SO-FAR INCOMPATIBILISM
AND THE SO-FAR CONSEQUENCE ARGUMENT

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Summary

The consequence argument is at the core of contemporary incompatibilism about causal determinism and freedom of action. Yet Helen Beebee and Alfred Mele have shown how, on a Humean conception of laws of nature, the consequence argument is unsound. Nonetheless, this paper describes how, by generalising their main idea, we may restore the essential point and force (whatever that might turn out to be) of the consequence argument. A modified incompatibilist argument—which will be called the *so-far* consequence argument—may thus be derived.

1. The search continues, as we seek to ascertain whether causal determinism is compatible with freedom of action. An elegant suggestion has come from Helen Beebee and Alfred Mele (2002), who have argued that a Humean conception of *laws of nature* is enough to generate such a compatibilism.[1] One notable manifestation of this compatibility is claimed to be the falsity of a premise in *the consequence argument*—which, as Beebee and Mele rightly observe, is currently 'the most influential argument in circulation for incompatibilism' (ibid.: 206). Unfortunately, though, we will see in this paper that incompatibilism is not as easily overcome as Beebee and Mele believe it to be. At best (and if a Humean conception of laws is correct), they have defeated the consequence argument's *standard* version. However, as I will also show, it is possible to isolate an underlying form to their reasoning—one that allows us to resuscitate a modified form of the consequence argument. And this will be done on grounds that are recognisably, even if not classically, Humean. So, the result will be a somewhat Humean *in*compatibilism—not one that reflects Hume's own considered

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1. Their sort of idea is also advanced, albeit less confidently, by John Perry (2004: 237–41).

compatibilist conclusion, of course, but one that is strengthened by some relevantly Humean commitments. My goal will be to present and develop this modified *incompatibilism*, not to defend it.

2. Here is a brief and informal presentation by Peter van Inwagen (1983: 16) of the consequence argument:[2]

> If determinism is true, then our acts are the consequences of the laws of nature and events in the remote past. But it is not up to us what went on before we were born, and neither is it up to us what the laws of nature are. Therefore the consequences of these things (including our present acts) are not up to us.

To this, Beebee and Mele respond by saying that a broadly Humean conception of natural laws, if correct, renders the consequence argument unsound. On that Humean conception (2002: 203), a law of nature is basically just a uniformity in nature.[3] And any such uniformity includes 'facts about the whole duration of the world, including (in worlds that have not yet ended) about the future' (ibid.). Hence, where *L* is a conjunctive proposition reporting the world's laws, a Humean conception regards *L* as being in part (and contingently) about the future. And here is where Beebee and Mele make their main inferential move (ibid.: 208):

> On a Humean conception of laws, just as facts about the future do not deprive us of present dual ability [i.e., the ability both to perform, and not to perform, a given action], facts about what laws there are do not deprive us of such ability, either, since the relevant feature of laws just is the fact that part of what laws describe is the future. Thus, a Humean—unlike van

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2. The passage is quoted by Beebee and Mele (2002: 206). There have been several formalisations and suggested revisions of the consequence argument. In § 10, I will comment on one noteworthy revision of van Inwagen's formal argument (which I will modify in § 8 and discuss in § 9). For now, I will follow Beebee and Mele in focussing upon the brief and informal version they quote.

3. Strictly, it is more than that. As Beebee and Mele allow (2002: 203), even Humeans should think so, seeking criteria with which to exclude 'for example accidental regularities, single-case uniformities, and uniformities with non-existent subjects'. Accordingly, Beebee and Mele (ibid.) endorse the addition of a Ramsey-Lewis rider. When I need to refer to this rider, I will do so via a '*ceteris paribus*' clause.

