

Postscript to "Mind-Body Causation and Explanatory Practice"

"Mind-Body Causation and Explanatory Practice" is out of step with the philosophical temper of the times. I take a distant, sceptical attitude toward the prevailing physicalism, or materialism, in philosophy of mind. I also defend my old argument, first stated in "Individualism and the Mental" (Chapter 5 above), that one popular form of materialism, the token identity theory, is false.

I attempt no satisfying account of the mind-body problem. My primary interest lies in articulating dissatisfaction with the particular approach to the problem that has dominated discussions since the mid-twentieth century.

I believe that discussions of the mind-body problem often show poor perspective on what we know and what we do not know. Metaphysical positions—like materialism or physicalism—are held in common among many philosophers with a firmness and fervor that are out of proportion to the strength of the grounds for holding them. Such positions are not clearly supported by explanations in common sense or the sciences. Nor do they have strong intuitive support.

There is, of course, a long-standing, justified, general sense that the mind depends on the body. However, materialist views in philosophy make very particular claims about the relations between psychological events or properties and physical events or properties. Such views require relations of identity, constitution, realization, or the like. No one of these specific relations is clearly supported by actual scientific explanation. I think that all lack strong intuitive support—beyond the support for the generalized sense of dependence.

In the article, I held that the issues over mental causation that had begun to arise from within materialist points of view showed the metaphysical situation to be less clear-cut and more difficult than common philosophical opinion took it to be. I maintained that metaphysical positions in this area should be occupied and reflected upon with considerably more diffidence, and with a greater openness to reflecting on alternatives.

Similarly, the metaphysical view epiphenomenalism, which is flatly incompatible with what we know from scientific and commonsense explanations, is widely taken as a genuine contender for the truth, although, unlike physicalism, it is not widely held. The reason why the view is taken seriously is that it can appear to be implied by some of the metaphysical opinions that are themselves too firmly held. Here again, I maintained that a great deal of philosophy had lost perspective on the distinction between what we know and understand,

I am indebted to Ned Block for helpful advice.

on one hand, and what we are in the position of groping to understand, on the other.¹

I believe that these points remain valid. My repeating them here is witness to their having had rather little effect. I believe that part of the problem is that large shifts in philosophical attitude usually proceed only slowly. In some cases, however, misunderstanding has helped block adequate appreciation of the points that I made. I want to discuss a response that embodies both a fair amount of misunderstanding and a version of the syndrome that provoked my scepticism.

Writing as if my criticism of materialist metaphysics were a criticism of doing metaphysics at all, Jaegwon Kim responds to my paper by arguing that there is indeed a problem of mental causation and that a metaphysics that engages it is worth doing. Those points are true. Kim's spirited claims in this vein are irrelevant to what I wrote.

Kim quotes my statement,

Materialist metaphysics has been given more weight than it deserves. Reflection on explanatory practice has been given too little.

He associates this statement with the much stronger claim of Lynne Rudder Baker:

If we reverse the priority of explanation and causation that is favored by the metaphysician, the problem of mental causation just melts away.²

Kim asks:

Would the problem of mental causation take its leave if we did less metaphysics, as Burge and Baker urge, and instead focused our attention on psychological explanation?³

This take on my view is very much mistaken. I do not accept Baker's claim that the problem of mental causation would 'melt away' if one shifted perspective. I did not, and do not, think that any such problem can be made to 'take its leave' by focusing on psychological explanation, and doing less metaphysics. I do not advocate doing less metaphysics.⁴ I have no objection to counting the problem of understanding mental causation as a *metaphysical*

¹ I applied these methodological points to particular issues regarding mind-body causation. I believe that parallel points apply even more strongly to certain other areas of metaphysics. For the most part, philosophy of mind has taken at least rough account of what (little) is known about the mind and its relation to the brain or body. In some other areas of metaphysics, the discussion has proceeded without any serious contact with what science has had to say on the relevant topic. I have in mind, for example, discussions of the nature of time, the relation between existence and time, the nature of physical bodies, implications for contact in body-body causation, and much of the discussion of causation itself.

² Lynne Rudder Baker, 'Metaphysics and Mental Causation', in J. Heil and A. Mele (eds.), *Mental Causation* (Oxford: Clarendon Press, 1993), 92-93.

³ Jaegwon Kim, *Mind in a Physical World* (Cambridge, Mass.: MIT Press, 1999), 60-62.

⁴ The scope of Kim's 'as Baker and Burge urge' is ambiguous. His assumption about what I urge is mistaken on either interpretation.

problem. I believe that very few philosophical problems are easily solved or deflated. I do not believe that problems regarding mental causation are among these few.

I recognize that there are difficulties in achieving a satisfactory understanding of mental causation, though I think that the ways these difficulties have usually been posed, from Descartes onward, have been unproductive. I think that the problem has usually been posed so as to suggest that there is some definite conflict or tension in the very notion of mind-body causation. I believe that this suggestion has never been made good. It was not made good by Descartes or by Princess Elisabeth of Bohemia (who raised the issue with Descartes). It has not been made good by modern materialists. Beginning one's inquiry by taking such a suggestion seriously, rather than beginning with a firm grip on what we know from good psychological and physical causal explanations, has tended to distort philosophical discussion. My paper was partly a complaint about such distortion. I believe that by reflecting more on explanation in science and common sense, one can gain a better starting point and perspective on the problem of mind-body causation.

As noted, I also maintained that a particular view, epiphenomenalism, has been taken more seriously, as a contender for the truth, than it deserves. I held that epiphenomenalism is a non-starter. I argued that epiphenomenalism can serve at best as a foil in trying to better understand mental causation. One can use any valid argument that leads to epiphenomenalism as a *reductio* of the argument's set of premises.

