

Critical Notice: Derk Pereboom, *Consciousness and the Prospects of Physicalism*

Derek Ball
University of St Andrews

Derk Pereboom's *Consciousness and the Prospects of Physicalism* is a dense and subtle work. Its 170 pages are divided into discussions of three topics: an attempt to respond to the knowledge argument and conceivability argument on the grounds that introspection may misrepresent the properties of experience; a development of Russellian monism; and an account of mental properties on which they are "compositional" properties whose instantiations can be constituted by instantiations of physical properties. The three discussions are almost completely independent, so that the book is closer to a collection of three long articles than to a typical monograph. Despite its title, *Consciousness and the Prospects of Physicalism* does not purport to be anything like comprehensive catalog of theories of consciousness or of responses to arguments against physicalism; rather than evaluating alternative views, Pereboom seeks to create new prospects for physicalism (though these prospects are firmly situated within the familiar dialectic developed by Chalmers, Kim, and others). Throughout, Pereboom makes use of his unique philosophical skill set; perhaps no other contemporary philosopher can shift so fluently from Kant and Leibniz, to contemporary metaphysics, to philosophy of mind.

A critic capable of emulating Pereboom's density and concision might have tried to discuss all three parts of *Consciousness and the Prospects of Physicalism* in the space allotted for this notice. But I will neglect Pereboom's development of Russellian monism, and focus on his possible-misrepresentation based response to the knowledge and conceivability arguments (in section 1), and his constitution based account of the mind and mental causation (in section 2).

1 Misrepresentation

Pereboom's first leading idea is that it is that in introspection, "we misrepresent the qualitative natures of phenomenal properties" (2011, p. 24); in particular, we represent phenomenal properties as having qualitative na-

tures that they in fact lack.¹ (Pereboom’s detailed development of the idea suggests that introspection may misrepresent phenomenal properties as being primitive properties, which are such that “their entire qualitative natures are revealed in our sensory or introspective experiences of them, and that they are represented as not being constituted of more fundamental properties” (2011, p. 81).) Pereboom does not take himself to establish that we are in fact subject to such introspective inaccuracy, only that it is an open possibility that we are. He combines this supposed open possibility with an account of concepts and conceptual analysis, which he regards as inspired by Putnam (1975), and which is reminiscent in many respects of the two-dimensionalist views of Jackson (e.g., Jackson (1998)) and Chalmers (e.g., Chalmers (2007)). According to Pereboom, many concepts should be analysed as a conjunction of conditionals (2011, p. 31). For example, although it is widely held that the concept ‘water’ is a natural kind concept, Pereboom points out that there are various scenarios in which we would take ourselves to have discovered that water is not a natural kind: if the colourless, odourless liquid in our environment turns out to be a motley, then it is plausible that that water is a disjunctive kind, while if the (apparent) colourless, odourless liquid in our environment turns out to be a collection of ideas in the mind of God, then (Pereboom claims) it is plausible that water is an appearance kind (which applies correctly “to anything that appeared in a particular way under certain conditions and in different particular ways under other conditions” (2011, p. 32)). The best analysis of the concept ‘water’ captures all of these facts, and so will have something like the following form: if the world is thus-and-so, then the concept ‘water’ applies to the such-and-such, and if the world is so-and-thus, then the concept ‘water’ applies to the so-and-so, and so forth.

Pereboom claims that this structure enables us to provide a sense in which concepts can be inaccurate, even when the thoughts that they enter into are true. Roughly, his idea is that one of the conditionals might be a default. We expect the antecedent of this conditional to be true, and we therefore expect the content of the concept to be described by the consequent of the conditional. For example, perhaps we expect the concept ‘water’ to pick out a natural kind. In a world where the colourless, odourless liquid in our environment turns out to be a motley, this expectation would be disappointed. If I think “There is water in this glass” in such a world, my thought might be true (in virtue of the fact that there is a quantity

¹ Much of Pereboom’s discussion is predicated on the idea that we know of our conscious experiences only via introspective representations of them. He offers little defence of this view. In what follows, I grant it for the sake of argument.

of a certain disjunctive kind in the glass), but it would still be misleading (in virtue of the fact that it would have been natural for me to infer that there is a quantity of a certain natural kind in the glass).

