The Mind *Argument and Libertarianism*

ALICIA FINCH and TED A. WARFIELD

Many critics of libertarian freedom have charged that freedom is incompatible with indeterminism. We show that the strongest argument that has been provided for this claim is invalid. The invalidity of the argument in question, however, implies the invalidity of the standard Consequence argument for the incompatibility of freedom and determinism. We show how to repair the Consequence argument and argue that no similar improvement will revive the worry about the compatibility of indeterminism and freedom.

Libertarians believe that free will exists and is incompatible with determinism. Among the many problems facing libertarians is the problem of the alleged incompatibility of free will and indeterminism. If free will is, as many have suggested, incompatible with indeterminism then libertarianism is false. Libertarians have not adequately addressed this issue to date. It is this gap in the libertarian program that we seek to fill. We will show that the strongest argument for the incompatibility of indeterminism and free will, the so called *Mind* argument,[1] is a failure. We will also, in providing an improvement on Peter van Inwagen's well known Consequence argument, show that the failure of the *Mind* argument does not threaten the strongest libertarian argument for the incompatibility of free will and determinism.

In his widely influential book *An Essay on Free Will* (1983), Peter van Inwagen presented, among other arguments, his Consequence argument. This argument is, we think, the strongest argument to date for incompatibilism, the thesis that free will and causal determinism are incompatible. Unfortunately, as van Inwagen saw and as we will discuss below, an argument quite similar to van Inwagen's Consequence argument, the *Mind* argument, seems to show that free will is also incompatible with causal indeterminism. If both van Inwagen's argument and the *Mind* argument are sound then there is no such thing as free will and libertarianism is false.

[1] Peter van Inwagen (1983) gives the argument this name because he finds the argument defended in several articles published in *Mind* (Hobart 1934, Nowell-Smith 1948, Smart 1961). We follow van Inwagen here and are uncertain if the attribution of this argument to these authors is accurate. The argument is certainly of interest independent of the question of which, if any, of these authors presented versions of it.

Mind, Vol. 107 . 427 . July 1998

Like van Inwagen we are libertarians and wish to avoid this conclusion. Unlike van Inwagen, however, we have a satisfactory response to the challenge of the *Mind* argument. Our response, in brief, is to deny the soundness of both van Inwagen's Consequence argument and the *Mind* argument. After showing why both arguments are unsound, we will offer an improved version of the Consequence argument and show that the *Mind* argument cannot be similarly improved. We conclude that the *Mind* argument (and with it general worries about the incompatibility of indeterminism and free will) is no threat to the libertarian.

We begin with van Inwagen's Consequence argument.[2] Determinism is the thesis that the conjunction of the past and laws of nature fixes a unique possible future. Where F is any truth, P a proposition expressing the complete state of the world at a time in the distant past, L a conjunction of the laws of nature and $\Box$ expresses broad logical necessity, it is a consequence of determinism that

$$\Box \{(P \,\&\, L) \rightarrow F\}$$

Let "Np" abbreviate "p and no one has, or ever had, any choice about whether p" (van Inwagen 1983 p. 93) and understand one's having a choice about a truth p as one's being able to act so as to ensure the falsity of p.[3] Here are van Inwagen's two rules of inference involving this N operator:

Alpha $\Box\, p$ implies Np

Beta $\{\mathrm{N}p \,\&\, \mathrm{N}(p \rightarrow q)\}$ implies Nq.

With this machinery in place, we now present van Inwagen's Consequence argument:

The Consequence Argument

1.	$\Box \{(P \,\&\, L) \rightarrow F\}$	Consequence of Determinism
2.	$\Box \{P \rightarrow (L \rightarrow F)\}$	1
3.	$\mathrm{N}\{P \rightarrow (L \rightarrow F)\}$	2, Alpha
4.	NP	premise, fixity of the past
5.	$\mathrm{N}(L \rightarrow F)$	3, 4, Beta
6.	NL	premise, fixity of the laws
7.	NF	5, 6, Beta

[2] We focus on van Inwagen's (1983) presentation beginning on p. 93, occasionally changing van Inwagen's abbreviations but little else.

