Consequence Arguments

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Abstract: The Consequence Argument, in various forms, has been popular in recent discussions of libertarianism. I want to ask: what is the nature of the 'necessity' involved in the claim that necessarily one cannot change the past or the laws of nature? I will answer that this necessity is not peculiar to the thesis of determinism and does not depend directly on the unchangeability of facts about the remote past; parallel consequence arguments can be constructed to show that libertarian free will is equally incompatible with indeterminism, fatalism, and naturalism.

1. *The argument – The incompatibility of free will and determinism*

The Consequence Argument has different formulations, a popular version being the following taken from van Inwagen and quoted by Kane (2005: 23-24):

> (1) There is nothing we can do now to change the past.
> (2) There is nothing we can do now to change the laws of nature.
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> But if determinism is true, then
> (4) Our present actions are the necessary consequences of the past and the laws of nature. So, if determinism is true, it seems that
> (5) There is nothing we can do now to change the fact that our present actions are the necessary consequences of the past and the laws of nature.
> But if there is nothing we can do to change the past and the laws of nature… and nothing we can now do to change the fact that our present actions are the necessary consequences of the past and the laws of nature… it would seem to follow that, if determinism is true (step 4), then
> (6) There is nothing we can do now to change the fact that our present actions occur.

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This can be put into logical form as:

(1) NP_0	premiss
(2) NL	premiss
(4) $\Box ((P_0 \& L) \supset P)$	df. 'determinism'
(5)i) $\Box (P_0 \supset (L \supset P))$	from (4) by exportation
ii) $N (P_0 \supset (L \supset P))$	from (5i) by (α)
iii) $N (L \supset P)$	from (5ii) and (1) by (β)
(6) NP	from (5iii), (2) by (β)

where the proposition P expresses the current state of the world, P_0 expresses the state of the world at some instant in the remote past, and L expresses the laws of nature.[1] The operator N*p* means "*p* and no one has, or has ever had, any choice about whether *p*" (Campbell 2007: 105). The inference rules used are (Campbell 2007: 106-107):

(Rule α) From $\Box p$ deduce N*p*	In words, if something is necessary then there is nothing we can do to change it.
(Rule β) From $N(p \supset q)$ and N*p* deduce N*q*	In words, if there is nothing we can do to change something and nothing we can do to change its being sufficient for some further thing, then there is nothing we can do to change that further thing.

This argument is used to support the incompatibility of determinism and free will and can be summed up as the following thesis:

> INCOMPATIBILISM: If determinism is true, a description of the world (P_0) conjoined with the laws of nature (L) are jointly sufficient for any present or future action or event. So Rule β in the argument above leads to the conclusion that if we do not have or have ever had any choice about whether P_0 and L are true, then we have no choice about our current actions and events. Therefore, we do not have free will if determinism is true.

[1] This is an adaptation from Campbell (2007: 107) with the steps renumbered to follow the structure of the previous argument.

Libertarians may continue in the following way:

> LIBERTARIANISM: We have a choice about our current actions and events. Therefore, determinism is false.

My purpose in this paper is not to comment on the soundness of the argument, or to establish the theses of incompatibilism or libertarianism. Rather, it is to show what its soundness would ultimately depend on. I want to show that there is a very general scheme for inventing consequence arguments which does not actually depend on determinism *per se* or the necessity of facts about the past but on a more general kind of extra-logical necessity that subsumes both of these. I wish to bring out some of the features of this necessity so as to clarify exactly what the debate is about and show that some aspects of the debate are talking past the real point.

The soundness of the argument depends on the validity of rules α and β and the truth of the premises. Compatibilists have criticized rule β in particular. I have nothing to add to the rich literature that already exists on this line of criticism and set it aside. Campbell (2007), however, claims that the first premise NP_0 is false, defining N as Np if and only if p is true and (i) no one currently has any choice about whether p, and (ii) no one has ever had any choice about whether p.

He claims that only (i) is true of facts about the remote past, whereas (ii) is not. It should be noted that (i) is not true of r*elational facts* – facts that supervene on events at other points in time – which arguably do change when those events occur. To be safe, we should therefore specify that P_0 expresses only the non-relational facts about the remote past. It should also be noted that both (i) are (ii) are presumably true of laws, since Campbell, along with most parties to the debate over the consequence argument, does not question the truth of the second premise NL.

