Aquinas' Second Way

Today we begin our discussion of the existence of God.

The main philosophical problem about the existence of God can be put like this: is it possible to provide good arguments either for or against the existence of God? We will be considering a few traditional arguments for the existence of God, and the main argument against the existence of God, the 'argument from evil.'

The main positions on the question of the existence of God are three:

- **Theism**, the belief that God exists.

- **Atheism**, the belief that God does not exist.

- **Agnosticism**, not believing that God exists and not believing that God does not exist.

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The connection of these three positions to arguments for the existence of God is not entirely straightforward.

For example, suppose that we do not find any good arguments for God's existence. Does that show that theism is false?

Or suppose that we do not find any good arguments against God's existence. Does that show that atheism is false?

There are harder questions in the vicinity as well. Suppose again that we do not find any good arguments for God's existence. Does that show that belief in God is *irrational*, or *baseless*?

Or suppose that we do not find any good arguments against God's existence. Does that show that atheism is irrational?

Questions like these are not easy to answer. We will return to these, and questions like them, later in the course.

For now, our job is a bit simpler. We will be interested, at first, only in this question: **Is there any good argument for theism?**

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But even raising this question can seem problematic. Some people are inclined to object to considering arguments for and against the existence of God on the following grounds:

> "Belief in God is a matter of faith, not of reason. So it is not the sort of thing that we should be arguing about -- the whole point of belief in God is that you should believe it without needing any evidence or arguments!"

There are a few things to be said against this line of thought.

1. Even if you think that belief in God should be a matter of faith, it is not obvious that faith and reason have to be opposed in the way that the objection assumes. In particular, it might be the case that one ought to believe in God whether or not one understands any good arguments for God's existence, but that it is still worthwhile to look for good arguments. So, for example, many medieval philosophers took as the motto of their philosophical investigations "faith seeking understanding": not as giving up faith in God, but as seeking a deeper understanding of the object of that faith.

2. Whether or not you think that faith in God needs to be bolstered by argument, it seems plausible that the theist should at least be able to respond to arguments for atheism. Even if rationality permits belief without argument, it seems to require the ability to respond to objections.

3. It is also at least worth considering the view that we should think about the existence of God in just the way we think about the existence of anything else. You wouldn't believe in, for example, the existence of a 10th planet in the solar system without some evidence; so it is worth asking why belief in the existence of God should be any different. And if there really is no difference between these cases, then it seems that best place to start thinking about whether we should or should not believe in God are the arguments that have been offered through the centuries for and against God's existence.

For now, our job is a bit simpler. We will be interested, at first, only in this question: **Is there any good argument for theism?**

Three of the arguments for the existence of God which we'll be discussing are among the proofs of God's existence offered by St. Thomas Aquinas. Thomas offered 5 proofs for God's existence; of the two which we will not be discussing, one is the topic of your first paper.

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.

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Aquinas' second way

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 is it, indeed, 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, whether the intermediate cause be several, or one only. 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 efficient cause, to which everyone gives the name of God.

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But identifying Aquinas' premises is not just a matter of identifying the sentences which express the assumptions required by his argument; we also need to understand what those sentences mean.

To understand what those sentences mean, we need to understand the terms Aquinas uses. And some of those terms might seem a bit confusing.

An important example is "efficient cause." It seems to be a key term in the argument, but it is likely not a term with which you are familiar.

But the way in which Aquinas uses the term gives us some clues. In some places, he replaces "efficient cause" with just plain "cause." This indicates that being an efficient cause of something must be closely related to being the cause of something; perhaps an efficient cause is one sort of cause.

In ordinary terms, for x to be the **cause of** y is for x to **bring about** y, or to **explain** y. A good initial strategy seems to be to understand "efficient cause" in this way, and see if we can use this understanding to reconstruct Aquinas' argument.

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With this in hand, let's return to the task of identifying the premises of Aquinas' argument.

The first key premise seems to be given by the passage outlined in red.

Here Aquinas seems to be asserting this premise:

Nothing is the efficient cause of itself.

But it does not seem that he is asserting this as an independent premise; just after saying this, after all, he gives a short argument for this.