[3] See van Inwagen (1983, pp. 67–8 and note 31, pp. 233–4). This rough characterization may not fully capture van Inwagen's more careful discussion of what it is to have a choice about the truth of a true proposition but we think that it is at least close to his intended meaning. We will discuss complications for this understanding and one possible modification later in this paper.

The conclusion of this argument generalizes quickly to the claim that no one has a choice about, that no one is free with respect to, any true proposition at all including, most importantly, propositions describing the actions and intentions of allegedly free human agents. If the Consequence argument is sound then free will and determinism are incompatible.

A quick glance at van Inwagen's argument seems to reveal that, as van Inwagen himself agrees, the weakest link is rule Beta. Rule Alpha is surely unobjectionable and, while there are those who would deny one of the argument's two premises, this strategy for responding to van Inwagen's argument is, to put it mildly, extremely counterintuitive.[4] One premise of the argument states that no one has a choice about the way the past was and the other states that no one has a choice about what the laws of nature are. These premises are, we think, not where the difficulties with the Consequence argument are to be found.

Though rule Beta seems initially plausible, its validity is not as immediately obvious as that of rule Alpha. Though he rehearses examples in which rule Beta appears to function properly, van Inwagen admits that he has no real argument for the validity of rule Beta. He writes

> I must confess that my belief in the validity of Beta has only two sources, one incommunicable and the other inconclusive. The former source is what philosophers are pleased to call "intuition". ... The latter source is the fact that I can think of no instances of Beta that have, or could possibly have, true premises and a false conclusion. (1983, pp. 97–8)

We will return to the question of rule Beta's validity shortly. First, however, we will present the *Mind* argument for the incompatibility of indeterminism and free will and show exactly how this argument threatens libertarianism.[5]

Consider an indeterministic world in which, most importantly, the actions of agents are indeterministic consequences of agents' particular sets of beliefs and desires. Let "*DB*" represent the particular belief/desire complex of some agent and let "*R*" represent an action brought about exclusively by *DB*. So, *DB* causes, but does not determine, *R*, and it is only *DB* that is relevant to the occurrence of *R* (there is no hidden "double" causation). Given that *R* is an indeterministic consequence of *DB*, it seems that no one has a choice about whether or not *R* follows *DB*. Once *DB* occurs, given indeterminism, perhaps *R* will follow and perhaps it will not

[4] For approaches denying a premise of the argument see Horgan (1985), and Lewis (1981). See van Inwagen (1983, pp. 72–5) for a discussion motivating acceptance of the premises. See also Kane (1996, pp. 48–58) for further discussion of the prospects of rejecting a premise of the argument.

[5] Once again we follow van Inwagen's presentation of the argument, focusing exclusively on what is in his text the "third strand" of the *Mind* argument (see van Inwagen 1983, pp. 142–50).

but since once *DB* occurs everything relevant to *R*'s occurrence has taken place it seems clear that no one has a choice about *R*'s following *DB*. That is, it appears to follow that

$$N(DB \rightarrow R).$$

Additionally, it seems quite plausible to think that no agent has a choice about the particular belief/desire complex that she has. This is because *DB* is a consequence, an indeterministic consequence in the worlds we are considering, of earlier facts about which the agent presumably has no control.[6] That is:

$$N(DB).$$

But if both $N(DB)$ and $N(DB \rightarrow R)$ are true it would seem to follow, from rule Beta, that $N(R)$.

The Mind *Argument*

P1.	$N(DB)$	Premise
P2.	$N(DB \rightarrow R)$	Premise
C1.	$N(R)$	P1, P2, Beta

This argument easily generalizes to the claim that indeterminism and free will are incompatible. Where *R* is any action and *DB* the indeterministic source of the action, this argument, the *Mind* argument, seems to show that no agent has a choice about, that no agent is free with respect to, any action she performs. So, if the *Mind* argument is sound then indeterminism is incompatible with free will, and libertarians are forced to reevaluate their position.

