6

Revisiting the *Mind* Argument

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6.1 Introduction

In *An Essay on Free Will*,[1] Peter van Inwagen defends *libertarianism*, the two-part thesis that (i) *incompatibilism* is true and (ii) some agents act freely, where *incompatibilism* is the thesis that, necessarily,[2] agents act freely only if determinism[3] is false. His defense includes, on the one hand, the *consequence argument* for incompatibilism and, on the other hand, responses to the *Mind argument* against libertarianism.[4,5] It is noteworthy that, as van Inwagen presents the dialectic, it seems that the consequence argument is valid if only if the most compelling formulation of the *Mind* argument is valid, too. Van Inwagen concludes his discussion of the *Mind* argument by claiming that although he is rationally justified in believing the consequence argument valid and the *Mind* argument unsound, he cannot see how the premises of the *Mind* argument could be false. With this, one might very well wonder why van Inwagen's alleged defense of libertarianism should count as a defense at all: if van Inwagen is correct about the libertarian's dialectical position, this position is very weak indeed.

In their (1996), McKay and Johnson prove that the consequence argument, as formulated by van Inwagen, is invalid; they offer a new formulation of the consequence argument in response. Finch and Warfield (1998) point out that, given the proof in question, van Inwagen's formulation of the *Mind* argument may be dismissed as invalid. Moreover, they argue, while the consequence argument may be reformulated such that it is valid, the *Mind* argument cannot. As such, they conclude, van Inwagen was mistaken when he claimed that, with respect to their validity, the consequence and *Mind* arguments stand or fall together.

[1] Hereafter, "*The Essay*".

[2] In what follows, "necessarily" should be read as "It is broadly logically necessary that." Moreover, I treat metaphysical necessity and broadly logical necessity as equivalent.

[3] I will define determinism in the next section.

[4] So named by van Inwagen because the argument has appeared so often on the pages of the journal *Mind*. See Hobart (1934), Nowell-Smith (1948), and Smart (1961).

[5] There is more to van Inwagen's defense than what I discuss here. For instance, he argues for the thesis that some agents sometimes act freely, and he develops objections to arguments for compatibilism (the thesis that incompatibilism is false).

By the time that he writes "Free Will Remains a Mystery"(2000), van Inwagen acknowledges that his earlier formulation of the consequence argument is invalid, adding that, "Since [it] is invalid, the *Mind* Argument is invalid."[6] Rather than considering whether a valid reformulation of the *Mind* argument is available, however, he offers a "very informal, intuitive form" of the *Mind* argument.

Whatever the success of the informal, intuitive form of the argument, van Inwagen's claim about the validity of the two arguments deserves to be reconsidered. If the *Mind* argument can be reformulated such that it is valid if and only if the consequence argument is valid, the libertarian's dialectical situation is as van Inwagen described in *The Essay*: either the libertarian must jettison the consequence argument, find a flaw in one of the premises of the *Mind* argument, or take van Inwagen's own position: there is something wrong with one of the premises of the *Mind* argument, though she cannot see how that could be. This result would be as significant now as it was when van Inwagen first argued for it. As such, this issue ought not to be set to the side any longer.

Before I present van Inwagen's formulations of both arguments, I will build a foundation, so to speak, by laying out the terms of the debate. Once van Inwagen's arguments are in place, I will first discuss the work of McKay and Johnson, and then turn to Finch and Warfield. With this, I will take up the task of offering my own formulation of the consequence argument, emphasizing the inference principle on which its validity rests. Finally, I will offer a formulation of the *Mind* argument that seems to be valid if and only if the consequence argument is valid, too. This formulation will depend on the notion of *grounding*, a notion that has rarely played a part in any formulation the *Mind* argument.[7] By invoking the notion of grounding, the definition of free action, and theses that the consequence argument itself depends on, I will arrive at the conclusion that the libertarian is in precisely the same dialectical situation that van Inwagen said she was in.

6.2 Laying a Foundation

In *The Essay*, van Inwagen offers that, "When I say of a man that he 'has free will' I mean that very often, if not always, when he has to choose between two or more mutually incompatible courses of action—that is, courses of action that it is impossible for him to carry out more than one of—each of these courses of action is such that he can, or is able to, or has it within his power to carry it out."[8] At the time that he was writing, van Inwagen's interlocutors took it for granted that he was properly using terms like 'free will', 'free action', 'up to', and 'having a choice about'. These terms were intended as philosophical terms of art, used for the sake of facilitating discussion of those cases in which agents were able to carry out more than one course of action. Given that times have changed, and participants in the free will debate now question what 'free will' means, it seems best that I stipulate that I will use them as

[6] p. 11. He seems to mean the formulation of the *Mind* argument presented in *The Essay*.

[7] The only exceptions I know of are my (2013a) and Tognazzini (2015). I note that when this paper was accepted for publication, I did not know of Tognazzini's piece, which was not yet published.

[8] p. 8.

van Inwagen used them in *The Essay*. By extension, I will use them as they were used by the respondents that I consider here. So:

(FA) *S* freely performs *A* at *t* =df. (i) *S* performs *A* at *t* and (ii) for some time *t-* such that *t-* is earlier than *t*, *S* at *t-* is both (a) able to perform *A* at *t* and (b) able to refrain from performing *A* at *t*.

Where:

(UP) It is up to *S* at *t-* whether *S* performs *A* at *t* =df. *t-* is earlier than *t*, and *S* at *t-* is both (a) able to perform *A* at *t* and (b) able to refrain from performing *A* at *t*.

Moreover, "It is up to *S* at *t-*" may be used interchangeably with "*S* at *t-* has a choice about" and "*S* at *t-* is able to perform *A*" may be used interchangeably with "*S* at *t-* can perform *A*."

Van Inwagen uses other terms of art in presenting both the consequence and *Mind* arguments. For instance, he invokes the notions of *propositions*, *possible worlds*, *states of the entire physical world at an instant* (hereafter, *states of the world at an instant*), *laws of nature*, and, obviously, *determinism*. *Propositions*, according to van Inwagen, are non-linguistic bearers of truth values expressed by declarative sentences. *Possible worlds* may be construed as *maximal possible state of affairs*,[9] and *states of the world at an instant* should be treated as *present-tense maximal states of affairs*:

[A] state of affairs *O* is *future-directed* just in case either *O*'s obtaining entails that some contingent thing will exist or *O*'s obtaining entails that no contingent thing will exist; [a] *past-directed* state of affairs [is defined] in the obviously parallel way. Then a state of affairs *O* is present-tense maximal if, and only if, for every atomic state of affairs *O** that is neither future-directed nor past-directed, either *O* includes *O** or *O* precludes *O**.[10,11]

According to van Inwagen, each such state corresponds to a proposition: "A proposition expresses the state of the world at [time] *t* provided it is a true proposition that asserts of some state that, at *t*, the world is in that state."[12]

With respect to *laws of nature*, van Inwagen contends that they are propositions, but acknowledges that he has "no idea how to explain this term, much less define it."[13] However, he suggests, "The notion of a law of nature makes sense."[14] It is clear enough, in the context at hand, what it is for a law of nature to be a law of nature.

