

FREE WILL VS. DETERMINISM

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Our topic today is the challenge to free will posed by **determinism**.

More precisely, our topic is the relationship between freedom of the will and determinism, and a cluster of arguments which seem to show that free will can be neither compatible nor incompatible with determinism — and hence is impossible.

What is “determinism”?

"Determinism is the thesis that only one continuation of the state of things at a given moment is consistent with the laws of nature."

Consider a timeline of the history of the universe.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

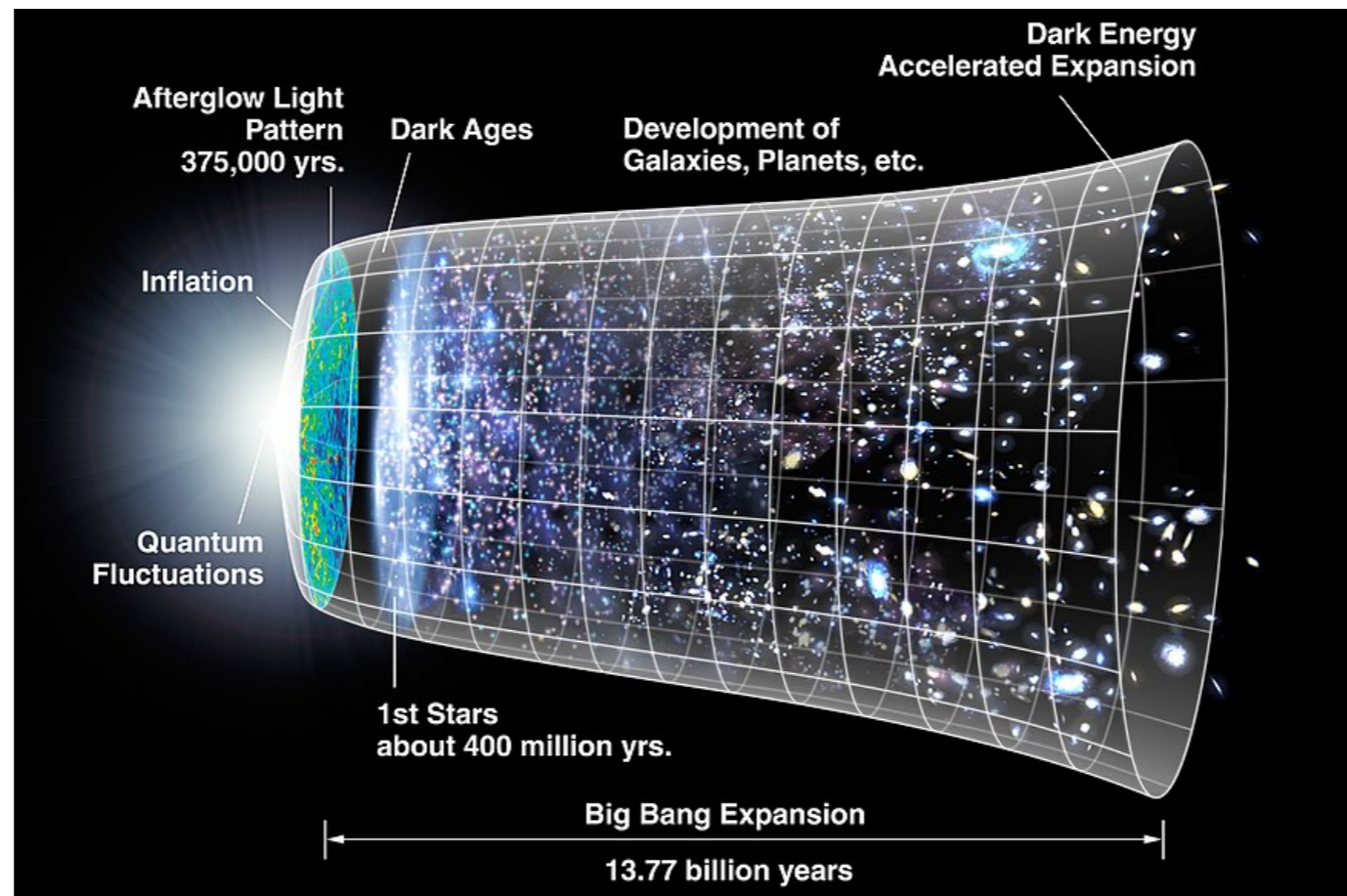
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free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Consider a timeline of the history of the universe.



