23

Free Will and Naturalism: How to be a Libertarian, and a Naturalist Too

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Introduction

As pop naturalists tell it, free will is incompatible with naturalism. And apparently many scientists agree. Philosopher Daniel Dennett reports, for example, that he has "learned from discussions with a variety of scientists…[that] free will, in their view, is *obviously* incompatible with naturalism, with determinism, and very likely incoherent against any background, so they cheerfully insist that of course they don't have free will" (2013, 47). Many philosophers, however, disagree (e.g., Mele 2014; Nahmias 2014; Vargas 2014), since compatibilist forms of free will seem amendable to purely naturalist underwriting. There is nevertheless, among philosophers, a near consensus on this: naturalism is certainly incompatible with *libertarian* free will.

We aim to show in this paper that free will is not incompatible with naturalism. Even the purportedly "spooky" – or "colossally whackadoodle"[2] – libertarian form of free will known as agent causation can be situated within a naturalistic metaphysical framework. Neither of us, though, is a naturalist,[3] and you know what they say about enemies bearing gifts. Still, our goal in this chapter is to offer a framework for an agent-causal account of free will that naturalists should be able to accept.

1 Order of authorship was determined by a coin flip.

2 This description of the view at issue here was relayed by Michael McKenna in personal correspondence.

3 We are both theists. Nevertheless, we think that an account of free will can be given that – *qua* account of the capacities involved in free will – does not require the existence of God. The qualifier "*qua* account of the capacities involved in free will" is needed for two reasons. First, according to traditional theism, God is the "creator of all things, seen and unseen." Thus, if created agents have free will, its existence depends upon God's creating and sustaining it in existence. The same is also true of giraffes – but we don't think an account of the nature of giraffes should make explicit reference to the existence of God. Second, we think that not only does God exist, but He exists necessarily, and so it's not perfectly clear what we should say about free will were God not to exist. However, we also think that not all counterpossibles are only trivially true; see, for instance, Zagzebski (1990).

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We proceed as follows. We begin by addressing some terminological issues and methodological constraints. We then examine recent claims by naturalists, particular a number of what might be called "pop naturalists," about the nonexistence of free will, and argue that they have failed to justify their conclusions. We then develop a framework for an incompatibilist account of free will that ought to be acceptable to the naturalists (and, for the most part, is also acceptable to the compatibilist). But first, some terminological and methodological issues.

Terminology and Methodological Constraints

For those not familiar with the relevant literature, it may come as a surprise that the meaning of the term "free will" is contentious. Peter van Inwagen, one of the most influential figures in contemporary free will debates, argues that the term "free will" should be defined[4] in terms of the ability to do otherwise. According to van Inwagen (2008, 329), free will just *is* "hav[ing] both the following abilities: the ability to perform that act and the ability to refrain from performing that act. (This entails that we have been in the following position: for something we did do, we were at some point prior to our doing it able to refrain from doing it, able not to do it.)" Yet others (Vargas 2007a; McKenna 2008, 30; Timpe 2012, 9–10) deny this and prefer to define free will in terms of the control condition on moral responsibility; that is, they think that having free will just is controlling your actions in the way required to be morally responsible for those actions.[5]

For present purposes, we stipulate the following definition of free will:

Free will $=_{df}$ the capacity or set of capacities of an agent to control her choices or volitions, the exercise of which is necessary for the agent to be morally responsible for those choices or volitions.[6]

We use "choices or volitions" in the definition rather than "actions" because we think that an agent can freely choose even if she is unable to carry out the action she chose.

Both of us are *incompatibilists*; that is, we think free will is incompatible with causal determinism. In order for human agents to be free and responsible, causal determinism – "the thesis that the past and the laws of nature together determine, at every moment, a unique future" (van Inwagen 2008, 330) – must be false. We will not rehash our arguments for incompatibilism here (though see, for instance, Timpe 2012). Nor will we argue here for the existence of free will,[7] though we will return to some naturalist denials of it in the next section. Rather, we're simply going to assume the conjunction of incompatibilism and the existence of free will, a view called "libertarianism."

One reason for giving an account that is consistent with, even if it doesn't require, the falsity of determinism is as follows. Few contemporary compatibilists think that free will

4 Actually, this isn't quite correct; what van Inwagen defines is not free will but the "free will thesis." Van Inwagen advises that one "define sentences, not terms" (2008, 328).

5 Others take these two understandings of free will to be coextensive; see, for example, Kane (2001, 17). Yet others think that they can come apart; see, for example, Fischer and Ravizza (1998).

6 For reasons why one of us prefers this approach to defining "free will" over van Inwagen's approach, see Timpe (2012, 11). We take this definition to line up with how Levy is using the term in Chapter 22.