This argument seems to include the following two premises:

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

Nothing can be prior to itself.

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The next key premise comes in the next sentence:

A chain of causes cannot be infinite.

Following the assertion of this premise comes a long clause which begins with "because" - which indicates that Aquinas is about to give an argument for this premise.

We will return to the interpretation of this long argument for the conclusion that causal chains cannot be infinite. But let's set this aside for now and try to think about how the argument as a whole is supposed to fit together.

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

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Immediately after his discussion of infinite causal chains, Aquinas asserts the following:

There is a first cause.

The fact that he prefaces this with the word "therefore" indicates that he thinks that this conclusion follows from other stuff he has said.

A natural thought is that this is supposed to follow from the other two main premises we have discussed.

If this were right, then the following argument would be valid:

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

Nothing can be prior to itself.

Nothing is the efficient cause of itself.

A chain of causes cannot be infinite.

If this were right, then the following argument would be valid:

> Nothing is the efficient cause of itself.
> A chain of causes cannot be infinite.
> _____
> There is a first cause.

Is this argument valid?

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.

However, this objection is easily met. We can block this objection by simply adding a premise to our argument:

At least one thing has an efficient cause.

This is probably what Aquinas has in mind when he says at the beginning, "There is an order of efficient causes."

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

Nothing can be prior to itself.

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A chain of causes cannot be infinite.

So perhaps we should modify our argument as follows:

At least one thing has an efficient cause.
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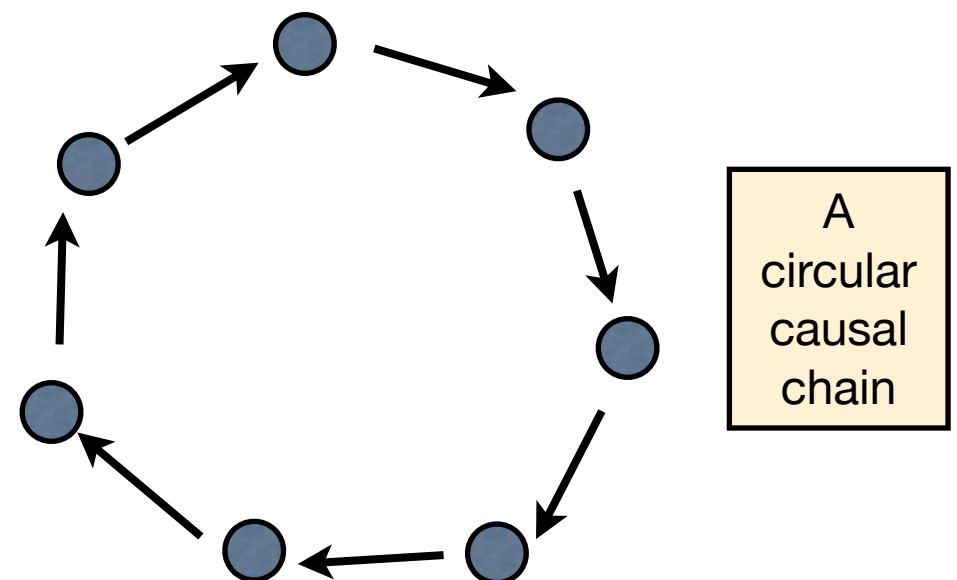Nothing is the efficient cause of itself.

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There is a first cause.

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 "→" represent efficient causation. Then it seems like a causal chain could look like this:

A circular causal chain

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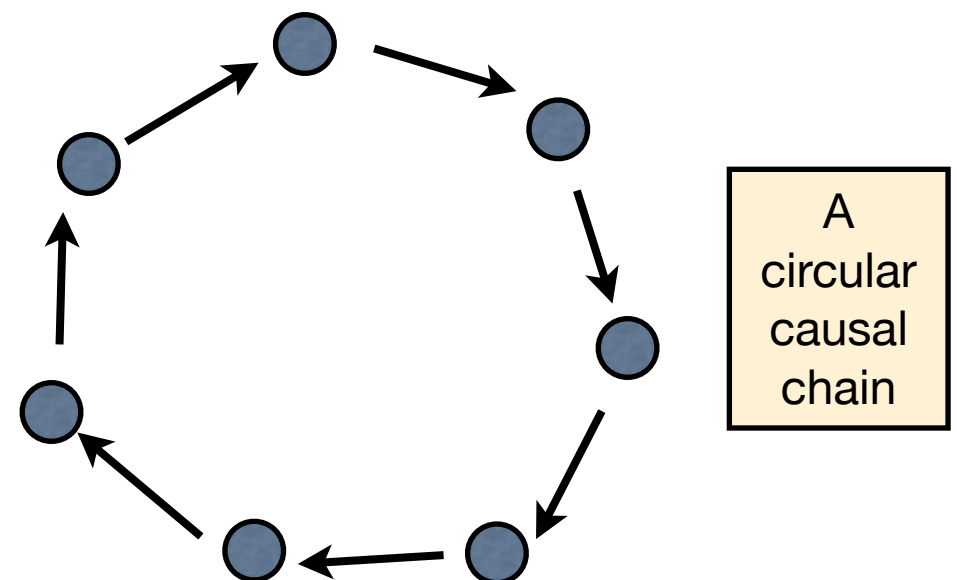A chain of causes cannot be infinite.
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Again, it seems not, for it seems that we can describe a situation in which the premises of our argument are true, but the conclusion false.

Let "→" represent efficient causation. Then it seems like a causal chain could look like this:

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 the premises of the above argument are both true; but there is no first cause, so the conclusion is false. Hence our argument is invalid.

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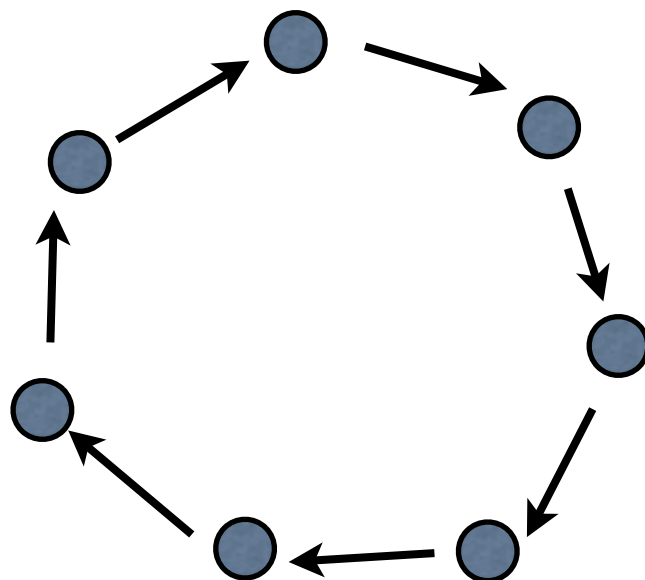
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Nothing is the efficient cause of itself.
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———————————————————————
There is a first cause.

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, 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 ..... Ax causes Ay, A1 is causally responsible for Ay, no matter how long this series of causes is.

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That is, the following claim seems plausible:

Every causal chain must either be circular, or infinite, or it has a first cause.

If this is true, then if we know that there is a causal chain (as the first premise above says), and if we know that chain is not circular (as the second premise above says) and that it is not infinite (as the third premise says) then we know that there is a first cause (as the conclusion says).

With this in mind, let's consider the following revised version of the argument:

