Analysis Advance Access published May 31, 2016

A New Argument Against Libertarian Free Will?

DAVID WIDERKER

1. *Introduction*

Up until the late 1980s, the philosophical debate regarding free will was mainly concerned with the compatibilists/incompatibilists controversy, that is, with the question whether freedom to do otherwise is compatible with determinism. Although it is often claimed that there is no progress in philosophy, this is a debate in which a notable advance has been made. Thanks to the intensive work done by a number of philosophers on what is called 'the Consequence Argument',[1] the majority opinion today is that determinism and freedom to act otherwise are incompatible.

Here is a version of the Consequence Argument:

Let 'P_0', 'L' and 'Z', abbreviate respectively, a true proposition describing the state of the world at some time before the existence of the human race, the conjunction of the laws of nature and some true proposition about the present. The argument also makes use of two rules of inference:

Rule 1: From Np, Nq, deduce N(p & q)

Rule 2: From Np, p → q, deduce Nq,[2]

where ' →' stands for 'entails' and 'Np' stands for 'No one has any choice about the fact that p', or formally:

Np = def. p & ∼(∃x)(∃a)[Can(x,a) & (Does(x,a) > ∼ p)]. Similarly for 'Nq'.

(Here 'x' and 'a' range, respectively, over agents and actions, 'Can(x,a)' and 'Does(x,a)', abbreviate respectively 'x can do a' and 'x does a', and '>' stands for the counterfactual connective.) The Consequence Argument may then be stated as follows:

(1) $(P_0\&L) \rightarrow Z$ (By Determinism)
(2) NP_0 (Assumption)

1 Among those philosophers are Carl Ginet (1966, 1990: Ch. 5); David Wiggins (1973); Lamb (1977); Peter Van Inwagen (1983: 93–105); David Lewis (1981); David Widerker (1987); John Fischer (1986, 1988); Thomas McKay and David Johnson (1996); Thomas Crisp and Ted Warfield (2000); Erik Carlson (2000); Michael Huemer (2000: 525–44); and most recently by Alexander Pruss (2013). I apologize in advance if I have left out someone. My intent was to mention only the main figures.

2 Pruss (2013) provides a formal proof of Rule 2. Rule 1 he takes to be intuitive.

Analysis Vol 0 | Number 0 | 2016 | pp. 1–12 doi:10.1093/analys/anw039
© The Author 2016. Published by Oxford University Press on behalf of *The Analysis Trust*. All rights reserved.
For Permissions, please email: journals.permissions@oup.com

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

(3) NL (Assumption)
(4) $N(P_0\&L)$ (By 2, 3 and Rule 1)
(5) N(Z) (By 1, 4 and Rule 2)

So determinism and freedom to do otherwise are incompatible. Does this result threaten our freedom to act otherwise? The answer to this question is negative. Our current physics tells us that determinism is false. Reality, we are told is fundamentally indeterministic. This, one might think, significantly reduces the threat of determinism to free will.

However, this indeterministic refuge is only short lived, as there is another sort of incompatibilism that poses a serious threat to free will. This is the incompatibility of freedom with two assumptions widely accepted by those who adopt a physicalist stance towards the relation between the mental and the physical – that mental properties are distinct from physical properties, and that mental properties supervene on physical properties. So whether determinism or indeterminism is true, these two assumptions suffice to put human freedom in jeopardy, or so I shall argue.

At this point, I wish to make clear that by 'human freedom' I mean 'human freedom' in a libertarian sense. Though a libertarian account of human freedom may take various forms, libertarians all agree that a free action must be undetermined. That is,

(IND) An act π performed by an agent S at time t is a *directly* free act[3] only if it is neither nomically necessitated nor caused by events occurring prior to t. By 'caused' I mean *efficiently* caused or produced.

The purpose of this article is to devise an argument that shows that the belief in libertarian freedom is inconsistent with the two physicalist assumptions mentioned above. I present the argument in two stages. First, I derive a certain result which is implied by those assumptions and the existence of libertarian freedom. I then show that the result leads to a contradiction. I dub this argument 'the Supervenience Argument Against Libertarianism'. I end the article by tracing the implications of this argument for the compatibility of libertarian freedom and physicalism in general.[4]

3 A *directly free* act is an act that is *not derivatively free*, that is, it is not free in virtue of another free act (or acts) that its agent did perform.