Inwagen—can reject the general claim that 'if P is a law of nature, then no one can render P false'.[4]

After all, 'ordinary future facts themselves do not impose limits on our abilities' (ibid.: 207)—and Humean laws (that is, laws that instantiate the Humean conception) *are* in part future facts. Hence, Beebee and Mele are arguing that if laws are Humean, then to some extent it is up to us what the laws are. That kind of freedom of action can exist even if causal determinism obtains. Consequently, Humean compatibilism reigns; correlatively, a prominent argument for incompatibilism does not.[5]

3. Let us concede, for the sake of argument, that Beebee and Mele succeed in showing that Humean laws—insofar as these are partly about, and constituted by, the future—do not bind an agent who is acting right now. Beebee and Mele infer from this that if the Humean conception of laws is correct, then the incompatibilist's challenge fails, framed as it is in terms of laws (plus the past). But that inference is far from mandatory; or so I will argue. Instead, we may infer that Humean laws were not essential to the incompatibilist's challenge in the first place. There is a way to (1) retain the essence of the Humean conception, while (2) allowing there to be laws which might constrain agents who are about to act, so as to (3) retain, in turn, the essence of the incompatibilist's challenge. I will do (1) and (2) in §4, attending to (3) in §5.

4. My first task, then, is to show that there is a way in which a Humean may conceive of laws as being able to constrain agents, notwithstanding the future's inability to constrain them. Beebee and Mele think (p. 208) that only the past can limit an agent—and hence that Humean laws cannot do so. Now, it is true that discussions of this issue routinely formulate causal determinism as a thesis about whether, given *the past and the laws*, it is now possible to act differently to how in fact one will act. Accordingly, one possible implication of Beebee's and Mele's analysis is that if the laws

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4. For this enclosed quotation, van Inwagen (1983: 63).

5. This compatibilist form of reasoning would not be available on all conceptions of laws of nature. Consider a necessitarian analysis such as David Armstrong's (1983: Part II). On that approach, a given law is present in the world as a universal—constituted in its entirety as soon as it is constituted at all. Hence, it is never both (i) only partly constituted in the past and (ii) partly constituted in the future.

are Humean, then only the past—and not the laws—could bind an agent in that respect. That is the implication accepted by Beebee and Mele. But here is an alternative possibility:

> (1) There can be what amount to Humean laws wholly within the past (even if there are also what amount to Humean laws that are at least partly about the future). (2) These would be the laws that could constrain an agent who is *about* to act—to do, or not to do, *X*.

(1) and (2) may be explained together. When I wonder whether I am free to do—or not to do—*X*, I am asking whether the world that is *already* in place allows me this freedom: Does the past allow only one possible future? Insofar as we are talking about a person who is *about* to act right now, the future beyond that action's occurring may as well not even exist right now. At any rate, that future can be ignored, as we assess whether what is already in place will permit only one possible continuation of it.[6] Nonetheless, this does not entail that no *laws* could be constraining the action. There *is* a way in which the past *qua* past can contain laws—Humean laws in particular. This is because the past includes whatever *would* be the Humean laws, *ceteris paribus*, if the world *were* to end at that moment of the agent's acting. If the world were to end right now, for instance, then—*ceteris paribus*—there still would have been Humean laws within it. Let L_{SF} be a conjunctive proposition reporting these—with the world being imagined, accordingly, to be about to end. I use the subscript '$_{SF}$' because I call these *so-far* Humean laws.[7] They are the Humean laws *insofar as* the world has existed *until* now—and *without* the world being conceived of as continuing *beyond* now. Thus, so-far Humean laws are subjunctively constituted. They are what *would* have been the world's Humean laws if the world was to end at a given time (such as now). But—relative to that time—they need not therefore be *lesser* regularities, *lesser* Humean laws, than are those ones that will in fact turn out—relative to the world's entire temporal history—to be the Humean laws for the world.[8]

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6. And ignoring the future in this way is especially Humean. If we apply Hume's justly famous sceptical thoughts on the rational reach of inductive extrapolations, we should say that the agent does not know that there will even *be* a world beyond that present moment. (That point is about to be accorded greater significance.)

7. The subscript '$_{SF}$' is an indexical. It denotes whatever has so far been the past, in relation to whatever is the moment at which the agent is about to do, or not do, *X*. In much of my discussion, that moment will be the (shifting) present one.