[9] Plantinga (1976) presents this account of possible worlds, according to which a possible state of affairs is a way things might have been. A state of affairs O is maximal if and only if for every state of affairs *O**, *O* either *includes* or *precludes* *O**, where (i) a state of *O* *includes* a state of affairs *O** if it is not possible for *O* to obtain and *O** to fail to obtain; and (ii) a state of affairs *O* precludes *O** if it is not possible that both obtain. I note that while Plantinga uses '*S*' to refer to an arbitrary state of affairs, I use '*O*'. I further note that although Plantinga takes states of affairs to be abstract objects, nothing in what follows hinges on this thesis. In his (1986), van Inwagen endorses this account of possible worlds, though he speaks in terms of propositions rather than states of affairs.

[10] Finch and Rea (2008), p. 10. Here I use the terms '*O*' and '*O**' where Finch and Rea use '*S*' and '*S**'.

[11] Van Inwagen himself says very little about this notion, contending that he may leave it "largely unexplained," given that "[His] argument is very nearly independent of its content" (p. 59). Nonetheless, the few remarks that he makes indicate that he has something like this in mind.

[12] p. 60. [13] p. 60. [14] p. 14.

At this point, van Inwagen is in a position to provide a definition of *determinism*. Loosely speaking, it is the thesis that there is at any instance "exactly one nomologically possible future."[15] To define the thesis more precisely, we may stipulate that:

'*t-*' designates some arbitrary time *t-*.

'*t*' designates some arbitrary time *t* such that *t* is later than *t-*.

'$P_{t\text{-}}$' designates the proposition that expresses the complete state of the world at *t-*.

'P_t' designates the proposition that expresses the complete state of the world at *t*.

and:

'*L*' represents the conjunction of the laws of nature into a single proposition.

In this case:

Determinism = df. The thesis that $\Box((P_{t\text{-}} \,\&\, L) \rightarrow P_t)$[16]

Moreover, if we add that:

'*p*' designates any true proposition whatever,

it is a consequence of determinism that:

$\Box((P_t \,\&\, L) \rightarrow p)$

With this foundation laid, we may consider van Inwagen's presentation of the consequence argument.

6.3 Van Inwagen and the Consequence Argument

Since determinism is a thesis about propositions, and since the conclusion of the consequence argument is about actions, there must be some way to bridge the gap. And so it is that the consequence argument is formulated, whether implicitly or explicitly, by way of the notion of *not having power over the truth value of a proposition p* or *not being able to render a proposition p false*. So, if a proposition p_A states that an agent *S* performs act *A*, and if *S* lacks power over the truth value of p_A, (i.e., is not able to render p_A false), then *S* does not perform *A* freely.

From here, van Inwagen introduces the now famous 'N-operator', where:

"N*p*" is read as "*p* and no one has, or ever had, any choice about whether *p*."

He then offers these inference principles:

(α) $\Box p$ entails Np
(β) {N($p \rightarrow q$), Np} entails Nq

If one stipulates that:

'P_{tBB}' designates the proposition that expresses the complete state of the world at some time long before anyone's birth,[17]

[15] p. 3. [16] '$\Box$p' expresses the proposition that it is broadly logically necessary that *p*.

[17] Van Inwagen does not use the term 'P_{tBB}'. I do so now to avoid confusion later.

one arrives at the formulation of the consequence argument that van Inwagen presents in the *Essay*:

1. $\Box((P_{tBB} \& L) \rightarrow p)$	Consequence of Determinism
2. $\Box(P_{tBB} \rightarrow (L \rightarrow p))$	1
3. $N((P_{tBB} \rightarrow (L \rightarrow p))$	2, α
4. $N\ P_{tBB}$	premise, fixity of the distant past
5. $N(L \rightarrow p)$	3, 4, β
6. NL	premise, fixity of the laws of nature
7. Np	5, 6, β

Thus, van Inwagen concludes, if determinism is true, no one has, or ever had, any choice about which actions she performs.

As far as an evaluation of the argument goes, van Inwagen contends that β is the weakest link. Though it *seems* valid, its validity is not as obvious as (i) the validity of α; (ii) the truth of the premise that no one has, or ever had, a choice about the distant past; or (iii) the truth of the premise that no one has, or ever had, a choice about the laws of nature.[18]

But for defenders of the consequence argument who are also libertarians, there may be a far more serious problem with β: according to van Inwagen, the *Mind* argument against libertarian seems to stand or fall with the validity of β. I turn now to this argument.

6.4 Van Inwagen and the *Mind* Argument

In presenting what he takes to be the strongest formulation of the *Mind* argument, van Inwagen begins by describing a scenario in which (i) a thief enters a church for the sake of stealing a small sum of money from the poor box; (ii) after he arrives, the thief suddenly begins to deliberate about whether to go through with the theft; (iii) the outcome of the thief's deliberation is a belief-desire complex DB; and (iv) the thief performs an act of repentance, R. As van Inwagen describes the case, it is nomologically possible for DB to occur without R. There is a "truly *undetermined* link in the chain that binds deliberation to action." In order to facilitate discussion van Inwagen suggests that the relation between DB and R is *causal*, so that (i) DB causes R and (ii) it is nomologically possible for DB to occur without causing R.[19] Van Inwagen emphasizes that, "Once DB has occurred, then everything relevant to the question whether R is going to happen has occurred."[20] With these considerations in place, van Inwagen endorses the general principle that no one has any

[18] In his (1981), David Lewis challenges this thesis by suggesting that the claim that no one has a choice about the laws of nature is ambiguous. He grants that no one can perform an act that either is or causes a law-breaking event. However, he contends, one might nonetheless be able to do something such that, if one were to do it, what is in fact a law (i.e., what is a law in the actual world) would not be a law. If determinism is true and *S* performs act *A* freely at time *t*, there is a possible world in which the course of events diverges from the actual course of events a little while before *t*. At this point of divergence, a divergence miracle occurs: an event occurs such that it violates the actual laws of nature, but not the laws of the world in which it occurs.

[19] One might say that DB "indeterministically causes" R.

[20] p. 144.

choice about the occurrence of an undetermined event. At this point, van Inwagen takes himself to have established one premise of his formulation of the *Mind* argument:

8. N (DB occurs → R occurs)

With Principle β in view, we ought to ask whether it was up to the thief that DB was the outcome of his deliberation. In response, van Inwagen offers that:

> It is unlikely that our thief had any choice about whether DB occurred; and even if he did, this could only be because he had a choice about some earlier states of affairs of which DB was a consequence; if so, the questions we are asking about DB could be asked about those earlier states of affairs.... This process could, in principle, be carried on till we reached the thief's 'initial state' about which he currently has no choice.[21]

And so:

9. N (DB occurs)

Of course, given the validity of β, it follows that:

10. N (R occurs).

Because there is nothing special about the case of the thief, one may generalize from (10) to the necessary falsity of libertarianism: unless an act is determined to occur, it is not up to anyone whether she performs it.