7 For how such arguments might go, see Timpe (2012, esp. ch. 4). In our view, Neil Levy gives one of the most compelling arguments for free will skepticism in Levy (2011). For a partial response by one of us to his challenge, see Timpe (2012, ch. 10).

requires the truth of determinism. Instead, they are "free will either way" theorists; that is, on their view, the truth or falsity of determinism is irrelevant to whether or not we are free. Manuel Vargas (2012, 420) has recently given the name "supercompatibilism" to this kind of compatibilist view. John Martin Fischer thinks that a major advantage of contemporary compatibilism is precisely that we can be free whether or not determinism is true. Compatibilism is resilient, according to Fischer, to the discoveries of physicists in a way that libertarianism is not:

> I could certainly imagine waking up some morning to the newspaper headline, "Causal Determinism Is True!" (Most likely this would not be in the *National Enquirer* or even *People* – but perhaps the *New York Times*…) I could imagine reading the article and subsequently (presumably over some time) becoming convinced that causal determinism is true…And I feel confident that this would not, nor should it, change my view of myself and others as (sometimes) free and robustly morally responsible agents…The assumption that we human beings – most of us, at least – are morally responsible agents (at least sometimes) is extremely important and pervasive. In fact, it is hard to imagine human life without it…A compatibilist need not give up this assumption [that we are at least sometimes free and morally responsible], even if he were to wake up to the headline, "Causal Determinism is True!" (and if he were convinced of its truth)…A compatibilist need not "flipflop" in this weird and unappealing way. (2007, 44–47)[8]

In contrast, if a libertarian were to become convinced that determinism were true, she would have to give up either her belief that we are morally responsible beings or her incompatibilism. "One of my main motivations for being a compatibilist," writes Fischer, "is that I don't want our personhood and our moral responsibility, as it were, to hang on a thread, or to be held hostage to the possible scientific discovery that determinism is in fact true" (2000, 323).[9] If the compatibilist's account of free will required determinism to be true, it would be just as susceptible to flipflopping as would the libertarian's view. And for all we currently know, determinism is false. Richard Holton, summarizing the data concerning determinism, says that "the science is complicated and uncertain" (2013, 87); similarly, Randolph Clarke writes that "perhaps the best that can be said…is that…there is no good evidence that determinism is true" (2002, 377).[10] But for supercompatibilists, if determinism turns out to be false, their accounts of the nature of free will should be able to easily accommodate indeterminism.[11] Hence, it seems dialectically acceptable – even preferable – to assume that determinism is false.

In this first section, we also want to lay out some methodological constraints on how we should think about free will. Manuel Vargas introduces what he calls "the standard of naturalistic compatibility": "As I use the phrase, naturalistic compatibility refers to coherence

8 It should be clear that Fischer is thinking specifically of what Vargas calls "supercompatibilism" here. If, contrary to the general thrust of contemporary compatibilists, free will required the truth of determinism, then compatibilism would not enjoy the dialectical advantage that Fischer here attributes to it. For more on the charge of "flipflopping," see Steward (2012, ch. 5).

9 See also Fischer (1999, 129; 2006, 183). For another presentation of this worry, see Vargas (2007b, 141ff.). See also the discussion in Chapter 22 of this volume.

10 Psychologist George Howard claims that "if you want to be a scientist, you had better be a determinist" (2008, 261). The rest of the passage, however, shows that he wrongly assumes that all causation must be deterministic.

11 For an argument that the supercompatibilist ought to join with the libertarian is refuting the "luck objection" for similar reasons, see Timpe (2012, 176).

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with the known facts, along with compatibility with two further things: (1) the principle of the causal closure of the physical; and (2) acceptance of a principle of methodological minimalism" (2013, 56). By (2), he means "the idea that additions to our ontology of entities and powers have to be earned in terms of familiar theoretical virtues like explanatory power, prediction, and so on. In concrete terms, what this means for contemporary libertarianism is that it does not (ordinarily) appeal to anything like the spooky powers of old: substance dualism, nominal selves, or a 'god-like' power to be a 'unmoved mover'" (2013, 56ff.). This weak claim parallels what Levy claims is true of analytic philosophy more generally: "At minimum, analytic philosophers hold that philosophical theories must be *consistent* with our best science" (Chapter 22). We're willing to endorse, for present purposes, the standard of naturalistic compatibility and the principle of methodological minimalism. We'll address the causal closure of the physical further on.

Following Levy, we'll concern ourselves primarily with "ontological naturalism," the view that any philosophical view should "postulate only entities acceptable to science" (Chapter 22). As Levy notes, ontological naturalism comes in a variety of strengths. At the very least, the framework we outline in this chapter is an example of what he calls "weak ontological naturalism," since it does "not postulate anything supernatural" (Chapter 22). However, the proposed view may be compatible with stronger forms as well, meeting what Vargas calls "the standard of naturalistic plausibility": "the standard of naturalistic plausibility is satisfied if the account satisfies the standard of naturalistic compatibility and there are truth-relevant considerations that speak in its favor when it postulates requirements that exceed the known facts or the widely accepted ontologies of our current scientific understanding" (2013, 59).[12] Perhaps most importantly, we don't think that the proposal violates this standard in virtue of including substance causation. As we see it, the nature of the causal relata is not settled by physics, and thus the framework's commitment to substance causation doesn't clearly rule out a stronger naturalistic position (Harre 2001). And if all causation is substance causation, then the framework need not appeal to causal powers beyond those invoked by contemporary physics; nor need it be committed to "the existence of a power that overdetermines physical effects in a manner that clashes with the causal closure principle" (Chapter 22).