As should be clear, what is particularly troubling for the libertarian concerned with the *Mind* argument is that the weakest link of the argument appears to be its reliance on rule Beta. The *Mind* argument is valid if and only if rule Beta is, but of course it is the validity of rule Beta that the libertarian appeals to in offering the Consequence argument for the incompatibility of free will and determinism. The libertarian is thus faced with the following difficulty. The Consequence argument is sound only if rule Beta is valid. But

[6] As van Inwagen (1983, p. 146) correctly points out, one could have a choice about *DB* only if one had a choice about some earlier state of affairs from which *DB* followed, in which case proponents of the *Mind* argument will simply raise their worries about this earlier state until we reach an initial state about which the agent in question has no choice. The Editor has correctly pointed out that the premises of the *Mind* argument are more plausible when the Beta principle is relativized to the agent under consideration (in a way similar to van Inwagen's (1989) discussion of how often one exercises libertarian freedom). So, instead of "N*p*" abbreviating "*p*, and no one has, or ever had, a choice about whether *p*", Beta can be relativized to a particular agent so that "N*Sp*" abbreviates "*p*, and *S* does not have, and never had, a choice about whether *p*". We do not think that any of the issues under discussion in this paper turn on this alternative understanding of the "N" operator.

if rule Beta is valid then, while the Consequence argument seems to show that free will and determinism are incompatible, the *Mind* argument seems to show that free will is also incompatible with indeterminism. If free will is incompatible with both determinism and indeterminism, however, then there is no such thing as free will and libertarianism is false. The libertarian thus seems forced to choose between abandoning the Consequence argument (the libertarian's strongest argument for the incompatibility of free will and determinism) and abandoning free will entirely.

Faced with this difficult dialectical situation, van Inwagen suggests that the libertarian's best strategy is to reject (P2) of the *Mind* argument, but he quickly admits that he has no idea how this premise could be false and has no account of action that makes it at all plausible that this premise is false.[7] He says "I must choose between the puzzling [the falsity of P2] and the inconceivable [the invalidity of rule Beta]. I choose the puzzling" (1983, p. 150).

Like van Inwagen, we do not see how (P2) of the *Mind* argument could be false.[8] Like van Inwagen, we wish to defend libertarianism from the difficulties raised by the *Mind* argument. Unlike van Inwagen, however, we have a solution to the libertarian's difficulties. We will show that the *Mind* argument is unsound because rule Beta is invalid. While this result implies that the Consequence argument as formulated by van Inwagen is also invalid, we will show that there is a stronger version of the Consequence argument that does not rely upon rule Beta. Most importantly, we

[7] Van Inwagen claims that it is hard to see how even a well worked out understanding of agent causation (something it is safe to say no one has provided) could help one respond to the *Mind* argument. As he explained in comments on an early draft of this paper

> Suppose that *DB* occurred and, immediately thereafter, the agent agent-caused *R*. It does not follow that the agent had a choice about *R*; to get that conclusion we need another premise: that the agent in fact had a choice about whether he or she agent-caused *R*. And what is the argument for *that*? After all, if the world were "replayed" many times, the agent would sometimes agent-cause *R* and sometimes would not. Why are we supposed to believe that the agent had a choice about whether the actual occasion was one in which *R* was agent-caused or one in which *R* did not occur?

See also van Inwagen (1993, pp. 193–4) for further discussion.

Given these (and other) concerns about agent causation libertarians seem to have two options. They must either explain how agent causation helps in responding to worries about indeterminism or develop a non-agent causation account of freedom consistent with indeterminism. To date, attempts of this latter sort have been unsuccessful. We are in broad agreement with O'Connor's (1993b) criticisms of these accounts.

[8] Introducing agent causation into the picture at this point in the discussion would *not* serve to show how P2 of the argument could be false. Rather, the successful introduction and defense of agent causation would show that the *Mind* argument is not relevant to human freedom.

will show that the *Mind* argument cannot be repaired in the way that the Consequence argument can. The *Mind* argument, and with it worries about the incompatibility of indeterminism and free will, poses no threat to the libertarian.