Kim writes that he agrees with my attitude toward epiphenomenalism. He maintains, 'the problem of mental causation is ... the problem of showing *how* mental causation is possible, not *whether* it is possible'. He continues:

The issue is *how to make our metaphysics consistent with mental causation*, and the choice that we need to make is between various *metaphysical alternatives*, not between some recondite metaphysical principle on the one hand and some cherished epistemological practice or principle on the other. This of course is not to say that metaphysics and epistemology are necessarily independent...⁵

As we shall see, however, Kim does not disengage his own reasoning from talk of mental causation's being in 'jeopardy'—jeopardy engendered by what I believe to be insubstantial metaphysical considerations. In fact, I believe that because of specific aspects of Kim's eventual reductionism, his own position amounts to a form of epiphenomenalism.

Mental causation does need to be better understood, particularly in relation to physical causation. I conceive this problem in terms of better understanding rather than in terms of explaining the possibility of mental causation. I think its possibility is best explained by reflecting on its actuality rather than by appealing to putative metaphysical principles, as Kim does. Perhaps this difference

⁵ Kim, *Mind in a Physical World*, 62.

is merely one of strategy. I do not deny that metaphysical exploration and speculation can be fruitful when it is done with a keen sense of its limitations.

I have more substantive differences with the last part of Kim's statement. Part of my point was that we cannot assume that we need to *make a choice* between various metaphysical alternatives if the available alternatives do not have a firm rational or evidential basis. Metaphysics should sometimes be carried on in a more exploratory and speculative spirit.

The issue is not between metaphysics and epistemology, two branches of philosophy. It is not a matter of making a choice between doing metaphysics and doing science, as the quoted paragraph seems to suggest my view to be. The issue is that certain forms of metaphysics do not keep in perspective what we know and what we do not know—including what we know from science. Such forms rely on metaphysical principles that are not rationally or empirically supported. Most of what we know (or are warranted in believing) about mental causation resides in causal explanations in science and common sense. In my view, metaphysics in this area has progressed very little beyond them.

Kim claims that our understanding of belief-desire explanation as causal derives from Davidson's argument that reasons are causes:

If, as Burge says, we 'may assume' that belief-desire explanation is a form of causal explanation, we owe this license substantially to Davidson. What carried the day for the causal view was Davidson's philosophical argument, not the pervasiveness of our explanatory practice of rationalizing actions in terms of belief and desire. There was no disagreement on the explanatory practice; the debate was about its nature and rationale.

Kim seems to think that explanatory practice in psychology and common sense was innocent of evident causal commitments until Davidson's philosophical (indeed Kim holds, metaphysical) arguments came along to indicate their causal character.⁶

I admire Davidson's defense of regarding psychological explanation as causal.⁷ I think, however, that Kim's account takes too narrow a view of the dialectical situation in which Davidson's defense was mounted. Davidson resisted a set of aberrant philosophical views that systematically either ignored or were suspicious of scientific explanation in psychology and that offered what was in fact a revisionist view of commonsense explanation. Ordinary and scientific explanatory practice did not need Davidson to show it to be causal. Philosophy, during one of its less admirable periods, did.

Kim seems to think that actual scientific explanation in psychology is *prima facie* neutral as to whether psychological events or properties are causally efficacious, and that such explanation needs metaphysics to determine the issue. I

⁶ Kim, *Mind in a Physical World*, 62–63. The quote is from p. 63.

⁷ Donald Davidson, 'Actions, Reasons, and Causes', *The Journal of Philosophy*, 60 (1963); repr. in his *Essays on Actions and Events* (Oxford: Clarendon Press, 1980).

think that such a view is completely mistaken. We are entitled to assume that psychological explanation is causal unless powerful arguments arise to the contrary. We do not need metaphysics to license the assumption. Mental causation is solidly supported by science (not to speak of common sense). No metaphysics—at least, no metaphysics that has emerged so far—is in a position to put mental causation 'in jeopardy'.

I think that Kim's position is yet another example of greater confidence in a metaphysics about the mind-body problem than the relevant arguments warrant. I would like to develop this view in more detail.

Kim thinks that the principal problem for understanding mental causation is what he calls 'the exclusion problem'. The problem is: 'Given that every physical event that has a cause has a physical cause, how is a mental cause also possible?'⁸

As noted, I think that the first answer to this question lies in looking at actual mental causation—at the specifics of causal explanations in psychology and common sense. We need to recognize from the outset that the psychological properties appealed to in causal psychological explanations of physical events are among the causal factors. No ground to doubt the legitimacy of appeal to them as causes has so far been raised. Given that we know that there is neuro-physical causation of the same movement, we know that the psychological and the neuro-physical causation do not compete. I believe that we have no intuition that we need take seriously that they do compete. I think that intuitions that suggest such competition derive from questionable, poorly supported metaphysics or from dubious metaphors. Any such intuitions are in conflict with what we know from scientific and commonsense explanations.

Kim wants to press a puzzlement or a sense of 'tension' here that I think is not well motivated. He thinks that it is natural to regard the presence of the physical cause as a *threat to exclude* the presence of a mental cause. Thus, his name for the problem. Sometimes he writes that the physical cause can make the mental cause seem 'dispensable' or can put it in 'jeopardy'.⁹

I find this approach artificial. I think that given what we know from psychological causal explanation, we should assume from the beginning that any sense of tension is an illusion that must derive from some misunderstanding. Now in a way, Kim agrees that the sense of tension is an illusion. He wants to leverage the sense of tension into an acceptance of his reductionist view of psychological properties, and psychological explanation.¹⁰ Where we differ is that I think that the sense of tension is not only an illusion, but is itself largely artificially induced.

⁸ Ibid. 37–38.

⁹ Ibid. 42, 45.

¹⁰ Kim presents his view as a reductionist view, but the notion of reduction that he invokes seems to me not at all like reductions in science. In many respects, the view seems more eliminationist or epiphenomenalist, at least about representational states. I shall, however, continue to call it a reductionist view.

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Kim states that the exclusion problem arises 'for anyone with the kind of broadly physicalist outlook that many philosophers, including myself, find compelling or, at least, plausible and attractive'.¹¹ This is to say that the exclusion problem arises from within physicalist metaphysics. Its force or intuitiveness is, I think, dubious independently of the metaphysics. It is very doubtful that it can be used to motivate or support physicalist metaphysics, or any particular version of such metaphysics.