Pereboom develops this view primarily with respect to the “phenomenal concepts” that we use to think about our experiences (2011, pp. 34-40). His idea is that if introspection represents phenomenal properties accurately, then these concepts pick out the properties that are represented in introspection, and that this is the default condition that we expect to obtain. Since (according to Pereboom) introspection represents phenomenal properties as primitive, it is natural for us to infer that our phenomenal concepts must pick out primitive properties. But this is a mistake much like the assumption that the concept ‘water’ must pick out a natural kind; in both cases, the default conditional is only one part of a complete analysis of the concepts in question. In particular, Pereboom suggests that if the “open possibility” that introspection misrepresents phenomenal properties obtains, then (for example) the concept ‘phenomenal red’ picks out the typical cause of introspective representations of phenomenal redness (despite the fact that the typical cause of such representations are not as introspection represents them to be). If our concepts are like this, and if introspection is inaccurate in this way, then a thought like, “I am in pain” might be true (in virtue of the fact that the concept ‘pain’ picks out some brain state, and I am in that brain state), but would still be misleading (in virtue of the fact that the thought makes it natural to infer that the property of being in pain is a primitive property, when in fact it is not).

Pereboom (2011, pp. 36-40) develops another way of looking at the view, by analogy with Chalmers’s (2005) views of the content of perceptual experience. On Chalmers’s view, experiences have at least two kinds of content: one – the Edenic content – which is satisfied only if objects instantiate certain primitive intrinsic properties (which nothing actually instantiates), and another – the Fregean content – which is satisfied only if objects instantiate the properties that typically cause certain sorts of experiences in the perceiver. Thus experiences are typically accurate with respect to their Fregean content, and inaccurate with respect to their Edenic content. This is supposed to underwrite the claim that experiences can be veridical (since their Fregean content is accurate) but still misleading (since their Edenic content disposes us to judge that (say) colours are primitive intrinsic properties). Pereboom’s idea is that our thoughts about our own experiences can be seen in this way: they have the (false) Edenic content that we are in states that are as our introspective representations portray (and hence, that we are in states that have primitive phenomenal properties), but also

the (true) ordinary or Fregean content that we are in states of the sort that typically cause our introspective representations. So we can say that these thoughts are typically true, but misleading.

If this is right, Pereboom claims, Frank Jackson's (1982; 1986) knowledge argument against physicalism would fail (Pereboom, 2011, pp. 38-9). Jackson claimed that Mary, the super-scientist who has never seen colour, could know all of the physical facts about human colour vision. But it seems that there is something that she would learn when she sees colour for the first time: what it is like to see red. Jackson concluded from this that there must be a non-physical fact about what it is like to see red. Pereboom supposes that the belief that Mary gains when she sees red for the first time would have the form: seeing red has R. We can consider this belief either with respect to its Edenic content, or with respect to its ordinary/Fregean content. With respect to its ordinary/Fregean content, it simply represents that seeing red has a certain feature that causes introspective representations of phenomenal redness. This is true, but not novel, and not problematic for the physicalist; it is something Mary knew all along. With respect to its Edenic content, it represents that Mary is in a state with a primitive phenomenal feature. This (Pereboom claims) is novel, but false; although introspection represents experiences as having such features, in fact they do not. So there is no true proposition that Mary learns. In short:

Knowledge Argument Strategy Mary forms a new belief with a *new* Edenic content and a *true* ordinary content. This explains why we think that she learns something new. But the ordinary content is something she already knew, and the Edenic content is false. So she learns nothing problematic for physicalist.

Pereboom argues further that if the "open possibility" is realised, then Chalmers-style modal arguments based on the conceivability of zombies are also undermined (Pereboom, 2011, pp. 60-1). True, we can conceive of physical duplicates of ourselves that lack the properties that introspection represents us as having. This explains why we are inclined to judge that zombies are possible. But this does not entail that we can conceive of physical duplicates of ourselves that lack (for example) pain. After all, if the "open possibility" obtains, then *we* lack the properties that introspection represents us as having. But we do not lack pain, since if concepts have the conditional analyses that Pereboom supposes, then pain is just be a physical property. And so we cannot conceive of physical duplicates of ourselves who lack pains. (Alternatively, we can conceive of a physical duplicate of our world in which the Edenic contents of our thoughts about our own experiences are false,

and this is why we think that zombies are possible; but we cannot conceive of a physical duplicate of our world in which the ordinary/Fregean contents of our thoughts about our own experiences are false, and this is what it would take to refute physicalism.)

Conceivability Argument Strategy We can conceive of physical duplicates of ourselves that lack the phenomenal properties that introspection represents us as having. This explains why we think that zombies are conceivable. But we cannot conceive of physical duplicates of ourselves that lack the properties we actually have. So there is no evidence that zombies are actually possible, and hence no evidence that physicalism is false.

