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# *A Representationalist Argument Against Contemporary Panpsychism*

**Abstract:** *Contemporary panpsychists, such as Lockwood (1991; 1993), Rosenberg (1999; 2004), and Maxwell (2002), argue that not only is the intrinsic nature of all physical matter phenomenal, but that this is so because the physical depends on the phenomenal. Most of us, including contemporary panpsychists, also acknowledge that our phenomenal experiences are, in some sense, representational. The aim of this paper is to use this well-conceded point that our phenomenal experiences are representational to cast doubt on contemporary panpsychism.*

Consider (i) the humility thesis that we only know the causal natures of the external world, and (ii) the thesis we are directly acquainted with the intrinsic natures of our phenomenal experiences. The conjunction of these two theses has been used, for instance by Russell (1927/1954; 1956), Eddington (1928), and Strawson (2003; 2006), to argue for the view that the intrinsic nature of matter is phenomenal.

This view forms the backbone of a certain type of panpsychism. Panpsychism, understood literally, and rather generally, is the view that every (concrete) thing that exists is (phenomenally) conscious. The type of panpsychism in question, however, adds that not only is every concrete particular phenomenally conscious, but this is so because the intrinsic nature of *all* matter is phenomenal.

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While a belief in (i) and (ii), as well as a growing frustration with standard physicalist accounts of phenomenal conscious, is making panpsychism of this form increasingly popular, the view itself isn't exactly new. Versions of it have been endorsed by Leibniz (1714/1989), Whitehead (1933), Sprigge (1983), amongst others.<sup>1</sup> Nonetheless, some contemporary panpsychists, such as Lockwood (1991; 1993), Rosenberg (1999; 2004), and Maxwell (2002), have taken it upon themselves to flesh out a more detailed story of how exactly the intrinsic nature of the physical turns out to be phenomenal. Moreover, the story they tell involves the physical *depending* on the phenomenal.

For instance, both Rosenberg (1999; 2004) and Maxwell (2002) claim that phenomenal properties occupy the causal roles we identify as physical. In Maxwell's case, the idea, roughly, is that physical terms are topic-neutral designators that refer to causal roles as opposed to the occupants of these roles. Moreover, the occupants of these roles, although we haven't made this empirical discovery yet, are really phenomenal properties. As a speculation, he considers it being the case that what occupies the causal role of C-fibre firing is the raw phenomenal property of pain.

Now, most of us these days, including contemporary panpsychists, acknowledge that our phenomenal experiences are, in some sense, representational. That is, when we introspect our phenomenal experiences, it seems like there are certain properties represented in these experiences. For instance, when I introspect my visual experience of a red apple, it seems like I represent the apple (or perhaps mistakenly my experience itself) as having the property of *being red*, *being apple-shaped*, *being solid*, etc.

The aim of this paper is to use this well-conceded point that our phenomenal experiences are representational to cast doubt on contemporary panpsychism. In particular, I will argue that in so far as we grant that our phenomenal content is identical to or supervenient on our representational content, we have reason to forgo the contemporary panpsychist claim that the physical depends on the phenomenal.

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[1] Certain versions of neutral monism, such as those espoused by Spinoza (1677/1985) and Russell (1927/1954; 1956), also fall under panpsychism as I define it here. Neutral monism, technically, is the view that the fundamental entities in our world are really neutral between mind and matter. If we presuppose that these fundamental entities are phenomenal, even though they outstrip the mental, then we have a version of panpsychism. For example, Russell (1927/1954, p. 297) claimed that the fundamental entities are sensations, so his view arguably entails panpsychism. Perhaps why such views weren't, historically, classified as versions of panpsychism was because panpsychism, at that point, was taken to be the view that everything is *mental* (as opposed to the view that everything exhibits some level of phenomenal consciousness).

(Weak representationalists who grant that only some phenomenal content is representational, as we shall see, too should find the argument compelling, but to what extent depends on how much phenomenology they allow is or isn't representational.) I shall proceed by making some preliminary remarks in §I and by explaining the argument whilst considering some objections to it in §II.