8. It should be clear that not just *any* regularity that has in fact obtained until a given time

Hence, the so-far Humean laws might, *or* they might not, be the same as whatever will be the Humean laws in the actual 'finished' or completed world. (Consequently, let L—the usual representation of the world's laws—therefore now be understood to be a conjunctive proposition reporting just the *latter* laws.) Even so, the so-far Humean laws are not subjectively constituted. They are not adequately described by locutions such as 'the laws as I have *believed* them to be so far'. So-far Humean laws exist no less objectively, relative to a time (such as now), than do the standard Humean laws—those which would standardly be referred to as being the Humean laws. The latter could be called the world's *final* (or 'end of the day') Humean laws. Fundamentally, though, they remain so-far Humean laws: they are simply specific instances of the generic kind that is the category of so-far Humean laws. For they, too, are Humean laws *relative to a time, and insofar as it is hypothesised to be the world's final moment.* In their case, though, the time in question just happens in fact to *be* the world's final moment. That is, the world's *final* Humean laws are also *so-far* Humean laws. They are so-far Humean laws, relative to the world's final moment in particular. The so-far Humean laws for the present moment thus need not be the same as the world's final Humean laws. (And L_{SF} is identical to L when the past designated by '$_{SF}$' encompasses the world's entire history—that is, when 'now' is the world's final moment.)

So-far laws for the present moment are significant because, even if the world is not in fact about to end, L_{SF}—not L (as Beebee and Mele have helped us to see)—remains relevant to an agent's freedom, or lack of it, in acting right now. In reporting the so-far Humean laws, relative to the present moment, L_{SF} is reporting what the Humean conception would classify as being the world's laws, if the present moment *were* to be the world's final moment.[9] And, again, this is how we should conceive of the present moment, insofar as we are considering the agent who is about to act right now. It is a contingent truth (if it is a truth at all) that the world is not about to end, and hence that L_{SF} will be supplanted at all—let alone ultimately by L—as a record of the world's laws.[10] That might not occur;

will be a so-far Humean law for that time. Note 3 above tells us part of why this is so. (And I am about to say more on it.)

9. In effect, this means that the so-far laws at a given time t are what would be the laws if the course of the world *beyond t* were to be put to one side. I am not saying that the so-far laws at t are whatever uniformities (*ceteris paribus*) are supervening at t upon whatever part of the supervenience base for the laws (the final laws) is in place by t. (An anonymous referee alerted me to the need to clarify this point.)

10. Any Humean laws that develop in the future could themselves be constituted by events

and, again, a Humean in particular should not credit the agent, who is about to act, with knowing that it will occur. So, the agent acts under both the causal and the epistemic shadows cast only by the past—including the so-far Humean laws. Any later so-far Humean laws—either the final ones or, more generally, so-far laws for later moments—are irrelevant to the agent *qua* imminent agent right now.

As I said, Beebee's and Mele's Humean compatibilism allows (ibid.: 208) that the *past* determines our actions—without conceding that the (Humean) *laws* do so. But Beebee and Mele have failed to notice the potential role, in limiting us as would-be free and moral agents, of whatever *so-far* Humean laws have been constraining the world until the present moment—where these need not be the same so-far Humean laws as those which the world (in its 'final' form) will have included if it survives far beyond the present moment. From the perspective of the entire world's history, the latter *are* the Humean laws (and they are distinct from those reported in L_{SF}). Yet that need not be the correct perspective to adopt in this setting. I conceded to Beebee and Mele that, insofar as Humean laws are partly about, and constituted by, the future, these laws do not constrain us as agents right now. However, we have found an extended sense in which Humean laws could constrain us right now, *without* their being about, and constituted by, the future. In order to see this, we have needed only to talk, more generally, of *so-far* Humean laws—rather than, more narrowly, of what are usually called Humean laws. In doing so, though, we are not introducing a new *kind* of law; what are usually called Humean laws are simply a special case within the category of what I am calling so-far Humean laws. Humean laws are are so-far Humean laws, *relative* to the world's final moment in particular. However, whether or not an agent is able to perform a particular action freely and with moral agency should be assessed in relation to the moment *of* her acting[11]— which might well not be the world's final moment. In general, so-far Humean laws are what potentially constrain the agent at that moment of acting; and it is possible that, at different moments of acting, as the world unfolds from one

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that are causally determined by events that have constituted whatever so-far Humean laws have existed in the past. So, the latter could even give rise—in a law-like way—to final laws that will supplant them. This does not entail, however, that the present moment's so-far laws are not what would—on Humean grounds—be the world's laws if the world were to end now. Accordingly, it does not entail that the present so-far laws are not what a Humean may regard as potentially binding the person who is now on the verge of acting.