We begin by showing that rule Beta, as formulated by van Inwagen and as used in the *Mind* argument, is invalid. There have been several attempts at showing this, most unsuccessful.[9] McKay and Johnson (1996), however, have established without a doubt that rule Beta is invalid.

Thomas McKay and David Johnson (1996), however first derive a consequence of rules Alpha and Beta, what they call the principle of Agglomeration, the principle stating that the conjunction of Np and Nq implies N(p & q). They then provide a counterexample to Agglomeration and conclude that, since Alpha is beyond suspicion, rule Beta must be invalid. Here is the derivation of Agglomeration.

1.	Np	Premise
2.	Nq	Premise
3.	$\Box$ $\{p \rightarrow (q \rightarrow (p \,\&\, q))\}$	necessity of logical truth
4.	N$\{p \rightarrow (q \rightarrow (p \,\&\, q))\}$	3, Alpha
5.	N$\{q \rightarrow (p \,\&\, q)\}$	1, 4, Beta
6.	N(p & q)	2, 5, Beta

But, given van Inwagen's understanding of the N operator discussed earlier, we can see that (6) does not follow from (1) and (2); therefore at least one inference involved in this derivation must be invalid; therefore rule Beta is invalid.

McKay and Johnson provide a simple example showing that (6) does not follow from (1) and (2). Suppose one does not toss a coin but could have. Let p = "the coin does not land heads" and q = "the coin does not land tails". In this case, while both Np and Nq are true (i.e. no one can ensure or could have ensured that the coin lands heads), N(p & q) is false, because one could have ensured the falsity of (p & q) by flipping the coin.[10] So the principle of Agglomeration is invalid and therefore rule Beta is

[9] We are in broad agreement with O'Connor's (1993a) discussion of many of the objections to Beta.

[10] Gallois (1977, p. 101) provided a similar example for a different purpose in an early critique of van Inwagen. This counterexample clearly relies on the particular understanding of "having a choice" introduced in our presentation of van Inwagen's Consequence argument. McKay and Johnson find this same understanding of van Inwagen in his book and so we are pretty confident that this understanding captures van Inwagen's original understanding (see the references in note 3). McKay and Johnson (1996, note 9) provide counterexamples for some other possible understandings of this locution. We will discuss one important alternative understanding later when we discuss possible attempts to repair the *Mind* argument in the face of this demonstration of its invalidity.

invalid. Because rule Beta is invalid it follows that both van Inwagen's Consequence argument and the anti-libertarian *Mind* argument are unsound.

Libertarians can thus respond to the *Mind* argument by pointing out that it is invalid. However, given that the invalidity of the *Mind* argument implies the invalidity of van Inwagen's Consequence argument, such a libertarian must provide an improved argument for the incompatibility of free will and determinism. We will do this by offering an improved version of the Consequence argument.[11]

Because van Inwagen's Consequence argument employs an invalid inference principle, we must offer and make use of a strengthened inference principle that somehow links the core consequence of determinism (that the past conjoined with the laws of nature entails a unique possible future) with the result that no agent can or could do other than what he or she does. Using "Np" and "$\Box$" exactly as in the presentation of the Consequence argument, we propose the following strengthened transfer principle.[12]

Beta 2 (Np & $\Box$ ($p \rightarrow q$)) implies Nq.

We now argue for the incompatibility of free will and determinism as follows (using "P", "L", and "F" as in our presentation of van Inwagen's argument):[13]

[11] One might, rather than offering an improved version of the Consequence argument, attempt to offer an incompatibilist argument that does not make use of any transfer of necessity principle. It is this feature that we think is the essential feature of the "Consequence style" arguments for the incompatibility of free will and determinism. John Fischer (1994) has attempted to provide an argument for incompatibilism that does not employ such a transfer principle, but we have yet to see a valid and plausibly sound incompatibilist argument that does not at least implicitly rely upon a transfer of necessity principle.

