

Free will &  
foreknowledge,  
continued

Let's pick up where we left off, with Epictetus' exposition of the Master Argument of Diodorus Cronus.



A different interpretation would be that Aristotle had in mind an argument often attributed to another Greek philosopher during the 4th century B.C., Diodorus Cronus, which in antiquity was called the “Master Argument.”

Little is known of the life of Cronus, and none of his writings survive. But the Master Argument was much discussed in antiquity; one important summary of the argument was given by Epictetus, a Greek philosopher who lived in the 1st and 2nd centuries A.D., in his *Discourses*.

The argument . . . appears to have been proposed from such principles as these: there is in fact a common contradiction between one another in these three positions, each two being in contradiction to the third. The propositions are, that everything past must of necessity be true; that an impossibility does not follow a possibility; and that something is possible which neither is nor will be true. Diodorus observing this contradiction employed the probative force of the first two for the demonstration of this proposition, "That nothing is possible which is not true and never will be."



Epictetus isolates three propositions:

- E1. Everything past is necessary.
- E2. An impossibility cannot follow from a possibility.
- E3. Something is possible which is not and will not be true.

According to Epictetus, Diodorus tried to show that E1 and E2 imply the falsity of E3. What would it mean for E3 to be false? If it is not true that something is possible which is not and will not be true, it follows that everything which is and will be true is necessary - which is just the conclusion for which Aristotle aimed.

Our question then is: how can E1 and E2 be used to show that the future is necessary?

E1. Everything past is necessary.

E2. An impossibility cannot follow from a possibility.

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Our question then is: how can E1 and E2 be used to show that the future is necessary?

A good way to approach this question is by recalling the first premise of Aristotle's argument:

1. Either it is true that E will happen, or it is true that E will not happen.

Recall that Aristotle argued that denying this led to contradiction; so this claim must be not just true at the present moment, but also true at every moment, since truths of logic are eternally true. So the following must be true:

PAST-1. In the past it was either true that E will happen, or it was true that E will not happen.

PAST-1, together with Epictetus' claim E1, seems to imply:

NEC-1. Either it is necessary that it is true that E will happen, or it is necessary that it is true that E will not happen.

But we now have the makings of an argument for the conclusion of the argument Aristotle discussed. Consider premises 2 and 3 of Aristotle's argument, under interpretation 2A:

2A. It is necessary that: if it is true that E will happen, then E will happen.

3A. It is necessary that: if it is true that E will not happen, then E will not happen.

## An interpretation of the Master Argument of Diodorus Cronus

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E1. Everything past is necessary.

NEC-1. Either it is necessary that it is true that E will happen, or it is necessary that it is true that E will not happen.

2A. It is necessary that: if it is true that E will happen, then E will happen. (PAST-1, E1)

3A. It is necessary that: if it is true that E will not happen, then E will not happen.

---

C. Either it is necessary that E will happen, or it is necessary that E will not happen. (NEC-1, 2A, 3A)

This argument is quite similar to the argument we found in Aristotle. It has exactly the same conclusion, and uses two of the same premises (on one interpretation), 2A and 3A. But this argument seems to succeed where Aristotle's failed, because of two additions.

These are, first, premise E1, which says that the past is necessary, and, second, that the first premise assumes not just that either it is true that E will happen or that E will not happen, but that this was also true in the past. (This is the difference between premise 1 in Aristotle's argument and PAST-1 above.)

The second assumption seems quite plausible. How about the first assumption, that the past is necessary?

This might at first seem odd; couldn't you have decided to skip class today? And doesn't this mean that a certain past event, namely your coming to class, is not necessary?

It certainly seems to. But when the ancients used "necessary" in arguments of this sort, they meant something a little broader than we have meant. They meant something like: "outside of my control" or "true no matter what I do." On this interpretation, it looks like E1 is quite plausible - for just the reasons discussed in connection with van Inwagen's consequence argument.

