

Panpsychism and Russellian monism

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Draft: treat at such

Panpsychism has recently gained interest among analytic philosophers of mind. This is due largely to its close relationship with Russellian monism, according to which consciousness is constituted at least partly by intrinsic properties that serve as categorical bases of dispositional properties posited by fundamental physics.¹ On a leading version of this view, those intrinsic properties are phenomenal, that is, experiential: properties that constitute what it is like to have an experience.

Panpsychism seems to follow. Interest in Russellian monism has therefore led to interest in panpsychism.

But what explains the recent interest in Russellian monism? Part of the explanation runs as follows. Over the last half-century or so, discussions of consciousness in analytic philosophy have focused largely on materialism/physicalism (we use the terms interchangeably) and dualism. But traditional forms of these views have considerable drawbacks. Traditional materialist views either disregard or distort the distinctive features of consciousness, and traditional dualist views fail to integrate consciousness adequately into the natural, causal order. Russellian monism seems to avoid both problems. Russellian monists reject the doctrine that they believe leads materialists

¹ This characterization of Russellian monism will suffice for present purposes, but see Alter and Nagasawa 2012. Chalmers (1997) introduced the term “Russellian monism”.

to disregard or distort the distinctive features of consciousness: the doctrine that phenomenal properties are nothing over and above the properties physics reveals. On panpsychist Russellian monism, phenomenal properties are taken to be no less fundamental than physical properties. Dualism says that too. But unlike traditional dualist views, panpsychist Russellian monism is designed to accord consciousness a crucial role in physical causation: the role of categorically grounding basic physical, dispositional properties. There is also a nonpanpsychist version of Russellian monism, which accords that same role to the components of consciousness. Russellian monism is thus presented as a plausible alternative to traditional views: one that both does justice to the distinctive features of consciousness and integrates consciousness into the natural, causal order.²

In this chapter, we will consider whether Russellian monism has the advantages just described. More specifically, we will discuss two significant challenges to the claim that it does: one developed by Robert J. Howell and one by Amy Kind.³ Howell argues that Jaegwon Kim's exclusion argument can be modified to show that Russellian monism is untenable. And Kind argues that it is "simply an illusion" that Russellian monism "transcend[s] the dualist/physicalist divide."⁴ We will argue that neither challenge is insurmountable.

Panpsychist and panprotopsychist Russellian monism

² Chalmers 2013.

³ Howell 2015, Kind 2015.

⁴ Kind 2015, p. 417.

In this section, we will say more about what both panpsychist and nonpanpsychist Russellian monism are and why these views seem to provide theoretical advantages over traditional views.

What the views are

Following David Chalmers, we understand panpsychism as the thesis that some fundamental physical entities have conscious experiences, where this requires that all members of some fundamental physical types have conscious experiences. On this view, “there is something it is like to be a quark or a photon or a member of some other fundamental physical type.”⁵

We understand Russellian monism to be the view that consciousness is constituted at least partly by intrinsic properties that serve as categorical bases of the dispositional properties posited by fundamental physics. Panpsychist Russellian monism results from combining this view with the thesis that those intrinsic properties are phenomenal.

Not all versions of Russellian monism entail panpsychism. There is also panprotopsychoist Russellian monism, which results from identifying the intrinsic properties that ground physical, dispositional properties with what Chalmers calls *protophenomenal* properties. He writes,

protophenomenal properties are special properties that are not phenomenal (there is nothing it is like to have a single protophenomenal property) but

⁵ Chalmers 2013, pp. 246-47. On this definition, panpsychism entails that consciousness is ubiquitous if the relevant fundamental physical types are.

that can collectively constitute phenomenal properties, perhaps when arranged in the right structure.⁶

Chalmers raises a concern about panprotopsychism that will prove relevant below:

One might worry that any non-panpsychist materialism will be a form of panprotopsychism. After all, non-panpsychist materialism entails that microphysical properties are not phenomenal properties and that they collectively constitute phenomenal properties.⁷

To avoid that result, he makes the following stipulation:

To handle this, one can unpack the appeal to specialness in the definition by requiring that (i) protophenomenal properties are distinct from structural properties and that (ii) there is an a priori entailment from truths about protophenomenal properties (perhaps along with structural properties) to truths about the phenomenal properties that they constitute.⁸

We follow Chalmers here as well (we use the term “dispositional” where he uses “structural”, but we have the same properties in mind).⁹

⁶ *Loc. cit.*, p. 259.

⁷ Chalmers 2013, p. 260.

⁸ *Loc. cit.* For views that arguably qualify as panprotopsychism, see Coleman 2015, 2016, Stoljar 2001, Pereboom 2011, and McClelland 2013.

⁹ Structural/dispositional properties can be understood as those characterized by structural/dispositional truths, where a structural/dispositional truth is a true

Russellian monism and the conceivability argument

To better appreciate why Russellian monism might compare favorably to traditional materialism and traditional dualism, consider how Russellian monists can respond to influential anti-materialist and anti-dualist arguments. For example, consider a version of the anti-materialist conceivability argument involving a zombie world, that is, a minimal physical duplicate of the actual world but without consciousness. The argument begins with the premise that such a world is ideally conceivable—that is, such a world cannot be ruled out by a priori reasoning—and ends with the conclusion that materialism is false.¹⁰ The argument's main steps can be summarized as follows:

1. A zombie world is ideally conceivable.
2. If a zombie world is ideally conceivable, then a zombie world is metaphysically possible.
3. If a zombie world is metaphysically possible, then materialism is false.

Therefore, materialism is false.¹¹

sentence that is (roughly put) a priori equivalent to a sentence containing only mathematical, logical, nomic, and spatiotemporal terms. See Chalmers 2010, p. 120, fn. 17, Stoljar 2015, Alter forthcoming-a, and Ebbers n.d.

¹⁰ For more on ideal conceivability, see Chalmers 2002.

¹¹ This formulation ignores various complications that are not directly relevant to our arguments. See Chalmers 2010, ch. 6.

Materialists have responded in myriad ways, but many find their responses inadequate.¹²

Russellian monism is sometimes construed as a form of materialism.¹³ But it provides resources for responding to anti-materialist arguments that traditional materialist views do not. Russellian monists can respond to the above conceivability argument in at least three ways. First, they can reject premise 1, which says that a zombie world is ideally conceivable. This premise, they might argue, seems true only if we conflate the physical with the dispositional: we recognize that a consciousness-free dispositional duplicate of the actual world, or a *dispositional zombie world*, is ideally conceivable, and we tacitly infer that a zombie world is ideally conceivable. But that inference is questionable. A dispositional zombie world would resemble the actual world in all dispositional respects but, unlike a zombie world, perhaps not in all physical respects. Arguably, a complete physical duplicate of the actual world would also have to include instantiations of any (proto)phenomenal properties that, in the actual world, ground physical, dispositional properties. If so then, Russellian monists might argue, such a world would have to include consciousness. If the grounding properties are phenomenal, then the duplicate world would contain consciousness by definition. If the grounding properties are protophenomenal, then the dispositional duplication guarantees that those protophenomenal properties (or instantiations thereof) will be configured so as to constitute consciousness. Either way, on this response, premise 1 comes out false.