## I. Preliminaries

Let contemporary panpsychism be the view that the physical properties of our world are (ultimately) grounded by the phenomenal properties of our world. 'Grounding' these days is a contentious term, which is sometimes taken to mean a non-causal form of metaphysical dependence. Nevertheless, for the purpose of this paper, we can understand the term as being neutral between causal and non-causal forms of metaphysical dependence.<sup>2</sup> So if it turns out that the phenomenal properties are properties that occupy the causal roles we identify as physical, this is to be regarded as a case of the phenomenal grounding the physical.<sup>3</sup>

A view related to contemporary panpsychism is protopanpsychism or protophenomenalism: the view that the intrinsic nature that (ultimately) grounds the physical is protophenomenal. That is, the intrinsic nature is constituted by properties that aren't themselves phenomenal but which, when jointly instantiated, instantiate phenomenal consciousness. This paper will concern an argument strictly against panpsychism; not protophenomenalism.<sup>4</sup>

Representational theories of consciousness are also now legion. My argument, however, isn't intended to work on all conceptions of representationalism. For example, it won't work if one assumes non-reductive representationalism: the view that the representational content of our experiences is identical to or supervenient on our phenomenal content — where this phenomenal content itself is regarded as

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- [2] To clarify, the metaphysical dependence relations I have in mind are not the kinds of relations that hold due to *a priori* or analytic entailment. So the relation could be causal. But it could also be some yet to be discovered metaphysical dependence relation that is asymmetric, irreflexive, and transitive.
- [3] I would prefer to just talk about causal dependence as opposed to the more vague notion of grounding. Some panpsychists, however, will rest uneasy with the notion that the determinate-determinable relation that obtains between the phenomenal and physical is the same as that which holds between causal *qua* physical properties. For example, according to Rosenberg (2004, pp. 236–40), part of the need to suppose that there is an intrinsic phenomenal nature to matter is that there is something independent of the physical (and circular) causal nexus that can ultimately occupy the causal *qua* physical roles.
- [4] See Majeed (2013, §5) for an argument against protopanpsychism.

somehow being fundamental.<sup>5</sup> Rather, the argument is intended to work only if one assumes what I take to be the most popular version of representationalism, i.e. reductive representationalism: the view that our phenomenal content is identical to or supervenient on the representational content of our experiences.<sup>6</sup>

According to this version of representationalism ('representationalism' from here onwards), the phenomenal properties we can introspect aren't the intrinsic properties of our experiences, such as raw feels or non-representational 'mental paint', as Block (1996) puts it. Instead the view, roughly, is that the properties we can introspect are the properties we represent in those experiences; where these properties are the sorts of physical properties that are typically instantiated in our environment.<sup>7</sup> Harking back to my visual experience of a red apple, according to representationalists, the phenomenal properties I can introspect are physical properties like *being red*, *being apple-shaped*, *being solid*, etc.

Some representationalists suppose that this is all that we can know introspectively. Others, however, also appear to grant that we can introspectively know something about our experiences themselves. But instead of knowledge of any intrinsic properties of the experiences *per se*, what they grant we gain is certain propositional knowledge concerning these experience. As Tye claims:

Introspective awareness of the phenomenal character of an experience, I maintain, is awareness that — awareness that an experience with a certain phenomenal character is present. (Tye, 2002, pp. 144–5)

Previously, we saw that representationalists grant that we can introspect certain properties; specifically the properties we represent in our experiences. Here, the additional claim being made is that we can also have propositional knowledge concerning experiences themselves; specifically, concerning which properties we are representing in those experiences. With regards to the apple example, what I am aware of

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[5] For instance, see Searle (1983), Horgan and Tienson (2002), and Siewart (1998). Crane (2003) and Levine (2003) also appear sympathetic to this view.

[6] Proponents of this view include Harman (1990), Tye (1995), Dretske (1995), and Lycan (1996), amongst others.

[7] In veridical experiences, we represent properties that are actually instantiated in our environment, whereas in non-veridical experiences, we still represent the types of properties that are usually instantiated in our environment. Some representationalists do think we represent non-environmental features like sense-data or non-existent properties. Nonetheless, this is a complication we can avoid for the purposes of this paper.

introspectively about my experience is *that* my experience is of an apple, which is red, apple-shaped, solid, etc.<sup>8,9</sup>

For the sake of the intended argument, we can harmlessly spell out this propositional knowledge in terms of property talk. First, however, note the distinction between first-order and higher-order properties. Following Swoyer and Francesco (2011), we can note that a first-order property is a property that can only be instantiated by individuals, whereas a higher-order property is a property that can (also) be instantiated by properties; be they first-order properties or, in some instances, other higher-order properties themselves. *Being red*, for example, is a first-order property because while individuals, like an apple, can possess this property, other properties themselves can't possess this property. In contrast, *being a colour* is a higher-order property because some first-order properties, like the property *being red*, can possess it.