Kim tries to build the sense of tension between mental and physical causes into a *reductio* argument that leads to epiphenomenalism. He wants to use the argument not to support epiphenomenalism, but to support his reduction of mental properties to physical properties. I think that there is more than one dubious or very speculative step in the argument. So I think that it cannot be used to target any one premise as the mistaken one in generating epiphenomenalism.

The argument begins with a sub-argument that mental properties *supervene* on physical properties in the sense that

if something instantiates any mental property *M* at *t*, there is a physical base property *P* such that the thing has *P* at *t*, and necessarily anything with *P* at a time has *M* at that time.

Kim's argument for this principle seems to me very strange. He bases his argument on '*the principle of physical causal closure*':

If you pick any physical event and trace out its causal ancestry or posterity, that will never take you outside the physical domain. That is, no causal chain will ever cross the boundary between the physical and the nonphysical. ... If you reject this principle, you are ipso facto rejecting the in-principle completability of physics—that is, the possibility of a complete and comprehensive physical theory of all physical phenomena. For you would be saying that any complete explanatory theory of the physical domain must invoke non-physical causal agents.¹²

¹¹ Ibid. 30. Kim opens his book by announcing his commitment to a 'broadly physicalist outlook'. There is no detailed discussion of what such an outlook is. Kim says only that it is an outlook according to which 'the world' is 'fundamentally physical'. There are many questions to be raised about this idea and how it is supposed to apply to various cases (the mathematical 'world', the 'worlds' of value, right and wrong, beauty, rational justification, semantics, indeed mind). I find this sort of generalized rhetoric, which is certainly not peculiar to Kim, unilluminating. The rhetoric is very far from the expression of a definite, warranted belief.

¹² Ibid. 40. Kim cites Jerry Fodor as holding that the very intelligibility of mental causation depends on mind-body supervenience. He apparently regards the principle of physical causal closure as a way of articulating support for Fodor's blanket and apparently otherwise unsupported claim. Cf. Jerry Fodor, *Psychosemantics* (Cambridge, Mass.: MIT Press, 1987), 42. I think that Fodor's claim is wild, and that Kim's way of supporting it is implausible. I think that intelligibility lies in psychological causal explanation. Such explanation may invite philosophical supplement and interpretation. But its intelligibility hardly depends on some extremely general, abstract, and scientifically idle principle like the supervenience principle. I think that scientific explanation in psychology would go on attributing mental causation intelligibly and fruitfully regardless of the truth or falsity of supervenience, or indeed regardless of the truth or falsity of physicalism. From conversation, I believe that Fodor's present view is now closer to mine than it was when he made this statement.

Kim maintains that if mind-body supervenience fails, and if causation from the mental to the physical occurs, this principle would be false. I think that Kim's claim here is correct, almost regardless of how the physical causal closure principle is interpreted.

The formulation of the principle does, however, leave something to be desired. What is it to be taken 'outside the physical domain'? What is meant by 'agents'? It appears from the context that Kim intends to include as 'agents' any causal factors—properties, relations, events, and so on. Normally, we would say that a theory in purely physical terms, such as a physics or a biology, would leave out psychological causal factors, including psychological events and properties. Of course, if psychological properties were themselves physical, the principle would not be violated. Many—perhaps most—materialist philosophers, however, regard psychological properties as irreducible to (and not identical with) physical properties. So the principle as Kim appears to interpret it would not be accepted even by many materialists. Kim does not argue for the principle. He simply surrounds it with misleading rhetoric.

For example, Kim misleadingly claims that the principle is a necessary condition on taking a physical theory to give a complete theory of physical phenomena. This claim is certainly untrue, given what is *ordinarily* meant by the idea that one can give a complete physical theory of physical phenomena. What is ordinarily meant is that physical theory can explain physical phenomena by reference to causes specified in physical vocabulary, and by reference to laws expressed in physical vocabulary, where there are no gaps in the causal chains or causal explanations. This normal understanding of the completeability of the physical sciences does not prejudice any relation that those sciences bear to the human or psychological sciences, except that the latter sciences will not specify causes that intrude on the course of physical causation or on the lawfulness of the physical laws. (This understanding of the completeability of the physical sciences does not even entail supervenience.) Kim's principle makes unnecessary his complex argument for reduction of the psychological to the physical. Assuming that mind-body causation is not epiphenomenal, the principle already entails reduction or elimination of the psychological. I regard Kim's argument for supervenience as implausible because his premise is so strong.¹³

Should we accept supervenience? I find it plausible. Yet I know of no interesting argument for it. I do not think it irrational to suspend belief about it,

¹³ In a subsequent book Kim states a closure principle that is similar to what I just (independently) wrote is the ordinary understanding of what is meant by the completeability of the physical sciences. Kim does not state that he has revised his understanding of closure. I think that he must have done so, however. For the new principle is not taken to support supervenience. In the later book Kim accepts supervenience as a separate basic principle, rather than something to be argued for from any closure principle. Cf. Jaegwon Kim, *Physicalism, Or Something Near Enough* (Princeton: Princeton University Press, 2005), 15–16, 21–22, 43–44. This procedure seems to me an improvement on the earlier work. The improvement does not affect anything except for my criticism of the earlier closure principle.

given the extreme generality of its modal claim, given that there is no strong argument for it, and given that it is neither evident in itself nor strongly supported by scientific evidence. I will accept it for the sake of argument. In what follows, let us remember that its epistemic credentials are not very strong.

Kim gives an argument that assumes supervenience and purports to lead to epiphenomenalism. Suppose that an instance of mental property M causes another mental property M^* to be instantiated. Given supervenience, M^* has a physical supervenience base P^* . At this point, Kim attempts to get the reader to share his sense that there is a tension between mental causation of M^* and the relation between the supervenience base P^* and M^* . (Note that this is a different 'tension' from that which Kim believes occurs between mental and physical causes of the same physical event. For it is not assumed that P^* causes M^* . We shall return to the supposed tension between mental and physical causes of the same physical event.) I regard this sense of tension between causation and supervenience as bogus. I would like to scrutinize how Kim explains it.