Van Inwagen responds to this dialectical situation by asserting that the consequence argument is valid, denying that the *Mind* argument is sound, and admitting that he sees nothing wrong with the premises of the *Mind* argument. Of course, there are other positions that a libertarian might take. However, given the way that van Inwagen has laid out the dialectic, it seems that any libertarian who endorses the consequence argument must either find something wrong with one of the premises of the *Mind* argument or accept that her position, like van Inwagen's, is precarious.

6.5 The Invalidity of the Consequence Argument

For the moment, I will set aside questions about the relationship between the consequence and *Mind* arguments and focus on the invalidity of β. In particular, I will address Thomas McKay and David Johnson's proof that β, as formulated by van Inwagen, is invalid.[22]

They begin by demonstrating that if β is valid, so is the Agglomeration Principle:

(Agglomeration) $\{Np, Nq\} \vdash N(p \& q)$.

The demonstration is straightforward:

11. Np	assumption
12. Nq	assumption
13. $\Box(p \rightarrow (q \rightarrow (p \& q)))$	logical truth

[21] p. 146.

[22] See their (1996).

14. N (p →(q → (p & q)))	13, α
15. N (q → (p & q))	11, 14, β
16. N (p & q)	12, 15, β

And so they establish that β is valid only if Agglomeration is.

Next, they use the example of a fair coin toss to provide a counterexample to Agglomeration. They stipulate that:

'H' represents the proposition that the coin does not land heads.[23]

'T' represents the proposition that the coin does not land tails.

And point out that given that it is not up to anyone what the outcome of a fair coin toss turns out to be:

17. NH
18. NT

Since it follows via Agglomeration that:

19. N (H & T),

it is clear that Agglomeration is invalid. After all, there is something someone can do that would render N (H & T) false: toss the coin.

Having presented their proof, they point out that the coin toss scenario is a challenge to Agglomeration only if:

> (Would) "N*p*" is read as "*p* and there is nothing anyone can do such that, if she were to do it, *p would* be false.

Rather than:

> (Might) "N*p*" is read as "*p* and there is nothing anyone can do such that, if she were to do it, *p might* be false.

Their conclusion, then, is not that the consequence argument is invalid, but that the N-operator should be read in terms of *might* rather than *would*.[24]

6.6 The Invalidity of the *Mind* Argument

As Finch and Warfield note in their (1998), if van Inwagen's unrevised β is invalid, so is the formulation of the *Mind* argument presented in *The Essay*. In considering the significance of this claim, they argue that although the consequence argument can be reformulated with valid β-*like* principles, the *Mind* argument cannot.

They begin by considering the β-like principle that they dub Beta 2:

(Beta 2) (Np & □(p & q)) implies Nq.

[23] They use 'p' where I use 'H' and 'q' where I use 'T'.

[24] In what follows, I will use 'β-might' to refer to the β-like principle that includes the might-reading of the N-operator. Because van Inwagen has indicated (personal correspondence) that he originally intended the would-reading of the N-operator, I will continue to use 'β' to refer to the principle van Inwagen offered in *The Essay*.

With Beta 2, they point out, the consequence argument may be reformulated such that:

1. □((P$_{tBB}$ & L) → *p*)[25]	Consequence of Determinism
20. N(P$_{tBB}$ & L)	premise
7. N*p*	1, 20, Beta 2

Moreover, Beta 2 is unsusceptible to the McKay-Johnson counterexample and, they claim, is at least as plausible as the original β. As such, there is no reason to doubt the validity of Beta 2.

In arguing for N(P$_{tBB}$ & L), they offer 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. [But the laws of nature] do not change over time. Thus, the conjunction (P$_{tBB}$ & 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.

Having offered what they take to be a satisfactory formulation of the consequence argument, they point out that any attempt to reformulate the *Mind* argument by replacing β with Beta 2 necessarily fails. Such a reformulation would take this form:

9. N (DB occurs)
21. □ (DB occurs → R occurs)
10. N (R occurs)

Given that the *Mind* argument depends on the premise that it is nomologically possible for DB to occur without R, this reformulation is of no use to the anti-libertarian.

Having discussed Beta 2, Finch and Warfield consider other β-like principles. In particular, they consider β-might, and explain that if the *Mind* argument were formulated by way of this principle, it would clearly be unsound. They return to the "conditional premise" of the *Mind* argument:

8. N (DB occurs → R occurs)

and point out that if indeterminism is true, there is indeed something the thief can do such that, if he were to do it, R might not follow DB: he can do whatever he actually does. After all, it is true by hypothesis that once DB has occurred the thief's repentance might follow or *it might not*. Indeed, the conditional premise is alleged to be true precisely because the repentance might *or might not* have followed DB. Clearly, then, reformulating β by way of the might-reading of the N-operator is of no use to the purveyor of the *Mind* argument.

In what follows, I will argue that, *pace* Finch and Warfield, the *Mind* argument can be reformulated with a valid β-like principle; indeed, it can be formulated with what I call *Transfer*, a β-like principle that is plausible if *any* β-like principle is. Once I have

[25] 'P$_{tBB}$' is not their term. Once again, I am trying to avoid confusion.

defended this formulation, I will conclude that the libertarian's dialectical situation is just what van Inwagen said it was when he wrote *The Essay*.

6.7 Revisiting the Consequence Argument

In an attempt to show the connection between the consequence and *Mind* arguments, I will begin by offering what I take to be the best formulation of the former: it seems to me that it is sound if any formulation is.[26]

My presentation of the consequence argument begins with these stipulations:

'W' designates some possible world W.

'S' designates some agent S in world W.

'L^W' designates the proposition that expresses the conjunction of all the laws of nature that obtain in W.[27]

'p_W' designates the proposition that p is true in world W.

And:

'D_W' designates the thesis that determinism is true in world W.

In the light of these stipulations, the earlier definition of determinism may be replaced by:

D_W = df. $\Box((P_{t\text{-}W} \,\&\, L^W) \rightarrow P_t)$.

With this, I introduce a new N-operator:

'$\Box N_{s,t}p_W$' is to be read as: $\Box$(p_W and $\forall S \forall t$(It is not up to S at t whether p)).

and a new β-like principle:

Transfer = $\{\Box N_{s,t}p_W, \Box(p \rightarrow q)\} \vdash \Box N_{s,t}q_W$.

Of course, Transfer is similar to Finch and Warfield's Beta 2 in that the conditional is flanked with '$\Box$' rather than the N-operator.

As far as the premises of the consequence argument go, I appeal not to the notion of the "broad past" but to what I call *the law addition principle* (LAP):

(LAP) $\Box N_{s,t}p_W \vdash \Box\, N_{s,t}(p \,\&\, L^W)_W$.