A lot of properties we commit to and tend to think of as being both theoretically useful and ontologically harmless, such as dispositional properties, turn out to be higher-order properties according to the above definition.<sup>10</sup> So I will put scepticism about their existence aside. The point to stress for our purposes is that in so far as we commit to higher-order properties, representationalism entails that experiences have a certain type of higher-order property. In particular, it entails that each given experience with a phenomenal character has a higher-order property of having certain representational content; i.e. of representing so and so properties. Let me explain.

Some representationalists, as noted earlier, claim that introspective awareness of our phenomenal character is awareness that an experience with a certain phenomenal character is present; i.e. that the experience represents so and so properties. For example, my introspective awareness of the phenomenal character of seeing a red apple is an

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[8] Harmen (1990, p. 38) also makes this point.

[9] Since the introspective knowledge here is propositional, one might argue that this knowledge isn't something to which we are directly acquainted. Nevertheless, representationalists, like Tye (2002, p. 146), take the relevant propositional knowledge to be akin to knowledge of our thought contents, which he takes to be direct. In addition, that the propositional knowledge is direct is also, arguably, supported by introspective evidence itself. For example, I don't need to make any inferences to know *that* my experience represents the apple as being red. This appears to be something I can know immediately by introspecting.

[10] A dispositional property is, arguably, the property of *having* certain (often structural) properties that make their bearers behave in certain ways under certain conditions. One could, then, understand dispositional properties as being instantiated by such (structural) properties. I will say more about this later.

awareness *that* my experience is of an apple, which is red, apple-shaped, solid, etc.

Now, *that* I represent these properties appears to be a feature of my experience. This, however, needs qualification. That I represent properties like *being red*, *being apple-shaped*, and *being solid* in particular must be a feature of a specific experiential state-cum-property (or a specific set of such properties) that I possess. Otherwise, we would expect all my experiences to represent these properties, which I assure you, they don't. Therefore, that I represent so-and-so properties are, arguably, properties instantiated by specific experiential properties.

There are two lessons to draw from this. One, given our definition of higher-order properties, this entails that my experiential properties instantiate certain higher-order properties: e.g. the property of *my experience representing an apple as being red, being apple-shaped, and being solid*. Two, the previous claim that we can introspect which properties we represent in our experiences, then, can be regarded as being synonymous with the claim that we can introspect certain higher-order properties of our experiences.

These lessons in turn warrant two disclaimers. First, for the sake of brevity, I shall speak of these higher-order properties as being properties of experiences. Nonetheless, note that it is the experiential properties, as opposed to the experiences themselves (at least not if they are individuals) that instantiate the higher-order properties. These higher-order properties can legitimately be regarded as properties of our experiences, but only transitively in the sense that they are possessed by experiential properties, which are themselves possessed by experiences.

Second, the admission that we can introspect certain higher-order properties should not be taken to contradict the denial that we can introspect any intrinsic properties of our experiences. We still take representationalists to deny that we can introspect any intrinsic-cum-first-order experiential properties, such as raw feels. However, we take their claim concerning propositional knowledge to entail that we can introspect certain higher-order properties, which are instantiated by our first-order experiential properties — whatever they themselves may be like. With regards to our example, what I can introspect isn't a certain raw feel but rather the higher-order property of *my experience representing an apple as being red, being apple-shaped, and being solid*.<sup>11</sup>

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[11] Representing higher-order properties isn't to be confused with higher-order theories of consciousness, such as those espoused by Rosenthal (1997) and Carruthers (2000), which

Once all this is made clear, we see that the representational content of our experiences include both first-order properties (i.e. the properties represented) and higher-order representational properties (i.e. the properties of our experiences representing these properties). Nonetheless, what's crucial to note is that only the higher-order properties are of relevance when accounting for the phenomenal nature that grounds the physical. The reason is this. The physical properties we represent are first-order causal-cum-relational properties. These properties, while they play a role in our phenomenology, aren't the ones that ground the physical. Instead, they are precisely the kinds of physical properties that contemporary panpsychists insist are grounded by the phenomenal. Contrast these with the higher-order representational properties. These are the only properties *of experience* that representationalists concede are introspected. Therefore, if you are a representationalist who wants to buy into contemporary panpsychism, especially based on considerations (i) and (ii), it must be these higher-order properties that you think ground, or at least partially ground, the physical causal properties.<sup>12</sup>