[12] The principle is strengthened in the sense that, given the unquestioned validity of van Inwagen's rule Alpha, the validity of van Inwagen's Beta implies, but is not implied by, the validity of Beta 2. Beta 2, due to the strengthened operator in front of its conditional argument, is vulnerable to fewer potential counterexamples than Beta. Warfield (1996) uses a similarly strengthened "nonresponsibility" inference principle in arguing that determinism and moral responsibility are incompatible. We could further strengthen the transfer principle by placing restrictions on the temporal ordering of the "p" and "q" slots in the principle as O'Connor (1993a, p. 209) suggests doings for a related transfer principle.

[13] Though not discussing the relevance of any of this to the troubling *Mind* argument, David Widerker (1987) introduced what we called Beta 2 and also proposed this same improved version of the Consequence argument in an interesting early discussion of van Inwagen's Consequence argument. After proposing certain counterexamples to Beta, Widerker claims that Beta 2 allows the incompatibilist to avoid the counterexamples. As O'Connor (1993a) has shown, it is possible to avoid the counterexamples that Widerker offered without using Beta 2. More troubling about Widerker's discussion of this strengthened Consequence argument is that Widerker, perhaps mistakenly assuming that the premise of the improved argument is formally equivalent to the premises of van Inwagen's version, failed to discuss and support the premise of the argument.

The Improved Consequence Argument

P1.	$\Box \{(P \& L) \rightarrow F\}$	Consequence of Determinism
P2.	$N(P \& L)$	Fixity of the past and laws
C1.	NF	P1, P2, Beta 2.

This improved version of the Consequence argument is, we think, a well motivated incompatibilist response to the McKay and Johnson demonstration of the invalidity of Beta. Beginning with the same consequence of determinism as van Inwagen, we simply avoid steps 2 and 3 of van Inwagen's argument, which, so far as we can tell, serve only to weaken the argument. The inference principle we employ is clearly less vulnerable to criticism than van Inwagen's Beta. We claim only that one has no choice about the logical consequences of those truths one has no choice about. Because no one has a choice about the past and laws of nature and because the future is, given determinism, a logical consequence of the past and laws, Beta 2 licenses the inference from determinism to the conclusion that there is no free will. Beta 2 also avoids the McKay and Johnson counterexample by blocking the derivation of the invalid Agglomeration principle at line 6 of the derivation.

Most importantly, this improved Consequence argument shows a way for libertarians to avoid the difficulties raised by the *Mind* argument. Like van Inwagen's Consequence argument, the *Mind* argument is invalid. Unlike the Consequence argument however, the *Mind* argument cannot be reformulated using Beta 2. An attempt to do this results in a formally valid, but clearly unsound argument. Recall the *Mind* argument:

P1.	$N(DB)$	Premise
P2.	$N(DB \rightarrow R)$	Premise
C1.	NR	P1, P2, Beta

This argument is invalid, but cannot be repaired with Beta 2. Replacing the "N" operator in (P2) with a "$\Box$" yields a clearly unsound argument. Where, as in the *Mind* argument, one's action (R) is an indeterministic consequence of one's belief/desire complex (DB), it is consistent with DB's occurrence that R not occur which implies that the reformulated second premise, $\Box (DB \rightarrow R)$, is false.

It appears, then, that libertarians can avoid the charge that free will is incompatible with indeterminism by denying the soundness of the *Mind* argument. Libertarians can do this without abandoning the powerful Consequence style argument leading to the conclusion that free will and determinism are incompatible because libertarians can appeal to the improved Consequence argument (with Beta 2) in arguing for this incompatibility. Because Beta 2 cannot be used to revive the discredited *Mind* argument

this maneuver seems to place libertarians on much stronger footing than did van Inwagen's more tentative reaction to the *Mind* argument.