Moreover, instead of appealing to the fixity of the past, I appeal to the principle of the fixity of the present (FP):

(FP) $\Box\, N_{s,t}(P_t)_W$

In other words, it is necessarily the case that there is nothing anyone at time t can do such that, if she were to do it, the complete state of the world at t would not (or might not) obtain. I note that even if this principle is not immediately obvious, it follows trivially from the definition of free action.[28]

And now the consequence argument may be formulated such that:

22. $D_W \,\&\, P_{tW} \,\&\, p_W$	assumption
23. $\Box((D_W \,\&\, P_{tW} \,\&\, p_W) \rightarrow \Box((P_t \,\&\, L^W) \rightarrow p))$	consequence of determinism
24. $\Box((P_t \,\&\, L^W) \rightarrow p)$	22, 23
25. $\Box\, N_{s,t}(P_t)_W$	FP
26. $\Box\, N_{s,t}(P_t \,\&\, L^W)_W$	25, LAP
27. $\Box\, N_{s,t}p_W$	24, 26, Transfer
28. $\Box\,(D_W \rightarrow N_{s,t}p_W)$	22, 27

The conclusion of this argument is, of course, the incompatibilist's thesis: necessarily, if determinism is true, then for any agent S, for any time t, and for any proposition p, it is not up to S at t whether p.

As is always the case with the consequence argument, the premise regarding the laws of nature is subject to challenge. In the present context, most of the challenges may be ignored: after all, my purpose here is not to defend the consequence argument but to make the case that if the consequence argument is sound, so is my formulation of the *Mind* argument. Given that this is so, my purposes will be served if I can make the case that any considerations that tell in favor of van Inwagen's principle of the fixity of the laws also tell in favor of (LAP).

In making my case, I begin by pointing out that when I introduced the N-operator, I did not specify whether it should be read in terms of "might" or "would." Because I wish to remain neutral as long as possible, and because:

(M*) $\Box$(p_W & $\forall S \forall t$ (There is nothing S at t can do such that, if S at t were to do it, p might be false).

entails but is not entailed by:

(N*) $\Box$(p_W & $\forall S \forall t$ (There is nothing S at t can do such that, if S at t were to do it, p would be false).

I will proceed on the assumption that (N*) is the same proposition as:

(N) $\Box$(p_W & $\forall S \forall t$ (It is not up to S at t whether p))

With respect to arguing for (LAP), I note that even if (N) and (N*) are the same proposition, there is no reason not to introduce an M-operator according to which:

'$\Box M_{s,t}p_W$' is to be read as: $\Box$(p_W and $\forall S \forall t$ (There is nothing S at t can do such that, if S were to do it, p might be false).

Moreover, McKay and Johnson's coin toss case fails to undermine what I call the *Would-Might Agglomeration Principle*, according to which:

(W-M) $\{\Box N_{s,t}\, p_w, \Box M_{s,t}\, q_W\} \vdash \Box N_{s,t}\,(p \,\&\, q)_W$

[26] I present this formulation of the argument in my (2013a) and (2013b).

[27] 'L^W' is a rigid designator. Moreover, I will assume that there is a maximality condition for propositions like L^W, that is, propositions that express the conjunction of all the laws of nature that govern a particular world W. If L^W is such a proposition, then for any proposition p_i that expresses a law of nature that governs some possible world, either L^W includes or precludes p_i.

[28] I will discuss this point at length in what follows.

If (W-M) is true, and if the same considerations that support van Inwagen's principle of the fixity of the laws support this claim:

$\Box M_{s,t}\,(L^W)_W$

the case for (LAP) is indeed as good as van Inwagen's case for the fixity of the laws.

As far as $\Box M_{s,t}\,(L^W)_W$ goes, the first conjunct of the statement is obvious: it is necessarily the case that the laws of nature that obtain in W obtain in W. But is it necessarily the case that for any agent S in W, there is nothing S at t can do such that, if S were to do it, some proposition l that is a law of nature in W might be false? First, let us ask whether there is anything an agent in the actual world can do such that, if she were to do it, l—a proposition that is *actually* a law of nature—might be false. In suggesting that van Inwagen ought to adopt the might-reading of the N-operator, McKay and Johnson seem to think that van Inwagen would answer in the negative. And surely they are correct. After all, in *The Essay*, van Inwagen offers that "the laws of nature impose limits on our abilities: they are partly determinative of what it is possible for us to do. And indeed this conclusion is hardly more than a tautology."[29] Moreover, the laws of nature in the actual world are not so special that (i) there is nothing anyone in the actual world can do that might render a law of nature false, but (ii) in other possible worlds, it is possible to falsify the laws. Anyone who accepts van Inwagen's reasoning on behalf of the fixity of the laws ought to accept that given *what it is* for a proposition to be a law of nature governing a world W, if l is a law of nature in W, no one in W can do anything that might render l false. But this is just to say: $\Box M_{s,t}(L^W)_W$.

Given that every version of the consequence argument depends on some variation or another on the fixity of the laws of nature, I conclude that the consequence argument is sound only if $\Box M_{s,t}(L^W)_W$ is true. Furthermore, given that the Would-Might Agglomeration Principle seems valid if any β-like principle is, I conclude that the soundness of the consequence argument entails the truth of (LAP).

6.8 Reformulating the *Mind* Argument

6.8.1 *Libertarianism*

No formulation of the *Mind* argument will be convincing if it seems to depend on a mistake about the libertarian's commitments. As such, I begin my formulation of the argument by presenting what I take these commitments to be. First, I introduce the notion of the *determiner* of an agent S's performing an act A at a time t, where a determiner may be characterized, roughly, as the earliest time at which it is nomologically necessary that S performs A at t.[30]

I acknowledge that it may seem that I am suggesting that whenever an agent S freely performs an act A at a time t, there is some time t- such that (i) t- is earlier than t and (ii) it is nomologically necessary, at t-, that S performs A at t. But my characterization of a determiner does not imply that this is so. As a matter of fact, my argument will

[29] p. 62.

[30] A bit less roughly: time t- is the determiner of S's performing A at t =df. (i) $\Box((P_{t\text{-}} \,\&\, L) \rightarrow$ *S performs A at t*); (ii) there is no time t-2 such that (a) t-2 is earlier than t- and (b) $\Box((P_{t\text{-}2} \,\&\, L) \rightarrow$ *S performs A at t*); (iii) there is at least one time t-2 such that t-2 is earlier than t-.

concern what I call *immediately free acts*, where S performs an immediately free act A at t only if t is the determiner of S's performing A at t. For my purposes here, I need not specify exactly what sort of act might be immediately free, but I assume that immediately free acts are mental events, e.g., choices, decisions, acts of will, intentions, formations of preferences, or the like.[31]

I contrast immediately free acts with so-called "derivatively free acts," where an agent S performs a derivatively free act A^* at time t+ if (i) S performs an immediately free act A at some time t such that t is earlier than t+ and (ii) S's performing A^* at t+ is "appropriately related" to S's performing A at t. In the present context, there is no need to consider what the "appropriate relation" might be, or, indeed, whether there are any derivatively free acts. I simply note in passing that, according to some self-proclaimed libertarians, there are both immediately and derivatively free acts, and that if an act is derivatively free, its occurrence is nomologically necessitated by an earlier, immediately free act.