Kim asks, 'Where does the instance of M^* come from? How does M^* get instantiated on this occasion?' He regards the two answers

(a) because by hypothesis M caused M^* to be instantiated,

and

(b) because, by supervenience, P^* , the physical supervenience base of M^* , is instantiated on this occasion,

as in 'real tension'.

(a) and (b) are answers to different questions. One is a causal answer. The other simply cites M^* 's supervenience base. Although Kim is aware of the difference between causation and supervenient determination, his formulation of the two answers runs together the different notions, misleadingly expressed by 'because' in the remainder of his discussion. I believe that if one keeps the difference steadily in view, the supposed tension itself comes to seem illusory.

Let us look at his attempts to bring out the tension:

I hope that you are like me in seeing a real tension between these two answers: Under the assumption of mind-body supervenience, M^* occurs because its supervenience base P^* occurs, and as long as P^* occurs, M^* must occur no matter what other events preceded this instance of M^* —in particular, regardless of whether or not an instance of M preceded it. This puts the claim of M to be a cause of M^* in jeopardy: P^* alone seems fully responsible for, and capable of accounting for, the occurrence of M^* . As long as P^* , or another base property of M^* , is present, that absolutely guarantees the presence of M^* , and unless such a base is there on this occasion, M^* can't be there either.¹⁴

Assuming supervenience, if P^* occurs, M^* must occur, no matter whether the physical cause (P) of P^* occurs or whether the mental cause (M) of M^*

¹⁴ Kim, *Mind in a Physical World*, 42.

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occurs. Unless the causal relation between an effect and its cause is metaphysically necessary, it is metaphysically possible that the effect, whether mental or physical, of a cause, whether mental or physical, could (metaphysically) have been instantiated, even though the cause were not. Most philosophers who think about these things believe that a given effect metaphysically could in many instances have had another cause. This point hardly puts 'in jeopardy' the claim that the given effect, whether mental or physical, has the cause, or causes, that it has. If the cause of a given effect *is* metaphysically necessary, then the point that the effect occurs regardless of whether the cause occurs is idle.¹⁵

To put the point another way: Kim writes that P^* alone 'seems fully responsible for, and capable of accounting for, the occurrence of M^* '. To be sure, on assumption of supervenience, and given that P^* occurs, M^* must occur. But P^* is not the cause of M^* .¹⁶ Causes are not in general metaphysically sufficient for their effects. Moreover, unlike the cause of M^* , at least a portion of its supervenience base is simultaneous with M^* . Supervenience is a matter of how things hang together. Causation is a matter of how the things that hang together come about. Since P^* is not causally responsible for M^* , its role as supervenience base could hardly put the claim that M^* has a mental cause in jeopardy.

Kim's formulation may encourage another mistake. Not only does his use of his notion of 'responsibility' encourage the idea that causation and the base-supervenient relation are in some way in competition for 'responsibility' for M^* . His notion of *accounting* encourages conflating these two relations with explanation. P^* surely does not explain M^* causally. Citing a physical supervenience base of M^* hardly gives a satisfying 'account' of its occurrence. It certainly does not obviate the need for a psychological explanatory account of M^* . Kim's initial questions, which elicit answers (a) and (b), are unspecific in just the ways that invite the answers which tend to run together importantly different issues—causation, supervenience, explanation.

In a later book, Kim tries to bolster his claim that there is a 'tension' between base-supervenient determination and mental causation.¹⁷ He counts this claim the 'fundamental idea' of his argument. Kim repeats his earlier point that as long as the supervenient base is in place, the mental occurrence must occur, no matter what happened before that occurrence. I think this point is ineffectual, for the reasons given two and three paragraphs back. Base-supervenient determination is not causation and cannot do its job.

¹⁵ Note again that we are not yet discussing a supposed competition between physical and mental causal competitors. Here the supposed competition is between a mental cause of M^* and a physical supervenience base of M^* . My point here is that the supervenience base no more puts the mental cause of M^* in jeopardy than it puts its own physical cause, P , or a physical cause of M^* , in jeopardy.

¹⁶ Kim makes this assumption also. Cf. *ibid.*, 44.

¹⁷ Kim, *Physicalism, Or Something Near Enough*, 36–38.

Kim appeals to the theologian Jonathan Edwards as the first philosopher who saw the alleged tension. Kim attributes to Edwards the view that there is a tension between what he calls vertical determination and horizontal causation. He attributes the further view that vertical determination excludes horizontal causation. He calls this pair of views 'Edwards's Dictum'. Kim gives no evidence that Edwards was committed to Edwards's Dictum.

Edwards held that there are no temporally persisting objects (hence, also no horizontal object-to-object causation) because he believed that

God is the sustaining cause of the created world at every instant of time. There are no persisting things because at every moment God creates, or recreates, the entire world *ex nihilo*—that is what it means to say that God is the sustaining cause of the world.¹⁸

Kim explains that on Edwards's view, God's being a sustaining cause renders causation between temporally successive events nugatory. For Edwards thinks that if God's sustaining causation were withdrawn, the whole world would vanish, regardless of what had happened before. So putative other, preceding causes do not causally influence anything that comes after them.

Kim holds that it is 'simple' to see how Edwards's Dictum, which Kim takes to have been illustrated in the theological doctrine, applies to the mind-body case, 'causing trouble for mental causation':

Mind-body supervenience, or the idea that the mental is physically 'realized'—in fact, any serious doctrine of mind-body dependence will do—plays the role of vertical determination, or dependence, and mental causation, or any 'higher-level' causation is the horizontal causation at issue. The tension between vertical determination and horizontal causation, or the former's threat to preempt and void the latter, has been, at least for me, at the heart of the worries about mental causation.¹⁹

Let us, for the sake of argument, take Edwards's view to have full intuitive force. The view is that God's causation preempts other putative causation. Edwards argues: if God's sustaining causation were withdrawn, the preceding horizontal events would have occurred and the successive events would not have occurred. This argument tends to support the view that the preceding horizontal events are not really causes. Everything hinges on God's sustaining causation. Nothing hinges on any putative causal power of the preceding horizontal events.