¹² See Alter and Howell 2012.

¹³ Pereboom 2011, Chalmers 2013, Montero 2015.

Alternatively, panpsychist Russellian monists can reject premise 2, which says that if a zombie world is conceivable then it is metaphysically possible. On this response, although there is no a priori entailment from the physical to the phenomenal, there is an a posteriori entailment: a zombie world is ideally conceivable but metaphysically impossible. This move could be based on a semantic view about basic terms in fundamental physics such as “mass” and “charge”: a view on which such terms refer rigidly to the intrinsic, categorical properties that ground basic dispositional properties but not in a way that can be discovered by a priori reflection.¹⁴

As a third alternative, Russellian monists can accept the argument’s anti-materialist conclusion. They can argue that (proto)phenomenal properties are nonphysical properties that nevertheless categorically ground physical properties. But the core idea underlying this third response is the same as that which underlies the other two: because Russellian monists reject the traditional materialist doctrine that the (proto)phenomenal is nothing over and above the dispositional, their view does not entail the sorts of claims that anti-materialist arguments such as the conceivability argument threaten to undermine.¹⁵ Here are three examples of such

14 This response might not be available to panprotopsyichist Russellian monists because of Chalmers’ stipulations about the protophenomenal properties ((i) and (ii) above): those stipulations imply that there is an a priori entailment from the protophenomenal and the dispositional to the phenomenal. In any case, this second response seems susceptible to the same sorts of objections often leveled against parallel appeals to a posteriori necessity made by traditional materialists (Chalmers 2013, p. 253). This does not appear to be true of the other two alternative Russellian monist responses we describe.

15 For this reason, Chalmers tends to formulate anti-materialist arguments such as the conceivability argument such that the conclusion is disjunctive: either materialism is false or Russellian monism is true (Chalmers 2010, ch. 6).

claims: there are no phenomenal properties (a claim associated with eliminativist materialism); phenomenal properties are functionally definable (a claim associated with analytic functionalism); and the complete dispositional truth a posteriori necessitates and is ontologically prior to all phenomenal truths (a claim associated with nonreductionist materialism, that is, the view Chalmers (2010) calls type-B materialism).

Russellian monism and the exclusion argument

Influential anti-dualist arguments fault dualism for inadequately integrating consciousness into the natural, causal order. We will focus on one of these arguments, known as the exclusion argument. The exclusion argument says that nonphysical mental properties have no work to do in bringing about physical events: all physical effects are fully caused by physical events.¹⁶ The exclusion argument's main steps can be summarized as follows:

1. Mental distinctness: mental phenomena are not identical with physical phenomena.
 2. Physical adequacy: physical events have sufficient physical causes if they are caused at all.
 3. Nonoverdetermination: not every case of mental causation is a case of overdetermination.
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Therefore, no physical events are uniquely caused by mental events.¹⁷

¹⁶ Kim 1989, 2000.

The exclusion argument is often adduced against interactionist dualism, on which mental events are said to help bring about physical events. Dualists have responded in myriad ways, but many find their responses inadequate.¹⁸

Russellian monism is sometimes construed as a form of dualism and sometimes as a form of nonreductionist materialism.¹⁹ But it provides resources for responding to anti-materialist arguments that traditional versions of those views do not. Russellian monists can respond to the exclusion argument in at least three ways.²⁰ First, they can deny premise 1, mental distinctness, arguing that (proto)phenomenal properties are not distinct from the dispositional properties they ground. Suppose R is a categorical (proto)phenomenal property that grounds negative charge. On this first strategy, Russellian monists deny that there are two properties here, R and negative charge. Instead, there is one property, R, and a law governing how things with that property behave. So, there is no competition among properties for causal efficacy: there is just one property, which can be construed in different ways.

Alternatively, Russellian monists can deny premise 2, physical adequacy. They can argue that the properties physics describes cause nothing on their own: such properties would not even exist (or be instantiated) without their (proto)phenomenal grounds. Interactionist dualists too tend to deny physical

17 Cf. Howell 2015, pp. 23-24. This formulation ignores various complications that are not directly relevant to our arguments. See Kim 1989, 2000 and List and Stoljar forthcoming.

18 The exclusion argument is also adduced against nonreductionist forms of materialism. For a dualist response, see List and Stoljar forthcoming. For a nonreductionist materialist response, see Pereboom 2011.

19 Pereboom 2011, Chalmers 2013, Montero 2015, Alter and Nagasawa 2012.

20 Here we follow Howell 2015, pp. 26-28.

adequacy. But they do so in a way that many find unacceptable. They reject the causal closure of the physical, positing causal gaps among physical events as described by the physical sciences: gaps filled by nonphysical, mental events. Russellian monists need not posit any such gaps. Russellian monism only enriches the basis of the complete physical causal chain already posited by the physical sciences.²¹

Finally, Russellian monists can deny that the argument (in the form stated above) is valid. Here Russellian monists would follow a well-trodden path. Several philosophers (who do not commit to Russellian monism) reject the argument's validity, arguing that some mental-physical relations can be modeled on the relation between determinables and determinates.²² In their view, mental properties contribute to physical causation in something like the way that being red (the more determinable property) and being scarlet (the more determinate property) can both issue in a physical effect without that effect being overdetermined. Russellian monists can offer a distinctive version of that style of reasoning. Plausibly, just as there is in general no competition between determinable and determinate properties such as being red and being scarlet, there is in general no competition between categorical properties and the dispositions they ground: both make unique contributions to the causal process. So, Russellian monists can argue, since

21 There is a sense in which Russellian monists deny the causal closure of the physical. In their view, no causal explanation of physical events that refers only to dispositional/structural properties is complete. They think a complete explanation would have to refer to the intrinsic properties that ground physical, dispositional properties (Chalmers 2013, p. 258). But unlike traditional interactionist dualism, Russellian monism does not require causal gaps at the level of explanation as described by the physical sciences.

22 Yablo 1992, Bennett 2003, Shoemaker 2007, Ehring 2011, Wilson 2011.

(proto)phenomenal properties categorically ground physical, dispositional properties, the contribution of the latter properties in causing physical events does not compete with the contribution of the former. On this model, neither sort of property is causally redundant in the bringing about of physical events.

There is a common thread running through all three of those responses: Russellian monism provides a principled basis for rejecting the idea that dispositional and (proto)phenomenal properties compete in the way the exclusion argument requires. More generally, Russellian monism does not seem to be threatened in the way traditional dualism is by the problem of finding a role for (proto)consciousness in the causation of physical events.