With respect to libertarianism, what matters is that if libertarianism is true, then (i) for every act that an agent performs freely, the agent performs an *immediately* free act and (ii) every immediately free act occurs at its determiner. I take it that (i) is true whether or not libertarianism is. In the present context, the relevant difference between the libertarian and her opponent is her insistence that immediately free acts occur at their own determiners.

6.8.2 *The Definition of Free Action*

Having addressed libertarianism, I turn my attention to free action per se. More specifically, I turn my attention to what I have dubbed the *Transition relation*. Loosely stated, this is the relation that obtains between agents who act freely and the acts that they freely perform *insofar as* the acts in question are indeed free. In the present context, this loose statement will not do: the Transition relation is at the heart of my formulation of the *Mind* argument. So let me characterize this relation as precisely as possible.

I begin with two reminders:

(FA) S freely performs A at t =df. (i) S performs A at t and (ii) for some time t- such that t- is earlier than t, S at t- is both (a) able to perform A at t and (b) able to refrain from performing A at t.

Where:

(UP) It is up to S at t- whether S performs A at t =df. t- is earlier than t, and S at t- is both (a) able to perform A at t and (b) able to refrain from performing A at t.

I offer these reminders in order to bring into sharp relief that:

(I/W) An agent S freely performs an act A at time t if and only if (i) for some time t- such that t- is earlier than t, S at t- is such that it *is* up to her whether to perform A at t and (ii) S at t is such that it *was* up to her whether to perform A at t (but is so no longer).

[31] See Clarke (2003; 2011), Ekstrom (2001; 2003), Franklin (2011), Ginet (1990; 1997), Goetz (1997), Kane (1996; 2011), McCann (1998), and O'Connor (2000; 2010) for various suggestions regarding what sort of act an immediately free act might be.

And, as I see it, it is helpful to think of free action in terms of *what is* and *what was* up to an agent.

In order to make the case that this is indeed helpful, I stipulate that:

'p_{At}' designates the proposition that an agent *S* performs act *A* at time *t*.

'p-' designates the proposition that *S* at *t*- is such that it *is* up to her whether p_{At}.

'p_t' designates the proposition that *S* at *t* is such that it *was* up to her whether p_{At}.

'A_t' designates *S*'s performing *A* at *t*.

It ought to be clear by now that the obtaining of *t* is insufficient for the truth of p_t: p_t's being true depends not only on what is true at *t* but also on what is true at *t*-. Moreover, the obtaining of *t*- is hardly sufficient for the truth of p-: if *t*- were the last moment of time, nothing would be up to anyone anymore. So, p- and p_t are both propositions about more than one time, with the former pointing toward the future and the latter pointing to the past. If one were metaphorically inclined, one might say that "up to" *connects* (i) *S* at *t*- to (ii) A_t.

Speaking without metaphor, I take the "up to" idiom to be helpful for two reasons: first, it draws attention to the temporal asymmetry of free action; second, it allows us to see that for every free action, *insofar as* it is a free action, there is a *diachronic relation* that obtains between (i) an agent *S* at a time *t*- and (ii) A_t, where *t* is later than *t*-. For every free action, *insofar as* it is a free action, there is a *transition* from "it *is* up to _ whether _" to "it *was* up to _ whether _."

Within the free will debate, there is no language with which to refer to this relation. As such, I will simply stipulate a name: insofar as an agent *S* freely performs an act *A* at time *t*, there is a time *t*- such that the diachronic *Transition relation* obtains between (i) *S* at *t*- and (ii) A_t:

(TA) An agent S freely performs *A* at *t* =df. ∃*t*- (The Transition relation obtains between *S* at *t*- and A_t).

And, of course, (TA) might just as well be expressed as:

(TA*) The conjunction of (i) p_{At} and (ii) It is up to *S* at *t*- whether p_{At} =df. The Transition relation obtains between *S* at *t*- and A_t.[32]

It is trivially true that the notions of *free action*, *up to*, and *Transition relation* are inter-definable.

I should add that what I say here about its being up to an agent which action she performs applies, *mutatis mutandis*, to any state of affairs such that it is up to an agent whether that state of affairs obtains. If:

'O' designates the obtaining of some state of affairs *O*.

[32] Of course, in most cases, there are *many* times at which it is up to an agent which action she performs. As such, it may seem problematic that I am defining the Transition relation in terms of a single time, *t*-. I do so only for ease of expression. If it is up to *S* at t_0, t_1, and t_2 whether *S* performs *A at t*, this conjunction is true: (The Transition relation obtains between *S* at t_0 and A_t) & (The Transition relation obtains between *S* at t_1 and A_t) & (The Transition relation obtains between S at t_2 and A_t). For every substantive point I make, I could express it by using such a conjunction.

And:

'P_O' designates the proposition that *O* obtains.

Then:

(TO*) The conjunction of (i) P_O and (ii) It is up to *S* at *t*- whether P_O =df. The Transition relation obtains between *S* at *t*- and **O**.[33]

I note that if ever the Transition relation obtains—between, for instance, *S* at *t*- and A_t—it follows of necessity[34] that it might not have. After all, that it is up to *S* at *t*- whether *S* performs *A* at *t entails* that *S* might not perform *A* at *t*. So, if *S* does not, in fact, perform *A* at *t*, *S* at *t*- stands in the Transition relation to something other than A_t.

At this point, one might wonder why I insisted that there is no language with which to refer to the Transition relation and that it is thus necessary to stipulate to a name. In response, I note that I am not making an interesting point about natural language,[35] but am simply acknowledging that within the free will debate, there is no *term of art* with which to refer to the relation in question. Given that 'free action' is itself a term of art, one needs a term of art with which to refer to the relation that an agent bears to her free actions insofar as they are free.

Of course, one might ask about 'choosing' (or 'willing' or something similar). As I already mentioned, it is typical to construe immediately free acts as choices; to ask whether one bears the "choosing" relation to a choice would lead to all sorts of confusion. More to the point, if a choice is a mental act that occurs at a time *t*, it is certainly not trivially true that is up to the relevant agent at an earlier time *t*- whether she performs the act that is the choice. Indeed, given that it is possible for someone to perform the act of making a choice even if determinism is true, the libertarian cannot contend that "choosing" is the relation that free agents qua free agents bear to free acts qua free acts. In order to capture the triviality of the claim that an agent acts freely only if she stands in the Transition relation to performing some action, it is necessary to introduce a term of art.