11. I have further developed this kind of point in my (2003).

moment to the next, successively and correlatively *different* so-far Humean laws play this role. To focus only on so-far Humean laws for the world's *final* moment (which is to say, the world's 'official' Humean laws) is not to do justice to how an agent, when acting at a particular time, would potentially be constrained *qua* agent *at* that time.

5. Yet that misplaced focus is what traditional discussions of these issues have adopted. They talk only of *the laws*, overlooking the more general category of *so-far* (Humean) laws. Traditional incompatibilists, for example, have thereby made themselves vulnerable to Beebee's and Mele's argument. If laws are Humean, and if these issues are presented only in terms of the laws *per se*, then Beebee's and Mele's argument is a powerful one. For—as they rightly observe—the world's (final) Humean laws do not limit the agent at the time of acting. However, once we notice both the possibility and the aptness of applying to agents-about-to-act the concept of a *so-far* (Humean) law, does Beebee's and Mele's objection become avoidable?

In my terms, what Beebee and Mele have described is the causal irrelevance to the agent, when she is about to act, of the world's final so-far Humean laws. But the world's earlier so-far Humean laws could remain relevant. Will they also *limit* us as agents? Incompatibilists—at least those accepting what I am about to begin presenting as a suitably modified kind of incompatibilism—should claim so. For our *generalised* Humean conception of laws—namely, the concept of a *so-far* Humean law—will allow the incompatibilist's consequence argument to be revised accordingly. To see this, we may adapt van Inwagen's earlier formulation (in § 2) of the consequence argument. Doing so gives us (as follows) this informal version of what I call the *so-far* consequence argument:

> If *so-far* determinism is true, then our acts right now are the consequences of the *so-far* laws of nature and events in the remote past. But it is not up to us what went on before we were born, and neither is it now up to us what the so-far laws of nature are. Therefore the consequences of these things (including our present acts) are not up to us.

What is so-far determinism? It stands to determinism as so-far (Humean) laws stand to the final (Humean) laws. If determinism is formulated (as it usually is) in this way,

The laws plus the past jointly entail whatever in fact is happening,

then *so-far* determinism is to be formulated thus:

The *so-far* laws plus the (rest of the) past jointly entail whatever in fact is happening.[12]

Then the so-far consequence argument stands to the so-far Humean laws as the (usual) consequence argument stands to the final Humean laws.[13] And what could be termed *so-far incompatibilism* would be the conclusion of that argument. My claim right now, therefore, is that the traditional incompatibilist should consider moving to advocating a so-far incompatibilism—thereby becoming (as we might say) a so-far incompatibilist. Even if (traditional) incompatibilism as such were to fall, this would not entail the demise of so-far incompatibilism.

6. Beebee and Mele objected to the original consequence argument—specifically, to its premise that we are unable to do anything about the laws of nature. But their objection leaves intact the revised version of that premise—along with so-far incompatibilism. And so-far incompatibilism is no less threatening to the possibility, at a given moment, of free agency than traditional incompatibilism ever purported to be. Even if, as Beebee and Mele argue (ibid: 207–9), we are able to alter the (final) Humean laws by having the ability still to act differently to how in fact we will act, this does not entail that we are now able to alter the *so-far* Humean laws. These *are* now beyond our causal reach. Yet we are not thereby beyond theirs, when we act right now. Perhaps they will not end up being the world's final Humean laws—that is, once the world is finished. Nonetheless, they have been Humean laws, *ceteris paribus*, for the world *considered purely as it has been until now* (and with no assumption of its continuing beyond now). And

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12. Just as (standard) indeterminism is the denial of (standard) determinism, so-far indeterminism is the denial of so-far determinism. The applicability of the so-far consequence argument to this world is therefore not to be undermined by arguing for there being indeterminism in this world. Only *so-far* indeterminism is relevant in that way. And the so-far consequence argument hypothesizes *so-far* determinism as obtaining. That argument's goal, after all, is just to show the logical incompatibility of (i) so-far determinism, relative to a given time, and (ii) anyone's being able to act, at that time, in some way other than in fact they act.