At least one thing has an efficient cause.
Nothing is either the efficient cause of itself, or is causally responsible for itself.
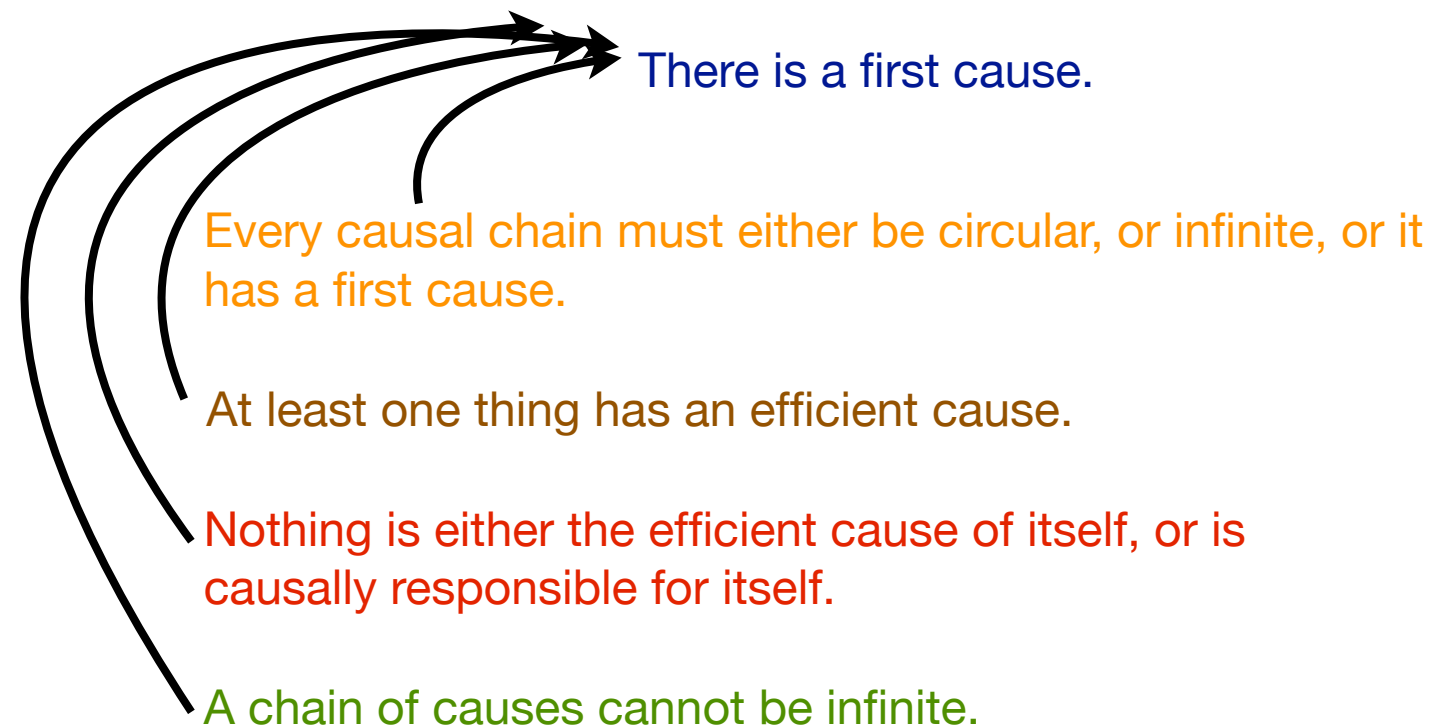A chain of causes cannot be infinite.

_____

There is a first cause.

Is **this** version of the argument valid?

It seems plausible that it is, because the following line of thought seems plausible: every causal chain must either be circular or non-circular; and if it is non-circular, then there is some chain of causes, none of which is the cause of itself. But this chain must either come to an end, or not. If it does not, then the causal chain must be infinite. And if it does, there is a first cause.

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So we might think of our argument as having the following structure:

There is a first cause.

Every causal chain must either be circular, or infinite, or it has a first cause.

At least one thing has an efficient cause.

Nothing is either the efficient cause of itself, or is causally responsible for itself.

A chain of causes cannot be infinite.

So it looks like we have a valid argument for the existence of a first cause. But of course we are not just interested in the question of whether Aquinas' argument is valid; we also want to know whether it is sound. So we want to know: are his premises true?