A natural reason for saying that we have no choice over facts about the remote past is that the past is necessary, it has "already happened" and there is nothing I can do now to change it. Campbell says that this could be either because it is *past*, or specifically because it is the *remote* past before the advent of agents with the capacity of choice. According to Campbell, neither of these options leads to the desired conclusion, and he gives a counterexample. At t_1 Smith begins to drink, at t_2 he is driving while still under the influence, and at t_3 he commits vehicular manslaughter against Jones. Now, at t_2 Smith did not have a choice about whether he would kill Jones at t_3. But this does not mean, Campbell urges, that Smith *never* had a choice about killing Jones, as N*p* demands. Just because (i) is true (in this case, at t_2) it does not mean that (ii) is

true; in this example, Campbell (2007: 107-108) argues, it is false, because at t_1 Smith had a choice whether or not to drink.

He considers a response to avoid this conclusion by proposing a rule that considers the pastness of P_0 as the relevant factor that if true supports NP_0, viz.

From P*p* (*p* is a true proposition in the past) deduce N*p*.

This rule, he says, is false because it satisfies (i) but not (ii) of N*p*; in the past, someone could have had a choice whether *p*, as shown in the drunk driver example. If the defender then switches to the view that remoteness is the relevant factor, Campbell says that this rule is not true either, because the absence of conscious agents in the remote past is a contingent truth and independent of determinism (Campbell 2007: 108-109).

It is a curious feature of the example that it noticeably does not have the same structure as the Consequence Argument since Campbell takes t_2 as the reference point for saying that Smith has a choice about killing Jones – an event that is still in his future and not a present action. If Smith really has a choice about killing Jones then he must also have a choice about whether he drives at t_2 and Campbell seems to accept that he does not, which *agrees* with the Consequence Argument. Perhaps we might amend this to say that he does have a choice at t_2, where this is a compatibilist's choice, i.e., a choice that in the actual circumstances obtaining could not have been other than it is. It could be claimed with some justification that each side is smuggling in their own favored analyses of choice and being able to do otherwise. If so, then the Consequence Argument does not really offer anything new. I will return to this.

However, the pastness is irrelevant, since if determinism is true then the past is contained in the future just as equally as the future is contained in the past, leading to the symmetrical argument that given some description of a future state of the world, it follows in the same way that I do not have a choice now since the future does not offer physically open alternatives. It is not simply the past that is necessary. What then is the necessity that we need? The soundness of the consequence argument does not depend *primarily* on the necessity of the past, and we can invent different versions simply by changing the premises to others where the same kind of necessity is present. Let us look at some other consequence arguments.

2. *More arguments – The incompatibility of free will and indeterminism*

Embarrassingly for the incompatibilists, the necessity is not confined to the past or to the determinism of the laws. It is not only pastness but determinism that seems to be dispensable; the Consequence Argument seems to work

equally well against indeterminism. Substitute for step 4 above the indeterministic claim that the facts about the past and probabilistic laws of nature determine exhaustively the objective probabilities of the actual occurrence of the open alternatives and preserve step 5 that there is nothing you can do now to change those facts and those laws. The argument shows equally well that there is nothing you can do to change those probabilities.

Suppose Smith makes a free choice to drink. The probability that his choice actually results in killing Jones is fixed by the laws of nature to be a particular probability, let's say 0.7. Although $(L \supset P)$ is false and $(L \supset^{0.7} P)$ is probabilistic, L and P themselves are not probabilistic. Smith either drinks or doesn't, he kills Jones or doesn't – he does not drink or kill Jones with a 0.7 probability. The law is true or false, not partly true and partly false. Once such an undetermined event (Smith having a drink) has *as a matter of fact* taken place, then it can be added to the premises of the Consequence Argument along with other facts about the past (Turner 2009), and anything inferred from it is inferred with the same probability as before; we do not have one iota of greater control over present actions. Perhaps Smith does not kill Jones, but this is not because of any free choice of Smith's. Once Smith has taken a drink nature takes its course and cannot be averted.