What determinism says is that, given a full specification of the state of the universe at one time, the laws of nature tell you exactly what will happen at every later time.

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One picturesque way to think of it is in terms of ‘rolling back history.’ Imagine that we roll back the clock to the year 1500. If determinism is true, then — so long as we hold fixed the laws of nature — history since then would unfold in precisely the way that it has.

Sometimes people use ‘determinism’ as a name for the thesis that there is no free will, so that determinism rules out free will by definition. That is not how we are using the term. Determinism is a thesis about the laws of the nature. It is then an open question whether we could have free will in a world with deterministic laws.

We are **not** assuming that determinism is true. We are just explaining what it would mean for determinism to be true.

If we are not assuming that determinism is true, then why are we talking about it? The answer is that it is a good way to raise a question about the conditions under which free will is possible.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

If we are not assuming that determinism is true, then why are we talking about it? The answer is that it is a good way to raise a question about the conditions under which free will is possible.

We are all familiar with the idea that some facts about ourselves are determined by factors outside of our control. Obvious examples include things like hair color and height, which are determined by our genetic inheritance. But we often also explain personality traits, and likes and dislikes, in terms of both our genetic inheritance and the way in which we were raised. Others might be explained in terms of various features of our environment.

So we can raise this question:

Suppose that **everything** about me — my likes and dislikes, my choices and decisions — is ultimately determined by factors outside of my control. Is that compatible with me having free will?

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Suppose that **everything** about me — my likes and dislikes, my choices and decisions — is ultimately determined by factors outside of my control. Is that compatible with me having free will?

yes

no

Then free will is compatible with determinism, since that would be just one way in which stuff about me could be determined by factors outside of my control.

This called a **compatibilist** view of free will.

Then free will is incompatible with determinism, since if determinism were true everything about me would be ultimately determined by factors outside of my control.

This called an **incompatibilist** view of free will.

This gives us three possible views about freedom of the will.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Freedom of the
will is real, and
compatible
with
determinism.

Freedom of the
will is real, and
incompatible
with
determinism.

There is no
free will.

Just by thinking about it, we can see that exactly one of these must be true. If free will is real, one of the left two boxes must be true; and if free will is not real, the rightmost box is true.

The argument we are going to talk about today capitalizes on this fact. The **master argument against free will** tries to show that both of the left two boxes are false.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Freedom of the will is real, and compatible with determinism.

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There is no free will.

The argument we are going to talk about today capitalizes on this fact. The **master argument against free will** tries to show that both of the left two boxes are false.

THE MASTER ARGUMENT AGAINST THE REALITY OF FREE WILL

- 1. Free will is incompatible with determinism.
- 2. If free will is incompatible with determinism, then there is no free will.
-
- C. There is no free will.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
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If the first premise is true, the leftmost box is false. If the second premise is true, the middle box is false. It then follows that, as the conclusion says, there is no free will.

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If the first premise is true, the leftmost box is false. If the second premise is true, the middle box is false. It then follows that, as the conclusion says, there is no free will.

It is important to see that this argument does not assume the truth of determinism. It just assumes that free will must either be (1) compatible with determinism or (2) not. It then tries to show that (1) is false, and that if (2) is true, there is no such thing as free will.

An analogy might help. Suppose that you told me that you had discovered an even prime number. Before you told me about the supposed number, I could show that you had not, by pointing out that the number would either have to be (1) divisible by two or (2) not. If (1), it wouldn't be a prime; and if (2), it wouldn't be even. Either way, there's no even prime.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Now, so far we have been given no reason to think that either premise is true. We're now going to look at two arguments — one for the first premise, and one for the second premise.

Let's start with the first premise, which tries to rule out compatibilist views of free will.