We have already discussed some reason for thinking that every causal chain must be circular, or infinite, or have a first cause; and it is hard to deny that some things are caused to exist. So attention naturally focuses on the last two premises above.
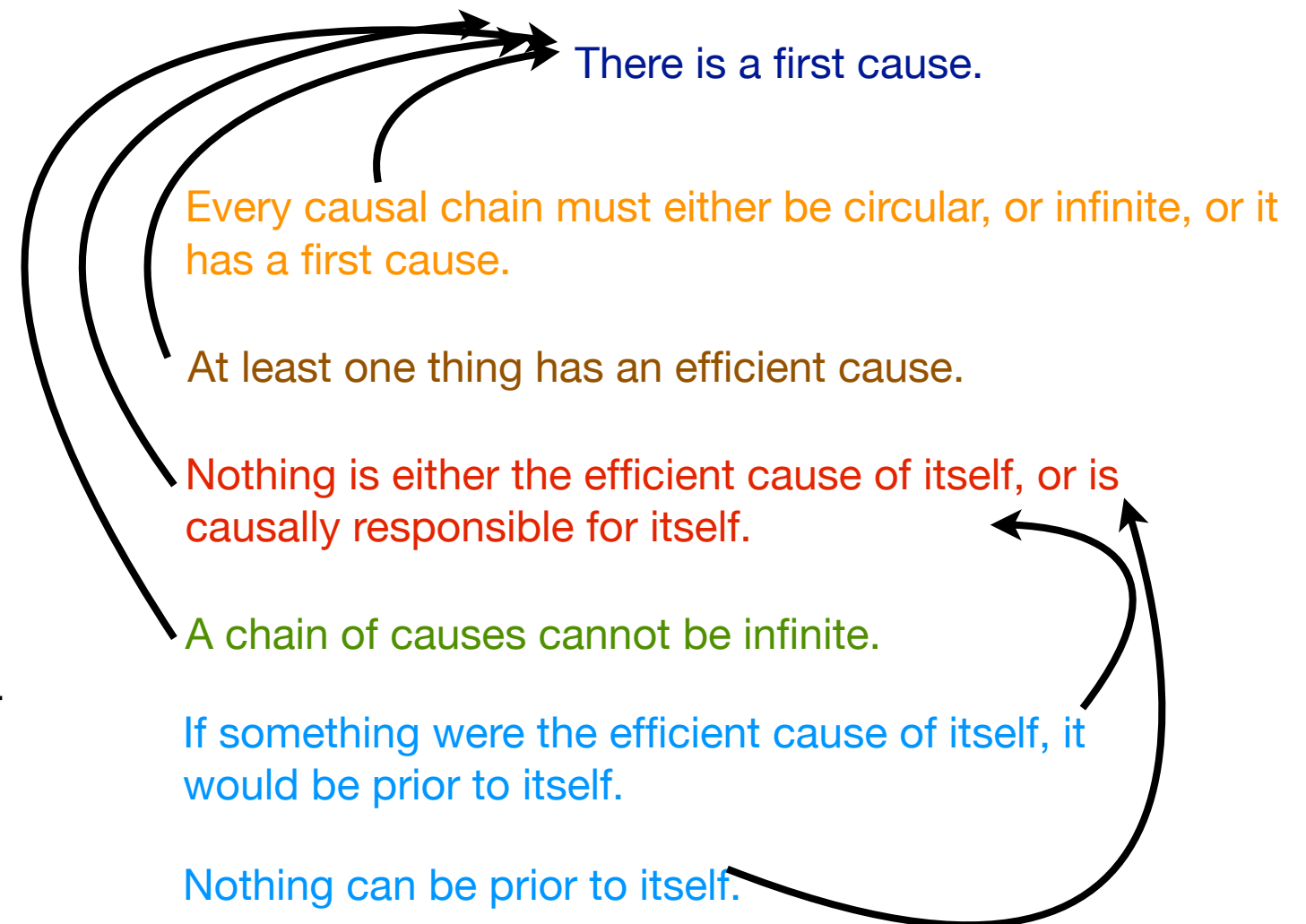
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If something were the efficient cause of itself, it would be prior to itself.

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We have already discussed some reason for thinking that every causal chain must be circular, or infinite, or have a first cause; and it is hard to deny that some things are caused to exist. So attention naturally focuses on the last two premises above.

But we've already seen that Aquinas has an argument for the claim that nothing can be the efficient cause of itself.

Now, remember that we have modified this premise to say that nothing is either the efficient cause of itself **or is causally responsible for itself**. You might want to think about whether our modified premise still follows from the two premises in blue.