So, we can replace the false deterministic premise (4) $\Box ((P_0 \,\&\, L) \supset P)$ by something like the true indeterministic premise (4a) $\Box ((P_0 \,\&\, L) \supset^{0.7} P)$, with the modality attached to the inference and not to any of the propositions or to the necessity operator. We do not have any more choice over (4a) than we did (4) unless we have the active power to alter the probability given by the indeterministic law, that is to say, unless NL is false, and we have no more reason to think that NL is false in the case of indeterminism than we did in the case of determinism. We must conclude that free will is equally as incompatible with indeterminism as it is with determinism. At least, this is what the consequence argument shows. The thesis of libertarianism now looks like:

> LIBERTARIANISM*: We have a choice about our current actions and events. Therefore, determinism is false and indeterminism is false.

This need not be self-defeating, for I have here identified indeterminism as a set of laws with a determinate probability. The moral here is that any determinate probability, whether it is 1.0 as it is in deterministic laws or something less, is equally as incompatible with having control over your own present actions. A more radical kind of indeterminacy seems to be called for if there is to be free will.

3. *Even more arguments – The incompatibility of free will and fatalism*

Given some fact and the principle of the excluded middle, we can show that it is never in our power to do one thing rather than another. Kane (2005: 151-152) gives a formulation of the argument in terms of God's foreknowledge. Taylor (1963: 61-63) gives a closely related argument based on a famous example from Aristotle. Consider, says Taylor, a naval commander deliberating on which order to give and call these O and O′. These will have the results Q or Q′ respectively: there being no naval battle tomorrow or there being one. Q is *necessary* for O, defined here to mean that O could not occur without Q occurring too although they are logically unconnected (Taylor 1963, 58), and Q′ likewise for O′. Now (Taylor 1963: 61):

> (1) If Q is true, then it is not within my power to do O′ (for in case Q is true, then there is, or will be, lacking a condition essential for my doing O′, the condition, namely, of there being no naval battle tomorrow).
> (2) But if Q′ is true, then it is not within my power to do O (for a similar reason).
> (3) But either Q is true or Q′ is true.
> (4) [Therefore] Either it is not within my power to do O, or it is not within my power to do O′.

This nicely illustrates the symmetry of the argument. It does not matter at all whether Q is in the future or the past, since the argument is symmetrical as to time or causation. Neither does it matter at all whether Q describes an undetermined event; by hypothesis, it *is* undetermined since it results from a voluntary action, namely O, the orders of the naval commander.

It is not simply the pastness of laws and facts that makes us unable to change them. On the contrary, it is only because of the extra-logical necessity in the relation between the action in question and other events. Nomic necessity, whether deterministic or indeterministic, is one type of such an extra-logical necessity.

4. *A final argument – The incompatibility of free will and naturalism*

The conclusion of this argument is not that we have no control over what we do now, but that we have no control over what we intend to do. If naturalism is true, then we have no choice about any of our current mental states. Turner (2009) constructs an argument to try and show that we cannot assert both

the compatibility of libertarian free will and *naturalism* (the thesis that mental states and causal relations supervene on neurophysiological states and causal relations) whilst at the same time endorsing the Consequence Argument, because free will and naturalism are only compatible if Rule β (or a rule very like it) is false.[2]

Supervenience is also an example of extra-logical necessity, and can be cashed out as a kind of nomic necessity Goldman (1970: 162) calls *simultaneous nomic equivalence*. Suppose two properties connected by a law such that any object that exemplifies one of these properties concurrently exemplifies the other, giving us two events. We can say that these equivalents are (extra-logically) necessary for each other. Suppose that one of these events is a neurophysiological state and the other a mental state, and that the neurophysiological states are linked to each other by natural laws. These laws, together with the law connecting the two properties, will assign a determinate probability to the occurrence of the mental state.

Simultaneous nomic equivalence is another example of extra-logical necessity and it is notable how closely Goldman's definition resembles Taylor's. In this version we are not concerned with changing facts about the past or the future but facts about the present instant. It seems that every free action must be the violation of a natural law.