Compatibilist views of free will can be hard for some to get their minds around. How **could** I have free will if everything about me is, ultimately, determined by factors outside of my control?

It may help to sketch one story of compatibilist theory of free will. Suppose that Maria stays in for the night. What does it take for Maria's act of staying in for the night to be free?

First, you might think, she must **choose** or **decide** to stay in.

But that's not quite enough. Suppose that, unbeknownst to her, Maria's door is locked from the outside. Then it looks like her staying in is not free, since the other option — going out — was not really open to her. Even if she had chosen to go out, she couldn't have.

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Even if she had chosen to go out, she couldn't have.

So maybe we should require, in addition to Maria choosing to stay in, that it be true that if she **had** chosen to do otherwise, she **would have** done otherwise.

This kind of claim — about what would have happened if something had been different — is called a 'counterfactual.' So we might call this the counterfactual theory of free will:

The counterfactual theory of free will

A's φ ing is free if and only if (i) A chose to φ and (ii) if A had chosen not to φ , A would not have φ 'd.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

The counterfactual theory of free will

A's φ ing is free if and only if (i) A chose to φ and (ii) if A had chosen not to φ , A would not have φ 'd.

Let's suppose that this theory of free will is true. Would this make free will compatible with determinism?

It seems that it would. Suppose that Maria's choice to stay in is, ultimately, fully determined by factors outside of her control. It is still true that she chose to stay in.

And it might also be true that, if she had chosen to go out, she would have succeeded in doing so. Of course, it was determined by factors outside of her control that she did choose to stay in. But the world could have been such that Maria was determined to choose to go out; and if the world had been that way, she would have gone out.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

The counterfactual theory of free will

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And it might also be true that, if she had chosen to go out, she would have succeeded in doing so. Of course, it was determined by factors outside of her control that did choose to stay in. But the world could have been such that Maria was determined to choose to go out; and if the world had been that way, she would have gone out.

On this kind of view, the key questions are: did I choose to do this? And: if I had chosen to do otherwise, would I have been able to? If the answer to both questions is "yes," your act is free. Whether or not your choices are ultimately explainable by your genetic inheritance, your upbringing, or other factors outside of your control just doesn't enter into it.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Now that we have a grip on determinism and on one view of free will which would arguably be compatible with determinism, let's look at the central argument against the view that free will is compatible with determinism.

This is the **consequence argument**.

One way to present this argument starts with two very plausible premises.

No one has any choice about the state of the world in the distant past.

No one has any choice about what the laws of nature are.

Last time, we talked about the idea that we might now have a choice about some past facts — for example, you might have a choice now about whether the belief your roommate formed yesterday about what you would do today was true.

One way to present this argument starts with two very plausible premises.

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No one has any choice about what the laws of nature are.

Last time, we talked about the idea that we might now have a choice about some past facts — for example, you might have a choice now about whether the belief your roommate formed yesterday about what you would do today was true.

But, even if this were correct, this would not seem to extend to the present case. It seems very clear that I do not now have a choice about the physical state of the universe thousands of years ago.

It also seems very plausible that the laws of nature are not, in any sense, up to me.

And it seems clear that if I don't have any choice about the above facts, I also don't have any choice about their combination.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

No one has any choice about the state of the world in the distant past.

No one has any choice about what the laws of nature are.

No one has any choice about the combination of the state of the world in the distant past + the laws of nature.

Now remember that, if determinism is true, the state of the world 10 million years ago is consistent with only one possible future.

A different way to put this point is that, if determinism is true, the laws of nature + the state of the universe in the distant past **necessitate** everything about the future.

If determinism is true, then the state of the world in the distant past + the laws of nature necessitate every future action.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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If determinism is true, then the state of the world in the distant past + the laws of nature necessitate every future action.

But now recall a principle familiar from our discussion of fate and foreknowledge:

If we have no choice about some facts, and those facts necessitate X, we have no choice about X.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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If we have no choice about some facts, and those facts necessitate X, we have no choice about X.