Our argument is starting to take shape. Now might be a good time to organize it into premise/conclusion form.

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

We're making progress. We've got a valid argument, and we have seen that there's good reason to believe that premises 1, 2, 3, and 4 are true. So the only independent premise - that is, the only premise which does not follow from other premises - which remains to discuss is premise 6.

If we can conclude that premise 6 is true, then we can conclude that our argument is sound, and hence that its conclusion is true.

So is premise 6 true?

It does not seem to be obviously true; so let's investigate Aquinas' defense of this premise.

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, whether the intermediate cause be several, or one only. 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.

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It is not altogether obvious how this argument is supposed to work; but on at least one interpretation, the argument seems to be unconvincing.

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C. There is a first cause. (1,2,5,6)

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 6 of his argument.

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6. A chain of causes cannot be infinite.
   _____
C. There is a first cause. (1,2,5,6)

It might seem at this point that things look pretty bad for premise 6. After all, the notion of an **infinite series** certainly makes sense; we all seem to understand the idea of a natural number, but the series of natural numbers

0, 1, 2, 3, 4, …

is an infinite series. So the burden seems to be on Aquinas to show why an infinite causal series does not make sense.

One attempt to show this is the example of "Thomson's lamp": a lamp which is turned on and off an infinite number of times between 3:00 and 4:00 one afternoon. The infinite series of events then can be represented as follows:

on, off, on, off, on, off ....

and so on, without end. Because there is no end to the series, every "on" is followed by an "off", and every "off" is followed by an "on."

At 4:01, is the lamp on or off?

It seems that at 4:01 the lamp can be neither on nor off. But this is absurd; there is no other state for the lamp to be in.

This seems to show that there cannot be an infinite series of events **in a finite time**; so this would not, even if the argument were successful, show that infinite causal chains are impossible in an infinitely old universe. How might one argue that the universe is finite in age?

It is far from obvious that this defense of premise 6 is successful. But it shows the sort of argument that might be given on its behalf.

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

Let's grant premise 6 for the time being. If premise 6 is true, does this show that Aquinas has succeeded in giving a sound argument for the claim that God exists?

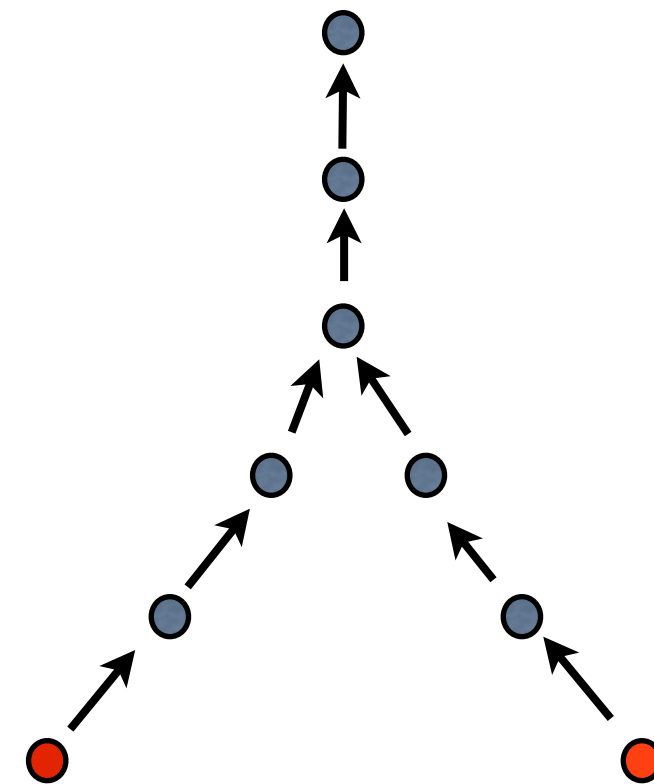There are at least two further complications before that conclusion can be reached.

The first complication can be brought out by pointing out that nothing in the argument rules out the existence of a chain of causes with this structure:

This would be a non-infinite causal chain in which nothing is causally responsible for its own existence; but there are two uncaused causes in this chain, not one.