The view that all causation is substance causation, the details of which we spell out further on, need not entail that causal closure is false.[13] However, assuming that objects like rocks and people are substances, as we are wont to do, it would be inconsistent with *micro*-physical closure: the view that every physical event has an event involving only small, microphysical objects as its cause. But there are reasons to think that naturalism doesn't commit one to microphysical closure. For one, a number of naturalists themselves argue for the falsity of microphysical closure (see, e.g., Dupré 1993; Lowe 2000; Papineau 2001; 2009). Furthermore, given that it is an open scientific question whether microphysical closure is true, we think it would be odd for the truth of naturalism to depend on this kind of closure being true insofar as the truth of the former would then "hang by a thread" in just the way that naturalists like Fischer think other philosophical views ought not. Imagine the following parallel of Fischer's conversation regarding incompatibilism:

12 It's not clear to us that there is a "widely accepted ontology" in our current scientific understanding, but we won't pursue that point here.

13 In Chapter 22, Levy raises a worry about closure if one postulates both event- and agent-causation. However, insofar as the view being developed here only affirms substance causation, we can avoid his concern.

> I could certainly imagine waking up some morning to the newspaper headline, "Microphysical Closure is False!" (Most likely this would not be in the *National Enquirer* or even *People* – but perhaps the *New York Times*…) I could imagine reading the article and subsequently (presumably over some time) becoming convinced that microphysical closure is false…And I feel confident that this would not, nor should it, require me to change my view that naturalism is true.

It would certainly be odd if the discovery that a nonmicroscopic, physical object caused a physical event led anyone to reject *naturalism*. For these reasons, we think naturalism ought not require the truth of microphysical closure. Thus, even though our view in this chapter will be incompatible with the truth of microphysical closure, the view is not for that reason incompatible with naturalism.

Naturalists on Free Will

Vargas thinks it is a "real shame" that "outside of specialists working on free will and moral responsibility, there is sometimes the impulse to dismiss out of hand any form of libertarianism" (2013, 53). We agree, and in this section, we briefly consider what a number of prominent naturalists have said about free will and argue that many make claims that are not justified by the philosophical literature on the subject. Once we have set aside these confusions, we turn then in the next section to developing the outlines of a libertarian position that ought to be acceptable to the naturalist.[14]

We begin with a "popular" naturalist critique of free will given by Jerry Coyne, a biologist on the faculty at the University of Chicago. In a series of recent, widely publicized articles, Coyne argues that none of our choices result from "free and conscious decision on our part. There is no freedom of choice, no free will" (2012a). Coyne begins an article in *The Chronicle Review* as follows:

> The term "free will" has so many diverse connotations that I'm obliged to define it before I explain why we don't have it. I construe free will the way I think most people do: At the moment when you have to decide among alternatives, you have free will if you could have chosen otherwise.[15] To put it more technically, if you could rerun the tape of your life up to the moment you make a choice, with every aspect of the universe configured identically, free will means that your choice could have been different. Although we can't really rerun that tape, this sort of free will is ruled out, simply and decisively, by the laws of physics. (2012b)

Coyne's argument proceeds roughly as follows: (1) determinism is true, (2) free will just is the ability to do otherwise, and (3) if determinism is true, everyone lacks the ability to do otherwise. We are not convinced, as is Coyne, that science has shown that (1) is true; he certainly hasn't demonstrated that it is. Coyne's endorsement of (2) is, so far as we can see, stipulated rather than argued for. But step (3) in his argument is also problematic. Coyne associates the having of alternative possibilities with libertarianism. Given the traditional understanding of libertarianism, it is not surprising that he makes this assumption. For if libertarianism is true, then whenever a person has free will with respect to doing some

14 Parts of this section are taken from Timpe (forthcoming).

15 As Paul Manata has pointed out in conversation, the "if" here should clearly be an "only if." The ability to do otherwise may be necessary for free will, but clearly it's not sufficient.

particular action, it is causally open to her both to do it and not to do it. And while this is perhaps the most natural way of understanding the alternative possibilities condition, there are a number of *compatibilists* who also think that free will is primarily a function of having the ability to do otherwise. Consider, for example, Kadri Vihvelin's book, *Causes, Laws, and Free Will: Why Determinism Doesn't Matter* (2013), which defends a compatibilist account of free will that includes the ability to do otherwise. Coyne calls compatibilism a "cop-out" (2011). But most contemporary philosophers are both compatibilists and naturalists. In light of that, one might expect an *argument* against compatibilism, but it should at least make the blithe dismissal of compatibilism by Coyne and others perplexing.[16]

Coyne also thinks that free will requires substance dualism – the view, roughly, that human persons are immaterial souls or minds distinct from their physical bodies.[17] Consider the following passage:

> To assert that we can freely choose among alternatives is to claim, then, that we can somehow step outside the physical structure of our brain and change its working. That is impossible. Like the output of a programmed computer, only one choice is ever physically possible: the one you made. As such, the burden of proof rests on those who argue that we can make alternative choices, for that's a claim that our brains, unique among all forms of matter, are exempt from the laws of physics by a spooky, nonphysical "will" that can redirect our own molecules. (2012a)