4 One more thing before we start. In recent years, a number of arguments for the incompatibility of freedom and physicalism have been put forward. However, these arguments differ substantially from the argument I am proposing, by being either more complex than my argument (Turner 2009), or by employing different assumptions (Merricks 2001: Ch. 8) and (Berofsky 2012: 127–128).

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

2. *The assumptions*

Suppose that

(Ass1) A certain agent S performs a *directly* free action at time t.

For example, suppose that S deliberates whether to take a leisurely walk in a nearby park, and ultimately freely decides at t to stay home.

Next, let us list the two physicalist assumptions mentioned earlier:

(Ass2) Mental properties are distinct from physical properties.

(Ass3) Mental properties *supervene* on physical properties, i.e. necessarily, if any system x instantiates a mental property M at t, then there is a physical property P, such that x has P at t, and necessarily, anything that instantiates P at any time instantiates M at that time.[5]

Corresponding to the notion of a *mental property* supervening on a physical property, there is the notion of a *mental event* supervening on a physical event. According to Kim (1993: 99), this notion can be defined as follows:

(Ass4) A mental event <x, M, t> consisting in an individual x exemplifying a mental property M at time t, supervenes on a physical event <x, P, t> consisting in x's exemplifying a physical property P at t, just in case, x exemplifies properties M and P at t, and property M supervenes on property P.

Following Kim (2005: 19), we shall refer to the particular physical event upon which a certain mental event m supervenes, as 'the supervenience base of m'.

Now, let A be the mental property of deciding to stay home, and <s, A, t> be the mental event of S's exemplifying A at t, that is, S's decision at t to stay home, to which we may refer for brevity as 'A*'. Given the supervenience of the mental on the physical, we have

(Ass5) Property A supervenes upon some physical property P(A),

(Ass6) A* supervenes upon some physical event e,

and

(Ass7) A* has as a necessary condition for its occurrence, there being some physical event e which subvenes it.

5 Or expressing the definiens of Ass3 formally: $\Box(x)(t)\{Mxt \supset (\exists P)[Pxt \ \& \ \Box(y)(t')(Pyt' \supset Myt')]\}$, where '$\Box$' stands for nomic necessity or for metaphysical necessity. This is the definition of what in the literature is referred to as 'Strong Supervenience'.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

3. *First stage of the argument*

Suppose that, in line with Ass1,

(1) S performs A* at t, where A* is a *directly* free action.

It stands to reason that at some time t' not very long before t,

(2) It was within S's power at t' to perform A* at t.

Now the following assumption is beyond reproach:

(3) If q is a necessary condition for A*, and relative to a time t', A* and q have not occurred yet, and q is not guaranteed to occur anyhow (e.g. q is not guaranteed to occur either nomologically or logically), then it is within S's power at t' to perform A* only if it is within S's power at t' to bring about q.[6/7]

Given Ass6 and Ass7, we know that A* has as a necessary condition the occurrence at t of some physical event e which subvenes A*, and is simultaneous with it. This fact together with (3), and with q representing the state of affairs of there occurring at t some physical event e which subvenes A*, entails

(4) It is within S's power at t' to perform A* only if it is within S's power at t' to bring about the occurrence of some physical event e that subvenes A*,

that, is S's having the power at t' to perform A* is contingent on S's having the power at t' to bring about the occurrence of some physical event subvening A*. But now, is it within S's power to bring *this* about? Surely, it is not within S's power to do *this independently* of some *act* that S performs; for, as humans, it is within our power to bring about an event in the physical world only via our acts. So the following must hold if A* is a *directly* free action:

(5) S has it is within her power at t' to bring about the occurrence of some physical event that subvenes A*, by some suitable act of hers.

I shall now argue that (5) is false.

6 For example, if a necessary condition (in the circumstances) of my entering my office at t (t = two minutes from now), is that the office door will be open shortly before t, and its being open shortly before t is not something that is going to occur anyhow, for example, it is not guaranteed to occur nomologically, then it is within my power (now) to enter my office at t, only if it is within my power (now) to bring it about that the office door will be open shortly before t.

