

What's Wrong With Nonreductive Physicalism? The Exclusion Problem Reconsidered

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Abstract

Jaegwon Kim argued that nonreductive physicalism faces the “exclusion problem” for higher-level causation, mental causation in particular. Roughly, the charge is that given the presumptive ubiquity of physical causation, there cannot be irreducible mental causes for physical effects. Since there are mental causes, Kim concluded that nonreductive physicalism should be rejected in favor of a more reductionist alternative according to which mental causes are just physical causes differently described. But why should mental causes be “excluded” in this way? Unfortunately, Kim had less to say about this than one might expect. After reviewing some of Kim’s proposals, I suggest that the exclusion problem should be premised on nothing more or less than Occamist, simplicity-based considerations. I apply this conception of the exclusion problem to some prominent responses to Kim’s critique of nonreductive physicalism and argue that this conception mandates reconsidering the success of these responses.

1. Introduction

While he contributed in many ways to metaphysics, philosophy of science, and philosophy of mind, Jaegwon Kim is perhaps best known for his trenchant criticisms of nonreductive physicalism.

What is nonreductive physicalism? Following Kim, I will take it to be a position about the nature and structure of reality built around two core components.¹

First, nonreductive physicalism supposes that in some sense physical reality is exhaustive, that in some sense all of reality is physical.² This is the physicalist component of nonreductive physicalism. Whatever else it is supposed to be, nonreductive physicalism is supposed to be a genuinely physicalist metaphysic. I will have more to say about what this physicalist component involves below.

¹ In characterizing nonreductive physicalism in this way, I am supposing (as I believe Kim did) that it is not merely a view, say, about the ordering of scientific theories or about representational items more generally.

² Spelling this out in detail requires saying just what “physical” means in this context. For discussion, see Goff 2017, Howell 2013, and Wilson 2006, among others.

Second, nonreductive physicalism supposes that there are items – objects, properties, processes, occurrences, events³ – that while dependent on and determined by physical reality, cannot be identified with or reduced to physical items. For example, nonreductive physicalism is often put forward as a view about mind and mentality, according to which thoughts, desires, and experiences cannot be identified with or reduced to physical items. This is the nonreductive component of nonreductive physicalism.

Putting together these two components, the idea that there are items (objects, properties, processes, events...), that while not strictly the same as physical items, are nonetheless so closely connected to the latter that they can have a place in a genuinely physicalist metaphysic. In this sense, nonreductive physicalism involves a distinction between fundamental and derivative reality: physical reality is fundamental, while chemical, biological, and mental items are derivative from physical reality. Similarly, nonreductive physicalism involves “levels of reality”: there are the fundamental lower-level physical items, with derivative higher-level items dependent on and determined by the physical items. Such levels are connected by relations intended to be so intimate, so close, that while the higher-level items are distinct from the lower-level physical items, the higher-level items are yet “nothing over and above” the lower-level physical items. That, at least, is the idea. To some, it has seemed like the best thing since buttered toast. This can all be represented as follows (Figure 1):

[Insert Figure 1 – Levels of Reality]

Figure 1 represents, in a nutshell, nonreductive physicalism’s overall conception of the nature and structure of reality: there are the fundamental, physical items, with distinct – but, in a sense, not *too*

³ Here and elsewhere, I will be somewhat loose about fundamental ontology. My justification for this is, first, that to the extent that there is a case for nonreductive physicalism about items in some such category, there is probably a corresponding case for nonreductive physicalism about items in each category. Second, this looseness in fundamental ontology does not, so far as I can tell, make a difference to my discussions. As indicated in the text, I will use “item” as a generic term that subsumes various ontological categories (others use “entity” for this purpose).

distinct – higher-level items dependent on and determined by the physical items, and connected to the physical items via inter-level relations. Supervenience, realization (in various senses), and metaphysical grounding are some of the relations that have been proposed for this role. In what follows, I will focus on nonreductive physicalism as a view about mind and mentality, according to which mental items (beliefs, thoughts, experiences) are dependent on and determined by more fundamental lower-level physical items; as above, however, the view easily generalizes to a comprehensive view about the nature and structure of reality.

One can discern two strands in Kim’s critique of nonreductive physicalism so understood.