Thus, Russellian monism might seem to have considerable advantages over traditional materialism and traditional dualism. But appearances can be deceiving. Howell and Kind each argue that in this case they are. We will now turn to their arguments, starting with Howell's, and explain some ways Russellian monists might respond.

The exclusion argument against Russellian monism

In Howell's view, although the original exclusion argument does not undermine Russellian monism, a modified formulation does. He writes,

My general argument will be that even if phenomenal properties cause things on the Russellian Monism picture, they do not cause things in virtue of their phenomenal nature.²³

Similar reasoning, he argues, applies to protophenomenal properties.²⁴ If his modified exclusion argument is sound, then on Russellian monism (proto)phenomenality makes no unique contribution to the causation of physical events, despite initial appearances to the contrary.

The modified exclusion argument

According to the original exclusion argument, physical and mental properties compete for causal influence. Howell argues that the Russellian monist's responses to that argument merely relocate this problem. The competition is no longer between properties but rather between aspects of the properties in virtue of which the properties do causal work. But there is still causal competition and, he argues, the (proto)phenomenal aspects lose.

Howell illustrates the problem by describing three worlds:

Consider a world w_1 in which R, phenomenal redness, grounds the property of negative charge given the causal laws governing R in w_1 . Now consider

²³ *Loc. cit.*, p. 28.

²⁴ For example, consider panqualityism (Coleman 2015), which in effect construes protophenomenal properties as unexperienced qualia. If Howell's argument is sound, then unexperienced qualia do not, in virtue of their qualitative natures, cause physical phenomena.

world w2 where G, phenomenal greenness, is covered by those same laws so that G grounds the causal powers associated with negative charge and R instead grounds the powers associated with negative spin. Finally, consider a third world, w3, in which the laws are such that either R or G can ground the powers of negative charge—R and G are governed by exactly the same laws in exactly the same ways.²⁵

Howell then compares R as instantiated in w1 with R as instantiated in w2, noting that, “They are similar in one respect, their phenomenal character, but different in another, their causal profile.”²⁶ R as instantiated in w1 compared with G as instantiated in w2 differs in phenomenal character while being similar in causal role. And the same point applies to R compared with G as both are instantiated in w3. He writes,

In all cases...some similarities are grounded in the phenomenal character and others are grounded in the causal profile. Even given the ontology of Russellian Monism, therefore, there must be different relationships of grounding in virtue of which the different resemblance relations hold.²⁷

So, *RM properties*, as Howell calls them, have two aspects: one that grounds phenomenal resemblance relations and another that grounds causal resemblance

²⁵ *Loc. cit.*, p. 28.

²⁶ *Loc. cit.*, p. 29.

²⁷ *Loc. cit.*

relations. If so, then the question arises, in virtue of which of these two aspects do RM properties have physical effects? According to Howell, the answer is clear: physical effects occur in virtue of the latter and not the former. He writes,

In the case of phenomenal causation, we want phenomenal properties to have causal power in virtue of their phenomenality. That means that we want the properties to cause things in virtue of that which grounds the similarity between R in w1 and R in w2. But that doesn't appear to be the case since R in w1 and R in w2 are causally quite dissimilar. The point can be made within a world as well. We want the properties in w3 to cause things in virtue of that which grounds the similarity between R and G (in that world). It cannot be the phenomenal character because they are quite dissimilar phenomenally. It thus appears that these properties do not, after all, cause things in virtue of their phenomenal character.²⁸

As Howell notes, similar considerations militate against the panprotopsychist Russellian monist's contention that protophenomenal properties have physical effects. In his view, on panprotopsychist Russellian monism there would be possible worlds corresponding to w1-w3, where 'R' and 'G' stand for protophenomenal rather than phenomenal properties.²⁹

²⁸ *Loc. cit.*

²⁹ *Loc cit.*, pp. 33-34.

Howell states his modified exclusion argument as follows, where “an RM property is a property that has a phenomenal categorical ground and some causal dispositions”³⁰:

1. [T]here are two distinct and separable aspects of RM properties, those that ground phenomenal resemblance relations and those that ground resemblances between causal profiles.
2. [A]ll physical events have sufficient causes in virtue of those aspects that ground resemblances between the causal profiles of RM properties.

Therefore, the aspects of RM properties that ground phenomenal resemblances make no unique causal contribution to the physical world.³¹

If that argument is sound, then Russellian monism seems to fare no better than dualism at integrating consciousness adequately into the natural, causal order.

According to Howell, the three Russellian monist responses to the original exclusion argument do not succeed against the modified version. On the first response (denying the original premise 1, mental distinctness), there is a single RM property rather than two properties, one categorical and one dispositional, that compete for causal influence. But that claim is consistent with the modified exclusion argument, which locates the competition within a single RM property:

30 *Loc cit.*, p. 32. ‘Protophenomenal’ can be substituted for ‘phenomenal’ in the argument to give the version corresponding to panprotopsychoist Russellian monism.
31 *Loc. cit.*, p. 32. Howell omits the nonoverdetermination premise. He remarks, “I simplify the argument here by eliminating premises concerning overdetermination since I take it that no one is happy with that option” (p. 24, fn. 9).

aspects of that property compete. On the second response (denying the original premise 2, physical adequacy), physical, dispositional properties would not exist (or be instantiated) were it not for the categorical RM properties in which they are grounded. But it does not follow from that claim that the (proto)phenomenal aspects of RM properties contribute to physical causation. And, Howell argues, the modal separability of the (proto)phenomenal and dispositional aspects suggests that the former do not so contribute:

The fact that both R and G can ground certain causal dispositions within a world despite their phenomenal dissimilarity suggests again that it is not the phenomenality of the ground that is really doing the work. It is whatever it is in virtue of which they fall under the relevant laws.³²

Similar considerations, Howell argues, undermine the third response (denying the validity of the original argument), on which, “the dispositional properties and the categorical grounds don’t causally compete because they enjoy such a tight metaphysical relationship.”³³ According to Howell, the relationship is not tight enough to undermine the argument’s validity if the two aspects of RM properties can come apart, as they would in w1 compared with w2, and w3.

There are, however, at least two potentially viable ways for Russellian monists to respond to Howell’s modified exclusion argument. One is to deny that the modal separability of the two aspects of an RM property shows that the

³² *Loc. cit.*, p. 31.

³³ *Loc. cit.*

(proto)phenomenal aspect does no causal work. Call that *the compatibilist strategy*.

The other is to deny that the two aspects are modally separable in the way that Howell's argument requires. Call that *the necessitarian strategy*. We will discuss these strategies in turn.