Two potential difficulties remain. First, while the improved Consequence argument appeals to only one premise, N(P & L), this premise is, as the McKay and Johnson counterexample to Agglomeration illustrates, formally stronger than the conjunction of the two premises of van Inwagen's argument (Np & NL).[14] Because of this we must, in endorsing this argument, say something in defense of our premise. Second, while the *Mind* argument clearly cannot be revived with Beta 2, there may be other Beta-like inference principles that can be used to construct a sound version of the *Mind* argument. Just as libertarians can reformulate the Consequence argument in order to sidestep the invalidity of Beta, proponents of the *Mind* argument may be able to do something similar to revive the *Mind* argument. We address these problems in order.

While it is true that the premise of the improved Consequence argument is formally stronger than the pair of premises in van Inwagen's argument, we maintain that the core intuition motivating the acceptance of van Inwagen's premises likewise motivates the acceptance of our premise. This core intuition is, we maintain, the intuition that the past is fixed and beyond the power of human agents to affect in any way.[15] P describes the state of the world at some time in the distant past (before any human agents existed). L is a conjunction of the laws of nature which, we presume, in addition to being inalterable by human agents, do not change over time. Thus the conjunction (P & L) offers a description of what might be called the "broad past"—the complete state of the world at a time in the distant past including the laws of nature. We maintain, in asserting our premise, that the broad past is fixed in just the way that van Inwagen maintains that the past is fixed (and that the laws are fixed).

Additionally, though we think that the appeal to the fixity of the broad past is sufficient to motivate an acceptance of our premise, it is important to be clear that the McKay and Johnson argument shows only that the inference from Np and Nq to N(p & q) is invalid. This does not, by itself, provide any reason at all for thinking that in the case under discussion NP and NL are true, while N(P & L) is not. An inspection of the difference

[14] This is, we think, unavoidable. We don't see how to "convert" an invalid argument into a valid one, except in trivial cases, without appealing to at least one formally stronger premise.

[15] While the fixity of the past is not typically appealed to in defenses of the fixity of the laws premise of van Inwagen's Consequence argument we think that this support is at least as strong as anything typically said in support of the premise. What is typically said is that the laws seem to be beyond the power of humans to influence in any way. We think that the claims that the laws are inalterable and do not change combined with the point that this implies that they are, in a sense, a part of the past, is a plausible explanation of this intuition about their fixity.

between the McKay/Johnson case and the case of the past and laws of nature shows that the McKay/Johnson case seems to cast no doubt on the truth of N(P & L). In the McKay/Johnson case, one has no choice about either conjunct of a conjunction but does have control over the conjunction because although there is nothing one can do that would falsify either particular conjunct there is something one can do that might falsify either conjunct and would falsify the conjunction. As should be clear, it is not at all plausible that though one cannot, for example, do anything that would falsify, for example, the laws of nature, one might somehow do so. The case of the past and laws then, is not at all like the coin flip case of McKay and Johnson.[16] We conclude that though the premise of our argument is formally stronger than the premises of van Inwagen's invalid argument, this does not lead to any special difficulties for our argument.

We turn now to the question of the possibility of reformulating the *Mind* argument using some transfer principle distinct from both Beta and Beta 2. We cannot hope to show that every possible way of reformulating the *Mind* argument will result in an unsound argument. However, just as we have shown that the argument cannot be reformulated with Beta 2 we can also show that it cannot be reformulated with other plausibly valid Beta-like principles which seem initially suited to the task. This, we maintain, goes a long ways towards showing that the *Mind* argument cannot be rescued in this way and puts the ball squarely in the court of those who would defend the incompatibility of free will and indeterminism.

As mentioned above when introducing van Inwagen's "N" operator, there are ways of understanding an agent's "not having a choice" about a proposition distinct from van Inwagen's. Where van Inwagen seems to understand this phrase in such a way that one has a choice about a (true) proposition just in case one can act so as to ensure the falsity of the proposition, one might, especially after considering the McKay/Johnson argument, propose an alternative understanding of this locution. Any such alternative understanding raises the possibility that a Beta-like principle substituting the new understanding for van Inwagen's will serve to revive the *Mind* argument.