First, as above, nonreductive physicalism posits inter-level relations, relations between physical items and higher-level items. Kim expressed some initial enthusiasm for the idea that supervenience might provide the requisite relation between the physical on the one hand and the mental, and higher-level items quite generally, on the other hand.⁴ On this approach to nonreductive physicalist metaphysics, mental items are necessitated by physical items, such that anything that is the same physically must, as a matter of necessity, be the same mentally. Nonetheless, Kim came to believe, along with others, that mere necessitation is insufficient to ensure the “physical acceptability” of higher-level items, and thus that a more intimate inter-level relation is needed.⁵ In this context, Kim came to believe that such relations are best understood in functionalist terms, with putative higher-level items “realized” by physical items, in virtue of the latter playing the functional roles associated former. However, he then argued that such a “realization-based” physicalism is best interpreted in reductionist terms, with higher-level, functionally defined predicates picking out physical items that play certain functional roles.⁶ On this interpretation of functionalist ideas, while there are functional

⁴ See, for example, Kim 1984a and 1984b.

⁵ See Kim 1998. For related critiques of supervenience-based versions of nonreductive physicalism, see Horgan 1993 and Wilson 2005. While I believe that supervenience is not the key to securing a viable nonreductive physicalism, I also believe that the issues here are more nuanced than certain discussions suggest; for discussion, see Howell 2009 and Morris 2018a and 2018b.

⁶ See Kim 1998 and 2005.

predicates that apply to things in virtue of physical items playing certain functional roles, there are no irreducible higher-level functional items as the semantic values or meanings of such predicates.⁷

Second, Kim argued that nonreductive physicalism cannot make sense of the causal efficacy of putative higher-level items, focusing his case on the issue of mental causation, the causal efficacy of mental items like thoughts, beliefs, desires, and experiences. Here Kim pursued what has come to be known as the “exclusion problem” for nonreductive physicalism. While I will spell out the details of the problem below, the basic worry is that to the extent that nonreductive physicalism is a genuinely physicalist view, it requires the ubiquity of physical causation, that all physical effects have a sufficient physical cause at a time if they have a sufficient cause at all at that time. But in that case, mental causes, and higher-level causes more generally, seem superfluous and unnecessary with respect to the physical domain. Given that mental items – beliefs, desires, experiences, and so on – do in fact sometimes figure as causes of physical effects, Kim concluded that nonreductive physicalism should be rejected in favor of a more reductionist picture under which alleged mental causes, and higher-level causes more generally, are nothing but physical causes differently described.⁸

This second line of thought will be my focus in what follows. Specifically, I will be interested in just what, if anything, is wrong with the causal picture of the world that nonreductive physicalism entails. In some places, Kim suggested that the principle needed to rule against nonreductive physicalism on causal grounds – the so-called “exclusion principle” – is a priori if not analytic. Similarly, in some cases he suggested that some such principle is entailed by at least some views of causation. Following others,⁹ I will suggest that neither is a wise strategy. In contrast, I will suggest that such a principle, or something like it, is best regarded as having a basis in nothing more or less than Occamist, simplicity-based considerations. In this sense, I will suggest that an “exclusionist”,

⁷ For related ideas, see Lewis 1966, Heil 2003, and Morris 2018b.

⁸ See Kim 1998 and 2005.

⁹ Árnadóttir and Crane 2013 critique the first strategy, while Loewer 2002, 2007, and 2015 and Woodward 2008 and 2015 critique the latter.

someone who thinks that nonreductive physicalism should be rejected because of the causal picture that it entails, should have somewhat modest aims. I will argue, however, that this way of understanding the grounds for some such exclusion principle raises important issues for at least two prominent strategies for defending nonreductive physicalism from Kim's critique.

I will now lay out some aspects of the exclusion problem, as I understand it.

2. The Exclusion Problem and the Exclusion Principle

As its name suggests, nonreductive physicalism is supposed to be a form of physicalism. This, in turn, involves at least two commitments.

First, mental items, along with higher-level items quite generally, are taken to be nothing over and above the physical items upon which they depend. This, as above, is supposed to be secured by an especially intimate inter-level relationship between higher-level items and lower-level physical items. In this context, nonreductive physicalists have appealed to relations like supervenience, realization (in various senses), and metaphysical grounding. Mental items, the idea goes, are nothing over and above their "physical bases", given that they supervene on physical items, or are realized (in some sense of that term) by physical items, or are grounded in physical items.