1.1 Is The “Open Possibility” Really Open?

If we misrepresent our own experiences in the way Pereboom imagines, then two influential anti-physicalist arguments fail. And though Pereboom does not take himself to have established that such misrepresentation actually occurs, he maintains that if such misrepresentation is even a possibility not ruled out by our evidence, then the anti-physicalist arguments are undermined. But is Pereboom’s “open possibility” really open?

The “open possibility” is that introspection misrepresents the phenomenal properties of experiences. At first glance, this may look like scepticism of a particularly implausible sort. For example, it would be very problematic if Pereboom were committed to the claim that it is a possibility not ruled out by our evidence that every time we represent ourselves as being in pain, and judge on this basis that we are in pain, we are wrong. This is not an open possibility. But Pereboom has resources to resist the charge of scepticism. What is possible is that the *Edenic contents* of our introspective representations and our judgements about our own pains are all false. But this does not entail that the *ordinary* contents of our judgements about our own pains are all false, since the concept ‘pain’ might have the sort of conditional structure that Pereboom suggests. In this case, it might turn out that the concept ‘pain’ just picks out whatever physical state is the ordinary cause of certain introspective representations.

This strategy would be attractive if Pereboom could maintain that misrepresentation in question is relatively minor – for example, the that only way introspection misrepresents our experiences is by representing them as primitive. But much more than this would be required in order to explain away the seeming conceivability of zombies. The crucial fact about zombies is not merely that they lack phenomenal properties *of a particular type*

(for example, *primitive* phenomenal properties). Rather, zombies lack *all* phenomenal properties. What seems conceivable is not merely physical duplicates of ourselves that differ phenomenally from us in some way or other. Rather, what seems conceivable is physical duplicates of ourselves for whom there is nothing at all that it is like. How can Pereboom explain away this seeming conceivability? His general strategy, again, is to argue that we are conceiving of beings that lack the properties that introspection represents us to have. But since we do not actually have these properties, the beings we are conceiving are no different from us (and hence no evidence against physicalism). In order to explain the seeming conceivability of physical duplicates of us for whom there is nothing it is like in this way, Pereboom would have to claim that these beings lack *all* of the phenomenal properties that introspection represents us as having. But this would be unproblematic for the physicalist only if *we* also lack all of these properties. Thus, the strategy only works if introspection is *completely inaccurate*: we never have any of the phenomenal properties that introspection represents us as having.

It is worth pausing for a moment to appreciate what a radical view this is. Pereboom uses familiar “fraternity initiation” cases to argue that introspection is fallible (2011, pp. 22-3), but these cases show at most that introspection can sometimes be mistaken in limited respects. The “open possibility” would require introspection to misrepresent *every single conscious feature all the time*. You have a headache, and the experience is painful; you introspect, and find the pain to feel throbbing, unpleasant, and as if it is located just behind your left eye. But the pain not as introspection represents it to be, not merely in some subtle way, but in every last phenomenal respect: its throbbing is not at all the way introspection represents it to be, its unpleasantness is not at all the way introspection represents it to be, its feeling as though it is located just behind your left eye is not at all the way introspection represents it to be. Indeed, introspection seems to reveal that there is something it is like to experience the pain, but there being something it is like is not at all as introspection represents it to be.²

It is not clear that we can make sense of all this, but suppose for the sake of argument that we can. How problematic would the complete inaccuracy of introspection be? Pereboom might claim again that it is relatively unproblematic; after all, he might claim, the conjunction-of-conditionals analysis of phenomenal concepts shows that it could nonetheless be that all of our

²This is already enough to put pressure on Pereboom’s idea that the problem with introspection is that it misrepresents phenomenal properties as primitive, since it is not at all clear that we have any temptation to regard properties like *feeling as if located behind one’s left eye* as primitive.

introspection-based judgments about what it is like for us are true. But this would require a much less plausible version of the conditional analysis of phenomenal concepts. More plausible versions of the view hold that these concepts would apply even if introspection is inaccurate *in limited ways*. Consider a particular case: I introspect, and on the basis of this introspection, judge that I am in pain. Suppose I discover that my introspection was in error: it represented my state as having a simple qualitative nature, but in fact my state is not simple. Pereboom may well be right that this error is not enough in itself to make me regard the represented states as not being pains. (Instead, I might well conclude that my pain turned out to be complex rather than simple.) But suppose my error is more radical: although introspection represented my state as being unpleasant, in fact there was nothing unpleasant about it. Then it seems plausible that I would not regard this states as a pain; instead, I might come to regard myself as having mistakenly judged that I was in pain. Or suppose, more radically still, that although introspection represented my state as being a state that there is something it is like to be in, in fact there is nothing it is like to be in this state. In this case, it seems quite clear that the concept ‘pain’ does not apply.