With this discussion of the Transition relation in place, I am able to move forward with my presentation of the *Mind* argument. I here shift my focus from that which is trivial to that which is substantive. In particular, I will begin to consider *accounts* of free action. To give an account of free action is to explain what it is *in virtue of which* a free action is free. It ought to be clear by now that one cannot provide such an account by simply describing the state of an agent before she acts freely or the free action itself. To give an account of free action requires explaining the relation that obtains between an agent and an action. More precisely: to provide an account of free

[33] In what follows, I will use 'P_O' and 'O' as I use them here. Moreover, I will use similar notation when I speak of other states of affairs. If '*O**' designates some state of affairs *O**, then 'P_{O^*}' designates the proposition that *O** obtains and 'O*' designates the obtaining of *O**.

[34] That is, broadly logical necessity.

[35] Though I do not argue for this here, I do, in fact, believe that it is philosophically significant that within the English language there is no way to refer to the Transition relation. Indeed, I suspect that not only are other natural languages limited in this way but that these limitations are non-accidentally related to the difficulty of providing a satisfactory account of free action.

action is to explain what it is *in virtue of which* an agent at an earlier time bears the Transition relation to the act that she freely performs. I turn now to consider what such an account might be.

6.8.3 *Grounding*

Though one might find the notion of "in virtue of" obscure, it has lately received a great deal of philosophical attention. To be more accurate, the notion of "grounding" has recently generated an enormous philosophical literature, and participants in the grounding debate regularly invoke the notion of "in virtue of" in order to convey what the grounding relation is supposed to be.[36] One might construe grounding in terms of *ontological* (not temporal) *priority* and *ontological* (not temporal) *posteriority*: that which is ontologically prior grounds that which is ontologically posterior. In explaining grounding, one might also invoke *ontological* (not causal) *dependence* relations: if one state of affairs ontologically depends on another, the obtaining of the latter grounds the obtaining of the former. Grounding relations are asymmetrical and irreflexive; moreover, they are non-diachronic: insofar as distinct states of affairs obtain in temporal succession, neither one grounds the other.[37]

If states of affairs are related non-diachronically, they might be related atemporally or synchronically.[38] When Socrates asked whether the pious is pious because the gods love it, or whether the gods love the pious because it is pious, he asked a question about *atemporal* ontological priority relations. Moreover, if *p* and <It is true that *p*> are distinct propositions, and if each of them is true, the truth of the former atemporally grounds the truth of the latter.

It is worthwhile to note that in the latter case, it seems that there is an infinite series of distinct propositions, each of which is grounded in the truth of *p*. In such a case, one might say that there is a non-vicious regress.

Indeed, it may be that the grounding relation is best explained in terms of the distinction between vicious and non-vicious regresses. After all, it seems that the defining feature of a non-vicious regress is that it obtains *in virtue of* the obtaining of the first element in the series. The first element is ontologically prior to the other elements; it "brings the series with it," so to speak. In the case of a vicious regress, however, the order of ontological dependence is reversed. The first element is ontologically posterior to the second, the second element is ontologically posterior to the third, the third element is ontologically posterior to the fourth, and so on. It is logically impossible for the first element to "bring the series with it," because the first element does not exist until an infinite series is complete. And that, obviously, cannot happen.

In any case, synchronic, rather than atemporal, relations are relevant in the present context. Standard examples of synchronic grounding relations include relations between mental and the physical events, and truthmakers and whatever they

[36] See, for instance, Audi (2012).

[37] However, this is not to suggest that if the obtaining of a state of affairs O^* grounds the obtaining of a state of affairs *O*, O^* and *O* obtain at only one time. The point is that if a state of affairs *O* obtains across times *t* and *t+*, O^* *also* obtains across times *t* and *t+*.

[38] Thanks to John Keller for bringing this distinction to my attention.

make true.[39] Furthermore, it seems that the claim that "A thing has its dispositional features in virtue of its categorical features"[40] is also a claim about synchronic grounding, as is the claim that, "Everything that happens can be explained in terms of what happens on the 'fundamental physical level.'"

As far as my presentation of the *Mind* argument goes, I am concerned with what I call *nomological grounding* relations. If O^* nomologically grounds O, (i) O^* and *O* are distinct states of affairs that obtain simultaneously and (ii) O^* nomologically necessitates O. In this case:

(NN) $\Box ((P_{O^*} \,\&\, L^W) \rightarrow P_O)$.

Of course, a similar statement was entailed by the definition of determinism. The relevant distinction is that while nomological grounding relations obtain between states of affairs that obtain simultaneously, determinism is a thesis about states of affairs that obtain at different times. In order to highlight this distinction, it is useful to use the term *nomological determining* to refer to nomological necessitation relations that obtain in virtue of an earlier state of affairs' nomologically necessitating a later state of affairs.

If libertarianism is true, and if an agent performs an immediately free action, no state of the world nomologically determines that the agent performs the act in question. However, libertarianism is consistent with the thesis that an instance of the Transition relation is *nomologically grounded* in O^*, where O^* is distinct from the obtaining of this instance of the Transition relation. Indeed, I take it that in offering an account of free action, a libertarian offers nothing other than an account of the sorts of states of affairs that nomologically ground instances of the Transition relation.

This point is perhaps easiest to appreciate if one assumes the truth of libertarianism and considers a specific case of an agent's performing an immediately free act in world *W*. For instance, one might consider Mary, an agent such that it is up to her, at *t-*, whether to decide to marry Harry, and who performs, at *t*, the immediately free act of deciding in his favor. In this case, an account of free action would explain what it is in virtue of which Mary's decision is free, or what it is in virtue of which the Transition obtains between Mary at *t-* and her decision at *t*.

According to an event-causal account of free action,[41] Mary's decision is free in virtue of the fact that some event *e-* that occurs at *t-* indeterministically causes some event *e* that occurs at *t*. Different event-causal accounts obviously offer different theses about what kinds of events the causes and effects must be, but in each case, the obtaining of the indeterministic causal relation between some event *e-* that occurs at *t-* and some event *e* that occurs at *t* is *ontologically prior* to the obtaining of the Transition between the agent at *t-* and the agent's immediately free act at *t*. Moreover, while the event causal theorist is not committed to the thesis that *e-*'s causing *e* *metaphysically necessitates* that Mary at *t-* bears the Transition relation to her decision at *t*, she certainly seems to be committed to the thesis that the instance of event causation *nomologically* necessitates the obtaining of the Transition.

[39] Jonathan Schaffer offers these examples in his (2009: 364–5).

[40] Audi 101.

[41] See Ekstrom (2001; 2003; 2011), Franklin (2011), and Kane (1996; 2011) for event-causal accounts of free action.