The alternative reading most relevant to the *Mind* argument is the following.[17] Let "Mp" abbreviate "p and no one has, or ever had, any choice

[16] This is not to claim, of course, that Agglomeration is somehow valid "in this case" (whatever that would mean). Rather, we claim only that the fact that Agglomeration fails in cases like the coin flip case is not a reason for thinking that in this particular case, while NP and NL are true, N(P & L) is false.

[17] McKay and Johnson discuss this (and more) alternative understandings of the "no choice" locution in their paper (our "M" abbreviation is different from theirs). We could further strengthen the improved Consequence argument by replacing the "N" operator, prefacing its first premise with the "M" operator to be introduced below.

about whether p" and understand one's having a choice about a truth p as one's being able to act such that p *might* be false. The emphasized "might" contrasts with van Inwagen's "would" understanding of one's not having a choice about a proposition. Consider, from the McKay and Johnson case, the proposition p, "the coin does not land heads". Np, van Inwagen's understanding of "no choice", is true; one cannot, by flipping the coin, act so as to ensure that the coin lands heads. But Mp, the alternative understanding of "no choice" is false; one can flip the coin and doing so might bring about the coin's landing heads. This alternative understanding seems particularly appropriate for discussing cases involving indeterminism.

For this reason, the introduction of this alternative understanding of "no choice" raises the possibility that some Beta-like transfer principles employing this understanding of "no choice" might license the inference involved in the *Mind* argument. Three inference principles seem to be worth considering:[18]

Beta 3 $\{Mp \ \& \ M(p \rightarrow q)\}$ implies Nq

Beta 4 $\{Np \ \& \ M(p \rightarrow q)\}$ implies Nq

Beta 5 $\{Mp \ \& \ N(p \rightarrow q)\}$ implies Nq.

Perhaps one or more of these principles is valid and can be used, along with the general reasoning of the *Mind* argument, to produce a sound argument for the incompatibility of free will and indeterminism.

The question of the validity of each of Betas 3–5 immediately arises. These principles are formally stronger than the invalid Beta, but are formally weaker than the clearly valid Beta 2. We do not know if these principles are valid.[19] Fortunately for libertarianism, we can show that these principles cannot be used to revive the *Mind* argument even if they are valid. This is because we can show that just as the attempt to reformulate the *Mind* argument with Beta 2 results in a clearly unsound argument, so do attempts to reformulate the *Mind* argument with any of Betas 3–5.

To see this, consider first Beta 3 and Beta 4, both of which preface the conditional premise of the argument with the "M" operator. An attempt to reformulate the *Mind* argument with either of these principles will result in a clearly unsound argument. The conditional premise in such a reformulation would be "M($DB \rightarrow R$)" but this premise is clearly false. The premise states that R follows from (is indeterministically caused by) DB and there is nothing anyone could do (or could have done) which might

[18] We need not concern ourselves with inference forms featuring a conclusion modified by the formally stronger "M" operator. The "N" conclusion, if established, would be sufficient for establishing the incompatibility of free will and indeterminism.

[19] We are not aware of counterexamples to these principles. McKay and Johnson claim that each principle is valid but do not discuss the matter fully.

result (or might have resulted) in *R*'s not following *DB*. But given that *DB*'s causing *R* is a case of indeterministic causation, there clearly is something one could do that might result in *R*'s not following *DB*. In particular, any action (including inaction) at all that one performed is such that it might have resulted in *R*'s not following *DB*. So, even if both Beta 3 and Beta 4 are valid inference principles, the *Mind* argument cannot be reformulated with either principle.

The *Mind* argument reformulated with Beta 5 does not have the defective conditional premise that eliminated the use of Beta 3 and Beta 4 in the argument. The conditional premise of the *Mind* argument reformulated with Beta 5 is exactly the same as the plausible conditional premise of the original *Mind* argument, N(*DB* → *R*). But Beta 5 cannot be used to revive the *Mind* argument. The argument, employing Beta 5 instead of Beta, looks like this:

P1. M(*DB*)

P2. N(*DB* → *R*)

C1. N*R*

While P2 seems true and we are for purposes of discussion granting that the argument is valid, we think that P1 is false. P1 states that one's belief/desire complex *DB* is such that nothing one can do (or could have done) is such that it might result (or might have resulted) in *DB*'s not obtaining (or not having obtained). But this is implausible in the extreme.