13. This will become clearer in §§ 8–10, where I present the formal implications of my argument.

not only is this an appropriate way to conceive of Humean laws—namely, insofar as they are *so-far* Humean laws—when we are considering whatever might constrain an agent insofar as she is about to act; it is all that a so-far incompatibilist *needs* them to have been if the so-far consequence argument is to be maintained. Accordingly, it is all that an incompatibilist, in order to be threatening, needs to maintain. A so-far incompatibilist endorses the incompatibility of free action with so-far causal determinism, rather than with (the standard) final causal determinism. But at any moment of acting, so-far incompatibilism is no less (and no more) worrying or constraining than is traditional—what we may call *final*—incompatibilism. Are our actions causally determined by the past in general, including the so-far laws? Does the past, including its so-far laws, leave us with the ability to act otherwise than in fact we will act? By generalising the Humean conception of laws so as to talk of so-far Humean laws, we enable any would-be incompatibilist to reach for these revised questions, thereby evading Beebee's and Mele's conceptual clutches by becoming a so-far incompatibilist.

7. So, a Humean may allow that the *so-far* Humean laws, as reported in L_{SF}, are helping to causally determine our actions—even if what will be the *final* Humean laws, as reported in L, are not doing so. And an incompatibilist may insist, by becoming a so-far incompatibilist, that L_{SF} is helping to constrain our actions—even if she concedes (with Beebee and Mele) that L is not doing so. Beebee and Mele argued that the Humean conception of laws of nature gives us a Humean compatibilism. But in fact what underlies that conception—the more general concept of a so-far Humean law—allows us to strengthen the case for incompatibilism, by conceiving of *so-far* incompatibilism. To that extent and in that sense, therefore, a subtly (even if non-standardly) Humean *kind* of incompatibilism may be found to arise from Beebee's and Mele's attempt to articulate a Humean compatibilism.

8. So far, my argument has been presented informally (following the lead of Beebee and Mele), but it may gain strength from a more formal presentation. This section, then, contains a formal version of van Inwagen's consequence argument (not using exactly his own notation), along with Beebee's and Mele's objection, followed by my formal revision of van Inwagen's argument.

8.1. *van Inwagen's consequence argument* (1983: 93–5; 2002: 159). Let the sentential operator 'N' be such that 'Np' says 'p, and no one has or ever had any choice about whether p'. Adopt these two rules of inference:

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

And focus on three propositions—P, L, and A. P describes the world as a whole, at some time in the remote past; L describes the world's natural laws; and A describes the obtaining of some actual state of affairs later than P.[14] It is assumed that causal determinism implies (by being the universal generalisation of) this thesis of strict entailment: $(P \& L) \to A$. Then the consequence argument proceeds as follows, after first assuming causal determinism (for conditional proof):

1. $\Box((P \& L) \supset A)$ [From causal determinism]
2. $\Box(P \supset (L \supset A))$ [1, standard propositional logic]
3. $N(P \supset (L \supset A))$ [2, Rule α]
4. NP [Premise: the fixity of the past]
5. $N(L \supset A)$ [3, 4, Rule β]
6. NL [Premise: the fixity of the laws][15]
7. NA [5, 6, Rule β]

8.2. *Beebee's and Mele's objection formalised.* Assume a Humean interpretation of L. Let t be some given present moment, short of the world's 'final' moment, at which an agent x is bringing about A. Then L can include mention of correlations which (either as types or as instances) have not occurred by t. Assume causal determinism again: it entails that $(P \& L) \to A$. This consequence is equivalent to A's being entailed by $(P \& L_{past} \& L_{non\text{-}past})$—where the non-past amounts to the present ($= t$) plus the future ($> t$). In other words, given causal determinism, we have A's being entailed by (i) P, in conjunction with (ii) the nomic correlations

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14. van Inwagen does not include this 'later than' qualification in his presentation of the consequence argument. His not doing so reflects his adopting (1983: 65) a two-way (and thereby stronger) conception of causal determinism. On his conception, *each* of the past and the future (plus, in each case, L) entails the other.