The substance dualist thinks that a person's immaterial soul can causally interact with her physical body. (The difficulty in explaining how this interaction takes places is one of the main objections to substance dualism, one of which Descartes – the poster-child for substance dualism – was well aware.) If belief in free will required belief in an immaterial soul (or other supernatural "panicky metaphysics"), then it would not be surprising if naturalistic scientists like Coyne were to reject its existence. But, as Al Mele (2014) has pointed out, scientific objections to free will that are based on the claim that it requires substance dualism are misguided. As Manual Vargas puts it, "all serious accounts of free will make no appeal to substance dualism. Moreover, when one considers the empirical evidence about folk beliefs concerning the requirements of free will, the evidence seems to show that on ordinary usage, 'free will' does not require substance dualism" (2014, 217). Again, given that so few philosophers are substance dualists[18] – for example, neither of us is – this claim by Coyne and others is likewise perplexing. As we shall make clear in the final section of this paper, libertarianism does not require a commitment to substance dualism, nor to any obviously problematic non-naturalist ontology.

Consider, next, cognitive neuroscientist, best-selling author, and naturalist Sam Harris. Like Coyne, Harris thinks that free will is simply an illusion, but his reason for thinking so differs from Coyne's:

> Free will *is* an illusion. Our wills are simply not of our own making. Thoughts and intentions emerge from background causes of which we are unaware and over which we exert no conscious control. We do not have the freedom we think we have. Free will is actually more than an illusion (or less), in that it cannot be made conceptually coherent. Either our wills are determined

16 For more on Coyne's dismissal of compatibilism, see Bok (2012).

17 Substance dualism is understood as a stronger claim than just the claim that we have a soul or mind; it is the claim that we are identical with a person who is a soul or mind.

18 The most noteworthy counterexample is Swinburne (2013).

> by prior causes and we are not responsible for them, or they are the product of chance and we are not responsible for them. (Harris 2012, 5)[19]

Commenting on Harris's book, Eddy Nahmias describes the central thrust as follows: "Given his other books, one would expect science to drive Harris's conclusions, but here his argument is conceptual. Step 1: Define free will in such a way that it is impossible. Step 2: Remind us that we cannot have what is impossible" (2012, 110). But this way of approaching the matter, Nahmias writes, is naive: "My response is just as simple: Harris's definition of free will is mistaken. To have free will, people don't need the impossible; nor do most people think free will requires the impossible" (2012, 110).[20]

We think that Nahmias is correct here. Whereas Coyne's argument for the illusory nature of free will is built on the problematic assumption of determinism, Harris's argument is a problematic dilemma: either determinism is true or it's false, but in either case we lack free will. Let us explore each case in more detail.

We begin with the first horn of the dilemma: if determinism is true, then we lack free will. Harris's reasons for thinking this are much the same as Coyne's: namely, that free will requires "that each of us could have behaved differently than we did in the past" (Harris 2012, 6). That is, like Coyne, Harris identifies free will with the ability to do otherwise, which, he claims, we would lack if determinism were true. Unlike Coyne, however, Harris at least considers compatibilism:

> Today, the only philosophically respectable way to endorse free will is to be a compatibilist – because we know that determinism, in every sense relevant to human behavior, is true. Unconscious neural events determine our thoughts and actions – and are themselves determined by prior causes of which we are subjectively unaware. However, the "free will" that compatibilists defend is not the free will that most people feel they have…What does it mean to say that rapists and murderers commit their crimes of their own free will? If this statement means anything, it must be that they could have behaved differently [that is, that they could have done otherwise]. (2012, 16ff.)

But Harris accuses the compatibilist of "changing the subject" (2012, 15) and being "deliberately obtuse" (2012, 18).

There are two things worth noting here. First, a number of philosophers working in a recent movement called "experimental philosophy," sometimes in collaboration with social scientists, have begun to study ordinary folks' views about the relationship between free will and determinism (see Nahmias et al. 2006; Nichols 2006). Some of their data suggest that, contrary to what Harris claims, many – perhaps even most – of the "folk" are compatibilists. Still, the second thing to note is that even if most people were incompatibilists about free will and determinism, that wouldn't by itself mean ordinary people were right. Establishing *that*

19 Showing his rhetorical prowess, he calls free will not only an illusion, but also a delusion.

20 Later in the same article, Nahmias makes a similar point: "It is ironic for scientists like Harris to think that science will explain away free will, rather than helping to explain how it works. Organic chemistry did not make life disappear by explaining how living processes work. Copernicus did not explain away the earth by explaining how it moves. The only reason to think free will can't be explained is to define it such that it must be inexplicable – to assume that people demand the impossible" (2012, 113). For another critical review of Harris's book by another leading naturalist, see Dennett (2014). Dennett calls the book "valuable, as I will show, as a veritable museum of mistakes, none of them new and all of them seductive." More recently, Dennett (2013) has indicated a personal willingness to cede use of "free will" to incompatibilists.

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requires a philosophical argument. And giving such arguments is neither "changing the subject" nor being "deliberately obtuse." While we think that compatibilism is false, one needs to provide an argument for that – not merely offer a claim about what most people think.