The simplest way to see this is to recall, once again, that in discussing the *Mind* argument we are considering what is true in indeterministic worlds. As discussed in the initial presentation of the *Mind* argument, in the indeterministic worlds we are considering one's belief/desire complex is an indeterministic consequence of prior facts. While it is plausible that there is nothing one can do or could have done so as to *guarantee* that one's belief/desire complex is (or would have been) different (that is, N*DB* is quite plausible), it's not at all plausible that there is nothing one could do which might result or might have resulted in such a difference. In particular, *anything* one did (or did not do for that matter) *might*, given indeterminism, have resulted in such a difference. It follows that M(*DB*) is false and that Beta 5 cannot be used to successfully reformulate the *Mind* argument.

Our having shown that Betas 2–5 cannot be used to transform the original *Mind* argument into a sound argument for the incompatibility of freedom and indeterminism does not show that there is no sound argument for this conclusion. We have not, plainly enough, shown that indeterminism and free will are compatible. We have, however, shown that the most powerful argument offered to date for the claim that indeterminism and free will are incompatible is invalid and have shown that

several natural attempts one might make at reformulating the argument fail. In doing this we have also shown that libertarians needn't worry that a rejection of the *Mind* argument requires them to abandon the Consequence style argument for the incompatibility of free will and determinism. We conclude that libertarian worries about the *Mind* argument and about the alleged incompatibility of indeterminism and free will are unfounded.[20]

Department of Philosophy
The University of Notre Dame
Notre Dame, IN 46556
USA
finch.6@nd.edu
warfield.3@nd.edu

ALICIA FINCH and
TED A. WARFIELD

REFERENCES

Fischer, John 1994: *The Metaphysics of Free Will*. Oxford: Blackwell Publishers.

Gallois, Andre 1977: "Van Inwagen on Free Will and Determinism". *Philosophical Studies*, 32, pp. 99–105.

Hobart, R. E. 1934: "Free Will as Involving Determinism and Inconceivable Without It". *Mind*, 43, pp. 1–27.

Horgan, Terence 1985: "Compatibilism and the Consequence Argument". *Philosophical Studies*, 47, pp. 339–56.

Kane, Robert 1996: *The Significance of Free Will*. Oxford: Oxford University Press.

Lewis, David 1981: "Are We Free to Break the Laws?". *Theoria*, 47, pp. 113–21.

McKay, Thomas and David Johnson 1996: "A Reconsideration of an Argument Against Compatibilism". *Philosophical Topics*, 24, pp. 113–22.

Nowell-Smith, P. 1948: "Free Will and Moral Responsibility". *Mind*, 55, pp. 45–61.

O'Connor, Timothy 1993a: "On the Transfer of Necessity". *Nous*, 27, pp. 204–18.

——1993b: "Indeterminism and Free Agency: Three Recent Views". *Philosophy and Phenomenological Research*, 53, pp. 499–526.

Smart, J. J. C. 1961: "Free-will, Praise and Blame". *Mind*, 70, pp. 291–306.

[20] We thank Timothy O'Connor, John O'Leary-Hawthorne, Dean Zimmerman and especially Peter van Inwagen for helpful discussion. We also thank Thomas McKay and the Editor and referees of *Mind* for valuable comments.

van Inwagen, Peter 1983: *An Essay on Free Will*. Oxford: Oxford University Press.

——1989: "When is the Will Free?". *Philosophical Perspectives*, 3, pp. 399–422.

——1993: *Metaphysics*. Boulder: Westview.

Warfield, Ted 1996: "Determinism and Moral Responsibility are Incompatible". *Philosophical Topics*, 24, pp. 215–26.

Widerker, David 1987: "On an Argument for Incompatibilism". *Analysis*, 47, pp. 37–41.