In order to see that this is so, one might imagine that an indeterministic event-causal account of free action is correct, and that for every state of the world at an instant that obtains in W, the very same state of the world obtains in W^*. So, Mary at t- in W^* is just as she is at t- in W; likewise, Mary at t in W^* is in precisely the same state as Mary at t in W, so Mary at t in W^* *is making the decision to marry Harry.* Moreover, W^*, like W, is governed by laws of nature L^W. Finally, e-'s causing e—the very state of affairs that, in W, accounts for Mary's deciding freely rather than not—also obtains in W^*.

Given these features of the case, it seems impossible that Mary in W freely decides to marry Harry, while Mary in W^* makes the same decision non-freely. Unless this is possible, the event-causal libertarian is committed to the thesis that the obtaining of the causal relation between e- and e nomologically necessitates that the Transition obtains between Mary at t- and her decision at t to marry Harry.

Proponents of agent-causal accounts of free action[42] insist that it is impossible for a causal relationship between events to account for a free act's being free. Instead, agents themselves—substances, persons—cause their free acts insofar as these acts are free. If agent causation provides an account of free action, each instance of the Transition relation is ontologically dependent on an instance of agent causation. Moreover, if an agent causes an act, it is nomologically necessary that the act in question is free. Indeed, one might reasonably suppose that it is *metaphysically* impossible for an agent to cause an act without performing it freely. At a minimum, though, a nomological necessitation relation obtains between an instance of agent causation and an instance of free action.

Another brand of libertarianism, simple indeterminism, offers that an immediately free act's being free may be accounted for by (i) the intrinsic qualities of the act itself and (ii) the act's occurring indeterministically.[43] If one stipulates that Mary's decision at t has the relevant intrinsic features, the fact that Mary at t- bears the Transition relation to her decision is grounded in nothing other than (i) the occurrence of the event that is Mary's decision at t and (ii) that the state of the world at t- does not nomologically determine that this event occurs. If simple indeterminism is true, it follows trivially that the obtaining of the Transition between Mary at t- and Mary's decision at t is nomologically necessitated by the state of affairs that grounds this obtaining of the Transition relation: given that Mary makes the decision that she does, the decision is free for no reason other than that the laws of nature are indeterministic.

At this point, it should be clear what I mean by the notion of nomological grounding and why accounts of free action ought to be construed as theses about what kinds of states of affairs ground the obtaining of the Transition relation.

6.8.4 *No Grounding?*

With this, I will consider the implications of the thesis that it is "basic" or "primitive" or "ungrounded" that a free act is free.[44] That is, I will consider the implications of

[42] See Clarke (2003; 2011) and O'Connor (2000; 2010) for agent causal accounts of free action.

[43] See Ginet (1990; 1997), Goetz (1997), and McCann (1998) for simple indeterministic accounts of free action.

[44] The argument of this section is inspired by conversations with van Inawgen as well as Colin McGinn's arguments against the thesis that some philosophically relevant entities are ontologically irreducible. See McGinn (1993) for a thorough presentation of the arguments.

the thesis that (i) if an agent S performs an act A freely at time t, and (ii) if t- is the time at which it is up to her whether to do so, then (iii) there is no state of affairs O^* such that O^* nomologically grounds the obtaining of the Transition relation between S at t- and A_t. Toward that end, I return to the case of Mary. I imagine that W, the world in which she performs the immediately free act of deciding, at t, to marry Harry, is empty except for whatever must exist for Mary at t- to bear the Transition relation to her decision, at t, to marry Harry. I add that Mary does not act freely prior to t, t is the last time that obtains in W, no state of affairs that is even partially grounded in the obtaining of the Transition obtains, and the obtaining of the Transition bears no diachronic necessitation relations to the obtaining of any state of affairs in W. I further stipulate that the obtaining of the Transition between Mary and her decision is nomologically ungrounded in W.

Given the definition of nomological grounding, it follows that there is a world W^* that is exactly like W, except that in W^*, Mary at t- does not bear the Transition relation to her decision, at t, to marry Harry. By hypothesis, both W and W^* include t- and t. So, with respect to the properties that Mary has at t-, there is no difference between W and W^*. As such, if Mary at t- in W has certain desires, beliefs, goals, values, hopes, fears, and dreams, it is trivially true that she has them at t- in W^*; likewise, *mutatis mutandis*, for whatever properties she has at t. Moreover, with respect to the diachronic relations that Mary stands in at t- and t, Mary in W and Mary in W^* are almost perfectly alike: not only does Mary at t in W make the same decision as Mary at t in W^*, she makes the decision after the same process of deliberation, having been influenced by exactly the same factors, and subject to the same laws of nature. Except that Mary in W stands in the Transition relation to her decision at t to marry Harry, Mary in W and Mary in W^* are similar in every way.[45] Of course, given the inter-definability of the Transition relation and an agent's being both (a) able to perform an act and (b) able to refrain from performing it, it follows that even though Mary at t- in W is in exactly the same situation as Mary at t- in W^*, Mary at t- in W is able to refrain from deciding to marry Harry, but Mary at t- in W^* is not.

Of course, this point about Mary in W and Mary in W^* can be generalized.[46] I take it to be obvious that Mary in W acts freely if and only if Mary in W^* acts freely as well. As such, I affirm what I call the *grounding thesis*:

> (GT) Necessarily, if some agent S at some time t- bears the Transition relation to O, some state of affairs O^* obtains across times t- and t, and O^* nomologically grounds this obtaining of the Transition between S at t- and O.

While I take this thesis to be obvious, the case of Mary in W and Mary in W^* hardly constitutes a proof: one may bite the proverbial bullet. If one does so, rejecting my

[45] With one caveat: there may also be differences that are *grounded in* whether or not the Transition obtains. For instance, while it is clearly impossible for Mary in W^* to *know* that she acts freely, this may not be true of Mary in W.

[46] Of course, the same considerations that undermine the thesis that the obtaining of the Transition relation is ungrounded also undermine the two-part thesis that (i) for an agent to cause an act "just is" for the Transition to obtain between the agent and the act in question and (ii) the obtaining of the agent-causal relation is "primitive" or "ungrounded."

formulation of the *Mind* argument will be easy. For the rest of us, though, it may not be as clear how to proceed.

6.8.5 A Dilemma

Once the grounding thesis is made explicit, a dilemma comes into view: if O* nomologically grounds the obtaining of the Transition between an agent *S* at time *t*- and A_t either it is up to *S* at *t*- whether *O** obtains or it is not.

