the world of sensible things we find there is an order of efficient causes. There is no case known (neither, indeed, is it possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause ... Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate, cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first cause, to which everyone gives the name of God.

4. A chain of causes cannot be infinite.

Aquinas says that if you take away the first cause from a causal chain, you thereby take away every subsequent cause; hence if the first cause of every actual causal chain had been taken away, there would be no caused things in existence. But, as he says, this is “plainly false” - there are caused things in existence, so the first cause of every causal chain must not have been taken away.

The problem with this argument is not that anything Aquinas says is incorrect; the problem is that the argument is simply misdirected. Infinite causal chains are not finite causal chains whose first link has been erased; they are causal chains in which every link is preceded by another. So, as far as I can tell, Aquinas does not succeed in giving a very convincing defense of premise (4) of his argument.

4. A chain of
causes
cannot be
infinite.

But even if Aquinas' defense of (4) is unsuccessful, (4) might still be true. Can you think of any way to argue for it?

A potential argument for (4): the paradox of Thomson's lamp.

What do you think? Can there be infinite causal chains?

8. If there is a first cause, then God exists.

Let's turn to premise (8). Here is one hypothesis which would seem to falsify (8):

The first event in the history of the universe was an explosion of an extremely dense collection of particles, with every particle moving apart from every other particle. This event had no cause - in particular, no intelligent being set it into motion - and, further, every subsequent event has been an effect of this event.

This would appear to be a description of a world in which there is a first cause, but God does not exist. So it looks as though, if we are to believe (8), we must have some reason for rejecting the above hypothesis.

8. If there is a first
cause, then God
exists.

Might one defend (8) by saying that this hypothesis is impossible, on the grounds that there can't be an uncaused cause, like the explosion of particles described?

One might say instead that this hypothesis must leave something out. For surely the Big Bang could have failed to occur. Hence there must be some explanation of why it did occur. And what could provide that explanation other than God?

That is just a quick sketch of an argument. To make it precise, we would need to make explicit some of the assumptions about possibility and explanation on which it depends. That will be our task next time.