Kim takes two significant missteps in his use of Edwards's views to support his own view that base-supervenience determination is in tension with mental causation (the first half of what he calls, misleadingly I think, 'Edwards's Dictum'.)

One misstep lies in his gloss on Edwards. Kim runs Edwards's divine 'vertical' causation together with 'vertical' supervenience determination. Some of the intuitive force in Edwards's position derives from God's sustaining action's

¹⁸ Kim, *Physicalism, Or Something Near Enough*, 37. The words are Kim's.

¹⁹ *Ibid.* 38.

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being *causal*. God's causation can seem to be in competition with ordinary causation. But base-supervenience determination is not causation. As I argued above, it cannot, even *prima facie*, take the place of causation in accounting for how things occur. In comparing Edwards's view about God's causation with his own view about supervenience determination, Kim has simply mixed apples with oranges—yet again.

Kim's second misstep is a failure to note the main source of Edwards's view that 'horizontal' causation between temporally successive events is illusory. Edwards's argument that God's causation preempts ordinary putative causation is based on a counterfactual claim that Kim nowhere replicates in his own account. If God's causation of the later event had been withdrawn, on Edwards's view, the antecedent event that is putatively the 'horizontal' cause would have existed, but would not have brought about any later event. No later event would have existed.

The supervenience case is disanalogous. Suppose that the physical supervenience base P^* of the mental effect M^* had not occurred. Then either M^* would have occurred with another supervenience base or it would not have occurred. If it did occur, there is no evident reason why M could not been its psychological cause. Suppose M^* did not occur. Then either M (with *its* supervenience base P) did or did not occur. If M did not occur, it cannot be charged with being causally ineffective. If M and P did occur, there is no evident reason why they would not have been causally effective. In any normal counterfactual world, they would remain causally effective. Since they did not cause M^* and P^* respectively, there would be different causal conditions or laws, and they would have had other effects. None of these cases parallels Edwards's.

Edwards's argument depends on assuming that God can sustain the world to any given point and then withdraw support, depriving earlier events of any successors (hence of any effects). These assumptions about God's power have no analogs in ordinary counterfactual reasoning about physical and mental conditions in a supervenience relation. Edwards's view does not parallel Kim's. So Kim's attempt to use Edwards's view to bolster (or even illustrate) his claim that there is a tension between base-supervenient determination and mental causation is ineffective. It rests on compound conflation.

The deeper source of Kim's claiming tension where there is none is his arguing from metaphysical intuitions that abstract from what we know from causal explanation in science and common sense. Here we come again to the main the point of my original article: Our confidence in citing mental causes resides, or should reside, in psychological causal explanations. Nothing that Kim cites in his metaphysical discussion bears on psychological explanation. So nothing that he cites puts the hypothesis that M^* has a mental cause M 'in jeopardy'.

Kim proposes to resolve the tension that he has purportedly identified by appealing to a new principle:

M caused M^* by causing P^* .

Kim thinks that it is justification enough of this claim that it helps resolve the alleged tension. He adds that 'there may be' a plausible principle that justifies this principle by entailing it:

To cause a supervenient property to be instantiated, you must cause its base property (or one of its [possible] base properties) to be instantiated.²⁰

I see no reason to believe these principles. Causal explanations in psychology certainly attribute mind-body causation. They do so primarily where mental states or events cause bodily action-movement. We have no independent reason to think that all mental causes of mental effects cause physical effects that are supervenience bases of their mental effects. It is not independently evident—much less scientifically supported—that every mental event or property that causes a mental event, in every inference for example, causes some physical event or condition that is the supervenience base of its mental effect. Although one can construct a metaphysics that entails this claim, the claim is not supported by scientific explanation or intuitive reflection. I see no reason given so far to be any more favorable than agnostic about these principles.

If one reflects on what the supervenience bases of certain particular thoughts would be, supposing (as we are) that they have such bases, the principles seem wildly *implausible*. Take an occurrent thought that mercury occurs in Lake Baikal. Suppose that this thought is caused by prior thoughts and inferential steps. What is the supervenience base of this mental event?

I believe that I have given strong reasons to believe anti-individualism. I think that anti-individualism is in various ways supported or presupposed by relevant science. Some of the arguments for anti-individualism indicate that the supervenience bases of empirical thoughts are not local to the body of the individual. The supervenience base of a thought about mercury and Lake Baikal would involve a complex pattern of individual-environment relations, including causal-perceptual relations to objects in the environment. The supervenience base of such thoughts is a massively complex pattern that includes states in the thinker's body at the time of the thought, but extends over large stretches of space and time. Such a pattern is not local to the individual's body. The supervenience base of any belief or thought that might be a cause of the thought will also be complex, trans-temporal, and spread out in space.²¹

It would be to stretch matters to count such patterns as properties at all. They are surely not instances of any natural kinds. They are trans-temporal physical conditions, radically spread out in space as well as time. It is not plausible to

²⁰ Kim, *Physicalism, Or Something Near Enough*, 42, my insertion of the bracketed word. I do not understand how Kim understands the first principle if it is not already equivalent to the second. The first principle is evidently a generalization, not a claim about any particular mental or physical occurrences. And it is hard to see why Kim would think that it is merely contingent.

²¹ Phenomenal properties may supervene on neural states. So this argument applies only to representational psychological states, but these are the states that are most prominent in causal psychological explanations.

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²² Ibid.

²³ Ibid.
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think of them as causes of anything. The idea that the physical supervenience base of the thought is caused by the supervenience base of another mental state or event—or that a mental state or event causes such a supervenience base—has no intuitive or scientific plausibility.

I do not claim that it is incoherent to construct a metaphysics according to which there are physical-physical or mental-physical causal relations that take these sorts of supervenience bases as causal 'agents'. But I think that such a metaphysics has no claim on our belief. I see no explanatory potential in such a view. Both commonsense and scientific causal explanations take mental and physical causation to be spatially and temporally more local than any such metaphysics could allow. I believe that we have reason to dismiss such metaphysics. The relevant physical causation is to be understood in terms of causation among neural states. Neural states are not a supervenience base for at least many mental states.