5. *Conclusion*

As I hinted earlier, the Consequence Argument does not advance either the compatibilist or incompatibilist cause any further, since the compatibilist can adopt his favored hypothetical analysis of 'can' in step 6. They would say that "There is nothing we can do now to change the fact that our present actions occur" is false because although you cannot change the past or the laws of nature *if you choose*, you can change your present actions *if you choose* since this only means that you *would* have acted differently *if* the past or the laws of nature had been different, and the fact that they could not actually have been different is irrelevant. They will happily concede also that you could not, as a matter of fact, have chosen otherwise, as results, we have just seen, from an assumption of naturalism. For our acts to be free is to act according to our will, and this, they will say, is only for our behavior to be caused by intentions that

[2] We might hold a more restricted naturalism that does not include causal reductionism from macro-level causal relations to micro-level causal relations. In this case Turner's conclusions do not follow, as he admits. Turner has as his target event-causal libertarians like Kane who want to construct their theories out of the same materials that the compatibilists construct theirs.

we form.[3] For our wills to be free, they sometimes continue, is only for there to be the right internal structural relations between our mental states and not to be the ultimate sources of those intentions or behavior.

At best, then, the Consequence Argument points out that the hypothetical analysis of 'can' has results that seem, to incompatibilists anyway, counter-intuitive. But how dialectically effective is this really? For the most part compatibilists do not deny that determinism is incompatible with the libertarian concept of free will, or that the libertarian concept of free will is the folk concept, the one most people have and that guide most of their intuitions. However, they would add that there are no instances of this concept and that the concept of free will that they are seeking to elucidate is the one that is compatible with the natural facts without appealing to metaphysics. This, they also tend to say, is the only kind of free will worth having. So the mere fact that intuition often counts against their concept is only to recognize that their concept is not the folk concept.

Discussions of the Consequence Argument have often missed the point by concentrating on pastness and determinism. I have shown that very little needs to be assumed in order to get a consequence argument or demonstrate the falsity of libertarianism – arguably, as little as the law of excluded middle. If the law of excluded middle is true, then I do not see that we can deny that NP_0 is true, whether P_0 expresses fact about the past, present or future. The relevant premise is in fact NL, which has been more or less tacitly agreed to by both sides of the debate. If L fixes the probability distribution of the physically open

[3] Determinism does not mean that the mental states, e.g., intentions, of agents, cannot be causes of their actions. This is meant to deflate concerns that determinism makes us into near-automata whose consciousness is merely epiphenomenal. For example, Malcolm (1968) supposes a theory, which he calls mechanism, that connects all of our bodily movements with antecedent neurophysiological states that cause them, and excludes from its vocabulary any psychological terms. This is causally closed and operates according to causal laws. These neurophysiological states and laws are sufficient for all human actions. Therefore, Malcolm concludes, intentions, beliefs, and wants have no causal or explanatory role to play. Even if he is right to say neurophysiological states and laws are sufficient for all human actions, it does not follow from the fact that a certain set of conditions is *sufficient* that some other conditions are not *necessary*. This could be for two reasons. Firstly, because they belong to different parts of the same causal chain, e.g., if wants and intentions are caused by neurophysiological states, and these wants and intentions cause (probably proximately) the behavior (Goldman 1970: 158-161). These wants and intentions are necessary conditions of the behavior even though another set of prior or posterior conditions may be sufficient. Secondly, because one supervenes on the other, in which case they are the simultaneous nomic equivalents already mentioned. Both equivalents are in this case necessary for the resulting behavior. Suppose that it is the neurophysiological state that causes the behavior; it is both necessary and sufficient for that behavior. The simultaneous nomic equivalent of the neurophysiological state – namely, the mental state – is necessary for the neurophysiological state, which in turn is necessary for the behavior, so by the transitivity of necessity, both equivalents are necessary for the effect, even though they are simultaneous (Goldman 1970: 162).

alternatives, with determinism merely being the special case of the 1.0 probability of a single outcome, then *we* cannot decide between those alternatives. We do not have free will.

Taylor (1963: 66-67) suggests what seems to me the only possible solution unless you want to accept this conclusion, and this is to reject the principle of excluded middle for undetermined events (of which future events are a subset if the future is open as believed by the indeterminists) *even after they have occurred*. Admittedly, this seems peculiar. Surely once an event has actually occurred then its occurrence can be expressed in a declarative sentence, and this sentence will be true and can be added to the set of facts. We seem committed to the view that declarative sentences describing undetermined events are not truth-evaluable. This is an issue that cannot be solved here.

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