If determinism is true, no one has any choice about any future action.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

THE CONSEQUENCE ARGUMENT

free will
and
determinism

against
compatibilist
free will

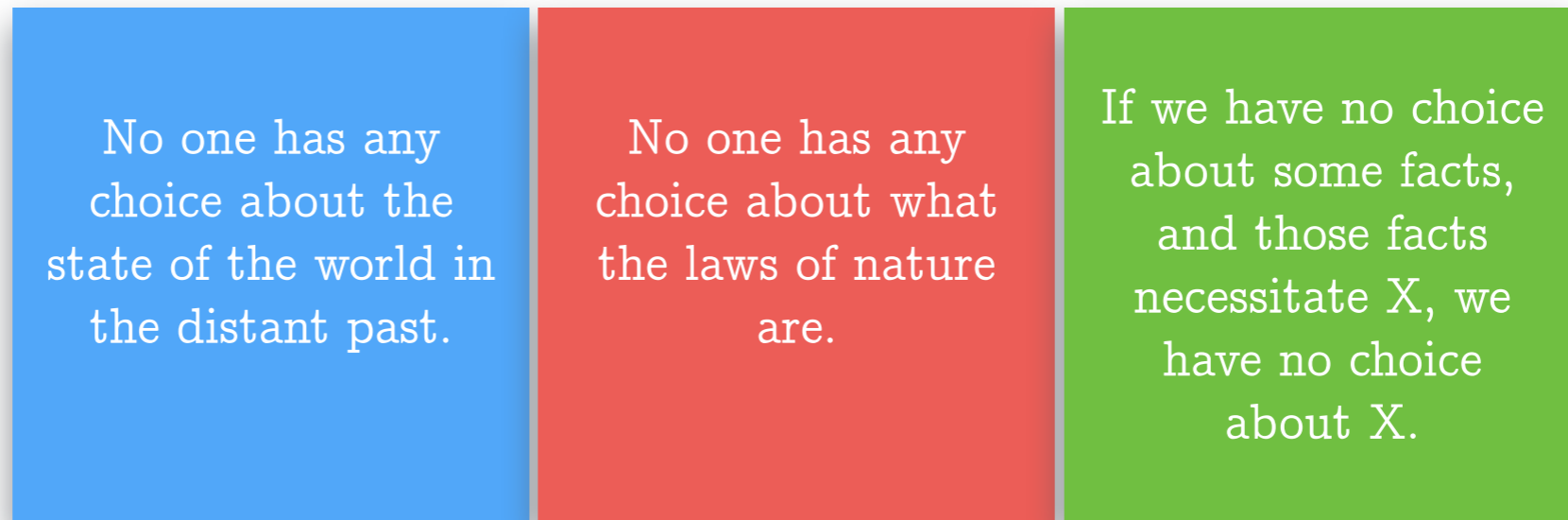
against
incompatibilist
free will

1. No one has any choice about the state of the world in the distant past.
 2. No one has any choice about what the laws of nature are.
 3. No one has any choice about the combination of the state of the world in the distant past + the laws of nature. (1,2)
 4. If determinism is true, then the state of the world in the distant past + the laws of nature necessitate every future action.
 5. If we have no choice about some facts, and those facts necessitate X, we have no choice about X.
-
- C. If determinism is true, no one has any choice about any future action. (3,4,5)

The conclusion of the consequence argument says that if determinism is true, there are no free actions. So the truth of determinism is **incompatible** with the existence of free actions.

The conclusion of the consequence argument says that if determinism is true, there are no free actions. So the truth of determinism is **incompatible** with the existence of free actions.

This conclusion is reached on the basis of just three key assumptions:



I want now to look at one way in which a compatibilist might respond to this argument, and this is to focus on the last of these assumptions.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

free will
and
determinism

against
compatibilist
free will

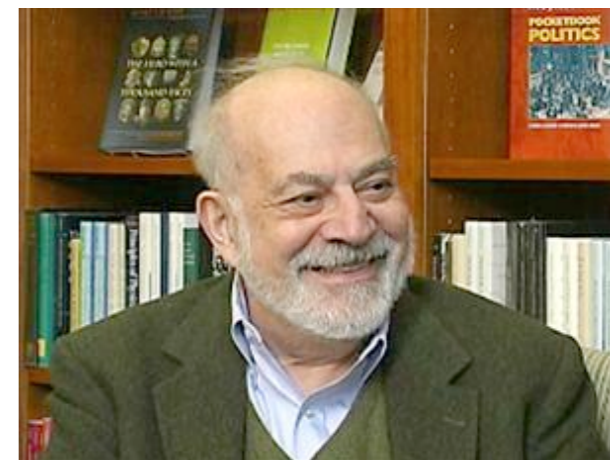
against
incompatibilist
free will

If we have no choice
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Let's call this 'the no choice principle.' As we saw last time, is not hard to come up with examples which make this principle seem plausible.