Finally, a word on terminology: the phenomenal properties immediately available to us via introspection are what I shall call 'o-phenomenal properties' (the 'us' here refers to human beings in the actual world). These properties fall within the category of what Goff (2009, p. 290) calls 'o-experience': 'the conscious experience that corresponds to organisms, the kind of conscious experience that in our own case we are immediately acquainted with, that we want a theory of consciousness to explain.'

## II. The Argument

The representationalist argument against contemporary panpsychism runs as follows:

- (1) O-phenomenal properties are grounded by higher-order representational properties.
- (2) Higher-order properties can't ground first-order properties.
- (3) Physical properties are first-order properties.

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take it that to be in a conscious state *C* requires a higher-order state that represents *C* itself. Our representationalists can remain neutral as to whether such theories are true.

[12] Contemporary panpsychism allows for the possibility that the phenomenal properties in conjunction with certain psychophysical laws ground the physical. In that case, the phenomenal would only partially ground the physical.

- (4) Therefore, o-phenomenal properties can't ground physical properties.

The motivation for these premises can be evaluated while considering objections to them. Let us begin with the less contentious premises and work our way to the contentious ones.

*Premise (3):* A friend of panpsychism could argue that the physical properties are *not* first-order properties. The physical properties of relevance, i.e. those that the o-phenomenal properties in particular (supposedly) ground, are the physical properties of the brain. It might then be argued that brain states, such as the property *being neural state N*, are higher-order properties. And, *ergo*, there doesn't seem to be any problem with higher-order representational properties grounding these higher-order brain states.

Certain brain states, such as *being neural state N*, are, quite plausibly, higher-order properties. But making this concession won't assist the panpsychist. This is because making it commits us to two types of brain states: the higher-order properties, such as *being neural state N*, and the first-order properties, such as certain micro-level structural properties, which are responsible for instantiating the higher-order properties in question. So it will turn out that these first-order physical properties will still cause grief for panpsychist representationalists.<sup>13</sup>

*Premise (2):* Maybe higher-order properties *can* ground first-order properties. Not so. All the causal powers of an entity must reside in their first-order properties and not in any higher-order property that consists in having such first-order properties. Sugar, for example, possesses the causal power of being soluble not because it possesses the higher-order dispositional property of being soluble *per se*. Rather, it is soluble precisely because it has certain micro-level structural properties, i.e. certain first-order properties, which enables it to dissolve in water.

This, of course, isn't to deny that higher-order properties can play a role in causal explanations. Presumably the fact that sugar has the higher-order property of being soluble is a perfectly good explanation of why it dissolves in water. Following Jackson and Pettit (1990), we can note that it is a good explanation because the realization of this higher-order property guarantees that there are first-order properties that are causally efficacious. Nonetheless, we shouldn't confuse

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[13] Also note that even if the physical properties of our brain were shown to be solely higher-order properties, as we shall see in response to (2), since higher-order properties are causally dormant, they can't be grounded by the higher-order representational-cum-phenomenal properties.



explanatory-cum-causal relevance for causal efficacy. What causally determine sugar's solubility are the first-order structural properties.<sup>14</sup>

Might things look different if we focus on the higher-order properties in question? There is no reason, *prima facie*, why properties like *representing an apple as being red, being apple-shaped, being solid, etc.* should be any different to other higher-order properties when it comes to causal efficacy or lack thereof. Nevertheless, one thing that might change this is if these representational higher-order properties turn out to be fundamental.<sup>15</sup> If the representational properties are fundamental, then their apparent causal efficacy (were there to be such an appearance) won't be traceable to any non-fundamental properties they supervene on, as a mark of fundamentality is that such properties don't supervene on non-fundamental properties.

