

A flawed conception of determinism in the Consequence Argument.

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According to the Consequence Argument, the truth of determinism plus other plausible principles would yield the conclusion that we have no free will. In this paper I will argue that the conception of determinism typically employed in the various versions of the Consequence Argument is not plausible. In particular, I will argue that, taken most straightforwardly, determinism as defined in the Consequence Argument would imply that the existence of God is *logically* impossible. This is quite an implausible result. The truth or falsity of determinism is typically taken to be a contingent, empirical matter. But how could the *empirical* discovery that determinism is true lead to the conclusion that God's existence is a logical impossibility? The defender of the Consequence Argument can avoid this conclusion, but only at the cost of making other similarly implausible claims.

The objection

Here is a basic version of the Consequence Argument, based on van Inwagen 1983:

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|-----|-----------------------------------|--|
| (1) | $\Box(P_0 \& L \supset P)$ | |
| (2) | $\Box(P_0 \supset (L \supset P))$ | elementary modal and sentential logic |
| (3) | $N(P_0 \supset (L \supset P))$ | application of rule α |
| (4) | $N(P_0)$ | premiss |
| (5) | $N(L \supset P)$ | application of Rule (β) to (3) and (4) |
| (6) | $N(L)$ | premiss |

(7) $N(P)$ application of Rule (β) to (5) and (6)

'L' stands for a sentence describing the laws of nature, 'P₀' stands for a sentence describing the global state of affairs at some point in the distant past, and 'P' stands for some particular true proposition about a human action. The operator 'N' is a modal operator, and is cashed out as follows (1983: 93): For any sentence P,

$N(P) =_{df} P$ and no one has, or ever had, any choice about whether P.

We then have two rules of inference:

rule (α) $\Box p \vdash Np$

rule (β) $N(p \supset q), Np \vdash Nq$

The argument appears to be valid, and premisses (4) and (6) seem hard to question. Rule (α) also seems quite reasonable. Many questions have been raised about Rule (β). In the version used here, van Inwagen himself says that it is subject to decisive counterexample (see McKay and Johnson 1996), but he thinks that it can be patched up to avoid those problems (van Inwagen 2000). In any event, Rule (β) is not my concern here. Rather I want to look more closely at premiss (1).

According to premiss (1) as it stands, the truth of determinism would mean that the laws of nature plus the facts as they stood at some point in the distant past *logically* necessitate any true sentence, e.g., that I had coffee with breakfast this morning or that there is water in the glass on my right. This seems problematic. On a fairly traditional conception of God, God has the ability to intervene in the natural order, and, for example, miraculously change water into wine (see, e.g., Swinburne 1996: 116). Call such a God an *interventionist God*. In other words, necessarily, if an interventionist God does exist, then it is possible that the same initial state of affairs obtains, along with the same laws of

nature, and yet P is false—i.e., it is possible that $P_0 \& L \& \sim P$. Even if God does not exist and determinism is true, surely it is at least *possible* that an interventionist God exists, and thus it will be possible that $P_0 \& L \& \sim P$. But since $P_0 \& L \& \sim P$ is equivalent to $\sim(P_0 \& L \supset P)$, it follows that $\Box(P_0 \& L \supset P)$ is not true, even if determinism is true.

In symbolic terms, if we let ‘IG’ stand for ‘an interventionist God exists,’ this would go as follows:

$$\begin{aligned} & \Box(IG \supset \Diamond(P_0 \& L \& \sim P)) \\ & \Diamond IG \\ & \therefore \Diamond(P_0 \& L \& \sim P) \\ & \therefore \sim \Box(P_0 \& L \supset P) \end{aligned}$$

And this inference holds in S4 or any stronger modal system.

To come at this from a different direction, the truth of determinism, on van Inwagen’s conception, would make the existence of an interventionist God a logical impossibility. I.e., the following inference holds (in S4 or any stronger modal system):

$$\begin{aligned} & \Box(P_0 \& L \supset P) \\ & \Box(IG \supset \Diamond(P_0 \& L \& \sim P)) \\ & \therefore \sim \Diamond IG \end{aligned}$$

Surely it is implausible to maintain that determinism would have such strong consequences. Something has gone awry with the conception of determinism employed in the Consequence Argument.