The hypothesis that introspection is completely inaccurate threatens to produce a similar outcome. Pereboom is right that we would continue to apply the concept ‘pain’ to some of our experiences even if introspection misrepresented them in small ways. But it would be surprising if we continued to apply the concept ‘pain’ to experiences that have none of the phenomenal features that introspection represents pains as having. It is hard to imagine that we could ever come to judge that pains are in no conscious respects whatsoever correctly represented by introspection. So it is hard to imagine that the correct analysis of ‘pain’ could contain a conditional of the sort that the “open possibility” would require.

Pereboom might try to resist this conclusion by applying the conditional analysis strategy more widely. Although introspection misrepresents (for example) the unpleasantness of pain, this does not entail that pains are not unpleasant; the concept of phenomenal unpleasantness, too, has a conditional analysis according to which under such circumstances it picks out the typical causes of certain introspective representations. If this could be sustained, it would vindicate our judgements that pains are unpleasant (phenomenally). It might thus be argued that even if introspection is completely inaccurate, most or all of our beliefs about the phenomenal features of our experiences are correct, and hence that it makes sense to apply the concept ‘pain’ to these experiences despite introspective error.

The problem with this strategy is that many of the concepts we use to

think about our experiences are bad candidates for the relevant sorts of conditional analysis. On Pereboom's view, conditional analyses are motivated by empirical facts about how we would respond to various cases. (Pereboom wavers between a Jackson/Chalmers-inspired picture where it is our dispositions to respond to descriptions of these cases that matters, and a picture inspired by Janice Dowell (2008), on which "our actual future reactions to future empirical discoveries" (Pereboom, 2011, p. 40) matter; but these are two different sorts of empirical fact about our dispositions.) For example, it is plausible that the concept 'water' has (something like) the conditional analysis Pereboom suggests only because if it turns out that the clear fluid of our acquaintance is a motley, then we would continue to apply this concept to the motley. But consider the concept of a phenomenal state – a state that there is something it is like to be in. Suppose that we were to discover somehow that we discover that no state of ours has any of the phenomenal features that introspection seemed to reveal. (I do not claim that this is really conceivable, only that this is what Pereboom's "open possibility" would require.) If we really accepted this surprising discovery, would we continue to judge that there is something it is like to be us – that the concept of a phenomenal state picks out the causal antecedents of our introspective representations, whatever they might be (and in particular, whether or not they contribute anything to phenomenology)? It seems clear that we would not. It is notoriously hard to say exactly what it takes to be a phenomenal state, but it seems quite clear that merely being a causal antecedent of some other state is far from good enough. But this means that the concept of a phenomenal state lacks the required sort of conditional analysis.

This conclusion is important. If the "open possibility" obtains, we have no phenomenal states. If Pereboom is right that the "open possibility" is an open possibility, then it is an open possibility that we have no phenomenal states. Moreover, it seems clear that we would apply the concept 'pain' only to a phenomenal state; if there is nothing it is like to be in some state, then that state is not pain. Thus if the concept of a phenomenal state lacks the required sort of conditional analysis, the concept 'pain' does too. So if the "open possibility" is an open possibility, then it is an open possibility that we are never in pain. These sceptical results are untenable; it seems much better to conclude that the "open possibility" is closed.

I now turn to Pereboom's defence of nonreductive physicalism.

2 The Constitution View

On Pereboom's view, effects are produced by property instances (2011, p. 127), and thus that property instances are causal powers. Setting aside some subtleties, Pereboom's idea is that mental property instances are not identical to physical property instances, but rather are *constituted* by them, where this is understood as including the claims that the physical is metaphysically more fundamental than the mental, that the mental property instances are materially coincident with their physical constituters, and that the physical property instances metaphysically necessitate the mental property instances but not vice-versa (2011, p. 139). In particular, Pereboom maintains that mental properties are *compositional* properties – “properties things have solely by virtue of intrinsic features of their parts, either proper or improper, and relations these parts have to one another” (2011, p. 148). (Pereboom is at particular pains to contrast this with traditional functionalist views, which “characterize mental states solely in terms of their causal roles, which are exclusively relational or extrinsic features of those states” (2011, p. 149).)