Where does the argument go from this stage? Kim holds that any mental cause M of any mental effect M^* causes M^* by causing the physical supervenience base P^* of M^* . He also holds that P^* will have its own physical cause P . Then it seems that P^* has two causes— M and P . He then holds that we can 'see reasons for taking P as preempting the claim of M as a cause of P^* .'²²

The reasons that Kim cites in this particular argument are stated rather cursorily. He rejects the idea that the mental and physical causes of a given physical effect are to be taken as jointly 'sufficient' but individually 'insufficient' for their effects. He regards this view as incompatible with our understanding of both mind-body and physical causation. Kim further rejects the idea that the mental cause is sufficient for the physical effect and the physical cause is sufficient for the same physical effect. He rejects this idea by appealing to the physical causal closure principle.²³

From these rejections he moves quickly to the view that mental causation is epiphenomenal, and the physical cause is doing all the causal 'work'. Since he believes that this is an undesirable conclusion, he does not accept it. His favored solution is to reduce all mental causal factors to physical factors, thereby purportedly restoring causal efficacy to the mental causal factors. I will return to the notion of 'work'.

I believe that the argument that Kim offers has too many difficulties to support his favored solution. I have not rejected supervenience, but I believe that its epistemic credentials are not strong. In what follows, I will ignore the 'broadly physicalist outlook' which drives so much of what is supposed to seem plausible. I will ignore the under-explained but apparently question-begging and overly strong principle of physical causal closure. I will ignore the implausible idea that

²² Ibid. 43.

²³ Ibid. 44–45. There are elements in Kim's argumentation in these pages, in particular his appeal to a closest possible world argument to criticize overdetermination, that I find obscure and unsound. I will not discuss these elements in his argument.

mental causes cause mental effects always (or necessarily) by causing physical supervenience bases of those effects. I will ignore the idea that mental causes always cause physical effects.

I believe that the basic philosophical issues regarding mental causation are independent of assumptions about supervenience. What is at issue is, on the surface, relatively simple.

Psychological causal explanation indicates that mental events and mental properties are causally relevant. Sometimes mental-physical causation occurs. In such causation some mental events or states cause some physical event or state, where the mental aspects of the causes are causally efficacious.²⁴ Any physical event has a physical cause, with physical properties that are causally efficacious. So any physical effect of a mental cause will have a physical cause. Both mental and physical causes have properties that are causally relevant or efficacious. What is the relationship between the mental and physical causes (and their properties) in such cases?

There is a natural impulse to deal with the question by holding that the causes and properties are 'the same'. This answer sounds good until one gets into the details of 'sameness'. Token-identity claims, type-identity claims, claims that the mental is 'made out of' the physical, claims that mental explanation or properties are reducible to physical explanation or properties, claims that mental properties are second-order functional properties of physical properties—all have specific difficulties. I argued against the first in my paper. I think that the others bear no close relation to what we know from the sciences. Some of them fall into epiphenomenalism.²⁵

²⁴ I need not take a position on how often mind-body causation occurs. It is enough that it is adverted to in a good bit of psychological explanation, and that the idea of mental causation being entirely confined to causing mental effects is almost as unacceptable as epiphenomenalism.

²⁵ I have not discussed Kim's specific solution. This solution appeals to a reduction of psychological properties (at least those with intentionality) to functional properties, and then what he calls a further reduction of the latter properties, through reducing their realizations, to physical properties. I find his *notion* of reduction in this second stage very questionable. I also find the reduction of intentional psychological properties to functional properties a paradigmatically ungrounded philosophical claim. Analytic functionalism purports to give a conceptual analysis of psychological explanation into purely functional (causal role) terms. No plausible, or even specific, presentation of such an analysis has been given in a single case, for a specification of a single mental state-type, much less for all psychological discourse. The causal roles associated with specific psychological states like specific beliefs (beliefs like DNA contains a phosphate group or there is a red object on the distant hill) are too various to seem to admit such an analysis. So a specific account is needed. One cannot simply appeal to the general program. Moreover, the emptiness of specifications of causal roles makes the claim of conceptual equivalence incredible to disinterested reflection. To see this, reflect on even a schematic specification that uses only vocabulary that includes 'causes' and non-representational terms for stimuli and for behavioral response. No disinterested reflection will enable one to take seriously the idea that the specification has the same meaning or conceptual content as a mentalistic specification of a state.

Empirical functionalism takes the functional specification to yield not conceptual equivalence, but an account of the nature or constitution of representational psychological states. Empirical functionalism is, I think, no better off than analytic functionalism. Such a specification is far removed from any explanation that goes on in science. No science employs the functionalist theory envisioned by

I think a more exploratory, less committal metaphysical approach is more rational, and accords better with what we know. I think that our metaphysics is not yet very strong, epistemically, on these matters. What are strong are the claims that mind-body causation occurs, and that there are no gaps in the chains of body-body causation. Metaphysics should be pursued with a strong sense of its poor track record, and without writing as if metaphysical intuitions or principles are in a position to threaten mental causation, or put it in jeopardy.

I continue to advocate giving more attention to one largely unexplored line of inquiry. I doubt that there is any rational ground to think that a belief that a physical effect has both a mental cause and a physical cause forces a choice between maintaining that the causes are 'the same' and maintaining that they are 'in competition' or 'in tension'. I think that the credentials of any claim that such a choice is forced on us should be viewed much more critically. Alternative ways of understanding joint mental and physical causation invite more exploration.

In any case, I have so far found no ground to support the view that there is competition or tension between mental and physical causes. The explanation and motivation of the 'exclusion problem' from supervenience considerations are not persuasive. What other motivation might be marshaled?