7 Suppose someone were to deny this principle insisting that, though S has the power to perform A*, S does not have the power to bring about q. Then, given that (ex hypothesi) q was not guaranteed to occur, there would arise the question of how could one assume that S has the power to perform A*? If one answers that *someone else* might bring q about, this would not account for S's having the power to perform A*. It would just account for S's having the power to perform A* *provided (or given that)* q will obtain.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

4. *Second stage of the argument*

My argument for the falsity of (5) employs the following thesis:

> *Dependence*: If a mental event supervenes on a physical event, then the mental event occurs *because of*, or *in virtue of* the physical event, and not vice versa.

That is, the mental event is ontologically grounded in the physical event. I follow Kim in taking Dependence to be an integral part of the supervenience relation of the mental upon the physical. He says:

> I take supervenience as an ontological thesis involving the idea of dependence – a sense of dependence that justifies saying that a mental property is instantiated in a given organism at a time because, or in virtue of the fact that, one of its physical 'base' properties is instantiated by the organism at that time. Supervenience, therefore, is not a mere claim of covariation between mental and physical properties; it includes a claim of existential dependence of the mental on the physical. I am assuming that a serious physicalist will accept this interpretation of supervenience. Mind-body supervenience as a bare claim about how mental and physical properties covary will be accepted by the double-aspect theorist, the neutral monist, the emergentist and the epiphenomenalist; it can be accepted even by the substance dualist.[8] (2005: 34)

We are now ready to present the argument for the falsity of (5). It takes the form of a *reductio*. Assume that (5) is true, and consider all those possible worlds in which S realizes the power attributed to her in (5), that is the power to bring about by an action of hers the occurrence of some physical event subvening A*. Among those worlds there is also the actual world. We thus get that

> (6) By performing some suitable act, S brings about the occurrence of some physical event which subvenes A*, in the actual world.

Let P*(A) be some specific physical event which subvenes A*, in the real world. Hence,

> (6′) By performing some suitable act, S brings about the occurrence of P*(A), in the actual world.

Note that the action by which S brings about P*(A) cannot be A*, as then P*(A) would occur *in virtue* of a mental item which itself supervenes on P*(A) – a result which would contradict Dependence. Suppose, then, that S brings about the occurrence of P*(A) by performing an action other than A*,

8 Whereas Kim's formulation of Dependence is in terms of properties, the formulation of Dependence in the text is stated in terms of events. However, this difference is immaterial.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

say, C*. But then it follows from (6′) and the fact that A* supervenes upon P*(A) that

(7) C* causes A*,

and this contradicts the assumption Ass1 that A* is a *directly* free action. Obviously, what we've said applies not only to P*(A), but would apply to any other physical event which subvenes A* (if such there be). Hence (6) and, therefore, (5) and (1) are false as well.

Now, my argument for (7) rests on the assumption that

(8) If an event e causes an event f* which constitutes the supervenience base of an event f, then e causes f.

But this assumption seems plausible. It seems intuitive to assume that, given that P*(A) subvenes A*, someone who would cause P*(A) would be deemed causally responsible for A*. For example, if by administering to Y a certain pill, X would cause Y to be in a neurological state P*(H), which subvenes Y's experiencing a headache (H*), then, obviously, X would be causally responsible for Y's having a headache. And what would explain X's responsibility for Y's headache, would be a principle such as (8).

Let me elaborate a bit why libertarians cannot afford to accept (7). First, (7) is incompatible with non-causal libertarianism which requires that a *directly* free act not be caused. Second, (7) is also inconsistent with agent-causal libertarianism. According to one version of it, the performance of a *directly* free act π by an agent S consists in S's agent-causing π, where the causal relation that obtains between the agent and π – agent-causation – is *sui generis* in the sense that it cannot be reduced to event-event causation or to nomic regularity. Most importantly, it is assumed that an agent-caused act cannot be itself event-caused or agent-caused.[9] Hence an agent-causal libertarian cannot accept (7). What about event-causal libertarianism, according to which a *directly* free act consists in its being indeterministically caused[10] by the agent's reason for it? This version of libertarianism is irrelevant to the discussion under consideration, since it does not satisfy condition IND on a *directly* free act. For when an event/state E indeterministically causes an agent's act (A*), then given a production interpretation of causation, this means that A* is produced by E, and, therefore, in a (for a libertarian)