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2A. It is necessary that: if it is true that E will happen, then E will happen. (PAST-1, E1)

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C. Either it is necessary that E will happen, or it is necessary that E will not happen. (NEC-1, 2A, 3A)

So it seems that we have good reason to believe PAST-1, E1, 2A, and 3A - and these are all of the independent premises in the argument. But remember the worry we had about Aristotle's argument using 2A and 3A: the worry there was not that a premise was false, but that the argument was **invalid**. Does the conclusion of the Master Argument really follow from NEC-1, 2A, and 3A?

This last step of the argument seems to be of this form:

Necessarily P or necessarily Q

Necessarily (if P then R)

Necessarily (if Q then S)

---

Necessarily R or necessarily S

Is this valid? How might you argue that it is, or is not?

How about the earlier step from PAST-1 and E1 to NEC-1? Does its being true in the past that either P or Q imply that either P was true in the past or the Q was true in the past? Does this matter?

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C. Either it is necessary that E will happen, or it is necessary that E will not happen. (NEC-1, 2A, 3A)

The Master Argument seems to provide a serious challenge to the reality of free will - and one which only assumes that the past is out of our control, along with some plausible-seeming logical principles.

It is hard to know how to respond to this argument. It appears valid, and it has only four independent premises: PAST-1, E1, and 2A and 3A. 2A and 3A seem trivially true. This means that if we want to defend the reality of free will, we have just two options.

First, we can deny premise E1: **we can say that, in at least some cases, we have control now over how things were in the past.** We'll consider this line of reply further below.

Second, **we can deny that there are any truths about the future.** In the context of the above argument, this involves denying the first premise, PAST-1.

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But remember the defense we considered of premise 1 of Aristotle's argument:

|   |   |                      |
|---|---|----------------------|
| 1 | Not (it is true that E will happen or it is true that E will not happen)      | assumed for reductio |
| 2 | If Not (p or q) then Not-p and Not-q  |                      |
| 3 | Not (it is true that E will happen) & Not (it is true that E will not happen) | 1, 2                 |
| 4 | It is not true that E will happen & it is not true that E will not happen     | 3                    |
| 5 | If it is not true that E will not happen, then it is true that E will happen  |                      |
| C | It is not true that E will happen & it is true that E will happen             | 4, 5                 |

But the same sort of argument can be given in favor of PAST-1:

|   |   |                      |
|---|---|----------------------|
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| 2 | If Not (p or q) then Not-p and Not-q  |                      |
| 3 | Not (it was true in the past that E will happen) & Not (it was true in the past that E will not happen) | 1, 2                 |
| 4 | It was not true in the past that E will happen & it was not true in the past that E will not happen     | 3                    |
| 5 | If it was not true in the past that E will not happen, then it was true in the past that E will happen  |                      |
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| 5 | If it was not true in the past that E will not happen, then it was true in the past that E will happen  |                         |
| C | It was not true in the past that E will happen & it was true in the past that E will happen.            | 4, 5                    |

However, let's think a bit more closely about this style of argument. In particular, let's think about premise 5.

If we deny that there are any truths about the future, we should not, it seems, begin to think that every claim about the future is for that reason **false**. After all, if the claim that E will happen is false, then it seems to follow that E will not happen - but this, just as much as the claim that E will happen, is a claim about the future.

Rather, it seems, we should think of claims about the future as simply lacking a truth-value - as "indeterminate." If we think of them this way, then it seems that we should reject the rule of classical logic known as the **Law of the Excluded Middle** - which says that for any proposition P, either P or not-P must be true.

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Rather, it seems, we should think of claims about the future as simply lacking a truth-value - as “indeterminate.” If we think of them this way, then it seems that we should reject the rule of classical logic known as the **Law of the Excluded Middle** - which says that for any proposition P, either P or not-P must be true.

And if we give up the Law of the Excluded Middle, we will want to reject the idea that not-not-P implies P - the rule of **double-negation elimination**. This has two consequences for the proposed reductio argument in favor of PAST-1.

First, and more simply, if we reject double-negation elimination, then we can reject premise 5.

Second, if we reject double-negation elimination, then reductio ad absurdum is not, in general, a legitimate form of argument. Can you see why? (Think of a reductio argument as an attempt to show that P is true by showing that not-P is not true.)