Since the idea that the chain of causes has this shape is consistent with everything in Aquinas' argument, it looks like that argument, strictly speaking, only can be taken to show that there is **at least one** first cause.

This might seem to make no sense - how could there be more than one **first** cause?

But remember that in this argument, "first cause" just means "uncaused cause" - or, "something which causes other things to exist but was not itself caused to exist." And there appears to be no contradiction in the idea of there being more than one uncaused cause.

1. At least one thing has an efficient cause.

2. Every causal chain must either be circular, or infinite, or it has a first cause.

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

4. Nothing can be prior to itself.

5. Nothing is either the efficient cause of itself, or is causally responsible for itself. (3,4)

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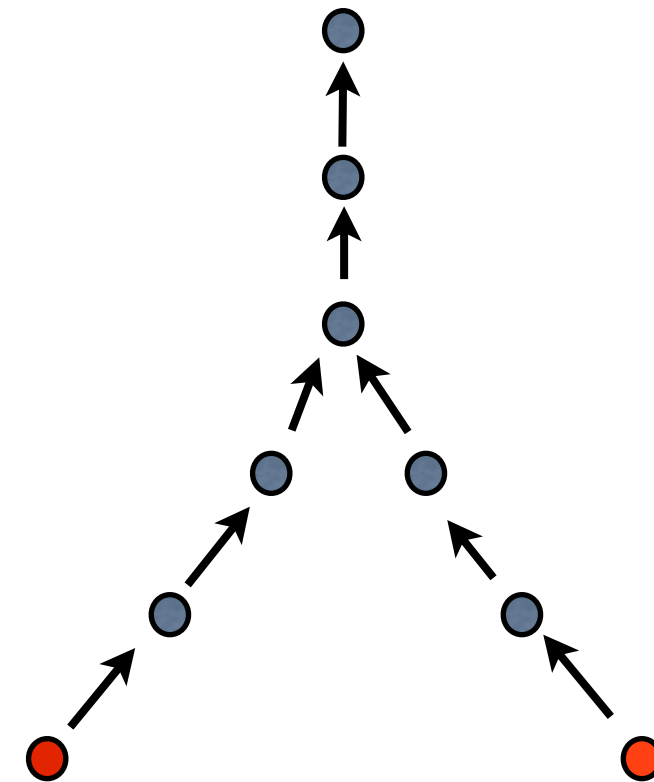   _____

C. There is a first cause. (1,2,5,6)

Let's grant premise 6 for the time being. If premise 6 is true, does this show that Aquinas has succeeded in giving a sound argument for the claim that God exists?

There are at least two further complications before that conclusion can be reached.

The first complication can be brought out by pointing out that nothing in the argument rules out the existence of a chain of causes with this structure:

What this means is that, even if Aquinas' argument is a sound argument for theism, it is not a sound argument for **mono**theism. That is, it shows that there is at least one God, not that there is exactly one God.

Given that polytheism is not such a popular position these days, that might not seem to be such an important flaw. But there is a further problem with the argument worth considering.

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6. A chain of causes cannot be infinite.
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C. There is a first cause. (1,2,5,6)

Given that polytheism is not such a popular position these days, that might not seem to be such an important flaw. But there is a further problem with the argument worth considering.

This problem is really a shortcoming in the formalization of the argument we have given so far. The problem is very simple: Aquinas is clearly trying to argue that God exists, whereas our argument represents him as arguing only that an uncaused cause exists.

Of course, Aquinas thinks that there is a connection between these topics. The last sentence of the second way says:

"therefore it is necessary to admit a first efficient cause, to which everyone gives the name of God."

This indicates that Aquinas endorses the following assumption: if there is a first cause, then God exists. An accurate representation of Aquinas' argument should therefore include this premise.

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2. Every causal chain must either be circular, or infinite, or it has a first cause.
3. If something were the efficient cause of itself, it would be prior to itself.
4. Nothing can be prior to itself.
5. Nothing is either the efficient cause of itself, or is causally responsible for itself. (3,4)
6. A chain of causes cannot be infinite.
7. There is a first cause. (1,2,5,6)
8. If a first cause exists, then God exists.