The compatibilist strategy

In the actual world, chlorophyll plays a causal role in photosynthesis: it enables plants to absorb energy from light. Suppose that there is a possible world in which the same role is played by a biomolecule that is chemically distinct from chlorophyll. It would be a mistake to infer that in the actual world chlorophyll makes no unique causal contribution to photosynthesis. According to the compatibilist strategy, or *compatibilism* for short, the modified exclusion argument makes an analogous mistake.

According to compatibilism, in w_1 negative charge has physical effects partly in virtue of R (phenomenal redness) even though in w_2 negative charge has those same effects partly in virtue of G (phenomenal greenness). This is so, say compatibilists, because the grounding laws in w_1 differ from those in w_2 : they differ with respect to which phenomenal property plays which grounding role. Or consider w_3 , in which R and G each ground negative charge. According to compatibilism, w_3 's grounding laws entail that, in that world, both R and G help produce the effects of negatively charged particles. In general, the assumption that the same grounding role can be played by two different categorical properties (either across or within worlds) does not entail that those categorical properties are inefficacious. The

grounding laws may be contingent. But they determine which (if any) categorical properties in a given world do the grounding work. And it is precisely such grounding work that constitutes the unique contribution (proto)phenomenal properties make to the causation of physical events.

Compatibilists could analyze the modified exclusion argument in different ways. On one analysis, the problem is premise 2: “[A]ll physical events have sufficient causes in virtue of those aspects that ground resemblances between the causal profiles of RM properties.” Arguably, the aspects that ground resemblances between the causal profiles of RM properties are not (proto)phenomenal properties. For example, R and G are phenomenally distinct and yet the causal profiles associated with R in w1 and G in w2 are exactly alike. Nonetheless, the compatibilist might argue, in w1 negative charge has the effects it does partly because it is grounded by R. In that world, given its contingent grounding laws, negative charge would have no physical effects if not for R’s playing the grounding role it plays. That fact, say compatibilists, is compatible with a distinct property G playing that same role in worlds with different grounding laws, such as w2. Thus, the compatibilist might argue that premise 2 of the modified exclusion argument is false.

The compatibilist strategy faces objections. For one thing, the photosynthesis analogy is inexact. When we described chlorophyll as playing a causal role in photosynthesis, we said that it enables plants to absorb energy from light. That description is fairly coarse-grained, and one might argue that this explains why the possibility of something else playing that role does not threaten the efficacy of chlorophyll in the actual world. But the cases at issue need not involve such coarse-

grained descriptions. And especially when we come to discussing fundamental physical dispositions and their bases, we are likely to move to talking at a much finer grain. For example, describing the causal profiles associated with R in w1 and G in w2 in a maximally fine-grained way would reveal no difference whatsoever between those profiles (that is true by stipulation). By contrast, differences would be revealed when comparing chlorophyll to its role-filler in another possible world, if both are described in a maximally fine-grained way. So, analogies to the photosynthesis case and similar examples are of limited use in supporting the compatibilist strategy.

Also, Howell might object that the compatibilist strategy leaves Russellian monist in essentially the same position as the interactionist dualist vis-à-vis integrating phenomenality into physical causation. Instead of the interactionist's contingent psychophysical laws, the Russellian monist posits contingent (proto)phenomenal-dispositional grounding laws. But that, Howell might argue, is no improvement. If so, Russellian monism still loses its alleged advantage over traditional dualism and the compatibilist strategy fails.

That objection is partly correct. The Russellian monist's grounding laws can seem arbitrary in the way that, to many, the interactionist dualist's psychophysical laws do. For example, the Russellian monist might seem to have no good explanation of why in w1 R rather than G grounds negative charge. But there is a difference. The interactionist dualist rejects the causal closure of the physical, positing gaps in scientific explanations—gaps filled by nonphysical, mental events. The Russellian monist need posit no such gaps. Her grounding laws are, in that sense, compatible

with the causal closure of the physical. That difference gives Russellian monism what many would regard as a significant advantage over interactionist dualism.

The necessitarian strategy

Compatibilists reject assumptions involved in Howell's inference from the modal separability of the (proto)phenomenal and dispositional aspects of RM properties to the conclusion that the former are inefficacious. Russellian monists might instead reject his premise that those aspects are modally separable in the way the modified exclusion argument requires. They might, for example, argue that the three worlds Howell imagines are not metaphysically possible. More specifically, they might deny that w_1 and w_2 are compossible and that w_3 is possible in its own right. This is the necessitarian strategy.³⁴

Howell considers the necessitarian strategy. He writes,

Such a 'necessitarian' Russellian Monism might in fact dodge the [modified] exclusion argument. Whether or not the base is phenomenal or protophenomenal, if the relationship between the causal and phenomenal features of the base is intimate enough—and metaphysical necessitation from the phenomenal to the causal probably qualifies—the [modified] exclusion argument doesn't succeed.³⁵

34 For necessitarian versions of Russellian monism, see Hassel Morch 2014 and Coleman 2015. Carruth's (forthcoming) 'powerful qualities' view of dispositions suggests a roughly similar necessitarian doctrine, but he contrasts his view with Russellian monism.

35 *Loc. cit.*, pp. 35-36.

Actually, “metaphysical necessitation from the phenomenal to the causal” would seem to only partly qualify as supplying the intimacy between phenomenal and dispositional features needed in order to reject all of w1-w3, thus to answer the modified exclusion argument. Such metaphysical necessitation would guarantee that if R (phenomenal redness) grounds negative charge in w1, then there is no possible world w2 in which R does not ground negative charge—and thus that w1 and w2 are not jointly possible, sparing the Russellian monist of that part of Howell’s exclusion challenge. But what about w3, in which R and G (phenomenal greenness) have the same causal profiles? Metaphysical necessitation from the phenomenal to the dispositional does not seem to rule out that world as impossible. It rules out only that R or G should exist in another world without grounding negative charge. Yet the possibility of w3 alone might be enough to motivate the modified exclusion argument. In w3, the phenomenal dissimilarity between R and G does not seem to correspond to a causal difference. As Howell says of this case, “it is not the phenomenality of the ground that is really doing the work.”³⁶ It may therefore seem that the necessitarian Russellian monist is no better off than the dualist (and perhaps worse off than the Russellian monist who adopts the compatibilist strategy).

So, to completely dodge the modified exclusion argument, it seems, the Russellian monist might also have to defend metaphysical necessitation in the other direction, from the dispositional to the (proto)phenomenal. She might have to adopt

³⁶ *Loc. cit.*, p. 31.

a claim such as the following, where 'D₁' and 'D₂' encode maximally fine-grained descriptions of causal powers:

Necessarily, if dispositional aspects of RM properties D₁ and D₂ are identical, then so are the associated (proto)phenomenal aspects if such there be.