We turn then toward the second horn of Harris's dilemma: if determinism is false, then we lack free will. What would the falsity of determinism imply for free will? Harris thinks that indeterminism is no more conducive to freedom than is determinism. If an event were not determined by previous events and the laws of nature, then such an event would be, he claims, "lucky." If an event (or action) is lucky for an individual, then she lacks control over it. And if an agent lacks control over whether or not she does some event (or action), then she does not do it freely. "The role of luck," Harris writes, "therefore, appears decisive" (2012, 4). But his treatment of the relevant philosophical literature is superficial, and he doesn't engage it in a way that justifies the inference here. There are, of course, philosophically sophisticated versions of the same kind of argument that Harris is making here. The best is likely Neil Levy's *Hard Luck* (2011), which is a wonderful treatment of the threat of luck to freedom and responsibility. What Levy's treatment illustrates, and what Harris's lacks, is an understanding of and engagement with the relevant philosophical material that doesn't make such questionable assumptions of the sort previously mentioned. But even Levy's treatment doesn't prove that indeterminism undermines free will. And Harris certainly hasn't given us any reason to think that it does.

There are, of course, naturalists who give better arguments regarding the nature of free will than do Coyne and Harris. (A great example of one such naturalist is Levy; see Chapter 22.) But the most public faces of naturalism, including Harris and Coyne, are not those who do the best work on free will, and nothing of import follows from the fact that some prominent naturalists think we lack free will. In a worthwhile article exploring the relationship between contemporary neuroscience and the traditional debates about free will, Adina Roskies writes that "current [neuroscience] knowledge has little direct bearing on this age-old philosophical problem [of free will]" (2013, 33).[21] Though a naturalist herself, Roskies too thinks that Coyne's and Harris's work on free will is rash and badly informed. This does not mean that neuroscience has no implications for how we understand free will. Roskies herself adds, for example, that "so far, the greatest effect of neuroscience has been to challenge traditional views of the relationship between consciousness and action…Converging evidence from neuroscience and psychology makes it clear that factors in addition to consciousness influence our choices" (2013, 51). While we agree that these are important findings,[22] the most plausible forms of libertarianism don't require consciousness to be the only, or even the prime, driving force behind all of our choices. A more general claim is also likely true: nothing in the recent neuroscientific findings rules out libertarianism.

21 Consider also the following: "In our volume we start from the assumption that the cognitive sciences will not be able to help us directly with the discussion between libertarians and compatibilists. However, a simple dismissal of the scientific findings as irrelevant to the free will debate would be, to say the least, premature" (Vierkant, Kiverstein, and Clark 2013, 3). Vierkant and colleagues call this "the zombie challenge": "the zombie challenge is based on an amazing wealth of findings in recent cognitive science that demonstrate the surprising ways in which our everyday behavior is controlled by automatic processes that unfold in the complete absence of consciousness…The zombie challenge suggests that the conscious self takes a backseat when it comes to the control of much of our behavior" (2013, 5). For a response to the zombie challenge, see Mele (2009). We do not think that the zombie challenge entails anything about the compatibilism/incompatibilism debate, nor about the existence of free will.

22 However, see Mele (2009) for some worries that the findings don't pose the challenge that many claim they do.

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A Naturalist-Friendly Libertarian Account of Free Will

It is one thing to undermine arguments for thinking that free will is incompatible with naturalism; it is another to show that the two are compatible. In this section, we aim to do the latter by providing a consistent and coherent model for one kind of libertarian view that is naturalist-friendly.[23] We think that, in general, evaluation of metaphysical theories does not work piecemeal; it proceeds by consideration of the intuitive force and theoretical power of the more systematic, general metaphysical view in which a particular theory is embedded.[24] The same is true, we think, regarding the libertarian view we outline here. There are many aspects of the view that are contentious, and we cannot defend them adequately in the present context. We do, however, think that the larger set of metaphysical views in which the proposed account of free will is imbedded can be defended, and we will point the reader to such defenses in the notes.

We proceed as follows. First, we give reasons for thinking that all causation is substance causation. Second, we differentiate agent causation as the subspecies of substance causation that is pertinent to questions of free and responsible agency. Third, we show how the proposed framework for a libertarian view contains nothing that a naturalist as such couldn't endorse.

Substance Causation

Most contemporary philosophers writing on free will think that when an agent causes something to happen (such as taking a drink of water), the fundamental metaphysical story does not involve the agent *simpliciter*, but rather events involving the agent. It is the agent's having of certain reasons and desires, say, that cause her to choose to drink the water, not the agent as such. On this view, all causes are events. There are, however, a few philosophers who think that while some, perhaps most, causes are events, the causation involved in free and responsible agency is best understood in terms of agent causation (e.g., O'Connor 2011; Markosian 1999; 2012). In free choices, it is the agent herself, not events involving her or her parts, that is the cause of her choice. (It's this latter sort of causation, agent causation, that is purportedly "spooky," involving a "godlike" power to be an unmoved mover.) On this second view, some causes are events, but some are substances.