That said, two considerations prevent this way of rejecting premise (2). First, taking the representational higher-order properties as fundamental is deeply unmotivated. They aren't fundamental on standard representationalist accounts, and there doesn't appear to be any good reason to suggest that they are fundamental either.<sup>16</sup> Second, there is also good reason to think that they aren't fundamental. Higher-order representational properties, such as *representing an apple as being red, being apple-shaped, being solid, etc.* appear, in some sense, dependent on the represented properties, like *being red, being apple-shaped, and being solid*. It would be conceptually incoherent, however, for fundamental properties to be dependent, in any fashion, on such non-fundamental properties. So this would suggest that the representational higher-order properties aren't fundamental.

*Premise (1):* Perhaps the o-phenomenal properties, contrary to strong representationalism, are *not* grounded by higher-order representational properties. There are several sets of plausible scenarios where (1) could be false. We can divide them into ones that will help the panpsychist and ones that won't. As a rough flavour, here are two which are plausible but that obviously fall into the latter camp:

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[14] It is important not to confuse higher-order properties (properties that can be possessed by other properties) with higher-level properties (properties that occur at a relatively higher level of a given domain than with respect to those that occur at a lower level of that same domain). Higher-level properties might prove to be causally efficacious even if higher-order properties aren't. See Jackson (1998).

[15] I thank an anonymous referee for this suggestion.

[16] It might be *more* plausible to suppose that the representational properties are fundamental on the non-reductionist representationalist picture if you also suppose that they are identical to phenomenal properties, which are fundamental. Nevertheless, as previously mentioned, we are flagging this option for the purposes of this paper.

- (i) The o-phenomenal properties are identical to higher-order representational properties.
- (ii) The o-phenomenal properties are grounded by first-order representational properties.

Scenario (i) won't help given that it makes the argument go through: since the phenomenal properties are identical to higher-order representational properties, these higher-order properties still can't, arguably, ground the first-order physical properties.

Scenario (ii), if true, would undermine the argument: if the representational properties are indeed first-order properties, there is no reason — at least no reason stated in this paper — why they can't ground the first-order physical properties. What's more, this option is *prima facie* plausible. Perhaps there are first-order representational states, like informational states, and it is these states that ground the o-phenomenal properties.<sup>17</sup> The trouble here is that we end up endorsing protopanpsychism, as opposed to panpsychism, because the intrinsic nature that grounds the physical ultimately turns out to be protophenomenal. Informational states, for example, are rampant but phenomenal states aren't. Therefore, the instantiation of the former doesn't guarantee the instantiation of the latter.<sup>18</sup>

As far as I can tell, there are three scenarios, which are both plausible and can aid the panpsychist in denying (1). The first two are somewhat similar, and are as follows:

- (iii) The o-phenomenal properties are representational first-order properties.
- (iv) The o-phenomenal properties are *non*-representational first-order properties.

If the o-phenomenal properties are first-order properties (be they representational or not), this would give us a genuinely panpsychist solution to the grounding problem. The cause for strife here is that both options falter in light of introspective evidence.

A clarification. O-phenomenal properties, by their very nature, are essentially properties immediately available to us via introspection. So it can't be the case that we introspect and are still ignorant of their nature. The trouble once we grant this is that the properties we are

[17] For more on these information states, see Chalmers (1996) and Rosenberg (2004).

[18] There is also reason to suggest that informational states can't be phenomenal on Rosenberg's picture. According to Rosenberg, it is an essential feature of phenomenal states that they are intrinsic *tout court*. Informational states, in contrast, are arguably only intrinsic to a given system; i.e. their identity conditions are given entirely by their relations to other entities within some system to which they belong. See Rosenberg (2004, p. 237).

immediately acquainted with *introspectively* are both higher-order and representational properties.

*Contra* (iii): the properties directly available to me when I introspect, say my experience of a red apple, are higher-order properties like the property of (*my experience*) *representing an apple as being red, being apple-shaped, and being solid*. We do perceive first-order properties, like the actual physical properties *being red, being solid*, etc. Nevertheless, these, as we noted earlier, are the ones that are (supposedly) grounded by the phenomenal, not the ones doing the grounding themselves.

*Contra* (iv): the properties directly available to us are also arguably representational. Almost no one denies that our phenomenal experiences are representational. So we needn't flog that horse. Philosophers do, however, deny that all of our phenomenal content is representational. Some argue that while most of our sensory experiences are representational, some experiences, such as our experiences of pains, orgasms, phosphenes, synaesthesia, aren't representational.<sup>19</sup> One might also take a different approach and argue that while all phenomenal experiences have a representational element, their phenomenal character isn't exhausted by their representational content. Both of these options are available to the panpsychist as a way of denying (1).