Second, and more importantly for the discussions that follow, the physical domain is taken to be "causally complete", in the sense that any physical effect that has a sufficient cause at a time is taken to have a sufficient physical cause at that time, arguably a commitment of any physicalist picture. As Kim put it, to suppose that there are physical effects that have sufficient causes, but lack sufficient physical causes, amounts to a "relapse into Cartesian interactionist dualism", with nonphysical causes playing an essential and ineliminable role in bringing about physical effects (1998, 37).

The causal completeness of the physical domain, however, seems to raise a problem when it comes to higher-level causation. For suppose that mental causes are, as a nonreductive physicalist supposes, distinct from (though dependent on and determined by), physical causes. And now take some

physical effect P2 at time t_{+1} , perhaps the raising of an arm. In at least some cases, it is natural to suppose that P2 has a mental cause at some prior time t , perhaps a belief-desire pair M1. However, the completeness of the physical domain dictates that P2 has a sufficient physical cause at t , perhaps the firing of certain neurons, P1. If P1 at t is a sufficient cause for P2 at t_{+1} , and M1 is distinct from P1, how can M1 *also* figure as a cause, at t , of P2? P1, it seems, “excludes” M1 from figuring as cause of P2, since P1 is already sufficient to bring about P2. This kind of reasoning is commonly represented using a diagram like the following (Figure 2):

[Insert Figure 2 – Kim diagram]

Because of this, Kim concluded that given the causal completeness of the physical domain, there cannot be irreducible higher-level causes of physical effects. In this respect, he denied that there can be irreducible “downward” causation, causation from irreducible higher-level items to lower-level physical items. Indeed, Kim argued that higher-level items can bring about other higher-level items – for instance, an experience causing a thought – only if higher-level items can bring about lower-level physical items. In this sense, he argued that “same level” higher-level causation requires “downward” causation. But, as above, irreducible “downward” causation is ruled out on exclusionist grounds. Hence, not only does the exclusion problem jeopardize the idea of irreducible mental causes for physical effects, but indeed that there can be irreducible mental causes at all, mental causes of any effect, physical or otherwise.

In the context of Figure 2, however, *why* should M1 be “excluded” from figuring as a cause of P2? *Why* should we think that M1, while distinct from P1, cannot *also* count as a cause of P2, despite

P1 already being a sufficient cause for P2? A number of philosophers, Kim included,¹⁰ have proposed that this might be accomplished by the following two theses:

No Overdetermination: This is not a genuine case of causal overdetermination

Exclusion: There can be two distinct causes of an event, at a time, only if it is a genuine case of causal overdetermination.

In this context, the meaning of “overdetermination” is standardly fixed by reference to well-known cases from the causation literature involving multiple distinct and independent causes converging on a common effect – for example, two shots fired by a firing squad, each of which hits an unfortunate victim at the same time, and each of which would have killed the victim without the other. Whatever else may be said about the kind of causal situation represented in Figure 2, it doesn’t seem to be like this. Most directly, in Figure 2, M1, while distinct from P1, is nonetheless taken to depend on and be determined by P1, represented in Figure 2 by the upward arrow running from P1 to M1. In contrast, the causes are taken to be less closely connected in firing squad-type cases, such that the firings are not connected by way of relations like supervenience, realization, or grounding. So at least in that sense, nonreductive physicalism does not posit widespread “overdetermination”, widespread firing squad-type cases. That all seems plausible enough, and setting aside some matters of detail, No Overdetermination thus seems reasonably secure.

What about Exclusion, however? *Why think that Exclusion is true?* Why think that an effect can have multiple sufficient causes only if it is a case of “textbook overdetermination”,¹¹ a firing squad-type case? Unfortunately, Kim had less to say about just why Exclusion should be accepted, if it should be accepted at all, than one might have expected.

On at least one occasion, Kim suggested that Exclusion should be regarded as a priori and “virtually an analytic truth” (2005, 51). The problem is that far from being a priori or analytic,

¹⁰ See, for instance, Kim 2005; see also Árnadóttir and Crane 2013 and Bennett 2003 and 2008.

¹¹ The locution “textbook overdetermination” is drawn from Bennett 2003.