We think agent causation should be understood in the context of an account of the nature of causation in general. Our proposed libertarian, naturalist account of free and responsible agency rejects the two pictures of causation just discussed, and instead begins with a commitment to the metaphysical primacy of substance causation *in general*.[25] Agents are the causes of their most basic actions, but so too are electrons. While this is certainly a minority view in contemporary metaphysics, a number of metaphysicians hold that substance causation is the primary kind of causation and that purported cases of event causation can be understood as, more fundamentally, cases of substance causation.

23 For another, similar naturalistic libertarian position, see Steward (2012).

24 See also Jacobs (2011). Timothy O'Connor and Jacobs make the point this way: "There is a more general moral that we hope will become more widely embraced in action theory and philosophy of mind: metaphysics matter" (2013, 190). See also Gibb (2013, 1, 15).

25 See, for further discussion, Jacobs and O'Connor (2013). Similarly, Steward (2012, esp. ch. 8) also situations her libertarian view within a substance-causal framework. While our view differs from hers in a number of ways, we are quite sympathetic to her overall approach to rational agency.

One initial motivation for this view is that, as E.J. Lowe puts it, "our ordinary ways of talking about action support, at least superficially, the idea that agent causation is a distinct species of causation" (2002, 122). We speak freely of substances as causes: the rock shattered the window, the bomb destroyed the bridge. Lowe argues, further, that "the notion of agent causation is at least *conceptually prior* to that of event causation" (2002, 134). Both Lowe and Helen Steward appeal to linguistic facts about the relation between transitive and intransitive uses of causal terms to support the legitimacy of talking about substances as causes. The transitive use of "move," as in "Sue moved her hand," implies the intransitive use in "her hand moved." And since "move" is a causal term, it follows that Sue caused her hand to be moved. According to Steward, it is in the use of these basic transitive verbs – push, pull, move, and so on – that "we really find the heart of our concept of causality" (2012, 202). In our ordinary usage of these sorts of verbs, "we find clear evidence of a commonsense metaphysics that accords to substances…a capacity to wreak effects in the world," so that "grammar reveals them to be amongst the causes *par excellence* of ordinary language" (2012, 202).

We don't take these sorts of linguistic or ordinary language arguments to establish a metaphysics of substance causation, but they should give pause to anyone who thinks that the default metaphysics of causation should be one of event causation. And they seem to establish that event causation is not the common-sense view.

Lowe also offers a more metaphysical argument for substance causation. Care needs to be taken here, as in some places Lowe takes "agent causation" to be synonymous with substance causation, while in others, as we shall, he takes more care to differentiate agent causation from the larger genus of substance causation. As an illustration of the former tendency, consider the following:

> An "agent," in the sense intended here, is a persisting object (or "substance") possessing various properties, including, most importantly, certain causal powers and liabilities. A paradigmatic example of an agent would be a human being or other conscious creature, capable of performing intentional actions. Indeed, some philosophers of action would like to restrict the term "agent" to entities such as these and, correspondingly, restrict the term "agent causation" to cases of intentional action. (Lowe 2001, 1ff.; see also Griffith unpublished)

While there is this broad sense in which all substances are agents, it is better to restrict agent causation to that subspecies of substance causation that requires reasons to play a particular role in enhancing the control of the agent in question. (More on this in the next subsection.)

Returning to Lowe's more metaphysical argument, the heart of his reasoning is this: causation is the exercise or manifestation of a power. The cause is the thing that has the power. But only substances have powers. Therefore, only substances are causes.

Lowe doesn't deny the existence of events; he just thinks that event causation can be reduced to substance causation, the latter of which is ontologically fundamental:

> I am not…denying the existence of events. Events occur when substances act or are acted upon in certain ways: indeed, events just consist in the doings of substances…The source of all change in the world lies in substances, in virtue of their causal powers and liabilities, which they characteristically exercise or manifest when they enter into suitable relationship with one another…Events as such are utterly powerless. They are mere changes in things and not the source of those changes. (2009, 342)

Lowe thinks that "basic actions" prove particularly insightful. In some cases, agents act, but not by any other means; the agent just does it.[26] In such cases, "there appears to be no suitable event involving the agent which can be called upon to provide the cause – in the event causation sense of "cause" – of the effect which, in performing that action, the agent is said to cause…Moreover, it would appear that there must be basic actions, if agents perform any action at all" (2002, 200). Granted, even if this argument is convincing, it doesn't establish that all event causation can be reduced to agent causation, only that some of it can be. But Lowe does think that this reduction, at least in terms of the causal relationship involved in purported free actions, has a payoff in terms of saving free will from the "disappearance of the agent":

> If all human agency is ultimately just a matter of one event's causing another, then, since the causal history of the events supposedly involved in any instance of human agency will plausibly be traceable back, through prior events, to times before the agent's birth, we seem to lose all sense of the agent's being genuinely responsible for – the author of – his or her own actions. A human being must then be seen as no freer, in reality, than the boulder which rolls into the tree, its rolling being caused by the action of some other object upon it, which action is in turn caused by yet earlier events – and so on back to the dawn of time. Acknowledging that there is room for a certain amount of probabilistic causation between events provides no escape from this conclusion, since a boulder's behavior would be no freer on that account than it would be in a perfectly deterministic universe. (2002, 201ff.)[27]