That additional claim would seem to rule out w₃ as impossible: the additional claim does not countenance worlds in which distinct (proto)phenomenal aspects, such as R and G, are associated with the exact same causal powers. With both entailments in place, from (proto)phenomenal aspect to dispositional aspect and *vice versa*, necessitarian Russellian monism assigns causal roles to (proto)phenomenal aspects one-to-one with metaphysical necessity. On the panpsychist version, necessitarian Russellian monism assigns causal roles to physical disposition-grounding phenomenal characters one-to-one with metaphysical necessity.

Howell rejects the necessitarian strategy as dialectically unacceptable. Adopting necessitarianism, he suggests, conflicts with the Russellian monist's "acceptance of...zombie-style conceivability arguments that pushed her to Russellian Monism in the first place."³⁷ That concern is natural enough. Necessitarian Russellian monism rules out premises those arguments typically invoke, such as the premise that a zombie world is metaphysically possible.

³⁷ Howell 2015, pp. 36-37.

On reflection, however, Howell's objection is not decisive. Russellian monists (necessitarian and otherwise) need not accept zombie-style conceivability arguments without qualification. They take those arguments to (i) refute the traditional materialist view that the phenomenal is nothing over and above the dispositional and (ii) support their view that consciousness consists at least partly in intrinsic, (proto)phenomenal properties that categorically ground physical, dispositional properties.³⁸ But (i) and (ii) are consistent with necessitarianism: they do not entail that the (proto)phenomenal and the dispositional are modally separable.

Howell raises another dialectical problem for the necessitarian strategy: the strategy would undercut the Russellian monist's advantages over traditional views. If she argues that zombie worlds are only *prima facie* and not ideally conceivable, "then she appears to be making the same sort of move as the type A physicalist with no more plausibility."³⁹ If she posits "necessities that hold despite conceivability," then "she has to allow the same answer for the type B physicalist and the property dualist."⁴⁰ Thus, he concludes, "Given this, necessitarian Russellian Monism might be conceptually coherent, but it is unmotivated."⁴¹ Adopting necessitarianism, he

38 See Alter forthcoming-a.

39 Howell 2015, p. 37. The alphabetic taxonomy ("type-A materialism," for example) comes from Chalmers (1996, 2003-a). Type-A materialism says roughly that all phenomenal truths are a priori entailed by the complete physical truth. Type-B materialism says roughly that though some phenomenal truths are not a priori entailed by the complete physical truth, all phenomenal truths are metaphysically necessitated by the complete physical truth.

40 *Loc. cit.*, p. 37.

41 *Loc. cit.*

suggests, would result in sacrificing the advantages over traditional positions that Russellian monism is often presented as having..

But that complaint could also be questioned. For example, consider the Russellian monist who accepts the conclusion of zombie-style conceivability arguments. As we have seen, her doing so does not require positing gaps in physical explanations. That is what is thought to make her reaction more plausible than the traditional interactionist dualist's way of accepting the arguments. Adopting necessitarianism would not seem to threaten the Russellian monist's ability to react in that way.

What about the Russellian monist who says that a zombie world is only *prima facie* and not ideally conceivable? Would adopting necessitarianism entail that her position is no more plausible than type-A materialism, as Howell claims? One might resist that conclusion too. Consider a prototypical version of type-A materialism: analytic functionalism.⁴² On this view, phenomenal terms such as "consciousness" and "pain" can be fully analyzed in functional terms such that all phenomenal truths (i.e., all truths about consciousness) are a priori entailed by the complete dispositional truth (this is roughly the conjunction of all truths revealed by completed physics). On this view, a zombie world is not ideally conceivable. Indeed, on this view not even a dispositional zombie world is ideally conceivable. Many find those results counterintuitive.

Now consider the necessitarian Russellian monist analogue of type-A materialism. On this view, there is also an a priori entailment to all phenomenal

⁴² Armstrong 1968, Lewis 1972.

truths—but not just from the complete dispositional truth. Instead, the entailment runs from the conjunction of the latter and the complete (proto)phenomenal truth. Unlike analytic functionalism, type-A necessitarian Russellian monism is consistent with the ideal conceivability (and metaphysical possibility) of at least one sort of dispositional zombie world: a minimal dispositional duplicate of the actual world in which basic dispositional properties are categorically ungrounded.⁴³ Thus, one might argue, type-A necessitarian Russellian monism and type-A materialism are not on a par.

Type-A necessitarian Russellian monism does, however, rule out certain scenarios that might seem conceivable. Among these are Howell's w3 and scenarios that differ from the actual world only with respect to which (proto)phenomenal properties ground basic physical dispositions. Also, consider the view's implications for Frank Jackson's case of Mary in the black-and-white room.⁴⁴ According to type-A necessitarian Russellian monism, there is a dispositional property D_r such that it is metaphysically necessary that if D_r is instantiated then so is phenomenal redness. On this view, that metaphysical necessity is not a posteriori. Does this entail that pre-release Mary can deduce all truths about what it is like to see red? Strictly speaking, that does not follow. But that is only because pre-release Mary cannot eliminate the possibility that any given dispositional property is categorically ungrounded. If not

43 For arguments that such a world is metaphysically possible, see McKittrick 2003.

44 Jackson 1982, 1986. Mary is a captive who is raised in a black-and-white room without seeing colors. She has perfect logical acumen and learns everything one could learn by reading black-and-white books and watching lectures on a black-and-white television monitor; the case takes place at a time when physics, chemistry, and neuroscience have been completed. Then she is released from the room and finally sees colors.

for that then, on type-A necessitarian Russellian monism, she could do the relevant deduction—a verdict some will find counterintuitive.⁴⁵

The Appeal of Necessitarian Russellian Monism

It might appear ad hoc to invoke necessitarianism in response to Howell's modified exclusion argument. However, Russellian monism is motivated partly by its promise to accord phenomenality a distinctive role in physical causation. It seems unfair to fault the Russellian monist for invoking a doctrine that helps her make good on that promise. More broadly, whereas compatibilism appears more as a position to be adopted with the sole aim of blocking Howell's modified exclusion argument, necessitarian Russellian monism presents itself as a theory with distinctive positive appeal independent of the solution it offers to that argument. In this section we sketch, ever so briefly, some of the plausible sources of that appeal. In future work we plan to develop and assess more fully the considerations raised in preliminary form below.

First, one might argue that necessitarianism is a natural position for the Russellian monist to take. Arguably, insofar as causation and metaphysical necessity are seen as closely connected, the considerations about causation that motivate Russellian monism in the first place will naturally incline the Russellian monist towards the necessitarian variety in particular. And Russellian monists may allege a

⁴⁵ Even so, one might argue that doing the relevant deduction would still leave her ignorant of the nature of phenomenal redness in a crucial, relevant sense. She would thereby know that phenomenal redness is the property that characterizes seeing red, but she would not thereby know that fact with mastery. See Alter 2013, forthcoming-c.

pleasing elegance to a view that tightly matches each fine-grained dispositional profile with a unique (proto)phenomenal property, removing the arbitrariness of the connection between the two that worlds such as Howell's w1-w3 would illustrate.