Exclusion seems false. Thus Steinvör Árnadóttir and Tim Crane give the following example: the indentation that a hammer makes in soft clay on top of which it is placed is caused by the head of the hammer and by the whole hammer, where the indentation is made by the head of the hammer and not by its shaft (258). This, along with similar part-whole examples, is apparently a counterexample to Exclusion: it isn't a case of textbook overdetermination, a firing squad-type case; nonetheless, there are apparently two distinct causes for the same effect. Because of this, Árnadóttir and Crane conclude that "there is no exclusion problem", since Exclusion "is not even plausible on its face" and is "subject to a number of counter-examples" even before "any physicalist commitments enter the picture" (257). So, at least, it does not seem plausible to regard the kind of causal picture represented in Figure 2 as conceptually or a priori impossible; similarly, it does not seem plausible to regard Exclusion as anything like an analytic truth.

Likewise, setting aside some details, Karen Bennett argues that given the close connection between physical causes and mental causes on nonreductive physicalism, Exclusion should be rejected. Given such a close connection, the kind of situation represented in Figure 2 isn't a case of textbook overdetermination; but given this close connection – especially, given that mental causes, and higher-level causes generally, are at least necessitated by their physical bases – there is just no reason why an effect cannot have two distinct causes but not be a case of textbook overdetermination.¹² Again, the lesson seems to be that the kind of structure represented in Figure 2 should not, at least, be regarded as conceptually or a priori impossible; correspondingly, it does not seem plausible to regard Exclusion as anything like an a priori or analytic truth.

In other contexts, Kim appealed to specific theories of causation in the context of condemning nonreductive physicalism's causal picture. Specifically, on various occasions, Kim suggested that in the context of Figure 2, P1 should be regarded as the genuine cause of P2, as genuinely *producing* or

¹² See Bennett 2003 and 2008. I discuss Bennett's approach to the exclusion problem in more detail in Morris 2015 and 2018b.

bringing about P2, whereas M1 should be afforded some lesser status, perhaps as counting as a cause of P2 only in that P2 counterfactually depends on M1, or perhaps in that there is a law according to which M1-like events are typically followed by P2-type events.¹³ Kim thus sometimes seemed to take Exclusion to amount to the following:

Exclusion_P: There can be two distinct production-based causes of an event, at a time, only if it is a genuine case of causal overdetermination.

Perhaps Exclusion_P is true. But it is at least dialectically ineffective. For one thing, as Barry Loewer points out, a principle like Exclusion_P immediately raises concerns about the place of productive or “generative” causation within physics itself.¹⁴ Moreover, Exclusion_P lacks the desired generality of Exclusion, given that many philosophers, especially in philosophy of science, do not endorse a production or generation-based view of causation, preferring so-called “thin” theories in the manner of sophisticated counterfactual, regularity, or interventionist accounts. Moreover, while a matter of some controversy, many of these philosophers have held that the corresponding exclusion principles for these “thin” theories of causation are either false or unsupported by the theories in question. That is, they have rejected the following principles as either false or unsupported:

Exclusion_C: There can be two distinct counterfactually-based causes of an event, at a time, only if it is a genuine case of causal overdetermination.

Exclusion_R: There can be two distinct regularity-based causes of an event, at a time, only if it is a genuine case of causal overdetermination.

Exclusion_I: There can be two distinct interventionist-based causes of an event, at a time, only if it is a genuine case of causal overdetermination.

Loewer, for instance, argues that there is no good reason to think that theses like Exclusion_C and Exclusion_R are true,¹⁵ while James Woodward argues that Exclusion_I finds no support from an

¹³ See Kim 1998 and 2005.

¹⁴ See Loewer 2002, 2007, and 2015.

¹⁵ See Loewer 2002, 2007, and 2015.

interventionist view of causation.¹⁶ More generally, it would be preferable if the status of nonreductive physicalism's causal picture – in effect, the status of some such exclusion principle – were not beholden to the outcome of difficult debates in the theory of causation. But that is what Exclusion_P delivers.

So, in sum: the exclusion problem has typically been formalized using a principle like Exclusion; yet such a principle is in dire need of defense, and *prima facie* is not especially plausible. Likewise, a principle like Exclusion_P ties the fate of the exclusion problem to the fate of contentious issues in the theory of causation. How, then, should an “exclusionist” proceed? Should it be conceded, as Árnadóttir and Crane urge, that “there is no exclusion problem” worth dealing with?