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Thus it seems that we can escape the Master Argument against the possibility of free will if we are willing to give up the idea that there are truths about the future (and, in so doing, also give up the Law of the Excluded Middle).

It is worth noting a connection between this sort of response to the Master Argument and an argument we have already discussed: McTaggart's proof of the unreality of time. Remember that in response to that argument, we saw that one possible view was to adopt a B-theory of time, and deny that there are any simple properties of being past, present, or future (other than past, present, or future, relative to a certain time in the B-series). If we adopt this view, then it does not seem as though we can deny that there are any truths about the future while accepting that there are truths about the past and present.

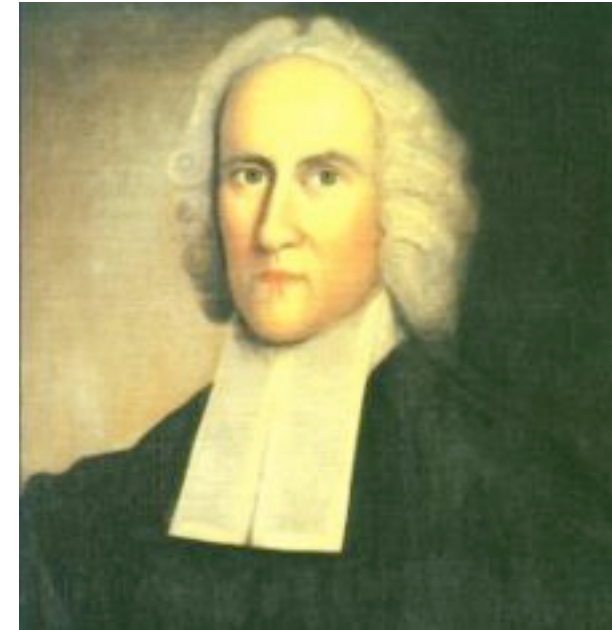
Further, this sort of response to the challenge fate poses to free will runs into an obvious complication in a theological setting. After all, a traditional attribute of God is omniscience - and this is taken to include knowledge of the future, including future human free actions. But if God **knows** things about the future, doesn't it follow that there must be **truths** about the future? And, if so, it looks like PAST-1 will be true, leaving us without a response to the Master Argument.

In fact, matters are worse than this. As Jonathan Edwards shows in the reading for today, divine foreknowledge raises its own problems for the possibility of free will.

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Edwards was an 18th century American philosopher, theologian and preacher, perhaps best known now for his sermon, “Sinners in the Hands of An Angry God.”

Edwards lays out his argument in four numbered paragraphs, each of which corresponds to a premise in his argument. The first is this one:



1. I observed before, in explaining the nature of necessity, that in things which are past, their past existence is now necessary: having already made sure of existence, it is too late for any possibility of alteration in that respect: it is now impossible that it should be otherwise than true that that thing has existed.

In other words:

1. We have no choice about past events.



## Edwards' argument for the incompatibility of free will and divine foreknowledge

1. I observed before, in explaining the nature of necessity, that in things which are past, their past existence is now necessary: having already made sure of existence, it is too late for any possibility of alteration in that respect: it is now impossible that it should be otherwise than true that that thing has existed.

1. We have no choice about past events.

2. If there be any such thing as a divine foreknowledge of the volitions of free agents, that foreknowledge, by the supposition, is a thing which already has, and long ago had, existence; and so, now its existence is necessary; it is now utterly impossible to be otherwise than that this foreknowledge should be, or should have been.

What is Edwards saying here?

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Premises 1 and 2 of Edwards' argument obviously imply a further claim about the status of God's foreknowledge of our actions.

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1. We have no choice about past events.

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3. It is also very manifest, that those things which are indissolubly connected with other things that are necessary, are themselves necessary. As that proposition whose truth is necessarily connected with another proposition, which is necessarily true, is itself necessarily true. To say otherwise, would be a contradiction:

As elsewhere, Edwards is using "necessary" to mean, in part "beyond our control" or "something we don't have any choice about." If we focus on this, then Edwards' point here looks very similar to one of the key premises in the consequence argument for the incompatibilism of free will and determinism: the no choice principle.