Kim claims:

As long as each [the mental cause and the physical cause] claims to be a full cause of the event to be explained, a tension is created and we are entitled to ask, indeed compelled to ask, how the two purported causes are related to each other.²⁶

We are certainly entitled to ask how the causes are related to one another. Let us also ask whether there is any antecedent reason to think that there is a tension, exclusion, or competition among physical and mental causes of the same physical event.²⁷

functionalism, for example, a Ramsified functionalist theory. Any such theory would be devoid of any explanatory power. One cannot remove the theoretical terms (in this case, the mentalistic terms) from a scientific explanation and expect to have a comparable theoretical explanation. One cannot obtain equal, much less superior, power in giving causal psychological explanations by omitting the mentalist terms of the explanation in terms of blank descriptions of causal roles. Accounts of the nature of psychological states should illuminate the explanatory power of psychological explanation. (In fact, analytic functionalism should also illuminate the explanatory power of psychological explanation that it purports to analyze, but it fails to.) Again, not a single specific identification between mental properties and such functionalist properties has ever been carried through. The very idea that all of cognitive psychology can be reduced to some other theory that does not make any use of representational notions has no support in the way the relevant sciences are developing. Empirical functionalism is a tribute to the isolation of philosophy from scientific explanation. Both forms of functionalism seem to me to be waves of hands, without cognitive substance. As I indicated earlier, Kim's eventual position really leaves mental causation without any genuine causal role. For on his view, functional properties *per se* lack any genuine causal power. They free-ride on the underlying first-order physical causal powers. So Kim's eventual position falls into epiphenomenalism. See *Mind in a Physical World*, ch. 4.

²⁶ Ibid. 66.

²⁷ In this part of his discussion, Kim again misrepresents my views. In the first place, he argues again as if the issue were whether there is a place for metaphysical inquiry at all. As I have noted,

The quoted passage suggests that mental and physical causes 'claim' to be 'full' causes of the event to be explained. Causes do not make claims. Who makes this claim? Neither psychological nor physical explanation makes any claims about the other. The only sense in which we can reasonably say that the physical cause has a 'claim' to be the full cause is that it is causally sufficient. It is sufficient to make the physical effect occur. Citing it within a physical explanation is also sufficient to explain the physical effect in the terms of the physical explanation. Similarly, for the mental cause and the psychological explanation. The mental cause is causally sufficient to make the physical effect occur. Citing the mental cause within a psychological explanation is sufficient to explain the physical effect in the terms of the psychological explanation.

This situation leaves us with a question about how the causes are related, but it does not leave us with competition or tension. We can assume some sort of coordination or connection between the causes (insofar as they are distinct), since their causing the same effect is certainly not coincidental. There is no abstract compelling reason to think that this coordination or connection is just the causes being 'the same'.

We assume, and the psychology tends to assume, that there is a physical cause of the physical effect. This is to say that the claim of 'fullness' by psychology does not exclude the physical explanation. Similarly, the physical explanation is certainly open to there being a mental cause, as long as it does not interfere with the physical explanation. The only reasonably grounded notions of 'full cause' are compatible with there being, in the relevant cases, coordinated, non-competing sufficient causes, mental and physical.

Kim also claims that the 'exclusion problem' arises 'from the very notion of causal explanation and what strikes me as a perfectly intuitive and ordinary understanding of the causal relation'.²⁸ As I have just indicated, the different causal *explanations* do *not* seem to be mutually exclusive or in competition. No argument that Kim gives provides any non-question-begging ground to accept his view that there is competition among mental and physical *causes*.

There is, perhaps, an understanding of the causal relation from which intuitions like Kim's about exclusion naturally arise. This is the understanding of

this was never the issue for me. In the second place, he quotes the paragraph in Section 3 of my paper, in which I claimed that it is 'perverse' to think that mentalistic explanation excludes or interferes with non-intentional (non-mentalist) explanation of physical movement. However, he uses ellipses to omit a key sentence in the paragraph. This omission makes it appear that I give a direct argument for my view that it is perverse to believe in exclusion or interference between mental and physical causes. The argument is made to appear to proceed directly from the premise that neither type of explanation (mental or physical) makes essential, specific assumptions about the other. Kim criticizes this argument. I did not give quite this argument. In fact, I use this premise only to support the view that 'the relation between the entities appealed to in the different explanations cannot be read off the causal implications of either or both types of explanation'. This is just to say that sciences do not give us an account of a relation between mental and physical causes—hardly a controversial point. The perversity, in my view, derives from reflecting on the *particular* nature of the 'very different types of inquiry' embodied in psychological and physical explanation.

²⁸ *Ibid.* 66–67.

causation as occurring among physical events. In the physical domain, cases of different causes of the same outcome commonly fall into one of three categories. Either they are unusual cases of coincidental overdetermination. Or they are cases in which one causal factor is constituted of or otherwise 'resolvable' into the other.²⁹ Or they are cases in which the different causes are partial and in need of each other's physical contributions for their effect. None of these cases seems to fit mental causation.

In later work, Kim distills these claims about the causal relation into what he calls the Principle of Causal Exclusion:

If an event *e* has a sufficient cause *c* at *t*, no event at *t* distinct from *c* can be a cause of *e* (unless this is a genuine case of causal overdetermination).

Kim understands overdetermination to involve 'two or more separate and independent causal chains intersecting at a common effect'. The separate and independent clause suggests that causal overdetermination is a matter of a certain coincidence or accident. Kim and I would agree that overdetermination in this sense is unusual and that mental and physical causes of a physical effect are not cases of overdetermination in this sense.³⁰

Kim takes the Causal Exclusion principle to be 'virtually an analytic truth with not much content'.³¹ This strikes me as an amazing claim. It is surely a consequence of intuitions about causation guided by his metaphysical view. I think any notion of causation according to which the Principle of Causal Exclusion is virtually 'analytic' has lost touch with any notion of causation that is used in scientific or commonsense explanation.

Science certainly does not take mental and physical causation of a physical effect to exclude one another. Any such mental causation and physical causation are non-accidentally related. They are not independent. And hence they do not constitute a case of overdetermination, as Kim uses the term. There is certainly either a *prima facie* assumption that the mental and physical causes are distinct or at least an open question whether they are distinct. Nothing in commonsense or scientific usage supports the 'virtual analyticity' of the Principle of Causal Exclusion.