The main attraction of Pereboom's view is that it provides a response to Kim-style causal exclusion arguments (e.g., Kim (1998)). Put in Pereboom's terms, the argument is that unless mental property instances are identical to physical property instances, mental causation would involve a problematic sort of overdetermination. Suppose that mental property instance M₁ causes mental property instance M₂. Then on Pereboom's view, there will be a physical property instance P₁ that constitutes M₁, and a physical property instance P₂ that constitutes M₂, and P₁ will causally explain P₂. But then, since P₂ metaphysically necessitates M₂, there seems to be a causal explanation of M₂ in terms of P₁. But there is also a causal explanation of M₂ in terms of M₁. Since M₁ is not identical to P₁, there are two distinct causal explanations of M₂, each of which provides a causally sufficient condition for M₂'s occurrence. In this respect, M₂ would be like the death caused by two distinct assassins' bullets that strike simultaneously. And this seems strange: mental events do not seem to be causally overdetermined in this way.

Pereboom concedes that his view results in a sort of overdetermination, but maintains that the mental and physical are so tightly linked that the resulting overdetermination is unproblematic. He suggests that causal overdetermination is problematic only if each of the overdetermining causes could exist without the other existing (2011, pp. 141-3). On his view, mental property instances are constituted by physical property instances, so that in the example above, it is not possible that P₁ occur without M₁ occurring. Ac-

ording to Pereboom, this means that the explanation of M2 in terms of P1 and the explanation in terms of M1 are not in competition; there is causal overdetermination, but the two causes are not redundant.

2.1 Constitution, the Grounding Objection, and the Importance of the Mental

Pereboom maintains that a physicalist can deny identities between the mental and the physical if she holds that mental property instances are constituted by physical property instances. The idea is that mental property instances and physical property instances spatiotemporally coincide without being identical, as is sometimes alleged to be the case with a statue and the clay from which it is composed. This style of view faces a number of objections, but arguably the most serious of these is *the grounding objection* (Bennett, 2004). Coincidence views are typically motivated by arguments from Leibniz's Law: the clay seems to have certain features – perhaps most fundamentally, sortal features such as *being a lump* and modal features such as *being able to survive squashing* – that the statue lacks. The grounding objection challenges the proponent of coincidence to explain how this could be so. This sort of modal and sortal differences do not seem to be brute facts; they must be grounded in non-modal, non-sortal differences. But this seems impossible, since coincident objects seem to share all of their non-modal, non-sortal features.

Pereboom motivates his view by appealing to multiple realizability arguments, which are in effect arguments from Leibniz's Law. For example, he argues that the token causal powers of a certain belief might survive the replacement of brain tissue with a silicon prosthesis, but that the token causal powers of the neural state that had realised the belief would not survive (2011, pp. 133-5). Thus the token causal powers of the belief state have modal properties that the token causal powers of the neural state lack, and by Leibniz's Law, they cannot be identical. (This style of multiple realizability argument is novel in targeting even token identities; Pereboom regards this feature as crucial to his account of the causal efficacy of the mental.) Since (according to Pereboom) the two states are constituted by the same underlying microphysical materials, Pereboom faces a version of the grounding problem: in virtue of what do the two sets of token causal powers have different modal properties?

There are numerous putative solutions to the grounding problem in the literature, mostly designed with statue/clay-type cases in mind. But in order to adopt them, Pereboom would have to adapt them to the case of the modal differences between token mental property instantiations and the to-

ken physical property instances that (on his view) compose them, and this poses particular problems. For example, a popular family of views has it that the sortal and modal features that distinguish the coincident are grounded in human linguistic or conceptual activities: for example, in our adopting certain linguistic or conceptual conventions (Sidelle, 1989; Thomasson, 2007; Einheuser, 2011). But Pereboom must reject this style of view, at least with respect to grounding the modal features that distinguish mental property instances and the physical property instances that on his view compose them. For to attempt to ground the distinction in this way would be circular in a problematic way: mental causal powers would exist because of our mental acts, but presumably these mental acts can take place only if we already have mental states with suitable causal powers.

Another style of view, developed by Kathrin Koslicki (2008), maintains that coincident objects differ mereologically: in addition to shared material parts, they are composed of distinct formal or structural parts. A proponent of a Koslicki-style view in the present case could maintain that the causal powers of mental states are composed of the same material parts as the causal powers of physical states, but are in addition composed of distinctively mental formal/structural parts. But the physicalist credentials of this sort of view would be questionable at best: why think that the view is physicalistically acceptable if the mental causal powers are composed in part of distinctively mental formal parts (which are not identical to any physical formal parts)?