One problem with the first approach is that the counter-examples to representationalism have been hotly disputed elsewhere.<sup>20</sup> So there is enough reason to be sceptical that there are phenomenal experiences that aren't representational. But even if we concede the counter-examples, the problem for the panpsychist is that introspective evidence suggests that the bulk of our phenomenal experiences are representational and not just non-representational mental paint. Therefore, the phenomenal properties that could turn out to ground physical properties would be very sparse; way too sparse to ensure that the intrinsic nature of all matter is phenomenal.<sup>21</sup>

A way out would be to take the second approach. Say all phenomenal experiences have a non-representational element. This element could be constituted by first-order properties, and so it could be that these non-representational properties ground the physical properties.

[19] For example, see Peacock (1983), Block (1996), and Rosenberg (2004).

[20] For instance, see Tye (2000) and Alter (2006).

[21] In addition, it would be extremely odd if some phenomenal properties, like those concerning pains and orgasms, were the only phenomenal properties capable of grounding the physical.

The trouble once again is that introspection puts a damper on this. It is arguably false, if not unclear, that we can introspect phenomenal aspects of our experiences that outstrip the representational. (Non-representationalists typically point to the aforementioned counterexamples to support their claim, but that won't work in this context.) Moreover, for panpsychism to turn out true, all our experiences have to have a non-representational element. It is highly unlikely that introspective evidence supports this claim. Hence, unless we are at pains of gross generalization, (iv) isn't a viable option.

Two caveats. First, since introspective evidence plays a crucial role in resisting (iii) and (iv), an obvious way out would be to refrain from giving (such) credence to introspective evidence. But this isn't a viable option for the panpsychist given what motivates panpsychism in the first place. Panpsychists argue that one of the central reasons why standard physicalist approaches to naturalize the mind are unsuccessful is that they end up, inadvertently, denying that our experiences have a phenomenal character. Moreover, that the advantage of panpsychist attempts to naturalize the mind is that they respect introspective evidence and acknowledge that there are phenomenal properties which we are immediately acquainted with in experience. Therefore, while one might endorse frugality about introspective evidence as a virtuous epistemic principle, panpsychists aren't in a position to adhere to such a principle.

Second, there might also be a third category of properties that prove to be relevant in terms of arguing for (iii). These concern what Searle (1983) calls 'intentional modes': the relations that relate subjects to the representational contents.<sup>22</sup> These modes are psychological in nature, and can be perceptual; the representational content, for instance, might be seen, felt, or heard by the subject. But they can also be non-perceptual; for example, the content (or more accurately, the state of affairs represented in the content) might be believed, desired, or hoped by the subject.

Reductive representationalists, such as Tye and Dretske, account for the difference in these modes functionally. Nevertheless, some non-reductive representationalists understand certain modes, particularly the ones involved in phenomenal experiences, as being *sui generis* relations that can't be explained away functionally. For instance, Chalmers (2004) claims that there is such a mode as representing content 'phenomenally' — where this phenomenal aspect

[22] Also see Crane (2003) and Chalmers (2004). Although, note that Chalmers calls these modes 'manners' or 'ways' of representing and reserves the term 'modes' for a feature of the representational content itself.

itself is taken as an unanalysed primitive. Moreover, such representationalists take it that phenomenal contents aren't identical to representational contents *per se*, but rather are identical to the representational contents represented in certain phenomenal modes.

All of this is significant because a representationalist who buys into the above identity claim could insist that the o-phenomenal properties are identical to certain representational properties; even though they aren't identical to just the represented properties or the higher-order properties we can introspect. What's more, the irreducible nature of the intentional modes *qua* relations leaves room for such a representationalist to also argue that these modes are first-order properties. Therefore, ultimately, non-reductive representationalism of this variety allows one to argue for (iii): that the o-phenomenal properties are representational first-order properties; which would, again, render (1) problematic.

It is hard to respond to this worry because we lack a developed account of what these *sui generis* relations are, which makes it difficult to assess the plausibility of combining contemporary panpsychism with a version of representationalism that commits to these relations. For this reason, it is best to restrict my argument to just reductive versions of representationalism, as mentioned in §I, and leave the task of seeing how it fares on this non-reductive version for another day. That said, let us note that there are good reasons *prima facie* for supposing that such a combination will be a non-starter. Here is one.