There are other considerations the necessitarian Russellian monist might invoke to motivate her view. When we consider the macroscopic case—the phenomenal properties we experience as we go about ordinary conscious life—variation in phenomenal character seems to correspond with dispositional variation, if the two are described in a suitably fine-grained manner. The same type of pain will key different behavioral reactions depending as it comes in stronger or weaker forms: contrast gently touching a tack with sitting fully onto it with careless aplomb. The necessitarian Russellian monist might take such macroscopic correlation in phenomenal and dispositional variation to indicate that there is a similar correlation at the level of basic physical dispositions and their (proto)phenomenal grounds. After all, for Russellian monists the macroscopic interplay between phenomenal properties and dispositions is just the microscopic (proto)phenomenal/dispositional interplay writ large: the former kind of interplay is built of nothing but the latter kind. This arguably gives Russellian monists reason to take the macroscopic state of affairs as a guide to the microscopic. That in turn tends to support the necessitarian view that basic physical dispositions vary with (proto)phenomenal properties.

Consider also the relationship between phenomenal character and associated cognitive states such as belief. For example, as defenders of functionalist analyses stress, phenomenal colors can be identified (at least in part) by the beliefs they

dispose the subject to form, and different phenomenal colors dispose to correspondingly different beliefs.⁴⁶ This suggests that there is a close relationship between phenomenal colors and beliefs we form about them.⁴⁷ In light of that relationship, it is not so easy to conceive of an experience of phenomenal red, say, normally disposing one towards a belief that phenomenal blue is being experienced or of two different phenomenal colors disposing one towards the same phenomenal belief. More broadly, necessitarian Russellian monists can absorb all that is plausible about physicalist attempts to functionalize phenomenal properties, connecting different phenomenal properties to different causal profiles with necessity, without accepting the stronger claim that phenomenal properties can be reduced to functional or causal properties.

Further, the Russellian monist might argue that implausible consequences follow from allowing that (proto)phenomenal properties vary from world to world with respect to which microphysical dispositional properties those properties ground. The argument runs, in outline, as follows. Assume for *reductio* that such variation is possible, and consider a set of different (proto)phenomenal properties that are instantiated at the microscopic level. There would then seem to be nothing to prevent the members of this set from together constituting a given macroscopic

⁴⁶ See e.g. Shoemaker 1996.

⁴⁷ Some have felt that the relationship between phenomenal qualities, including phenomenal colors, and beliefs about them is so intimate that a phenomenal concept, and the belief built of it, incorporates the phenomenal quality experienced (Gertler 2001, Chalmers 2003-b). This is then taken to explain our dispositions to phenomenal beliefs and the accuracy of those beliefs. These theorists share with the functionalists the sense of the tight relation between a phenomenal color and the beliefs it tends to produce. Of course, to say that such relations are tight is not to deny that there are exceptions or that erroneous beliefs about one's own experiences can be produced under abnormal circumstances.

phenomenal property *M* such that in different instantiations *M* supports clashing macrophysical dispositions, even if all surrounding circumstances are held equal. There would in that case be possible worlds where, for example, pain sometimes grounds painful-stimulus-avoidance behavior but other times grounds painful-stimulus-seeking behavior, with everything else being equal. One might argue that such cases strain credulity—that there are no such possible worlds. This, the necessitarian might argue, provides a further reason for the Russellian monist to hold that any given (proto)phenomenal aspect necessitates a unique causal profile.⁴⁸

What about the reverse direction, necessitation from a given causal profile to a unique (proto)phenomenal property (as articulated by the additional claim displayed above, in the preceding subsection)? This might seem harder to motivate: the familiarity of the idea of multiple realization can tend to make it seem obvious that any dispositional property might have been grounded in distinct (proto)phenomenal properties.⁴⁹ However, when we consider multiple realization, we tend to think of macroscopic examples (e.g., a corkscrew can be realized by steel, aluminum, or any number of different materials). It is less clear that the idea applies at the most fundamental level of basic microphysical dispositions and their categorical grounds. Is it really so easy to imagine that varying the categorical grounding of some basic microphysical disposition would make no causal difference

⁴⁸ It is perhaps notable that Howell, when building his case against Russellian monism, does not describe a case of a single (proto)phenomenal character playing different physical dispositional roles within a world—such as a world where phenomenal redness plays the positive-charge role as well as the negative-charge role. If this is because he too suspects such a case would strain credulity, then he also might feel some of the intuitive pull of necessitarian Russellian monism that we highlight here.

⁴⁹ But see Strawson (MS).

whatsoever—that one and the same causal profile could be grounded in distinct (proto)phenomenal properties in different possible worlds?

Suppose that, in the actual world, R categorically grounds negative charge. Presumably, if R plays this grounding role, this is not a brute fact. Rather, presumably R plays this role partly because of R's intrinsic nature: something about R's nature makes it suitable for grounding negative charge. But if that is correct, then not just any property could play that particular grounding role: only a property with a suitable intrinsic nature could. It does not follow that only R has the requisite intrinsic nature. But neither is that claim obviously false. At least, we should not dismiss the claim based only on considerations related to macroscopic multiple realization. More argument would be needed to undermine the necessitarian Russellian monist's doctrine that a given physical disposition can of necessity have but a single (proto)phenomenal ground.

Does Russellian monism transcend the dualist/physicalist divide?

Like Howell, Kind challenges the idea that Russellian monism has certain advantages over traditional views. But her argument is different. She targets the claim that Russellian monism “transcend[s] the dualist/physicalist divide,”⁵⁰ arguing that “this is simply an illusion.”⁵¹ What exactly it means to transcend[s] the dualist/physicalist divide is not entirely clear, as we will shortly explain. But the basic idea is that Russellian monism resolves the main issues about which dualists and physicalist disagree. In this section, we will discuss Kind's argument.

50 Kind 2015, p. 417.

51 *Loc. cit.*

Kind's argument

Kind distinguishes between *phenomenal* Russellian monism and *physical* Russellian monism, or *phenomenal monism* and *physical monism* for short. These two views differ over the nature of the intrinsic properties that categorically ground basic dispositional properties. Following Barbara Gail Montero, she calls those intrinsic properties *inscrutables*.⁵² Phenomenal monism construes inscrutables as phenomenal properties, and physical monism construes them as physical properties. She notes that, for the purposes of her main argument, what ultimately matters is that on physical monism the inscrutables are nonphenomenal.⁵³ So, phenomenal and physical monism correspond at least roughly to what we here call panpsychist and panprotopsyichist Russellian monism.