Kim holds that each science claims its cause to be 'sufficient' and not 'partial'.³² He takes this claim to be evidence of competition. Our best understanding of sufficiency derives from the sufficiency of causal explanations within each

²⁹ Actually, the relations among different causes postulated in different physical sciences (say biology and physics, or geology and physics) are not understood in real depth. So this talk of constituency and resolvability is a wave of the hand. It is potentially misleading. I believe that the mind-body problem is much more difficult than the macro-micro physical problem. Even so, it would be a mistake to think that handling the latter problem is simple or straightforward.

³⁰ Kim, *Physicalism, Or Something Near Enough*, The principle is stated on p. 17. The construal of overdetermination is stated on p. 48. I think that the principle has serious difficulties in understanding even relations between instances of causation at different physical levels of explanation. Kim discusses this issue at some length on pp. 52-69. I find various aspects of this discussion unpersuasive, but I will not discuss these aspects here.

³¹ *Ibid.* 51.

³² *Ibid.* 53, 37-38.

science's domain. Neither physics nor psychology makes claims about the causes asserted by the other science. Insofar as a physical or mental event causes a physical event, it brings it about. In that sense, each cause is sufficient. I see no ground for either cause to be taken to exclude the other. We need to understand the relation while assuming that each cause has whatever sufficiency its causal power requires.

Kim asks, given that the physical cause is 'sufficient', what 'work' remains for the mental cause. It is not clear to me what makes this question seem forceful to him. I am inclined to think that the question trades on unclarified notions of sufficiency and work. The notion of work has homes both in physics and in talk of physical labor. The notion may elicit thinking of the psychological cause as like a further physical cause, offering an extra infusion of energy that is in fact not needed to supplement an already sufficient physical cause. Here mental causation would be implicitly regarded as a form of physical causation. In such a role it can easily seem to be an intrusive, competing, physical-like cause.

Alternatively, it may be that one can sustain a notion of work that is neutral as between mental and physical work. The idea of physical cause using up all the work so that there is no work left for the mental cause still seems to trade on a kind of hydraulic model. According to this model, so much energy is needed to get the job done. Given that enough energy is expended to get the job done by the physical cause, the mental cause is left without any need to expend its energy. This idea too seems to import a conception of the relation between physical and mental causation that is not sanctioned by ordinary explanations in the physical and human sciences. So it is reasonable to distrust the metaphor underlying the 'work' questions.

I believe that there is no strong, independent source of the idea that causation in psychology is in tension with causation in the natural sciences. The sense of tension is a product of assumptions of ungrounded metaphysics, or of metaphors which when held up against what we know, couched in literal terms, do not carry rational weight. The sense of tension is not an independently supported claim that a metaphysics is needed to explain.

If one asks, more neutrally, how the mental cause's causation is to be understood in relation to the physical cause's causation, we have, I think, a legitimate and unbiased question.

When we know from psychological explanation that mental events cause a physical event, where the mental properties are relevant to the causation, we also know from physiological explanation that there are physical events that cause the same physical event, where their physical properties are relevant to the causation. Each type of causal explanation is 'complete' (sufficient) on its own terms. But how are we to view the matter from a perspective that includes all the causal explanations and all the posited causal relations?

We assume that the mental cause could be effective only if there is a physical cause. Many are inclined to think that the physical cause would be effective regardless of whether there were a mental cause—sufficient to itself. This

'regardless' is problematic. It is true that the physical explanation does not need the psychological explanation to explain the caused physical event. However, the same is true of the psychological explanation. Psychological explanation need not appeal to an underlying physical story (which is largely unknown, in any detail, in actual cases) in order to give its causal explanation. We believe that the psychological causation could not occur without there being physical causation. It is hard to see how the particular physical causation could occur and there be no mental causation. There certainly remains an instinctive sense that the mental depends on the physical in a way that the physical does not depend on the mental. This sense is, I think, poorly understood.

The most common recent way to answer our question, 'How is the mental cause's causation is to be understood in relation to the physical cause's causation?', is to try to spell out in a satisfying way the idea that the causes are 'basically the same'. I think that this strategy has so far not yielded an account of 'basically the same' that provides a satisfying answer to the mind-body problem. And it is striking that among materialists there is no agreed-upon specific account of the 'sameness'. Another way to answer the question is to try to clarify the notion of mental causation in a way that accords with the idea that the mental and physical are not in competition and operate non-coincidentally and in concert. The two types of causation clearly operate together in some systematic way. What that way is remains to be understood. I believe that this second strategy has been under-explored.

The mind-body problem is the problem of understanding the relation between mental events and properties and physical events and properties. I think that there is no future in attempts to argue from an assumption about tension or exclusion to a conclusion about the mind-body relation. Our understanding of mental causation is no better than our understanding of the mind-body relation. The relation between mental and physical causation is not well understood, both because we have not solved the mind-body problem and because we do not have a satisfying understanding of mental causation, or indeed any causation. I include myself in this 'we'.

I think that an open attitude to exploring these matters is a better cognitive position than a metaphysics that assumes a vague generalized physicalism, and leans on visions of mind-body competition that are not grounded in anything that we know.

There is certainly reason to expect illumination from the progress of the sciences. At relatively primitive levels of the psychological, close connections have been established between psychological and neural causation. In understanding low-level vision, for example, the neural pathways and the functions of neural structures in visual processing are better understood than they were two decades ago. This knowledge should give us better tools for understanding mind-body relations. Even in these sorts of cases, a precise and satisfying characterization of the relations seems to me still to lie well ahead of us. Whether systematic, scientifically tractable correlations occur between neural pathways

and higher levels of perception and cognition is more doubtful, and certainly an open question.

The mind-body problem is difficult partly because the notion of causation itself is not well understood in philosophy. It is difficult partly because of the variety of ways in which psychological events and properties relate to physical events and properties. The problem is certainly not confined to understanding consciousness. It remains puzzling even for the representational aspects of mind.

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