15. Premises 4 and 6 are said by van Inwagen (2002: 159) to be 'obviously true—no one has any choice about the past; no one has any choice about the laws of nature'.

that have *already* occurred, amongst those that conjointly constitute L, and (iii) the nomic correlations that have *not* already occurred, amongst those that conjointly constitute L. But the latter correlations—those reported in $L_{non\text{-}past}$—cannot be constraining x at the time t of her doing A; only P plus L_{past} could do that. Hence, for all that causal determinism proves to the contrary, x *could* be freely doing A at t (in the sense of not being constrained in performing that action at that time). Formally: the fact that (P & L_{past} & $L_{non\text{-}past}$) entails A does not entail that (P & L_{past}) entails A. Given the Humean interpretation of L, therefore, we obtain a compatibilist implication—the compatibility of causal determinism with x's freely doing A at t. And what (in the opinion of Beebee and Mele) is thereby revealed to be the faulty step in the consequence argument? It is premise 6. Beebee and Mele (2002: 209-10) are denying that NL. For insofar as x can be constrained at t only by P and L_{past}, and insofar as causal determinism's obtaining would therefore leave open the possibility of x freely doing A at t, the following possibility is also established—the possibility that, by freely bringing about A, x also freely brings about part of the content of $L_{non\text{-}past}$. But $L_{non\text{-}past}$ is part of the content of L. (The former conjunction, $L_{non\text{-}past}$, is a conjunct within the latter one, L.) Hence, even given causal determinism, at least part of the content of L need not be beyond the free control of x, acting at t. Thus, we have ∼6—that is, ∼NL.

8.3. *The so-far consequence argument.*
Even if Beebee and Mele are correct to deny that NL, I have argued informally in earlier sections that no would-be incompatibilist need yet admit defeat. Rather, she may revive enough of van Inwagen's consequence argument (certainly its underlying spirit) for her purposes. She need only replace his talk of L with references to L_{SF}. (And although, as I will explain, this would require a change of name on her part, such nominal reinvention is a small price to pay.) As we saw in § 4, L_{SF} designates—at any given moment—the *so-far* laws as they are at that moment.[16] Then the would-be incompatibilist may reach for *so-far* incompatibilism, by revising van Inwagen's argument as follows.

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16. Here is a formal reminder of some features, previously described informally, of so-far laws. (I continue assuming a Humean interpretation of laws.) Let t_n = the world's 'final' moment. Let $_iL_{SF}$ = the so-far laws at time t_i ($i \le n$). Then $_nL_{SF} = L$. Let $_iL$ = the conjunction of all correlations recorded in L that have obtained by t_i ($i \le n$). Then $L = {}_nL$. Hence, $_nL_{SF} = L = {}_nL$. But, for all other t_i (that is, all t_i such that $i < n$), we have this result: ∼($_iL_{SF} \leftrightarrow {}_iL$), where '$\leftrightarrow$' designates strict, not material, implication. A so-far law at t_i ($i \le n$) in this world is, *ceteris paribus*, a correlation that is a (final) law in any world W which is exactly like this world except that W *ends* at t_i.

The revised argument begins with an assumption (again for conditional proof) of *so-far* causal determinism. So-far causal determinism is a universal generalisation of—and hence tells us that—$(P \& L_{SF}) \rightarrow A$. And the revised argument—the *so-far* consequence argument, I am calling it—proceeds like this:

1. $\Box((P \& L_{SF}) \supset A)$ [From so-far causal determinism]
2. $\Box(P \supset (L_{SF} \supset A))$ [1, standard propositional logic]
3. $N(P \supset (L_{SF} \supset A))$ [2, Rule α]
4. NP [Premise: the fixity of the past]
5. $N(L_{SF} \supset A)$ [3, 4, Rule β]
6. NL_{SF} [Premise: the fixity of the so-far laws]
7. NA [5, 6, Rule β]

This possible version of a so-far consequence argument alters van Inwagen's original version only minimally: the references to L become references to L_{SF}; nothing else is changed. Nonetheless, this new argument has a clear and immediate advantage over van Inwagen's: it evades Beebee's and Mele's objection. Their rejection of premise 6 (the thesis that NL) is based upon reasoning which is inapplicable to the *so-far* consequence argument's replacement premise 6 (the thesis that NL_{SF}). That is, even if (for Beebee's and Mele's reasons) NL is false, this does not entail that NL_{SF} is false. The reason for that disparity is simple (and as follows). Unlike L (on its Humean interpretation), L_{SF} *is* wholly about the past: so-far causal determinism thereby respects Beebee's and Mele's guiding principle that only the *past* could ever constrain an agent's actions. If (as so-far causal determinism implies) it is true that $(P \& L_{SF}) \rightarrow A$, then x at t, in bringing about A, is left with *no* alternative to performing that action at that time. Yet recall that this constraint was not in place, given *traditional* causal determinism—namely, the thesis that $(P \& L) \rightarrow A$—and given the Humean interpretation of L. Thus, so-far causal determinism, unlike traditional causal determinism, leaves x with no alternative to doing A—even given that, as a general consideration, only the *past* can constrain an action when it is being, or when it is about to be, performed.