Reply 1

One might simply accept that determinism implies the logical impossibility of an interventionist God. After all, 'determinism' is essentially a technical term; it is not as if our pre-theoretical conception specifies exact modal details, and defenders of the Consequence Argument can simply stipulate that they are using the term in a way that *does* rule out the existence of an interventionist God. So we could put the point this way: don't worry about the word 'determinism'; call the conception of determinism embodied in premiss one 'determinism*'; the claim is simply that if determinism* holds, then we do not have free will. This would mean that the Consequence Argument employs a particularly demanding conception of determinism, and then makes the claim that *if* determinism of this sort holds then we do not have free will.¹

To this simple objection one might also give the simple reply that the conception of determinism has become so demanding that it seems quite unlikely that determinism* actually holds, and thus we can simply deny premiss (1) of the Consequence Argument as implausible. After all, it at least seems possible that an interventionist God exists, and if this is possible then determinism* is false. Beyond that, however, determinism* has the problem of epistemological inscrutability: it is extremely difficult to see how we could ever have grounds for believing that determinism* is true. In particular, empirical investigation will be irrelevant. Of course one might think that empirical facts --- e.g., facts about the existence of evil --- show that God does not actually exist. And one might possibly think that standard conceptions of God are incoherent, and thus one might conclude on a priori grounds that the existence of such a God is logically impossible. But

¹ This objection was pressed on me by Manuel Vargas.

nobody that I know of would conclude on *empirical* grounds that God's existence is not *logically* possible. And yet determinism* would make an interventionist God's existence logically impossible; so empirical investigation would be irrelevant to ascertaining the truth of determinism*. This makes determinism* a very unintuitive conception of determinism, for we normally imagine that we will find out whether determinism is true through investigations in physics (see, e.g., Fischer 2007: 44). More importantly, it leaves us no grounds at all on which we might overturn our initial judgment that determinism* is implausible. The question of whether determinism is true is a question about the way the world is, and is thus not something we could ever decide on the basis of philosophical reflection. If empirical investigation is not relevant in this case, then it seems that no investigation is relevant. So determinism* is a doctrine that looks *prima facie* implausible and whose truth we have no way of further investigating. So even if free will would be incompatible with determinism*, why would we worry about this odd possibility?

Reply 2

Alternatively, someone might grant that there is a problem with premiss (1) of the Consequence Argument, but assert that only a minor amendment needs to be made to avoid the problem. Specifically, the defender might claim that the Consequence Argument merely needs to explicitly exclude the possibility that God actually intervenes.² The basic idea is to change premiss (1) in the argument to this:

² This suggestion was put to me by Tim O'Connor in comments on a draft paper that included this point. In discussion, Peter Graham helped me to see how O'Connor's suggestion could be fleshed out.

(1) $\Box(P_0 \& L \& \text{God does not intervene} \supset P)$

The rest of the argument then gets changed accordingly:

(2) $\Box(P_0 \supset (L \& \text{God does not intervene} \supset P))$

(3) $N(P_0 \supset (L \& \text{God does not intervene} \supset P))$

(4) $N(P_0)$

(5) $N(L \& \text{God does not intervene} \supset P)$

(6) $N(L \& \text{God does not intervene})$

(7) $N(P)$

This move will avoid the immediate problem. I can still argue, as above, that the mere possibility of an interventionist God leads to the conclusion: $\sim\Box(P_0 \& L \supset P)$.

However, since this is no longer the first premiss of the Consequence Argument, I will not thereby have shown that the first premiss should be seen as unreasonable.