It is possible in principle to claim that the difference in modal or sortal properties is primitive, and hence to deny that there is any need to ground the difference in modal or sortal features between the coincident objects. And perhaps there are independent reasons to think that modal features must be primitive in any case; it is, of course, very difficult to give a satisfactory account of the modal in non-modal terms. But a worry remains. Suppose we have a lump of clay (with its distinctively lumpish modal properties) which composes a statue (with its distinctively statueish modal properties). Why are these two sets of modal properties instantiated, rather than others? Karen Bennett puts the worry this way: “If only some of the possible modal profiles are instantiated in a region, we can always ask why those are so special – which, given the view about objects just described, is just to ask why the things that exist there have the modal properties they do. An answer of ‘they just do’ sounds decidedly mysterious and obfuscatory.” (2004, p. 355).

Bennett suggests an alternative view, which is designed to resist this arbitrariness worry. On this *plenitudinous primitivism*, it is an ungrounded, primitive fact that “every region of space-time that contains an object at all contains a distinct object for every possible way of distributing ‘essential’ and

‘accidental’ over the non-[modal, non-sortal] properties actually instantiated there. A certain principle of plenitude holds; there is an object for each possible combination of modal properties.” (2004, p. 354-5). There is no question of arbitrariness: “if all of the possible modal profiles are instantiated, the question [of why the things that exist there have the modal properties they do] simply does not arise. Thus the fullness of each spatio-temporal region explains – or at least explains away – the primitiveness of the *de re* modal facts” (2004, p. 355).

No doubt this is a view with surprising consequences, and those who like ontological desert landscapes may balk. But Bennett does seem right that a plenitudinous view gives its proponents a way to maintain that the differences in modal properties between coinciding objects are primitive while avoiding problematic arbitrariness. Could Pereboom make use of this sort of position? On this view, every region of space-time that contains a property instantiation/token causal power at all contains a distinct property instantiation/token causal power for every possible way of distributing ‘essential’ and ‘accidental’ over the non-modal, non-sortal properties actually instantiated by the property instantiation/token causal power. So it is not just that there is a physical causal power and a mental causal power; there are a plenitude of causal powers with slightly different modal properties (and so slightly different persistence conditions). Some can survive the implantation of a silicon prosthesis, but could not survive the implantation of (say) a fiber-optic prosthesis. Others cannot survive the implantation of a silicon prosthesis, but could survive the implantation of prostheses of other materials. Still others can only survive on a Tuesday; others, as long as a Democrat is President of the US; others, during a full moon.

Is the resulting view plausible? It does seem to have the resources to resist the grounding problem, developed in terms of arbitrariness. Bennett’s question for the proponent of coincidence was “why are those modal profiles so special, so that they are instantiated while other modal profiles are not?” In the present context, the question is, “Why are mental causal powers so special?” And the present suggestion is that mental causal powers are not special at all: the mental causal powers of a given state are simply one of very many causal powers. But the claim that mental causal powers are not at all special is a major cost of the view. The main motivation of Pereboom’s project was to preserve the causal efficacy of the mental in the face of Kim’s objections. But this seems like a highly attenuated sort of causal efficacy. On this view, any given action is massively overdetermined by myriad instantiations of myriad distinct properties. Since this is so, one wonders why we care so much about the mental. Why the distinctive practice of explaining ac-

tions in terms of beliefs and desires, when there are indefinitely many other explanations would do just as well? Why do pains and pleasures seem so significant, when there are indefinitely many other features that can do the same work? The problem here is not that the mental is excluded; rather, the mental is *swamped*. Perhaps mental properties are causally efficacious, but in every case, there are indefinitely many other properties doing remarkably similar causal work; the mental is causally efficacious only in the sense that indefinitely many gerrymandered properties are.

Every constitution view requires a response to the grounding problem, and Pereboom's is no exception. Bennett's view is unappealing for Pereboom's purposes, but it is not clear what other options are open to him. If there is no good response, Pereboom's view is inadequate; for now, I conclude only that it is incomplete.

3 Conclusion

There is much to learn from Pereboom's book; it contributes a number of subtle and provocative ideas to debates about physicalism and the mind. In my opinion, these are not the best prospects for physicalism. But there can be no doubt that they make a genuine contribution to the debate.

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