So the No Choice Principle has much to be said for it. But it has also been challenged. The most important challenges are due to the contemporary philosopher Harry Frankfurt.



free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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Here's a more recent version (due to John
Martin Fischer) of the kind of example
Frankfurt used to challenge the no choice
principle.

“Imagine, if you will, that Black is a quite nifty
(and even generally nice) neurosurgeon. But in
performing an operation on Jones to remove a brain
tumor, Black inserts a mechanism into Jones’s brain
which enables Black to monitor and control Jones’s
activities. Jones, meanwhile, knows nothing of this.
Black exercises this control through a sophisticated
computer which he has programmed so that, among
other things, it monitors Jones’s voting behavior.
If Jones were to show any inclination to vote for
Bush, then the computer, through the mechanism in
Jones’s brain, intervenes to ensure that he actually
decides to vote for Clinton and does so vote. But if
Jones decides on his own to vote for Clinton, the
computer does nothing but continue to monitor -
without affecting the goings-on - in Jones’s head.”

Suppose now that Jones decides “on his own” to vote for Clinton. In this case the mechanism which Black has inserted in Jones’ brain never kicks on and forces Black to do anything.

In this situation, is Black’s act of voting for Clinton free?

You might think: yes. After all, Black decided to do this, and nothing forced him to do so.

But now consider the following points:

Jones had no choice about the fact that Black inserted the mechanism into his brain.

The presence of the mechanism in his brain (we can imagine) necessitates that Jones will vote for Clinton. After all, there are only two options; either Jones will do it on his own, or the mechanism will make him do it.

Despite these facts, it seems that Jones had a choice about whether to vote for Clinton.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

More generally, Frankfurt cases look like an example of an action in which the agent was determined to do something by factors outside of his control, and was nonetheless free. So it looks like an argument for a compatibilist view of free will.

If we have no choice about some facts, and those facts necessitate X, we have no choice about X.

How should an incompatibilist who wants to defend the no choice principle respond?

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

We've now completed the defense of the first premise of our master argument:

THE MASTER ARGUMENT AGAINST THE REALITY OF FREE WILL

1. Free will is incompatible with determinism. (by the consequence argument)
 2. If free will is incompatible with determinism, then there is no free will.
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- C. There is no free will.

If you find the consequence argument plausible, then it is natural to reject premise (2) of the master argument. What's so bad about saying that free will is real, and incompatible with determinism?

But, as we'll now see, this premise can also be given a plausible defense.

One way to introduce this defense is with the following quote from David Hume:

“It is commonly allowed that mad-men have no liberty. But were we to judge by their actions, these have less regularity and constancy than the actions of wise-men, and consequently are farther removed from necessity. Our way of thinking in this particular is, therefore, absolutely inconsistent.”

Hume's basic thought is that there is a big difference between **free** actions and actions which are **random** or **chance**.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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Here's a thought experiment:

The Randomizer

Scientists have created a small device called a Randomizer. Pushing a button on the Randomizer starts an indeterministic process which results in a 0 or a 1. Alex's brain is hooked up to a Randomizer. When he is deciding whether to do something, this pushes the button on the Randomizer. If the Randomizer generates a 1, this makes him do the action. If the Randomizer generates a 0, this makes him not do the action.

Now ask yourself: is Alex's choice free? It seems very clear that it is not. It is undetermined by facts prior to the relevant run of the Randomizer, but it is random. It is not up to Alex what he does; and free actions have to be up to the person doing the action.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

Now ask yourself: is Alex's choice free? It seems very clear that it is not. It is undetermined by facts prior to the relevant run of the Randomizer, but it is random. It is not up to Alex what he does; and free actions have to be up to the person doing the action.