4. If we have no choice about p, and no choice about the fact that if p, then q, then we have no choice about q.



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There is one more premise in Edwards' argument which needs discussion.

## Edwards' argument for the incompatibility of free will and divine foreknowledge

1. We have no choice about past events.
2. In the past, God had foreknowledge of our future actions.
3. We have no choice about God's knowing that in the future I will perform a certain action. (1,2)
4. If we have no choice about p, and no choice about the fact that if p, then q, then we have no choice about q.

4. It is no less evident, that if there be a full, certain, and infallible foreknowledge of the future existence of the volitions of moral agents, then there is a certain infallible and indissoluble connexion between those events and that foreknowledge; and that therefore, by the preceding observations, those events are necessary events;

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Edwards is saying that there is an **indissoluble** connection between something being known, and its being true. An indissoluble connection is one that cannot be broken - i.e., a connection which is impossible to break. Another way to put this is to say that the connection between something being known and its being true is a necessary one.

For our purposes, what is important is that **if something is a necessary truth, it is not something that we have any choice about**. We don't, for example, have any choice about the fact that there are no round squares -- and this is precisely because it is impossible for there to be any round squares. And this is just another way of saying that it is a necessary truth that there aren't any.

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So let's suppose we grant Edwards' claim that

Necessarily, if someone knows that p, then p.

It seems to follow from this, given what we have just said, that the following is also true:

5. We have no choice about the fact that if God knows that we will perform some action, then we will perform that action.



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But now focus on premises 3, 4, and 5.

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But now focus on premises 3, 4, and 5.

Premise 3 mentions something that we have no choice about.

Premise 5 says that if we have no choice about that thing, then we have no choice about our future actions.

Premise 4 says that if both those things are the case, then we also have no choice about our future actions.

Therefore, it seems to follow from premises 3-5 that:

C. We have no choice about whether we will perform some future action.

But of course, if this is true, then we have no free will.

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C. We have no choice about whether we will perform some future action.

This argument is similar in form to the consequence argument. In that argument we assumed that determinism is true and derived the result that we have no choice about future actions. That argument, if successful, established the conditional claim that **if** determinism is true, **then** we have no free will.

In **this** argument we assume not that determinism is true, but rather that God knows what actions we will perform in the future. From this assumption we derived the result that we have no choice about future actions. **So this argument, if successful, establishes the conditional claim that if God knows of our future actions, then we have no free will.**

Most traditional Christian views, as well as the views of many other religions, hold both that we have free will, and that God knows in advance what we are going to do. To defend this view, one needs to find a flaw in Edwards' argument.

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On the face of it, there are four premises which one might reject: 1, 2, 4, and 5. But it is worth noting at the outset that there is an immediate problem, from the point of view of the religious believer, with rejecting premise 4.

One of the important aspects of free will, from the point of religious belief, is that it promises to explain the existence of certain sorts of evil in the world. But, as we noted in our discussion of the free will defense, this sort of explanation only makes sense if free will is incompatible with determinism.



### Edwards' argument for the incompatibility of free will and divine foreknowledge

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The problem which arises is that premise 4 is a crucial premise in the main argument for incompatibilism. So if the religious believer tries to solve the problem created by Edwards' argument by rejecting premise 4 of that argument, she also weakens substantially the case for incompatibilism, and thereby weakens substantially the free will defense as a reply to the problem of evil.

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In what follows, I will therefore just suppose that premise 4 is true. How else might one reply to Edwards' argument?

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One main problem with Aquinas' response to this argument is not that what Aquinas says about God existing outside of time is false, but that, even if he is right, there seems to be a way to reformulate Edwards' argument and still show the incompatibility of free will and divine foreknowledge.

In what follows, I will therefore just suppose that premise 4 is true. How else might one reply to Edwards' argument?

One assumption of the argument is that God knew **in the past** what we will do; and this seems to imply that God exists in time. This view of the relationship between God and time was denied by Thomas Aquinas.