9. Here is a possible objection to the supposed significance of § 8's so-far consequence argument:

The argument is being used to show that Beebee and Mele have not shown that *so-far* determinism is compatible with free action—and hence that they have not really revealed (traditional) determinism to have that compatibilist potential. But this use of the argument relies upon the idea that determinism is either committed to, or flows from, so-far determinism—so that the latter's incompatibility with freedom of action either entails or is entailed by determinism (either entailing or reflecting *its* incompatibility with freedom of action). And this reliance undermines the argument, because neither of determinism and so-far determinism entails the other.

It is true that neither of determinism and so-far determinism entails the other. However, that sort of logical intertwining is not being relied upon in my use of the so-far consequence argument. Although the world's final laws are a special instance within the category of so-far laws, this does not entail that to be causally determined by, in part, those final laws is to be so-far causally determined by any of those *same* laws.[17] At any moment (other than the world's final one), being so-far causally determined involves being constrained by so-far laws, none of which need be preserved in the world's final inventory of laws. Yet—and this is the key point—*even* if, at any such (non-final) moment, we are not being constrained by the final laws, a Humean should accept that we are still being constrained, if at all, by the *so-far* laws. These are, after all, the *only* Humean laws that have been constituted purely by the past as such—the past purely on its own, independently of whatever is to follow—up to that time; and it is (as Beebee and Mele note) *only* the past that a Humean can allow to be constraining us as agents. By recognising all of this on the Humean's behalf, therefore, we make the *modified* consequence argument—the so-far consequence argument—the one that Humeans must confront. So-far determinism enters the story I am telling, not because of any logical links to traditional determinism, but simply because it is the kind of determinism, if any, that a *Humean* about laws should take seriously.

Clearly, Beebee and Mele did not intend leaving themselves open to any incompatibilist adaptation of the Humean framework. Nonetheless, this *is* the result. They saw Humeanism about natural laws as a way of evading the standard consequence argument; and so it is (given its truth). But a Humean

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17. This entailment would obtain only at the world's *final* moment, for actions being done at that time.

compatibilist believes that all present actions, say, are necessitated by a past about which we can now do nothing; and even if, as Beebee and Mele argue (in the way that was explained in § 8.2), that past does not include the *final* laws, a Humean must accept its including *so-far* laws. Indeed, a would-be Humean compatibilist should say that these are integral *to* the past's having whatever limitative power it has over us. Yet with that admission, the Humean is vulnerable to the so-far consequence argument—*even* if not to the traditional consequence argument. At least for a Humean about laws, therefore, this vulnerability obtains, *regardless* of whatever logical links do, or do not, obtain between determinism and so-far determinism. Strictly speaking, if so-far determinism constrains us, this is the *past* on its own doing so. (The so-far laws are just *part* of the past.) And because we cannot now alter the past, a would-be Humean compatibilism must fail. Inadvertently, then, Beebee and Mele have helped us to see that a Humean compatibilism, incorporating a Humeanism about laws, *cannot* be true. The so-far consequence argument has at least this import.[18]

10. An impressive, and somewhat formal, philosophical literature has been generated by van Inwagen's vigorous defense of the consequence argument. However, I will not plunge into that body of work now. I do not need to do so, because my revision (in § 8) of van Inwagen's argument, being so minimal in its formal modifications of his argument, should return us to