This suggests:

No random acts
are free.

But now consider the idea that free will requires the falsity of determinism. If this is true, then it must be that free actions (or their immediate causes) are undetermined:

If free will is incompatible with determinism, then, if there are free actions, those actions are undetermined by anything prior to the action.

After all, if free actions **could** be determined by the prior state of the world, then free will would be compatible with determinism. But we are assuming that it isn't.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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But consider what an undetermined act would be. It would be an action which is such that the entire history of the universe up to that point is consistent with the act either happening or not happening. So if the act happens, nothing **makes** it happen. In particular, nothing that the person who does the action, or anyone else, does makes the action happen.

So it is not up to anyone whether the action happens. But this suggests:

If an action
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free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

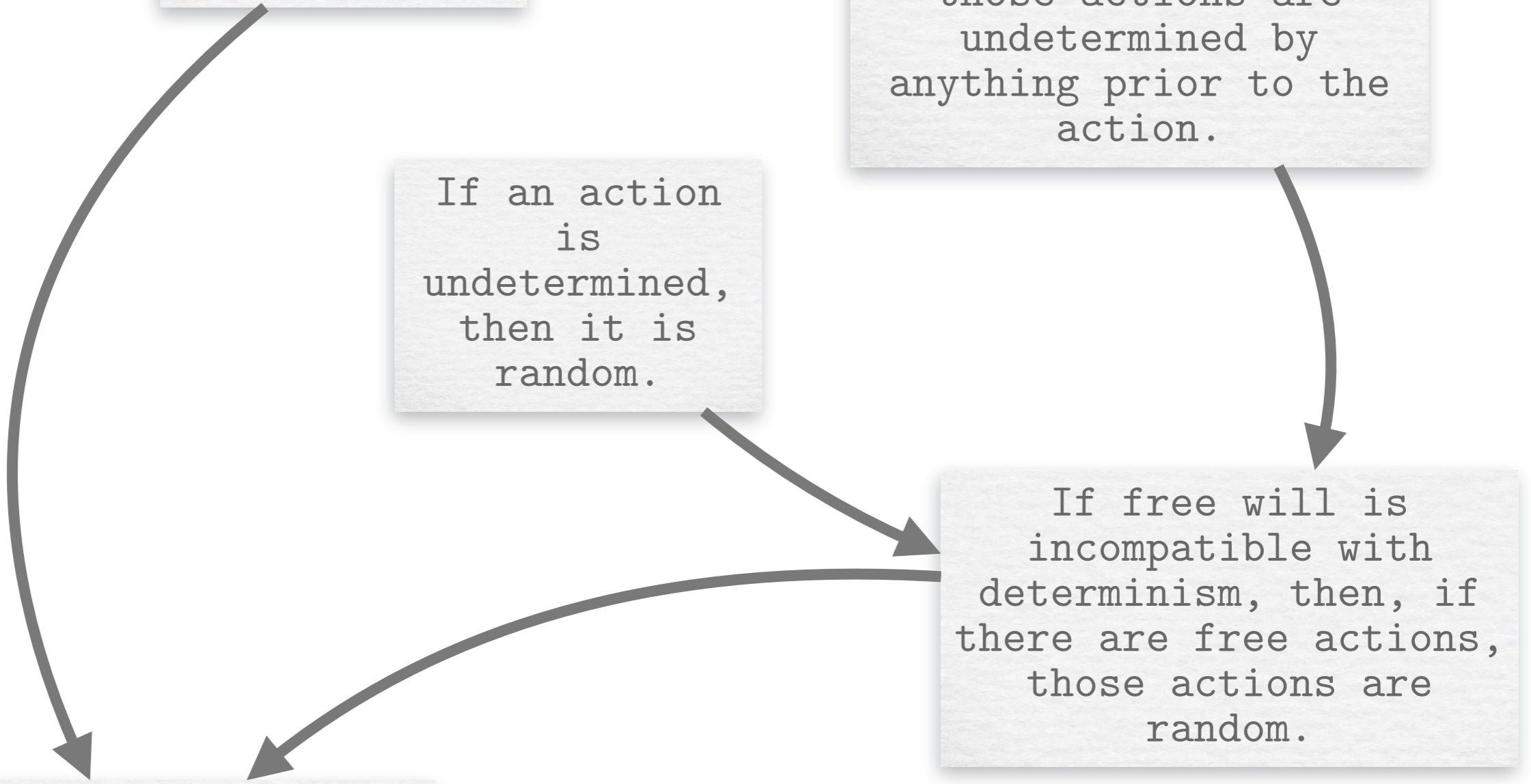
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free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