9 This characterization of a *directly* free act is part of Clarke (2003: Chs. 8–10) account of agent-causal libertarianism. O'Connor (2000: Ch. 4) proposes another account, according to which a directly free act consists in an agent's causing an intention to π. However, both accounts do not allow a *directly* free act to be event-caused or agent-caused, and therefore, both would be inconsistent with (7).

10 An event E *indeterministically causes* an event F, just in case, E produces F, and in the circumstance in which E occurs, it is nomically possible for E not to cause F.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

intuitive sense, the agent's act is necessitated, in which case, the agent cannot be said to have acted freely.[11/12]

It follows that for libertarians (7) is unacceptable. This shows that for them the assumption of A* being a *directly* free action (1) turns out to be inconsistent with the joint assumption of A* being distinct from P*(A), and of A* supervening on P*(A). By implication, it turns out to be inconsistent with the joint assumption that mental properties are distinct from physical properties, and that mental properties supervene on physical properties. This completes what I call 'the Supervenience Argument Against Libertarianism', or for short 'SAL'.

5. *The logic behind the argument*

We may summarize the logic behind SAL as follows: Given that the performance of A* is contingent upon the occurrence of its supervenience base P*(A), it stands to reason that to be able to perform A*S must be able to bring about P*(A). But if S brings about P*(A), then, given principle (8), it follows that the event which brings about P*(A) also causes A* to occur, thus nullifying A*'s status of being a libertarianly free action. Hence, in a world in which distinctness (Ass2) and supervenience (Ass3) reign, it is not within S's power to perform a libertarianly free action.

6. *An objection*

In response to the argument one might argue that it rests on the questionable assumption that one cannot bring about P*(A) by performing A*. The reason for accepting that assumption was that otherwise there would be a contradiction between

(9) S brings about the occurrence of P*(A) by performing A*, which implies that P*(A) occurs *because of* S's performing A*,

and

(10) S's performing A* occurs *because of* the occurrence of P*(A), upon which it supervenes.

11 Ginet (2007: 254) nicely explains this point as follows: 'The problem with … an indeterministically caused action … is not the [indeterminism or] chance involved in its coming about by indeterministic causation but rather the causation involved. It is the same problem with deterministic causation of an action. If the state of the world up to T causes my action at T, whether deterministically or indeterministically, then it was (as it were) 'up to' that state of the world, and not up to me, what action it caused at T.

12 Can one avoid the charge that (7) contradicts (1) by construing (7) in terms of probabilistic causation, as (7′) C* raises the probability of A*. The answer seems negative. For if to perform A*, it is required that S brings about A*'s supervenience base P*(A), then S cannot make this happen by doing something that *merely* raises the probability of the occurrence of P*(A), since that would not be sufficient for the occurrence of P*(A), and hence it also would not suffice for the occurrence of A*.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

However, the claim that there is a contradiction between (9) and (10) is not at all obvious, as the sense of 'because' employed in (9) is not the same as that employed in (10). This reply to the supervenience argument we are considering strikes me as unsatisfactory. Given that P*(A) subvenes A*, A* is realized in, or is grounded in P*(A). But then it is hard to understand how (9) can be true. For how can P*(A) which is distinct from A*, and ontologically grounds A*, be brought about by the very thing which it ontologically grounds – A*?