Nonetheless, while this reply answers the specific form of the objection, it misses the underlying general idea. Talk of an interventionist God is just a particularly vivid way of making the following point: even if the world is deterministic in fact, it should still be *logically* possible that the laws of nature are violated. It needn't be God. So, for starters, we can point out that it is logically possible that an *interventionist demon* exists, where an interventionist demon is likewise an agent with the capacity to intervene in the course of natural events. Letting 'ID' stand for 'interventionist demon,' the argument proceeds as before even against the revised version of the Consequence Argument:

$\Box(\text{ID} \supset \Diamond(P_0 \& L \& \text{God does not intervene} \& \sim P))$

$\Diamond \text{ID}$

$\therefore \Diamond(P_0 \& L \& \text{God does not intervene} \& \sim P)$

$\therefore \sim \Box(P_0 \& L \& \text{God does not intervene} \supset P)$

Naturally, the defender of the Consequence Argument could reply by building in an explicit exception for interventionist demons, and assert that no such demon *actually* intervenes. But one could then rerun the objection in terms of an interventionist angel, etc.

Perhaps the defender will build in an all-purpose exception,

(1) $\Box(P_0 \& L \& \forall x(x \text{ is a being with the capacity to intervene in the natural order} \supset x \text{ does not intervene}) \supset P)$

with the corresponding changes later on in the argument. However, this still misses the point at the broadest level. Consider the cup of coffee I was holding in my left hand as I contemplated this sentence. We assume that our laws of nature are such that, had I simply let go of it, it would have fallen. Once we recognize that it is logically possible that God could have made the cup float rather than fall, then it is a very short step to recognizing the mere logical possibility that the laws of nature could have been suspended for any reason, with or without God or demons. Of course, if the laws of nature are suspended for my coffee cup, whether by God or for no reason at all, then our universe turns out not to be deterministic. Nonetheless, even if our universe is *actually* deterministic, it should be logically possible that there is an interventionist God, and it should be logically *possible* that there could be a suspension of the laws of nature, and that my coffee cup should remain floating in mid-air after I let go of it.

The defender of the Consequence Argument might try to include all such exceptions. One might rewrite premiss (1) not only to rule out an interventionist God, but

to rule out *any* way in which $L \& P_0$ hold but P does not. (1) would then look something like this:

$$(1) \quad \Box(P_0 \& L \& (P_0 \& L \supset P) \supset P)$$

But then the principle has simply become an instance of modus ponens. Nobody would dispute it, but it has nothing to do with determinism, and it will not follow that we do not have free will. Certainly any libertarian would not want it to follow from a mere logical triviality that we do not have free will.

So the challenge for those who would amend the conception of determinism: if one makes the exceptions specific (like for an intervening God or demon), then there will be another being or set of circumstances that seem logically possible and yet which yield the result that there could be a possible world in which $P_0 \& L$ hold but P does not; if one makes the exception all-purpose, such that no further counterexamples could be imagined, then there is the danger of making the revised version of premiss (1) into a trivial logical truth from which nothing interesting can follow, let alone the non-existence of free will.

Reply 3

One might allow that the definition of determinism makes the existence of an interventionist God impossible in one sense, but not in another sense. Since $\Box(P_0 \& L \supset P)$ does entail that $\sim \Diamond(P_0 \& L \& \sim P)$, then if our conception of an interventionist God entails $\Diamond(P_0 \& L \& \sim P)$ it will indeed follow that such a God is impossible. However, there is a different sense in which an interventionist God might still be compatible with this definition of determinism. To explain this sense, the defender of the argument might consider a rather different sort of case.

Consider, by way of analogy, the concept *permanent bachelor*. Suppose Ruth is an unmarried woman. Does she have the ability to marry a permanent bachelor? In one sense, no. Anyone whom she in fact marries will no longer be a bachelor, and thus will not be a permanent bachelor. But in another sense, the answer seems to be yes. Let John be a bachelor who in actual fact will remain a bachelor the rest of his life. Ruth was the only woman he ever loved, and he asked her to marry him, but she declined. In that scenario, it seems that Ruth had the ability to marry a man who in fact is a permanent bachelor. Naturally, had she married him, he never would have been a permanent bachelor, but there is nonetheless a reasonable sense in which Ruth had the *ability* to marry a permanent bachelor.