### Aquinas on time and foreknowledge

"although contingent things become actual successively, nevertheless God knows contingent things not successively, as they are in their own being, as we do but simultaneously. The reason is because His knowledge is measured by eternity, as is also His being; and eternity being simultaneously whole comprises all time, as said above ... Hence all things that are in time are present to God from eternity, not only because He has the types of things present within Him, as some say; but because His glance is carried from eternity over all things as they are in their presentiality."

If Aquinas is right about this, then it looks like premise 2 of Edwards' argument is false.

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One main problem with Aquinas' response to this argument is not that what Aquinas says about God existing outside of time is false, but that, even if he is right, there seems to be a way to reformulate Edwards' argument and still show the incompatibility of free will and divine foreknowledge.

Here is one way such a reformulation might work. We might restate premises 1 and 2 so as still to derive 3. From there, the argument could go as above:

- 1\*. We have no choice about **things which are outside of time**.
- 2\*. God's knowledge of our future actions **is outside of time**.
3. We have no choice about God's having knowledge of our future actions. (1\*,2\*)

Are premises 1\* and 2\* as plausible as the original premises 1 and 2? If so, then Aquinas' view shifts the problem of free will and foreknowledge, but does not solve it.

How might Aquinas argue that 1\*, unlike 1, is false?

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Aquinas' objection focuses on premise 2 of Edwards' argument. A quite different reply focuses on premise 1 of Edwards' argument.

This reply to the problem of free will and foreknowledge is often associated with William of Ockham, an English philosopher and theologian who was born about 15 years after Aquinas' death, in 1288.



The denial of premise 1 might, at first glance, seem ridiculous. Absent time machines, how can we have power over the past?



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To see why this might not be ridiculous, consider the overlooked philosophical problem of the incompatibility of free will and roommate foreknowledge.

It seems that sometimes, your roommate can know what you will do; for example, the following might be true:

As 10 am today, your roommate knew that you would eat a hamburger for lunch.

Now imagine that at noon you are in the dining hall, about to grab a hamburger, when you are suddenly overcome with an unlikely desire for a fish sandwich. Do you have a choice about whether you will choose the hamburger or the fish sandwich? It seems that you do. But then it also seems that you have a choice about whether your roommate, at 10 am, knew that you would eat a hamburger for lunch. After all, if you had chosen the fish sandwich, your roommate's belief that you would eat a hamburger would have been false, and hence **not** a piece of knowledge.

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But, if this story is true, it follows that you do sometimes have a choice about past events: you had a choice about whether, in the past, your roommate knew that you would eat a hamburger for lunch.

Another question you may want to consider: do you have a choice about whether, at 10 am, it was **true** that you would eat a hamburger for lunch? If so, how would this affect the Master Argument for fatalism?

## Edwards' argument for the incompatibility of free will and divine foreknowledge

### 1. We have no choice about past events.

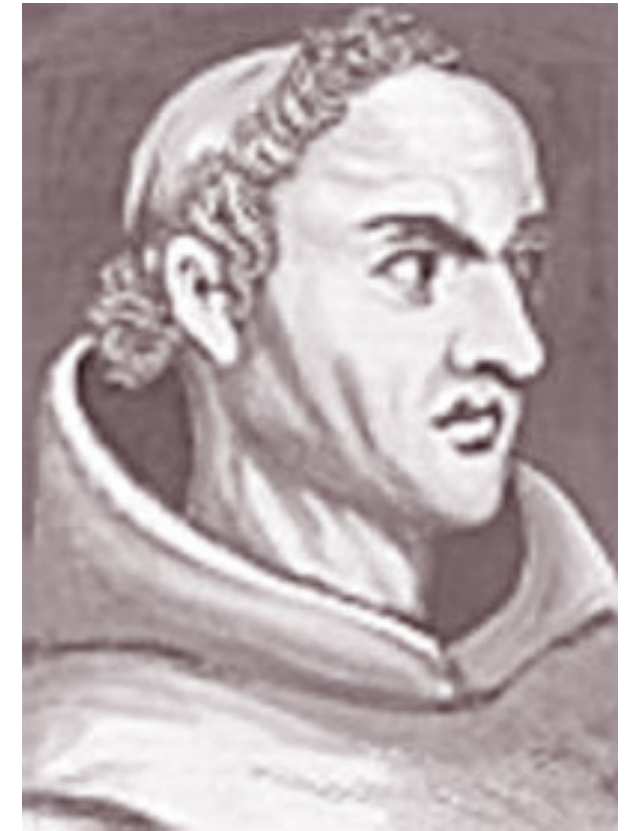
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But, if this story is true, it follows that you do sometimes have a choice about past events: you had a choice about whether, in the past, your roommate knew that you would eat a hamburger for lunch.