If one accepts the validity of the Transfer principle and the truth of (LAP), one must avoid the second horn of the dilemma. In arguing that this is so, I stipulate that:

'P_{TSAt}' designates the proposition that the Transition relation obtains between *S* at *t*- and A_t

and:

'G_W (O*, T_{SAt})' designates the proposition that, in *W*, O* nomologically grounds the obtaining of the Transition relation between agent *S* at *t*- and A_t

Assuming the truth of G_W (O*, T_{SAt}), I offer that:

29.	G_W (O*, T_{SAt})	assumption
30.	$\Box$ $((P_{O^*} \& L^W) \rightarrow P_{TSAt})$	29, definition of nomological grounding
31.	$\Box$ $(P_{TSAt} \rightarrow p_{At})$	definition of the Transition
32.	$\Box$ $((P_{O^*} \& L^W) \rightarrow p_{At})$	30, 31
33.	$\Box$ $N_{s,t\text{-}}(P_{O^*})_W$	assumption, second horn of dilemma
34.	$\Box$ $N_{s,t\text{-}}(P_{O^*} \& L^W)_W$	33, (LAP)
35.	$\Box$ $N_{s,t\text{-}}(p_{At})_W$	32, 34 Transfer

So, if the grounding thesis and (LAP) are true, and Transfer is valid, the libertarian must reject the second horn of the dilemma. That is, she must affirm that if O* nomologically grounds the obtaining of the Transition between *S* at *t*- and A_t, it is up to *S* at *t*- whether *O** obtains.

What are the consequences of this affirmation? First, one must remember that it is up to *S* at *t*- whether *O** obtains if and only if the Transition obtains between *S* at *t*- and O*. And now a new question arises: is this obtaining of the Transition between *S* at *t*- and O* nomologically grounded in some O**? Given the grounding thesis, it follows that it is. But now the second dilemma rears up once again: is it up to *S* at *t*- whether *O*** obtains, or not? Let:

'G_W (O**, T_{SO^*})' designate the proposition that, in *W*, O** nomologically grounds the obtaining of the Transition relation between agent *S* at time *t*- and O*

and

'P_{TSO^*}' designate the proposition that the Transition relation obtains between *S* at *t*- and O*.

In that case:

36.	G_W (O**, T_{SO^*})	assumption
37.	$\Box$ $((P_{O^{**}} \& L^W) \rightarrow P_{TSO^*})$	36, definition of nomological grounding

38.	$\Box$ $(P_{TSO^*} \rightarrow P_{O^*})$	definition of the Transition
39.	$\Box$ $((P_{O^{**}} \& L^W) \rightarrow P_{O^*})$	37, 38
40.	$\Box$ $N_{s,t\text{-}}(P_{O^{**}})_W$	assumption, second horn of dilemma
41.	$\Box$ $N_{s,t\text{-}}(P_{O^{**}} \& L^W)_W$	40, (LAP)
42.	$\Box$ $N_{s,t\text{-}}(P_{O^*})_W$	39, 41 Transfer

But, of course, (42) is identical to (33). So, if the consequence argument is valid and (33) is true, it is not up to *S* at *t*- whether she performs *A* at *t*.

With this, a vicious regress comes into view. If an agent *S* freely performs *A* at time *t*, the Transition obtains between *S* at *t*- and A_t. But:

T1. The Transition obtains between *S* at *t*- and At only if some ontologically prior state of affairs *O** obtains (Grounding thesis).

T2. *O** obtains only if the Transition obtains between *S* at *t*- and O* (Argument via Transfer).

T3. The Transition obtains between *S* at *t*- and O* only if some ontologically prior state of affairs *O*** obtains (Grounding thesis).

T4. *O*** obtains only if the Transition obtains between *S* at *t*- and O** (Argument via Transfer).

T5. The Transition obtains between *S* at *t*- and O**only if some ontologically prior state of affairs *O**** obtains (Grounding thesis).

T6. *O**** obtains only if the Transition obtains between *S* at *t*- and O*** (Argument via Transfer).

And so on, ad infinitum. Although neither Transfer nor the grounding thesis generates the regress on its own, it seems that the conjunction of them presents a problem for the libertarian who endorses the consequence argument.

6.8.6 An Objection

Before I complete my discussion of the *Mind* argument, I should return to my assumption that:

(N*) $\Box(p_W$ & $\forall S \forall t$ (There is nothing *S* at *t* can do such that, if *S* at *t* were to do it, *p* would be false).

is the same proposition as:

(N) $\Box(p_W$ & $\forall S \forall t$(It is not up to *S* at *t* whether *p*)).

After all, if (N) is equivalent not to (N*) but to:

(M*) $\Box(p_W$ & $\forall S \forall t$ (There is nothing *S* at *t* can do such that, if *S* at *t* were to do it, *p* might be false),

the assumption with which I began my regress argument, $\Box$ $N_{s,t\text{-}}(P_{O^*})_W$, is false. Indeed, a libertarian may point out that since, in *W*, (i) the obtaining of *O** nomologically grounds the obtaining of the Transition between *S* at *t*- and A_t and (ii) *t* is the determiner of A_t, it is nomologically possible at *t*- that *O** does not obtain.

Moreover, one might take "It is nomologically possible that O^* does not obtain" to express the proposition that P_{O^*} might be false. This echoes what Finch and Warfield say about the premise that N (DB occurs → R occurs). As they explained, if indeterminism is true, there is indeed something the thief can do such that, if he were to do it, R (his act of repentance) might not follow DB (the relevant desire-belief complex): he can do whatever he actually does. Likewise, if indeterminism is true in W, no matter what S does at t-, O^* might not obtain. In this case, S at t- in W can do something such that, if she were to do it P_{O^*} might be false.

As I have argued in Finch (2013a), the problem with this response is that it has the odd result that anyone who does anything at t- does something such that, if she were to do it, P_{O^*} might be false. But then S has no more power over the truth value of P_O than does anyone else. After all, $(P_{O^*} \& L^W)$ entails p_{At}, and, *ex hypothesi*, $(P_{O^*} \& L^W)$. Given Transfer, it follows that if it is up to S at t- whether p_{At}, it is up to S at t- whether $(P_{O^*} \& L^W)$. But it follows by way of (LAP) that if it is up to S at t- whether S performs A at t, it is up to S at t- whether P_{O^*}. So, if the consequence argument is sound, it is up to S at t- whether S performs A at t if and only if it is up to S at t- whether P_{O^*}. But, according to the hypothesis under consideration, it is up to S at t- whether P_{O^*} if and only if it is up to everyone who exists at t- whether P_{O^*}. So, then, it is up to S at t- whether S performs A at t if and only if it is up to everyone who exists at t- whether S performs A at t. There are many agents such that it is up to them at t- whether S performs A at t, and S is just one of the many.[47]

While this conclusion is not, strictly speaking, absurd, it is implausible enough that it seems reasonable to conclude that if the consequence argument is sound, so is the regress argument.

6.9 Conclusion

With the argument for the grounding regress in place, my formulation of the *Mind* argument is complete. Granted, the premises I offer are not van Inwagen's. Nonetheless, it seems that the dialectical situation is much the same as the situation that van Inwagen described in *The Essay*: one may deny the validity of the consequence argument, admit that the *Mind* argument is sound, or insist that one of the premises of the *Mind* argument is false, though it seems for all the world to be true. In this respect, *The Essay* was right all along.

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[47] This paragraph is taken, almost verbatim, from Finch (2013a: 292).

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