3. Rethinking the Exclusion Problem

I believe that things are not *quite* so dire for an exclusionist and that there is at least one better strategy that an exclusionist may pursue. Before looking into this, however, there are a couple of points worth marking, which together suggest that something has gone amiss with the way in which the exclusion problem has been understood in the literature sketched above.

First, take Árnadóttir and Crane's part-whole example, which apparently suffices to falsify Exclusion. It is, for one thing, curious that a principle used to rule against irreducible higher-level causes should be falsified by an example that has little or nothing to do with higher-level causation in a comprehensive metaphysic. It would be preferable for an exclusionist to seek out a more circumscribed principle, one that is not subject to counterexamples that have little or nothing to do with higher-level causation and which Kim, so far as I can tell, would accept as genuine possibilities. Exclusion_P is a more circumscribed principle, but as above, faces issues of its own.

Second, take Bennett's approach, a version of the “close connection” strategy, according to which on nonreductive physicalism, higher-level causes and physical causes are so intimately related that there is nothing problematic about an effect having both a sufficient physical cause and a distinct

¹⁶ See Woodward 2008 and 2015; see also Shapiro 2012. For a dissenting view concerning the relationship between interventionist causation and the exclusion principle, see Baumgartner 2009 and 2010.

higher-level cause.¹⁷ On reflection, however, there is something curious about this move, since Kim was well aware that on nonreductive physicalism, higher-level causes – thoughts, beliefs, experiences, and the like – are indeed closely connected to lower-level physical causes and, at least in this respect, that the situation represented in Figure 2 is unlike firing squad-type cases of causal overdetermination.¹⁸ Nonetheless, he plainly believed that nonreductive physicalism offers an implausible causal picture of the world. It is strange that a strategy for defending nonreductive physicalism should begin with premises that Kim plainly accepts but then draw essentially the opposite conclusion from these premises: for Kim, the “problem that we face arises because the two potential causes are not independent events” (1998, 53); for Bennett, this observation leads to a solution to the problem and the basis for rejecting Exclusion. This indicates, perhaps, that something has gone amiss with how the problem has been understood and represented.

My suggestion in response to these observations is as follows.

From a negative point of view, an exclusionist should give up on the idea that any such exclusion principle will be a priori or analytic; relatedly, an exclusionist should probably give up on the idea that a principle like Exclusion will be entailed by an independently plausible theory of causation. As above, one way to put this is that an exclusionist should not seek to condemn the kind of causal picture represented in Figure 2 as conceptually or a priori impossible. An exclusionist should concede, as it were, that one cannot discern some deep problem with nonreductive physicalism’s causal picture of the world simply through scrutinizing Figure 2. Indeed, I would like to suggest that an exclusionist should seek a representation of the exclusion problem that moves away from principles like No Overdetermination and Exclusion. For one thing, both principles make essential reference to textbook overdetermination, firing squad-type cases; in my view, such reference is both unnecessary

¹⁷ Yablo 1992 develops a similar strategy in defending nonreductive mental causation.

¹⁸ See Kim 1998 and 2005.

and has plausibly led to various confusions concerning the exclusion problem itself.¹⁹ Similarly, as above, Exclusion seems too broad, subject to counterexamples that have little or nothing to do with nonreductive physicalism or higher-level causation.

From a more positive point of view, I would first like to propose that an exclusionist should seek to represent the problem using a principle that more directly rules against nonreductive physicalism's causal picture, a principle that rules against higher-level causes that supervene on, are realized by, or grounded in more fundamental physical causes. While I will not here go into the details of exactly how such a principle should look, it should say, in effect, that there cannot be the kind of causal situations that nonreductive physicalism entails.²⁰ There is no need to rule against, as Exclusion does, the very possibility of multiple distinct causes for the same occurrences in anything but a firing squad-type case, a case of textbook overdetermination. Árnadóttir and Crane are correct that such a principle is easily falsified; but the lesson to draw is that the problem itself has been misrepresented. Further, I would like to propose that the principle used to rule against nonreductive physicalism's causal picture be premised on Occamist, simplicity-based considerations. That is to say, such a principle ought to be premised on the idea that its denial leads a gross violation of Occamist commitments, especially concerning the proliferation of superfluous causes.