C. God exists. (7,8)

This is a description of the way that the universe could be, according to which there is a cause of the existence of things which was not itself caused to occur. But would it be reasonable to say that, if this picture of the universe is true, God exists?

It seems not. After all, if this view were correct, what would God be -- the event of the Big Bang? The condensed matter which exploded in the Big Bang? Either way, God would no longer exist. Moreover, these things lack too many of the attributes central to our conception of God -- such as, for example, personhood, intelligence, love, and moral goodness.

What was the conclusion becomes premise 7, and we introduce a new premise 8 to give us a valid argument for the intended conclusion that God exists.

But now we can ask: is premise 8 true?

A plausible argument can be given that there is no good reason to believe that this premise is true. Consider, for example, the following (obviously, oversimplified) statement of Big Bang theory of the origins of the universe:

The big bang

The first event in the history of the universe was an explosion of a 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.

Here is a reply which some have suggested on Aquinas's behalf.

Perhaps Aquinas is not talking about a **temporal** series of causes of existence; some indication of this is given by the fact that Aquinas did not think that we could know on the basis of reason that the age of the universe was finite.

Perhaps when Aquinas talks about causes in this argument, he is talking about **sustaining** causes. The sustaining cause of something is not just what "starts off" its existence; it is also what keeps it in existence over time.

Consider DeBartolo Hall, from one moment to the next. It is surely *possible* that it go out of existence at any moment (even if, fortunately, quite unlikely). So why doesn't it? What is the explanation of the fact that DeBartolo Hall continues to exist?

It seems as though any explanation to which one appeals will be such that we can ask the same questions about it - unless that something is such that it couldn't fail to exist. Perhaps such a thing **would** really deserve the name "God."

To give this sort of response to our worries about premise 8, we would have to make explicit some of the assumptions about possibility, necessity, and explanation we just made. That will be our task next time.

PHIL 10100: First draft of mini-paper

due: in discussion sections, January 22

At right is the text of one of Aquinas' arguments for the existence of God that we will not be discussing in class. For the first draft of your first paper, you must do just one thing:

Give an analysis of this argument in premise/conclusion form. The argument you construct must be valid, and should have as its conclusion "God exists." If some premises follow from other premises, you should make this clear.

That is really and truly all that you should do. Do not write an introductory paragraph, a concluding paragraph, include a works cited page, etc. Just a valid argument in premise/conclusion form. You should type the paper.

A few tips: (1) the premises should be in your own words, not Aquinas' (just as we put his "first cause" argument in class in our own words); (2) make sure that you note which premises follow from which other premises; (3) makes sure that every premise of your argument is used to get to the conclusion; (4) if you are not sure whether your argument is valid, add a premise which will make it clearly valid.

This draft will not be graded. Your TA will give you comments on the draft and return it to you; you will then submit a second, revised draft for a grade.

The first and more manifest way is the argument from motion. It is certain, and evident to our senses, that in the world some things are in motion. Now whatever is moved is moved by another, for nothing can be moved except it is in potentiality to that towards which it is moved; whereas a thing moves inasmuch as it is in act. For motion is nothing else than the reduction of something from potentiality to actuality. But nothing can be reduced from potentiality to actuality, except by something in a state of actuality. Thus that which is actually hot, as fire, makes wood, which is potentially hot, to be actually hot, and thereby moves and changes it. Now it is not possible that the same thing should be at once in actuality and potentiality in the same respect, but only in different respects. For what is actually hot cannot simultaneously be potentially hot; but it is simultaneously potentially cold. It is therefore impossible that in the same respect and in the same way a thing should be both mover and moved, *i.e.*, that it should move itself. Therefore, whatever is moved must be moved by another. If that by which it is moved be itself moved, then this also must needs be moved by another, and that by another again. But this cannot go on to infinity, because then there would be no first mover, and, consequently, no other mover, seeing that subsequent movers move only inasmuch as they are moved by the first mover; as the staff moves only because it is moved by the hand. Therefore it is necessary to arrive at a first mover, moved by no other; and this everyone understands to be God.