There is much to be said for thinking that all causation is substance causation. That view will be most compelling to those sympathetic to neo-Aristotelian approaches to metaphysics. While most naturalists work within a roughly neo-Humean approach to metaphysics, we think that there is nothing inherently non-naturalist about neo-Arisotelian approaches; indeed, often the impetus for anti-neo-Humean views of this sort comes from the field of philosophy of science (e.g., Cartwright 1989; Bird 2007). Moreover, there are serious problems with the kind of causal reductionism that is typical of neo-Humean approaches. Whereas, for neo-Humean views, causation is mere counterfactual covariance, on neo-Aristotelian views it is the exercise of causal powers by substances. Neo-Aristotelian approaches can't be ruled out from the start; indeed, we also think there are good reasons for preferring neo-Aristotelian approaches in general (and reasons for preferring neo-Aristotelian approaches to agency in particular; more on this later).[28]

So, to summarize, on the view we have in mind, substances have powers to bring about effects, and when they exercise those powers, the substances themselves are the causes of the effects.

The Role of Reasons in Agent Causation

What we've set out so far is contentious and somewhat speculative. But we don't think that an account of free will can proceed in isolation from larger metaphysical issues. We now turn more directly to free will. As mentioned before, and as is common practice, we

26 Lowe thinks an agent's waving her hand is such a basic action, but we think it more plausible that an agent's forming an intention to wave her hand is a basic action that we do not do by any other means.

27 See also Lowe (2009, 338ff.). For a worthwhile reply to the problem of the disappearing agent by an event causalist, see Franklin (2013).

28 For arguments against neo-Humean approaches, see Jacobs and O'Connor (2013, esp. §§ 1, 2). For a defense of one particular neo-Aristotelian approach, see Jacobs (2010; 2011).

understand free will as the control condition on moral responsibility. On our view, free will is a system-level feature, for reasons that should become clear momentarily, that involves the faculties of the will and the intellect.[29] The will is a kind of causal power that enables a substance (or agent) that has it to cause certain types of event, namely actions. Actions are a distinctive kind of event, and agent causation is a distinctive kind of substance causation. We agree with Lowe that what differentiates agent causation from the larger species of causation is that agent causation is inherently "executive" or "volitional," and that this executive capacity of the agent is intimately connected with the agent's responsiveness to reasons.[30]

Here, we begin to see differences between our view and Lowe's. According to Lowe, "What, in my view, distinguishes the will from any other kind of spontaneous power is (1) that it is a two-way power – a power either to will or not will a particular course of action – and (2) that it can be exercised rationally, that is, 'in the light of reason'" (2013, 154; see also Griffith unpublished). We differ from Lowe in a number of important ways. First, we do not think that the exercise of agency requires, at the time of each act of agency, one to have the ability to will or refrain from willing that particular course.[31] This difference isn't crucial for our present purposes. What is particularly important here, and what differentiates the will from other causal powers, is the will's responsiveness to reasons, which are provided by the intellect.[32]

More importantly, we disagree about the role of reasons in free action. We think, like Lowe, that reasons play an ineliminable role in free agency, though we think they play a different role than does Lowe. We also differ from Lowe about the exact nature of the relationship of reasons to our agency. Lowe is an externalist about reasons. While we are inclined to reject reasons externalism, nothing in this chapter is incompatible with it. Our view here does require the view that reasons are not causes; that is, we reject the view that when you act it's your reasons, or the having of them, that are the causes of your actions. On our view, reasons are relevant, but not in a directly causal way. So what does it mean to be reasons-responsive, to act for a reason? On our view, reasons dispose agents to act in certain ways.[33] When an agent acts on the basis of a reason, the agent is manifesting her agential dispositions. If she had had different reasons, she would have been differently disposed. But these reasons, as well as the agent's ability to detect them and choose on the basis of them, are features of the agent. And if, as we think, agents are natural substances, then their features are natural too: they are features of biological organisms.[34]

29 "Faculties" need not be mysterious, non-naturalistic entities; they are simply powers or capacities of the agent.

30 See Lowe (2009, 347ff.).

31 For more on why this is, see Timpe (2013, esp. ch. 6).

32 For an account of the role that reasons – in particular, reasons related to perceived goodness – play in the exercise of free will, see Timpe (2013, ch. 2).

33 There are further related issues in the vicinity, such as the relationship between acting on a reason and acting for a reason. We are avoiding these issues both due to space constraints and because we don't think that their resolution matters directly for naturalism. See O'Connor (2008) for further discussion.

34 If these features are features of parts of an agent, rather than of the agent *simpliciter*, then we may face the problem of the disappearing agent once again, since it's not clear that she is the cause, instead of being the place where the causing occurs. For this reason, we may need to think of some of the agential capacities in holistic terms, or in terms of "emergence." We see no reason, again, to think that if a large object has properties that are not made up of properties of the object's part, then naturalism is false. For an account of emergent properties and the substances that have them, see O'Connor and Jacobs (2003) and O'Connor and Wong (2005).