How, then, does nonreductive physicalist flaunt Occamist restrictions against positing superfluous entities – especially, superfluous causes? The idea is twofold.

First, nonreductive physicalism supposes that there are higher-level items that have effects, but never have effects that don't also have sufficient but distinct physical causes. Since there is nothing special about the situation represented in Figure 2 – for example, it has nothing to do with M1 being a putative irreducible mental cause – it can be supposed that all putative higher-level causes are like this: to the extent that higher-level items have effects at all, they have effects that also always have sufficient

¹⁹ See Morris 2015 and 2018b for further discussion.

²⁰ For discussion of such details, see Morris 2014, 2015, and 2018b.

physical causes. Positing such irreducible causes flaunts Occamist considerations, as such putative causes do not bring about anything that does not also have a sufficient physical cause at any given time. While perhaps there is nothing incoherent about the kind of causal structure depicted in Figure 2, generalizing Figure 2 to any putative effect of M1 – and, from there, any putative effect of any higher-level item – suggests that something is indeed amiss about the picture represented in Figure 2, that accepting this kind of causal structure leads to a violation of Occamist considerations in the domain of causation. In this respect, nonreductive physicalism entails a proliferation of superfluous causes, causes that never, ever cause anything that does not also have a sufficient physical cause.

Considerations like these have no application to standard cases of causal overdetermination, firing squad-type cases, at least as these cases are naturally understood. In these cases, the causal structure can be represented as follows, with two distinct and independent sufficient causes converging on the same effect (Figure 3):

[Insert Figure 3 – Textbook overdetermination]

Perhaps C1 is the firing of one gun, C2 is the firing of another gun, and E is the death of a poor victim. Perhaps E is overdetermined by C1 and C2, in that C1 and C2 are both causally sufficient to bring about E, and that if C1 had not occurred, C2 would have still brought about E and that if C2 had not occurred, C1 would have still brought about E.²¹ So, perhaps there is causal redundancy vis a vis E. Nonetheless, it is just about built into cases like these that C1 and C2 are not always and everywhere causally superfluous or redundant: the firings, it may be supposed, cause distinct noises to be produced; the bullets that fire from the guns live different causal lives while traveling towards a forlorn victim; and the bullets fired from the guns live distinct causal lives after converging on the victim and bringing

²¹ This, in effect, is the test for textbook overdetermination developed in Bennett 2003.

about his or her death at t_{+1} . Because of this, Occamist considerations provide no basis at all for thinking that perhaps C1 and C2 are really the same occurrences, or perhaps even that the very existence of C1 (or C2) should be questioned on such grounds. But it is precisely this sort of general causal superfluosity that one finds concerning the putative irreducible higher-level causes that nonreductive physicalism posits.

So, nonreductive physicalism's higher-level causes are taken to have effects, physical and otherwise, but never, ever, have effects that don't also have sufficient physical causes at a given time. Moreover, it follows that nonreductive physicalism posits types or kinds that have all and only instances that are superfluous vis a vis physical causes: mental types or kinds are taken to have causally efficacious instances, but all of these instances only have effects that also have sufficient physical causes. In this respect, such types or kinds are causally superfluous in that they only have – and perhaps *can* only have – instances that are causally superfluous, always and everywhere, vis a vis physical causes. It is hard to see how this cannot be regarded as a violation of Occamist, simplicity-based considerations in the domain of causation.

Again, the situation is different than firing squad-type cases of the sort represented in Figure 3. It is just about built into such cases that firings of guns are not, in general, superfluous with respect to some other type or kind of cause. Even if this were somehow, contra the suggestion above, taken to be the case for *some* such firings, it would plainly not follow that *all* such firings are always and everywhere superfluous with respect to some other type or kind of cause. Rather, the kind of situation represented in Figure 3 is standardly taken to be an anomaly, something that, if it actually happens at all, only happens under rare circumstances. In contrast, this is what nonreductive physicalism delivers: it delivers types or kinds that while taken to have efficacious instances, only have – and again, perhaps only *can* have – instances that are causes of effects that also have sufficient physical causes. It is because of this that while Occamist considerations again cut against nonreductive physicalism's causal picture of the world, they have no application to standard cases of textbook overdetermination.