THE NO-RANDOMNESS ARGUMENT

1. If free will is incompatible with determinism, then, if there are free actions, those actions are undetermined by anything prior to the action.
 2. If an action is undetermined, then it is random.
 3. If free will is incompatible with determinism, then, if there are free actions, those actions are random. (1,2)
 4. No random acts are free.
-
- C. If free will is incompatible with determinism, then there are no free actions.

The conclusion of this argument is premise (2) of the master argument against the reality of free will.

How should the defender of free will reply to this argument?

1. If free will is incompatible with determinism, then, if there are free actions, those actions are undetermined by anything prior to the action.

One idea is to focus on the first premise. Maybe the action itself wouldn't have to be undetermined; maybe it would be enough for the decision preceding the action to be undetermined.

But, arguably, this would not help very much. For then it looks like the decision will (by the above reasoning) be random. But then the decision cannot be under the control of the agent; and then it looks like it cannot be up to the agent whether she performs the action.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

2. If an action is
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One might instead call into question the second premise.

There are two main arguments in favor of this premise.

The first is related to the “Randomizer” example we have already discussed. The idea is that if some action of mine is undetermined, it is just **as if** I had a Randomizer implanted in in my brain. What could the relevant difference be between the Randomizer and some non-deterministic process in my brain?

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

2. If an action is undetermined, then it is random.

The second is based on a different thought experiment.

The roll-back

You have the power to roll back history to an earlier moment and then re-start it. Veronica has just decided that she wants to major in Philosophy rather than Accounting, and this decision was undetermined. So you roll back history to a moment just before her decision; this time, Veronica chooses Accounting. You do this 800 times. In 412 of the trials, she chooses Philosophy; in the other 388, she chooses Accounting.

If we consider trial #801, it will seem to us random which one Veronica chooses. But there is no real difference between the 801st trial and the first one. So all undetermined actions are random.

THE NO-RANDOMNESS ARGUMENT

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

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 2. If an action is undetermined, then it is random.
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- C. If free will is incompatible with determinism, then there are no free actions.

One way to state the conclusion of the no-randomness argument is that free will **requires** determinism.

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But this is very bad news for free will if you found the consequence argument convincing. For that argument seems to show that free will is **incompatible** with determinism.

And if free will both requires determinism and is incompatible with it, then the very idea of free will seems to be contradictory. If this is right, then the idea of a free action is like the idea of a married bachelor. Being a married bachelor both requires being married and is incompatible with being married; so it is impossible for there to be a married bachelor. It is a contradictory concept. Our argument so far suggests that freedom of the will is similarly impossible.

The problem is that our idea of free action seems to require that those actions be both undetermined and under our control. The master argument is based on the idea that no action could have both of these features.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will

The problem is that our idea of free action seems to require that those actions be both undetermined and under our control. The master argument is based on the idea that no action could have both of these features.

THE MASTER ARGUMENT AGAINST THE REALITY OF FREE WILL

1. Free will is incompatible with determinism. (by the consequence argument)
 2. If free will is incompatible with determinism, then there is no free will. (by the no-randomness argument)
-
- C. There is no free will.

But: it really does seem like we have free will! If you agree with that, then it seems that this is not a belief which we should give up easily.

Then the question to ask yourself is whether you think that the consequence argument or the no-randomness argument is more likely to have a flaw — and what that flaw might be.

free will
and
determinism

against
compatibilist
free will

against
incompatibilist
free will