7. *Some implications*

What are the implications of the above argument for question of whether physicalism can be rendered compatible with libertarian freedom? The physicalist assumptions that turned out to be inconsistent with libertarian freedom were the supervenience of A* upon P*(A), and their distinctness, the latter being due the distinctness of the properties A and P(A). Hence, the only option available to someone who wishes to be both a libertarian and a physicalist would be to hold that

(11) A* is identical with P*(A).[13]

(Maintaining the distinctness of A* and P*(A), while giving up supervenience would amount to giving up physicalism.) Now, how exactly would adopting (11) help blocking the supervenience argument under discussion? The problem, as we may recall, was how to defend the claim that S has the power to perform A*. This was a problem, since S's having that power is contingent upon her having the power to bring about A*'s supervenience base P*(A), and there was no way in which S could bring about the occurrence of P*(A) without this leading to a contradiction. But given (11), the answer to this problem is obvious – by performing A*! For if A* and P*(A) are identical, then in performing A* at t, S also undergoes P*(A).[14]

13 One might think that there is also the possibility that

(11′) A* is constituted by P*(A).

But this possibility faces serious problems. See the text and the next footnote.

14 Note that this way out is not available to a physicalist who holds that

(10′) A* is constituted by P*(A).

Since for him A* *depends* upon P*(A) and not vice versa, she cannot hold that S can bring about P*(A) by performing A*. Apart from this, a constitution account of the relation between the mental and the physical is subject to difficulties of its own. If a mental event is constituted by a physical event, then it stands to reason that these events share parts (just as a certain statue and the piece of bronze of which the statue is composed share identical parts). But given that mental events are distinct from physical events (due to the distinctness of their constitutive properties), it is difficult to understand how a mental event can share parts with a physical event. To be sure, an event/process can share parts with

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

If (11) is the only plausible way of reconciling libertarian freedom with physicalism, then our argument has a further important implication – the inconsistency of libertarian freedom with the highly popular doctrine of non-reductive physicalism (NRP). As is well-known, NRP is a version of physicalism, according to which the mental does not reduce to the physical (hence 'non-reductive'), but is distinct from the physical, and supervenes upon it. Adopting NRP, rather than RP (reductive physicalism), is regarded by many an elegant way of saving the autonomy of the 'special sciences' such as sociology, economics and psychology, while retaining the fundamentality of physics. Now, one might think that NRP leaves also room for libertarian freedom. However, our argument shows that this is not the case.

So far so good. Note, however, that the attempt to save the compatibility of libertarian freedom with physicalism via (11), is also not free of difficulties. Given Kim's account of event individuation, (11) is true, just in case,

(12) The property A is identical with the physical property P(A).

But (12) seems implausible, since it is incompatible with the multiple realizability of mental properties, here with the multiple realizability of the mental property A – being a deciding to stay home.

There are various ways in which one might try to cope with this problem. One way would be to adopt a role-functionalist approach towards mental properties, according to which, having a mental property consists in being in some physical state (or other) that plays a certain causal (or functional) role R. Suppose that the property A of being a decision to stay home could be given such a characterization. One could then investigate whether in humans this characterization is satisfied by a certain neural state. If so, then A, re-interpreted as the property of deciding to stay at home *in humans*, would be identical with, let's say, the neural type-state N1. Analogously, the *human* decision A* would be identical with the specific token-neural state N1* that occurs at t. One drawback of this proposal is that it does not capture the fact that a human decision is a *conscious* occurrence, something that functional accounts of mental events do not succeed in capturing.

Another way to defend (11) would be to construe A* and P*(A) not as Kimean events but rather as *property-instances or tropes*. On this account, A* would be the property-instance of deciding to stay at home at t by S, and P*(A) would be the specific neural property-instance identical with A*.[15]

another event/process, like an opera with its overture, or like a soccer game with its first half. But the relation between a mental event and a physical event is different. For attempts to provide a constitution account of the mental–physical relation, see, for example, Shoemaker (2007, chaps. 2-3). For a forceful criticism of those attempts, see Ney (2007).

15 This proposal is defended by Robb (1997), Heil (1999) and Heil and Robb (2003).

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

A proper assessment of these options (and others), is, however, beyond the scope of this article. In it, I have set myself a different goal: (i) to show that libertarian freedom is incompatible with two widely held physicalist assumptions – the supervenience of the mental on the physical and its distinctness from the physical, and (ii) to point to the implications of this result for the compatibility of libertarian freedom with physicalism, in general. The conclusion that emerged is that compatibility issue hinges crucially on the availability of a plausible version of (11).[16]

Bar–Ilan University
Ramat–Gan 52900, Israel
widerd@gmail.com

References

Berofsky, B. 2012. *Nature's Challenge to Free Will*. Oxford: Oxford University Press.