We don't tend to think of relations as grounding their relata. If anything, we think of relations as being grounded (at least partially) by their relata. Therefore, even if we grant that the representational modes *qua* relations are first-order properties, provided we still grant that they are relations that obtain between subjects and the representational contents, it would seem that they wouldn't be capable of grounding their relata. For instance, these relations won't be able to ground any physical matters that constitute subjects.

Pressing on, the third scenario is what I take to be the potentially devastating objection to the argument.

- (v) The o-phenomenal properties are grounded by more fundamental (representational or non-representational) first-order phenomenal properties.

This is potentially devastating because it packs a double blow. First, if the scenario obtains, it falsifies (1); and it does so in a way that undermines the argument. Even if higher-order representational features

exhaust the nature of o-phenomenal properties, in so far as these properties themselves are grounded by first-order phenomenal properties, these first-order phenomenal properties could, in addition, do the work of grounding the first-order physical properties as well.

Second, (v) also tells us why conclusion (4), even if true, doesn't suffice to refute contemporary panpsychism. Contemporary panpsychism, recall, is the view that the physical properties of our world are ultimately grounded by the phenomenal properties of this world. Now suppose that the o-phenomenal properties — those that we humans can introspect — supervene on more fundamental micro-level phenomenal properties, which we can't directly introspect.<sup>23</sup> These, we can suppose, are properties that could be instantiated by individual micro-level physical properties, such as quarks and leptons. Our problem is that (4) fails to show that these micro-level phenomenal properties don't ground the physical.

*Contra* (v): the obvious problem with this objection concerns burden of proof. Since the micro-phenomenal properties aren't ones we can introspect, why believe they exist at all, let alone that they are first-order properties? One might even argue that positing them is *ad hoc*. That is, panpsychists posit them merely so that they can still claim that the phenomenal grounds the physical.

While a physicalist may balk at the inclusion of micro-phenomenal properties into our ontology, there are two reasons why a commitment to such micro-level phenomenal properties might be inevitable for panpsychists. First, more fundamental physical properties, like atoms, quarks, leptons, etc. have a phenomenology according to panpsychism. Therefore, panpsychism entails the existence micro-level phenomenal properties, whatever their natures are like.<sup>24</sup>

Second, suppose you buy into the view that phenomenal properties are what occupy our causal roles. You might, following Maxwell, speculate that what occupies the C-fibre firing role is the raw phenomenal feel of pain. Now we know for an empirical fact that our neural roles, including the C-fibre firing role, are realized by lower-level structural properties like certain cell properties. Moreover, we know that these cell properties in turn are realized by further lower-level

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[23] Note, in so far as some micro-level phenomenal properties help ground the o-phenomenal properties, these micro-level properties could be said to be indirectly available via introspection. However, their natures won't be revealed to us in a way that the intrinsic natures of the o-phenomenal properties are revealed to us.

[24] *Pace* Nagel (1974), we even have trouble trying to conceive of 'what it is like' to be a bat. So we needn't worry too much if it's hard to imagine what these micro-level phenomenal properties are like.

properties like certain molecular bonding properties, which in turn are realized by certain atomic properties, and so on.

I assume contemporary panpsychists don't want to contradict this fact. Therefore, their actual view must be that phenomenal properties get to occupy causal roles, like the C-fibre role, by occupying the lowest-level causal role down the chain of causal realizers that realize the C-fibre role. And consequently, 'the causal role occupying' version of panpsychism suggests that there are micro-phenomenal properties, which realize these fundamental causal roles, like the roles we identify as quarks.<sup>25</sup>

Now, a commitment to micro-phenomenal properties is one thing, and a commitment to them being first-order properties is another. Standard physicalist responses to panpsychism contest the former. However, the problem specific to (v) is that we don't have good grounds to believe that these micro-phenomenal properties are first-order properties. The present problem can be put in terms of a dilemma.

The first horn: we started this paper with the observation that o-phenomenal properties are representational. We thus have reason to believe that other phenomenal properties, no matter how alien to us, are also representational (or at least, we have more reason to believe that other phenomenal properties are representational than not).<sup>26</sup> Moreover, we also observed that o-phenomenal properties are not only representational but concern higher-order representational properties. *A fortiori*, we have reason to believe that the micro-phenomenal properties are also higher-order representational properties. The problem with this result, as I have argued, is that if the micro-phenomenal properties are higher-order properties, they can't ground physical matter.