My claim is not that nonreductive physicalism must be rejected on the basis of Occamist considerations. Rather, my claim is more modest: I think that this is the arena in which the debate ought to be conducted. I am happy to here concede that the value and force of Occamist restrictions is a matter of controversy, both in general and as applied to nonreductive physicalism's higher-level items, given certain standard assumptions about nonreductive physicalist metaphysics (for example, that higher-level items are at least necessitated by lower-level physical items).²² Again, however, my more modest recommendation is that this is how the debate should unfold: it should focus on the general force of simplicity-based reasoning and the extent to which this kind of reasoning gets a grip on nonreductive physicalism's causal picture of the world.

Thinking about the exclusion problem in this way does, however, raise some questions about certain strategies for defending nonreductive physicalism from Kim's critique. First, take "close connection" responses, according to which, given that mental causes are so closely related to physical causes, there is nothing problematic about the causal picture represented in Figure 2 – given the close connection, there is nothing a priori incoherent about that causal structure. On the Occamist-based understanding of the exclusion problem, however, there is no supposition that the problem with nonreductive physicalism's causal picture should be apparent through merely scrutinizing Figure 2. The Occamist-based understanding concedes that there is nothing a priori or conceptually impossible about that kind of causal structure. Rather, it insists that to the extent that accepting this kind of causal structure is problematic, this is really only apparent from a more global perspective, one that takes into account the overall causal picture that nonreductive physicalism entails – a picture, it seems, that involves gross violations of simplicity-based considerations. On this conception of the exclusion problem, an exclusionist accepts, perhaps, that given the close connection between mental causes and physical causes, there is nothing a priori or analytically impossible about Figure 2. It nonetheless

²² For discussion, see Schaffer 2015 and Da Vee 2020.

insists, for Occamist reasons, that nonreductive physicalism entails an implausible picture of the causal structure of reality.

Related remarks apply to those strategies, pursued by Loewer, Woodward, and others,²³ that appeal to “thin” theories of causation and urge that if such theories are accepted, there is nothing problematic about an effect having two causes at a given time, at least where the causes are intimately related in the way that nonreductive physicalism supposes. On the Occamist-based approach, an exclusionist may concede what these strategies are designed to show, namely that given certain theories of causation, there is no good reason, at least, to think that M1 and P1 cannot both figure as causes of P2 in the context of Figure 2. The Occamist-based understanding of the problem concedes this, but insists that nonetheless there is something problematic about the causal picture that nonreductive physicalism entails; it supposes, as above, that if the kind of situation depicted in Figure 2 ought to be rejected as problematic, this is only evident from more global considerations – especially, Occamist considerations applied to the domain of causation.

To summarize: an exclusionist should allow that the kind of causal situation represented in Figure 2, if problematic at all, cannot be so condemned simply through scrutinizing Figure 2. Rather, an exclusionist should insist that any problems with this, and with nonreductive physicalism’s overall causal picture, are best discerned from a more global perspective, one that applies Occamist considerations to the causal picture of the world that nonreductive physicalism entails. Finally, thinking about the problem in this way suggests, at least, that certain nonreductive strategies for responding to the exclusion problem may need to be reconsidered, essentially because they fail to take into account a sufficiently global perspective concerning nonreductive physicalism’s causal picture.

4. Conclusion

²³ See, for instance, Loewer 2002, 2007, and 2015, Shapiro 2012, and Woodward 2008 and 2015.

Setting aside matters of detail, my underlying theme in this paper is that despite the immense literature surrounding the exclusion problem, the problem itself has not always been well understood. Indeed, if the discussions above are on track, it has not always been clear why the exclusion problem should, well, be thought to be a problem at all.²⁴

So what's wrong with nonreductive physicalism? At least when it comes to the causal picture that it entails, nonreductive physicalism isn't incoherent and doesn't entail that there are a priori impossible causal structures. While perhaps this is disappointing news to committed and ambitious exclusionists, my view is that exclusionists should have more modest aims when it comes to critiquing nonreductive physicalism's picture of the causal structure of the world. And my claim is that when the exclusion problem is reconceptualized as essentially an Occamist problem, things may not, in fact, be so dire for an exclusionist, that perhaps, indeed, there is an exclusion problem worth taking seriously.

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²⁴ For discussion of ways in which the problem has been misunderstood, see Morris 2014, 2015, and 2018b.

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