Carlson, E. 2000. Incompatibilism and the transfer of power necessity. *Noûs* 34: 277–90.

Clark, R. 2003. *Libertarian Accounts of Free Will*. Oxford: Oxford University Press.

Crisp, T. and T. Warfield. 2000. The irrelevance of indeterministic counterexamples to principle beta. *Philosophy and Phenomenological Research* 61: 173–84.

Fischer, J. 1986. Power necessity. *Philosophical Topics* 14: 77–91.

Fischer, J. 1988. Freedom and miracles. *Nous* 22: 235–52.

Ginet, C. 1966. Might We Have No Choice? In Lehrer, K. ed. *Freedom and Determinism*. New York: Random House. 87–104

Ginet, C. 1990. *On Action*. Cambridge: Cambridge University Press.

Ginet, C. 2007. "An Action Can be Both Uncaused and Up to the Agent." In C. Lumer, and S. Nannini, eds. *In Deliberation and Autonomy, and Intentionality*. Aldershot: Ashgate. 243–255

Heil, J. 1999. Multiple realizability. *American Philosophical Quarterly* 36: 189–207.

Heil, J. and D. Robb. 2003. Mental properties. *American Philosophical Quarterly* 40: 175–96.

Huemer, M. 2000. Van Inwagen's consequence argument. *Philosophical Review* 109: 525–44.

Kim, J. 1993. *Supervenience and Mind*. Cambridge: Cambridge University Press.

Kim, J. 2005. *Physicalism, or Something Near Enough*. Princeton: Princeton University Press.

Lamb, J. 1977. On a proof of incompatibilism. *Philosophical Review* 86: 20–35.

Lewis, D. 1981. Are we free to break the laws? *Theoria* 47: 113–21.

16 I would like to thank Bernard Berofsky, John Fischer, Yakir Levin, Al Mele, Alissa Ney, Alik Pelman, Thomas Polger, Larry Shapiro and especially Ori Beck, Carl Ginet, Brian McLaughlin, David Robb and Jing Zhu, for excellent comments and discussions on earlier versions of this article. This article has been supported by a research grant from the Israeli Science Foundation.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

McKay, T. and D. Johnson. 1996. A reconsideration of an argument against compatibilism. *Philosophical Topics* 24: 113–22.

Merricks, T. 2001. *Objects and Persons*. Oxford: Oxford University Press.

Ney, A. 2007. Can an appeal to constitution solve the exclusion problem?. *Pacific Philosophical Quarterly* 88: 486–506.

O'Connor, T. 2000. *Persons and Causes: The Metaphysics of Free Will* Oxford: Oxford University Press.

Pruss, A. 2013. Incompatibilism proved. *Canadian Journal of Philosophy* 43: 430–37.

Robb, D. 1997. The properties of mental causation. *The Philosophical Quarterly* 47: 178–94.

Shoemaker, S. 2007. *Physical Realization*. Oxford: Oxford University Press.

Turner, J. 2009. The incompatibility of free will and naturalism. *Australasian Journal of Philosophy* 87: 565–87.

Van Inwagen, P. 1983. *An Essay on Free Will*. Oxford: Clarendon Press.

Widerker, D. 1987. On an argument for incompatibilism. *Analysis* 47: 37–41.

Wiggins, D. 1973. Towards a reasonable libertarianism. In *Essays on Freedom of Action*, ed. T. Honderich, 31–61. London: Routledge & Kegan Paul.

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016

Abstract

In this paper, I present an argument that shows that the belief in libertarian freedom is inconsistent with two assumptions widely accepted by those who are physicalists with regard to the relation between the mental and the physical - (i) that mental properties are distinct from physical properties, and (ii) that mental properties supervene on physical properties. After presenting the argument, I trace its implications for the question of the compatibility of libertarian free will and physicalism in general.

Keywords: libertarianism; physicalism; non-reductive physicalism

Downloaded from http://analysis.oxfordjournals.org/ at Vrije Universiteit Amsterdam on May 31, 2016