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18. It shows how, if so-far determinism is true, no Humean can allow our present actions to be free. But is it possible that, for a Humean, so-far determinism is *not* true? In that case, too, Humean compatibilism would be false. Moreover, there is indeed good reason for a Humean to regard so-far determinism as false. What follows is a brief analysis of this point. With Humean laws being universal generalisations (*ceteris paribus*), determinism is applied thus: From '$(x)(\mathrm{F}x_{\text{at a time}} \supset \mathrm{G}x_{\text{a moment later}})$' (this being some particular, and simple, law-statement) and '$\mathrm{F}a_{\text{right now}}$', it would follow that '$\mathrm{G}a_{\text{in a moment's time}}$'. This is how there would be an entailment of future actions by the past plus the laws—such as is claimed to fall out of determinism. But if instead we are working only with so-far laws, we have this *non*-entailment: From '*so-far*-until-now-$(x)(\mathrm{F}x_{\text{at a time}} \supset \mathrm{G}x_{\text{a moment later}})$' and '$\mathrm{F}a_{\text{right now}}$', it would *not* follow that '$\mathrm{G}a_{\text{in a moment's time}}$'. That non-entailment obtains because, for a start, the stated quantificational range of this so-far law does not apply to a's being G in a moment's time. The so-far law describes the world only until now; the range of quantification falls short of applying to future actions. Also, this sort of limitation is inescapable because, as a Humean should accept, the so-far laws as they *have* been could be about to *change*. Perhaps they will, in a moment's time, be replaced by at least somewhat different so-far laws. (This possibility is ever present, as the world continues taking shape, moment to moment; or so a Humean should agree.) Thus, all of this gives us a Humean argument *against* so-far determinism—and hence, once more, against Humean compatibilism.

the motivating *origins* of much of that literature. Nonetheless, the putatively *improved* consequence argument from Alicia Finch and Ted Warfield (1998: 522) merits comment. They accept Thomas McKay's and David Johnson's (1996) proof that van Inwagen's rule β is invalid.[19] Do Finch and Warfield therefore relinquish the consequence argument? No, they seek to improve it, by advocating this modified version:

Replace rule β with rule β*: $Np, \Box(p \supset q)) \vdash Nq$.
Assume causal determinism (for conditional proof).
1. $\Box((P \& L) \supset A)$ [From causal determinism]
2. $N(P \& L)$ [Premise: the fixity of the past and of the laws]
3. NA [1, 2, Rule β*]

Beebee and Mele would regard this argument (if they were to focus upon it) as being no more successful than van Inwagen's original version. This time (presumably on the same grounds as they advanced against van Inwagen), they would reject premise 2. After all, if NL is false (as they argue), then so is $N(P \& L)$. But any such application of Beebee's and Mele's reasoning would be overlooking a possible modification to the Finch/Warfield argument. Specifically, we may modify the latter argument by talking of *so-far* laws, instead of the laws *simpliciter*. This would allow their argument to be revised, with minimal formal upheaval, in the following way:

Assume *so-far* causal determinism (for conditional proof).
1. $\Box((P \& L_{SF}) \supset A)$ [From so-far causal determinism]
2. $N(P \& L_{SF})$ [Premise: fixity of the past and of the so-far laws]
3. NA [1, 2, Rule β*]

And even if Beebee's and Mele's reasoning implies its being false that $N(P \& L)$, this does not also entail its being false that $N(P \& L_{SF})$. An action's being causally determined yet free (with this compatibilist possibility, left open on Beebee's and Mele's objection, allowing part of $L_{non\text{-}past}$ to be within x's control) does not entail the action's being *so-far* causally determined yet free. So, the spirit of incompatibilism is kept alive, once the relevance and power of *so-far* causal determinism is acknowledged.

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19. Likewise, van Inwagen (2002:165) himself accepts this proof of β's invalidity.

11. The traditional letter of incompatibilism is not thereby defended, of course, because I have argued that it is *so-far* incompatibilism, not traditional incompatibilism *simpliciter*, that survives. The latter is framed only in terms of causal determinism *simpliciter*, not of so-far causal determinism. Yet it is the power of *so-far* causal determinism, not of traditional causal determinism *simpliciter*, that has been seen to be impervious to the Beebee/Mele kind of objection. Does that limit the significance of this paper's results? Not at all: if laws are Humean, and if only the past ever really constrains our actions, then it *could* only ever have been so-far incompatibilism, not incompatibilism as traditionally formulated, that would-be compatibilists needed to confront. A correlative *so-far* compatibilism is the most that a Humean could hope to establish; and the so-far consequence argument threatens to undermine that ambition.[20]

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