The second horn: say that, for whatever reason, you are committed to the panpsychist claim that the intrinsic nature of all physical matter is phenomenal and, furthermore, that this phenomenal nature grounds all physical matter.<sup>27</sup> You might then insist that the most fundamental phenomenal properties, the ones at the most micro-level, are first-order properties. Now, the typical representational properties we can introspect (and thereby play a role in our phenomenology) are higher-order representational properties. So we have reason to believe

[25] In fact, Rosenberg (2004, p. 240) is explicit that the view he endorses is that the physical is grounded by what I am calling the micro-phenomenal properties.

[26] Also, if you deny non-representational mental paint, then it might be plain inconceivable that there could be phenomenal characters, even at micro-levels, that aren't representational.

[27] See Rosenberg (2004) for an extensive list of reasons.

that if the micro-phenomenal properties are first-order properties, they really aren't representational in the relevant sense. That is, even though we can't introspect these first-order properties, we have reason to believe that they aren't representational in the way the properties we introspect are representational (they might, instead, be first-order representational-cum-informational states). This gives us good grounds to suppose that these first-order properties aren't really phenomenal properties. The trouble with this horn for the panpsychist is that she ends up defaulting to protopanpsychism.

There is plenty of wiggle room here for the panpsychist. The easiest way for her to respond is to simply deny any of the above conditionals, as the consequents are all implied, instead of entailed, by the antecedents. While this would show that our dilemma isn't genuine — i.e. the options aren't exhaustive — the conditionals do weigh the odds against panpsychism. Therefore, we have inconclusive but damning results for panpsychism.

The way out for the panpsychist would be to argue that the probability of micro-level properties being phenomenal is greater than them being non-phenomenal. The standard way this is done is by arguing that the representational natures of our experiences don't exhaust their phenomenal natures, and thus there could, quite plausibly, be micro-level phenomenal properties which aren't representational. This, in effect, is to argue for scenario (iv), which we deemed controversial at best.

The most plausible option, *pace* Rosenberg (2004), is to argue that we have picked the wrong sample size. There are other sentient creatures in this world that appear, at least in terms of their behaviour, to be conscious. The phenomenal properties possessed by these creatures, for all we know, might be either representational in a first-order sense or not representational at all. Hence, so might micro-phenomenal properties.

In so far as we think that cruelty to other animals is morally wrong, most of us appear to believe (be it explicitly or implicitly) that other sentient creatures, or some of them at least, possess phenomenal properties. The trouble, however, is descriptions of the cognitive capacities of these creatures adequately explains their behaviour; even behaviour we typically think comes from having a phenomenology. Thus, even though we don't want to deny that these creatures have phenomenal experiences, there is no reason to attribute any phenomenal natures to them; let alone non-representational phenomenal natures. To state the contrary is to not appreciate the sort of scepticism that goes towards raising the problem of other minds.



The lesson, then, is that while other creatures may have phenomenal experiences, even ones that aren't representational, the best (and perhaps only) guide to the intrinsic natures of the phenomenal we have is that of our own. The o-phenomenal properties, as most of us concede, are representational. Therefore, even if we are willing to accept micro-level phenomenal properties into our ontology, we have more reason to think they are representational in ways akin to our own phenomenal natures than not.

### *Conclusion*

There are several arguments against panpsychism, including micro-phenomenal versions of it.<sup>28</sup> What I hope to have done in this paper is to appeal to the representational feature of our phenomenal experiences to dissuade contemporary panpsychists. This reasoning, I take it, holds true of the micro-phenomenal versions as well. If micro-phenomenal properties are representational, which in all likelihood they are, they, alongside the o-phenomenal properties, aren't the kinds of things that can ground the physical natures of our world.

Contemporary panpsychists, it should be noted, have done a remarkable and admirable job in providing us with a detailed and plausible account of one way our world might turn out. Nonetheless, in so far as we are forced to engage in speculative metaphysics, we need to proceed by weighing the odds; by assessing which views are most plausible. In this sense, the odds still remain stacked against panpsychism.

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[28] For instance, see Popper (1977) and Goff (2009).

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