On the suggested conception of determinism, something similar holds of God. Given that the laws of nature are deterministic, if God were to intervene, he would thereby make it the case that the laws of nature were *different*; he would not be bringing it about that those very laws of nature were suspended or that events occurred outside of them. So there is one sense in which God cannot intervene in the laws of nature on this view, but there is another sense in which he can: he has the *ability* to do something that would change the laws of nature—he has the ability to do something that would actualize a different world in which the laws of nature are not the same, and are not deterministic. This is claimed to be analogous to Ruth's ability to do something (marry John) who is in fact a permanent bachelor, and thereby actualize a world in which he is not a permanent bachelor. However, though Ruth has the ability to marry a permanent bachelor (in this sense), she does not have an analogous ability to violate the laws of nature; that power is reserved for God.

So, it seems, on this conception of laws of nature, there is a reasonable sense in which an interventionist God, if one exists, has the ability to intervene in the natural order but on which it is nonetheless not true that

$$\Box(\text{IG} \supset \Diamond(\text{P}_0 \ \&\text{L}\ \&\sim\text{P})).$$

And this, one might claim, suffices to block my argument and the related claim that the van Inwagen conception of determinism makes the existence of God logically impossible.³

However, on this picture, the sense in which God can violate the laws of nature is very different from the sense in which Ruth can marry a permanent bachelor. Ruth has the ability to marry a specific man who, in the actual world, happens to be a permanent bachelor. God, on this picture, does not have the analogous ability. God does not have the ability to violate or suspend laws of nature which, in the actual world, happen to be deterministic. Rather, God merely has the option of actualizing some other law altogether. That his options are so limited is a very strong consequence, for it seems that it should be at least *logically* possible that God violate or suspend the actual laws of nature; it should be logically possible that God make my coffee cup momentarily impervious to gravity and thus allow it to float. No reason has yet been given as to why this apparent possibility is not a genuine possibility.

Perhaps this is the thought behind the objection: it is part of the concept of *law of nature* that whatever God decides to do just is what laws of nature were all along. For example, suppose that a comet is approaching the earth and that God, in answer to many

³ This objection was suggested to me by Peter Graham, and similar suggestions were made by Jacob Rosenthal.

prayers, weakens the force due to gravity between us and the comet at a crucial moment—say he arranges for it to vary inversely with distance cubed rather than squared.

Then, on this view, the law of nature concerning gravity always was this:

$$\text{if time} = t \text{ and } m_1 = \text{earth and } m_2 = \text{comet, then: } F = \frac{Gm_1m_2}{r^3}$$

$$\text{otherwise: } F = \frac{Gm_1m_2}{r^2}$$

In other words, any apparent exceptions that God makes to the laws of nature are just incorporated into what the universal law of nature was all along. And this pattern will be maintained no matter what God decides to do: any deviation from a what had seemed to be an exceptionless law merely means that the law of nature always had that ‘exception’.

However, on this approach, laws of nature have become vacuous. Whatever happens becomes folded into the laws of nature. God cannot violate them only in the sense that he cannot make a true statement false. We can define laws of nature in this way if we like, but then the threat to freedom becomes equally empty. The threat to freedom was always perceived to lie in determinism (or predestination by God, or the fact that God’s foreknowledge gives him *necessarily* true beliefs about the future); the mere fact that there are *truths* about the future has not been seen as a grave threat to our freedom. It was, for example, true in 2007 that I would vote for Obama in 2008—someone who had bet on that outcome would have been correct—but few have suggested that this fact by itself made it the case that my vote was not a free choice. So if we define ‘law of nature’ such that it is logically impossible for God to violate them, then the laws of nature and the global state of affairs in the past no longer present a threat to freedom.

Conclusion

If the argument I have presented is correct, then the conception of determinism used in most versions of the Consequence Argument is deeply implausible, and the Consequence Argument could be rejected for that reason. One might attempt to relaunch the argument with a different conception of determinism, but that would be the topic of a different paper.⁴

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⁴ The main idea behind this paper was presented as part of a longer paper at the Sociedad Filosofica Ibero Americana conference on the Philosophy of Action in January 2010. I am very grateful for the comments I received there, especially from Peter Graham, Tim O'Connor, and Manuel Vargas. I also received further written comments from Peter Graham, as well as written comments from Jacob Rosenthal, Sarah Paul, and Kristen Ghodsee, and all of these comments have been enormously useful.