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Naturalism

In Chapter 1, Kelly James Clark lays out a number of forms of naturalism. He describes "metaphysical naturalism" as the ontological thesis that no non-supernatural entities exist. While, historically, agent causation has been thought to require a non-natural entity such as an immaterial soul (thus, also requiring a different kind of causation than is found in the natural order), the previous sections should show that an immaterial soul is not required. If all causation is substance causation, then agent causation (a subspecies of substance causation) need not be problematic for the naturalist. If everything is spooky, nothing is. And if all causation is ultimately substance causation, then it's false that science doesn't appeal to substance causation.

Furthermore, reasons-responsiveness is not ruled out by what, in Chapter 1, Clark calls "broad naturalism." Granted, there are naturalistic positions that would be incompatible with the view that we've offered – if one rejected the existence of reasons or moral responsibility, for example, or perhaps scientific naturalism. But these views go beyond mere naturalism, and we see no reason to endorse their further claims.

Conclusion

We've offered an agent-causal libertarian view that is consistent with naturalism. We've also offered reasons in support of the various elements of that view. We have, for example, given reasons why one might think that all causation is substance causation and that neither substance causation in general nor agent causation in particular is ruled out by naturalism. This, of course, doesn't mean that agent causation is true. But we think it does show that a commitment to naturalism by itself doesn't rule out the existence of free will, even if free will is of the agent-causal sort that we've suggested.

Though both of us are incompatibilists (i.e., we think that the truth of determinism would entail that we lack the kind of freedom at issue in the philosophical debates about moral responsibility), this is independent of our argument here. Moreover, the debate between incompatibilists and compatibilists is a philosophical argument, and not one that can be settled by science. However, we think that it is worth saying something further regarding libertarian views of free will in comparison to their compatibilist competitors.

The most compelling philosophical objection to libertarian views of free will is what has come to be called "luck objection." There is no single objection that goes by this moniker; rather, the luck objection is best thought of as a family of related objections. But here is one representative expression:

> Another frequently heard objection to indeterministic free will is precisely that undetermined free choices must *always* amount to mere *random* choices, like flipping a coin or spinning a wheel to select from among a set of alternatives. Perhaps there is a role for random choices in our lives – for sometimes settling choices by a coin flip or spinning a wheel – when we are indifferent to the outcomes. (Which movie should I see tonight when I like both available options?) But suppose that *all* our free and responsible choices – including momentous ones, like whether to act heroically or treacherously, to lie to a friend, or to marry one person rather than another – had to be settled by random selection in this way. Such a consequence, according to most philosophers, would be a reduction to absurdity of the view that free will and responsibility require indeterminism. (Kane 2005, 37)

In our view, the luck objection is a significant but not unanswerable challenge, even though we don't have the space to go into how we think it should be addressed here. But, in brief, we don't think that there is any good reason to think that all cases of mere indeterminism are the kind of control-undermining luck that would undermine free will.[35]

What's more important for our present concerns is the importance of the compatibility of free will with indeterminism. Even if the presence of the indeterminism that libertarians think is required doesn't undermine free will, as the luck objection holds, many suggest that this requirement is a disadvantage for the libertarian. John Fischer, for example, writes that compatibilism's impunity at this point is a significant point in its favor. Thus, compared with incompatibilism, compatibilism is able to reconcile freedom with a greater range of scientific discoveries. But is this so? It depends on the kind of compatibilism under discussion.

A number of compatibilists think that free will not only is compatible with determinism but actually requires it. This kind of compatibilism is likewise hostage to potential threats by scientific discovery, as is libertarianism insofar as it too requires a particular view regarding the truth or falsity of determinism. In contrast, most compatibilists are, as mentioned earlier, "supercompatibilists": they think that free will neither requires nor is ruled out by determinism. Supercompatibilism is less threatened by any potential discoveries of science regarding determinism.

But note the following. The more the compatibilist thinks that free will is compatible with both determinism and indeterminism, the less motivated will be the luck objection to libertarianism, since at the heart of that objection is the belief that indeterminism undermines rather than supports freedom by making the agent's choices "simply the result of luck." If one thinks that free will is compatible with both determinism and indeterminism at a wide range of places causally relevant to a particular action, the luck objection will carry less dialectical force – for if indeterminism *per se* doesn't undermine free will, then the driving intuition behind the luck objection will be undercut.[36]

Suppose that we're wrong in that free will requires the falsity of determinism. If so, then the view of the nature of free will as centrally involving a reasons-responsive form of agent causation given here will not be undermined: it can simply be understood as compatible with determinism. And there are already compatibilist versions of agent causation.[37]

In our view, contrary to what a number of naturalists have claimed, the truth of naturalism wouldn't rule out free will, not even of the agent-causal kind. Whether or not agent-causal free will is ultimately of the libertarian or compatibilist variety will depend on the outcome of philosophical debate: it's not something settled by the debates over naturalism. Like Levy, we think that the "prospects for a fully naturalistic account of free will are therefore tied up with the prospects for fully naturalistic accounts of other properties" (Chapter 22). But we see no reason to think this cannot be accomplished.

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35 For an argument that along these lines, see Timpe (2012, ch. 10).

36 For more on this issue, see Timpe (2010).

37 See Markosian (1999; 2012). We see it as a benefit of our view that the substance-causal metaphysic of free will we outline here is available to both the compatibilist and the incompatibilist.

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