Kind writes,

[T]here are really only two possibilities for the nature of inscrutables: they must be either phenomenal or physical. That means that a Russellian monist must endorse either phenomenal monism [or] physical monism. To my mind, these two views are as different from one another as traditional dualism and traditional physicalism are. Any attempt to adjudicate between them will have to settle the question as to whether consciousness is a fundamental part

52 Montero 2015.

53 Kind 2015, p. 415.

of nature—the same question that needs to be adjudicated in the debate between dualism and physicalism.⁵⁴

Call the question as to whether consciousness is a fundamental part of nature *the fundamentality question*. Kind's argument can then be summarized as follows:

1. Russellian monism transcends the dualist/physicalist divide only if it settles the fundamentality question.
2. Russellian monism is neutral between phenomenal monism and physical monism.
3. If Russellian monism is neutral between phenomenal monism and physical monism, then Russellian monism does not settle the fundamentality question.

Therefore, Russellian monism does not transcend the dualist/physicalist divide.

What Kind's argument does and does not show

Note that Kind does not conclude that no specific version of Russellian monism transcends the dualist/physicalist divide. Her conclusion is rather that Russellian monism as such, the generic form, fails in that regard. Bearing that in mind, let us assess her argument.

⁵⁴ *Loc. cit.*, p. 418. Kind argues in detail for her claim that “the inscrutables...must be either phenomenal or physical” But that claim does not seem to be required by her main argument: her argument would not be weakened by the assumption that there are not just two but rather three or more options for what the inscrutables are.

Premises 2 and 3 are plausible, and we grant them. The argument is valid. That leaves premise 1. This premise, along with the conclusion, could be understood in at least two different ways, depending on what it means to transcend the dualist/physicalist divide. We will discuss them in turn.

Perhaps what it means to transcend the dualist/physicalist divide is to settle the fundamentality question. Call this *the pleonastic interpretation*. On the pleonastic interpretation, premise 1 is pleonastic and the argument's conclusion seems unobjectionable. Unobjectionable but not insignificant: if anyone believes that (generic) Russellian monism settles whether consciousness is a fundamental part of nature, then Kind's argument (on the pleonastic understanding) should convince him that he is mistaken. Note, however, that settling the fundamentality question is not among the advantages that (generic) Russellian monism is typically presented as having. On the contrary, Russellian monists argue among themselves as to the best form for the inscrutables to take. So, on the pleonastic interpretation, Kind's argument does not show that Russellian monism lacks any of its advertised advantages.

On an alternative interpretation, to transcend the dualist/physicalist divide would be to move the discussion forward: to achieve relevant things that have eluded traditional views. Kind's discussion of her argument's implications could be read as supporting this interpretation. For example, she suggests that her argument shows that Russellian monism is over-hyped: that "the excitement about Russellian monism is misplaced."⁵⁵ But on this alternative interpretation, premise 1

55 *Loc. cit.*, p. 402.

("Russellian monism transcends the dualist/physicalist divide only if it settles the fundamentality question") is questionable. Russellian monism is touted as providing precisely what traditional views have failed to provide: a way to integrate consciousness deeply into the natural, causal order without disregarding or distorting consciousness' distinctive features. If the view achieves that result, it does so by how it applies the dispositional/categorical distinction to the mind-body problem: (proto)phenomenal properties are said to figure into physical causation by categorically grounding basic physical dispositional properties. Applying the dispositional/categorical distinction in this way does not require taking a stand on whether the categorical grounding properties are phenomenal or nonphenomenal. Indeed, panpsychist and panprotopsychist Russellian monists, who differ over precisely that issue, lay equal claim to the desired result. Thus, the advance that Russellian monism promises seems not to depend on settling the fundamentality question, contra Kind's premise 1.

Kind allows that Russellian monism might make "*some progress*."⁵⁶ She concedes that phenomenal monism might improve upon traditional dualism and that physical monism might improve upon traditional materialism. Yet, she suggests, the fact that Russellian monism does not settle the fundamentality question implies that, with respect to the debate between dualism and physicalism, Russellian monism leaves us "essentially back where we started."⁵⁷ But that does not follow. Where we started was with traditional dualism having no plausible way to causally integrate consciousness into nature (no way that evades causal arguments such as

56 Kind 2015, p. 420. Italics in original.

57 *Loc. cit.*, p. 420.

the exclusion argument) and traditional materialism having no plausible way to answer the anti-materialist arguments (no response that avoids disregarding or distorting consciousness's distinctive features). By construing (proto)phenomenal properties as the categorical bases of physical dispositional properties, Russellian monism provides a framework for developing a view that has neither of those shortcomings: a view that adequately integrates consciousness into nature without denying or distorting consciousness' distinctive features. In that sense, Russellian monism takes us to a different place. The generic form of this view does not take us to the final destination, if that means settling the fundamentality question. But neither does it purport to do so.

Conclusion

In the late Twentieth Century, it would have been fair to say that panpsychism was not taken seriously by most analytic philosophers of mind. *Reductio ad panpsychism* would widely have passed as a valid form of argument: a special case of *reductio ad absurdum*. Recent interest in panpsychist Russellian monism has changed all that. We believe this is a change for the better, especially given the longstanding interest in panpsychism from a global, historical perspective.⁵⁸ Old questions are being recast in new ways, and there appears to be hope for resolving a lamented impasse between materialism and dualism.

It is not all sweetness and light for those with panpsychist sympathies. While leading versions of Russellian monism imply panpsychism, there is also a

58 Chalmers 1996, Seager 1995, Skrbina 2005, Strawson 2006a.

panprotopsychist version that seems no less viable.⁵⁹ And Russellian monism faces serious objections.⁶⁰ We have tried to address two of these, one developed by Howell and one by Kind. We have argued that neither is decisive. In our view, panpsychist Russellian monism remains a contender position: one that is well worth investigating and developing further.⁶¹

References

Alter, T. Forthcoming-a. The structure and dynamics argument against materialism.

Nous.

Alter, T. Forthcoming-b. Are there brute facts about consciousness? In C. Mekios and E. Vintiadis (eds.) *Brute Facts*. New York: Oxford University Press.

Alter, T. Forthcoming-c. The concept-mastery explanation of Mary's new knowledge. In S. Coleman (ed.) *The Knowledge Argument*, edited by Sam Coleman. Cambridge: Cambridge University Press.

Alter, T. 2013. Social externalism and the knowledge argument. *Mind* 122: 481-496.

59 Pace Strawson 2006a, 2006b and Goff 2015. For a defense of panprotopsychism against Strawson's and Goff's arguments, see Alter forthcoming-b.

60 In addition to Kind 1995 and Howell 2015 see, for example, Chalmers 2013, forthcoming, Ebbers, n.d., Ney 2015, Pautz n.d., Seager 1995, and Stoljar 2015.

61 For helpful comments and discussions, we thank Robert J. Howell and Amy Kind.

Alter, T. and Howell, R. J. 2012. *Consciousness and the Mind-Body Problem: A Reader*. New York: Oxford University Press.