Now can you imagine a variant of the case in which you have a choice about whether your roommate even *believed* that you would eat a hamburger for lunch?

This does not seem possible: it seems that while you do have a choice about whether your roommate at some time in the past knew something about your behavior, you do not have a choice about whether your roommate at some time in the past believed something about your behavior. This might lead you to think that there are some past events that we do have a choice about, and some that we do not. This is what Ockham thought. One might express this idea by saying that some facts about the past are **hard facts** -- facts about which we have no choice -- whereas other facts about the past are **soft facts** -- facts about which we do have a choice.



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Let's grant that there is such a distinction between hard and soft facts. For Ockham's reply to this argument to work, we need more than the idea that there is such a distinction: we also need to assume that facts about what God knows are soft facts.

At first, this might seem very plausible: after all, we have already seen that facts about what your roommate knows are soft facts. Why not then also facts about what God knows?

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But think for a moment about why you had some control over whether, two hours ago, your roommate knew what you would do: this was because you had the power to do something which is such that, if you did that thing, your roommate's belief would have been false, and hence would not have been knowledge. But do we have the power to do something which is such that, if we did that thing we would have made one of God's beliefs false? This seems unlikely; it does not seem to be within our power to make God less than omniscient.



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So why might facts about what God knew 1000 years ago be soft facts, rather than hard facts? This is the key question which defenders of Ockham's solution to this problem must answer. That is, they must explain why it is the case that

Even though it is impossible for me to change the past, it is now in my power to perform some action which is such that, if I performed that action, God would have had different beliefs 1000 years ago.

The difficulty for the defender of this solution is, that is, to explain how what God believed 1000 years ago is not something which is now completely out of my control.

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The strategies of Aquinas and Ockham are each ways of trying to show that free will and divine foreknowledge are **compatible**. But one might, of course, also simply accept Edwards' argument, and say that divine foreknowledge and free will are **incompatible**.

Defenders of this position must, then, either deny that we have free will, or deny that God knows in advance what we are going to do. We have already considered some of the problems with denying the existence of free will; let's consider whether it is plausible to deny the existence of divine foreknowledge. (We're asking, of course, whether it is plausible for a religious believer to deny divine foreknowledge; atheists of course deny that there is any such thing.)

An initial problem facing this strategy is to explain why this is not simply a denial of the thesis that God is omniscient.

Here I think that one who denies divine foreknowledge should say something like this:

"To say that God is omniscient is to say that God knows all the facts. To deny that God is omniscient, then, is to say that there is at least one fact that God does not know. But I am not saying that. I am not saying that because, while I **am** saying that God does not know whether, in five minutes, I will sing the fight song, I am **not** saying that there is a fact about whether, in five minutes, I will sing the fight song. I don't think that there are such facts; indeed, I don't think that there are any facts (yet) about which free actions I will and will not perform. So, I don't think that there are any facts that God does not know."

Is this a sufficient reply to the objection?

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A second kind of worry about the denial of divine foreknowledge comes specific views which are a part of the beliefs of various religions.

In the case of Christianity, for example, various passages in both the Old and New Testaments seem to imply the existence of divine foreknowledge. Consider, for example the following well-known passage from the Gospel of Matthew, in which Jesus is speaking to Peter:

"Truly, I tell you, this very night, before the rooster crows, you will deny me three times."

One who denies divine foreknowledge seems forced into saying either that Jesus did not really know what he said, or that Peter's denial was not free. One thing to think about is whether these are the only options, and whether either of these is plausible.