Alter, T., and Y. Nagasawa. 2012. What is Russellian monism? *Journal of Consciousness Studies* 19: 67-95.

Armstrong, D. 1968. *A Materialist Theory of Mind*. London: Routledge and Kegan Paul.

Carruth, A. Forthcoming. Powerful qualities, zombies, and inconceivability. *Philosophical Quarterly*.

Bennett, K. 2003. Why the exclusion problem seems intractable and how, just maybe, to tract it. *Nous* 37: 471-97.

Chalmers, D. J. Forthcoming. The combination problem for panpsychism. G. Brüntrop and L. Jaskolla (eds.) *Panpsychism*. New York: Oxford University Press.

Chalmers, D. J. 2013. Panpsychism and panprotopsychism. Amherst Lecture in Philosophy: <http://www.amherstlecture.org/index.html>. Also in T. Alter and Y. Nagasawa (eds.) *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press, 2015: 246-76.

Chalmers, D. J. 2010. *The Character of Consciousness*. New York: Oxford University Press.

Chalmers, D. J. 2004. Phenomenal concepts and the knowledge argument. In P. Ludlow, D. Stoljar, and Y. Nagasawa (eds.) *There's Something about Mary: Essays on Phenomenal Consciousness and Frank Jackson's Knowledge Argument*. Cambridge: MIT Press: 269-98.

Chalmers, D. J. 2003-a. Consciousness and its place in nature. In S. Stich and T. Warfield (eds.) *Guide to the Philosophy of Mind*. Cambridge: Blackwell. Reprinted in D. J. Chalmers (ed.) *Philosophy of Mind: Classical and Contemporary Readings*. New York: Oxford University Press, 2002: 247-72.

Chalmers, D. J. 2003-b The Content and epistemology of phenomenal belief. In Q. Smith and A. Jokic (eds.) *Consciousness: New Philosophical Perspectives* New York: Oxford University Press.

Chalmers, D. J. 2002. Does Conceivability Entail Possibility? In T. Gendler and J. Hawthorne (eds.) *Conceivability and Possibility*. New York: Oxford University Press: 145-200.

Chalmers, D. J. 1997. Moving forward on the problem of consciousness. *Journal of Consciousness Studies* 4: 3-46.

Chalmers, D. J. 1996. *The Conscious Mind: In Search of a Fundamental Theory*. New York: Oxford University Press.

Coleman, S. 2016. Panpsychism and Neutral Monism: How to Make Up One's Mind. In G. Bruntrup and L. Jaskolla (eds.) *Panpsychism: Contemporary Perspectives*. New York: Oxford University Press: 249-282.

Coleman, S. 2015. Neuro-Cosmology. In P. Coates and S. Coleman (eds.) *Phenomenal Qualities: Sense, Perception, and Consciousness*. Oxford: Oxford University Press: 66-102.

Ebbers M. A priori entailment and the reference-fixing problem. University of Memphis m.s.

Ehring, D. 2011. *Tropes: Properties, Objects, and Mental Causation*. Oxford: Oxford University Press.

Gertler, B. 2001. Introspecting phenomenal states. *Philosophy and Phenomenological Research* 63: 305-328.

Goff, P. 2015. Against constitutive Russellian monism. In T. Alter and Y. Nagasawa (eds.) *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press, 2015: 370-400.

Hassel Morch, H. 2014. Panpsychism and Causation: A New Argument and a Solution to the Combination Problem. Dissertation, Oslo

Howell, R. J. 2015. The Russellian monist's problems with mental causation. *Philosophical Quarterly* 65: 22-39.

Jackson, F. 1986. What Mary didn't know. *Journal of Philosophy* 83: 291-95.

Jackson, F. 1982. Epiphenomenal qualia. *Philosophical Quarterly* 32: 127-36.

Kim, J. 2000. *Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation*. Cambridge: MIT Press.

Kim, J. 1989. The myth of non-reductive materialism. *Proceedings and Addresses of the American Philosophical Association* 63: 31-47.

Kind, A. 2015. Pessimism about Russellian monism. In T. Alter and Y. Nagasawa (eds.) *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press, 2015: 401-21.

Lewis, D. 1972. Psychophysical and theoretical identifications. *Australasian Journal of Philosophy* 50: 249-58.

List, C. and Stoljar, D. Forthcoming. Does the exclusion argument put any pressure on dualism? *Australasian Journal of Philosophy*.

McClelland, T. 2013. The neo-Russellian ignorance hypothesis: A hybrid account of phenomenal consciousness. *Journal of Consciousness Studies*, 20 (3-4):125-151.

McKittrick, J. 2003. The bare metaphysical possibility of bare dispositions. *Philosophy and Phenomenological Research* 66: 349-69.

Montero, B. G. 2015. Russellian physicalism. In T. Alter and Y. Nagasawa (eds.) *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press: 209-223.

Montero, B. G. 2007. Physicalism could be true even if Mary learns something new. *The Philosophical Quarterly* 57: 176-89.

Ney, A. 2015. A physicalist critique of Russellian monism. In T. Alter and Y. Nagasawa (eds.) *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press: 346-69.

Pautz, A. A dilemma for Russellian monists about consciousness. Brown University ms.

Pereboom, D. 2011. *Consciousness and the Prospects of Physicalism*. New York: Oxford University Press.

Seager, W. E. 1995. Consciousness, information, and panpsychism. *Journal of Consciousness Studies* 2: 272-88.

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

Shoemaker, S. 1996. *The first-person perspective and other essays*. Cambridge: Cambridge University Press.

Skrbina, D. 2005. *Panpsychism in the West*. Cambridge: MIT Press.

Stoljar, D. 2015. Russellian monism or Nagelian monism? In T. Alter and Y. Nagasawa (eds.) *Consciousness in the Physical World: Perspectives on Russellian Monism*. New York: Oxford University Press: 324-345.

Stoljar, D. 2005. Physicalism and phenomenal concepts. *Mind and Language* 20: 469-94.

Stoljar, D. 2001. Two conceptions of the physical. *Philosophy and Phenomenological Research* 62: 253–81.

Strawson, G. MS. Structure & quality, nature & behaviour.

Strawson, G. 2006a. Realistic monism: why physicalism entails panpsychism. In A. Freedman (ed.) *Consciousness and its Place in Nature*. Exeter: Imprint Academic: 3-31.

Strawson, G. 2006b. Panpsychism? Reply to commentators with a celebration of Descartes. In A. Freedman (ed.) *Consciousness and its Place in Nature*. Exeter: Imprint Academic: 184-280.

Wilson, J. M. 2011. Non-reductive realization and the powers-based subset strategy. *The Monist (issue on powers)* 94: 121–54.

Yablo, S. 1992. Mental causation. *Philosophical Review* 101: 245–80.