

The Grounding Problem for Panpsychism and the Identity Theory of Powers

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In this paper, I address the grounding problem for contemporary Russellian panpsychism, or the question of how consciousness as an intrinsic nature is connected to dispositions or powers of objects. I claim that Russellian panpsychists cannot offer an adequate solution to the grounding problem and that they should reject the claim that consciousness, as an intrinsic nature, grounds the powers of objects. Instead, I argue that they should favour the identity theory of powers, where categorical and dispositional properties are identified. I maintain that the identity theory serves as a better ontological basis for panpsychism since it avoids the grounding problem. Apart from that, I also argue that identity theory panpsychism is a position more parsimonious than Russellian panpsychism since it introduces fewer entities while successfully avoiding the grounding problem. Based on these considerations, I conclude that identity theory panpsychism is an option worth considering.

Keywords: Panpsychism, grounding problem, categorical properties, dispositional properties.

1. Introduction

Panpsychism is the view that consciousness is a fundamental and universal feature of reality. Though this view might seem odd and counterintuitive at first, there are many reasons for why we should take it seriously. These reasons largely follow the *ex nihilo nihil fit* principle—consciousness must come from *somewhere*, it cannot come into existence from nothing, such as when unconscious fundamental particles arrange themselves to form conscious brains. The solution panpsychism offers—maintaining that those particles are themselves conscious—raises a few eyebrows. Despite its initial strangeness, the view has been gaining traction in current philosophy of mind.

However, panpsychism faces a number of difficulties. The most discussed of those is the combination problem, the question of how small subjects come together to form big subjects. While this is and probably will remain a serious issue, I will instead focus on a less discussed but equally challenging problem for panpsychism: how is consciousness, as something present within all objects at the fundamental level of reality, connected to the dispositions or powers those objects exhibit?

In this paper, I argue that contemporary panpsychism, influenced by the ideas of Bertrand Russell, does not offer an adequate answer to this question. The reason for this is the ontological commitment of Russellian panpsychism to the idea that an object's intrinsic nature grounds or accounts for its dispositions or powers. It is hard to see how this grounding relation can be explained without invoking further problematic notions. This is the grounding problem for panpsychism. I then offer a way of avoiding this issue by arguing that the panpsychist is better off accepting the identity of intrinsic natures and powers rather than maintaining that they are ontologically different. Furthermore, through a discussion on intentionality and the directedness of powers, I demonstrate that panpsychism paired with the identity theory results in a more unified account of objects and properties than the identity theory alone. Finally, after addressing several objections to the identity view, I conclude that the panpsychist who accepts it is better equipped to handle the grounding problem than the Russellian panpsychist.

2. *The Russellian Motivation*

One of the main contemporary motivations for taking panpsychism seriously comes from Bertrand Russell, who argued (1927/1992) that observational science reveals only the mathematical structure of matter, without saying anything about what matter is intrinsically. Russell's approach has recently attracted renewed interest, forming a body of works which fall under the name of *Russellian monism*. Philosophers following Russell's line of reasoning think that consciousness is the best candidate to play the role of the intrinsic nature of matter, as it is the only such nature we know of. For example, William Seager has stated that consciousness is something we have "ready to hand" to play that role, and that nothing justifies positing additional intrinsic properties except the verbal demand that it be "non-mental" (Saeger 2006: 137).

In addition to Russell, this argument has historic roots in the work of Arthur Eddington who argued (1928: 259) that science cannot reveal the nature of the atom since it only describes it in terms of pointer readings on instrument dials. However, in the case of pointer readings regarding his own brain, it is clear to him that the readings are attached to a background of consciousness. If that is true, Eddington suggests that "the background of other pointer readings in physics is of a nature continuous with that revealed to me in this particular case"

(1928: 259). In other words, he argues that all physical facts should be attached to a background of consciousness:

If we must embed our schedule of indicator readings in some kind of background, at least let us accept the only hint we have received as to the significance of the background—namely, that it has a nature capable of manifesting itself as mental activity (Eddington 1928: 260).

Eddington's argument appeals to parsimony, as it aims to show that it is more reasonable to presume that the background of pointer readings is consciousness rather than something inherently non-conscious. As he puts it, attaching pointer readings to "something of a so-called 'concrete' nature inconsistent with thought" would be "silly" if we are left wondering "where the thought comes from" (Eddington 1928: 259).

The form of Russellian panpsychism¹ arising from these considerations is committed to the claim that consciousness is the intrinsic nature of matter which grounds all physical facts of reality. This claim can be cast in terms of categorical and dispositional properties. Dispositional properties are commonly defined as the directedness of an object towards a certain kind of manifestation, under appropriate conditions (Jaworski 2016: 57). For instance, a vase has the disposition to shatter when struck. More broadly, a dispositional analysis describes how something behaves in space and time, under this or that condition. Categorical properties, in contrast, are defined as powerless or non-dispositional features of objects, such as their shape and size (Jaworski 2016: 55). A categorical analysis describes what an object is like "in itself", non-relationally. Russell's motivation for panpsychism can now be put as follows: observational science only reveals the *dispositional* properties of objects, but it is silent about the *categorical* properties that ground these dispositions. The idea that consciousness is the intrinsic nature of matter can be understood as the claim that consciousness is the *categorical* property of objects, while the physical facts it grounds are the *dispositions* of those objects. This view is a hybrid approach between *pandispositionalism*, the claim that all properties are fundamentally dispositional, and *categoricalism*, the claim that all properties are fundamentally categorical (Choi and Fara 2012). Russellian panpsychists, as described here, thus accept the existence of both categorical and dispositional properties but specify consciousness as the universal categorical property of objects at the fundamental level of reality (Pereboom 2015).

3. *The Grounding Problem*

Russellian panpsychists are faced with an objection raised by Karen Bennett² and further developed by Derk Pereboom (2015). Pereboom

¹ There are other forms of panpsychism, but I will focus my attention only on the particular form of Russellian panpsychism as described here.

² Karen Bennett, "Why I Am Not a Dualist", ms., as reported by Pereboom (2015).

argues that micropsychists³ need to introduce brute laws⁴ in order to explain how “microphenomenal absolutely intrinsic properties” are linked to microphysical properties (2015: 317). Otherwise, the connection between microphenomenal and microphysical properties would be unintelligible. Pereboom (2015: 317) further argues that micropsychism is ill-equipped to explain the properties revealed to us by current microphysics, considering that brute laws generally provide no adequate explanations. Panpsychists thus need to account for how consciousness, as a categorical property, grounds the dispositional properties of objects.⁵ To do that, they can either concede and posit inexplicable laws, or say that there are no such laws.

The former option is equivalent to the necessitation relation discussed by David Armstrong (1978, 1983), Fred Dretske (1977) and Michael Tooley (1977) within the framework of their view on natural laws. Necessitation can be defined as the law-making universal N which holds between universals or natural properties F and G , so that if a possesses F , then a necessarily possesses G (Armstrong 1978, 1983). This form of necessitation is a brute law since it cannot be reduced to a more basic level, which is problematic because it fails to provide an explanation where there should be one, committing us instead to an ontology where the notions used are—by definition—unintelligible. This issue was clearly formulated by David Lewis, who has argued (1983: 366) that Armstrong fails to provide a transparent account of necessitation, and that a relation is not necessary simply in virtue of being called “necessary”. Considering that there are rival theories which offer a coherent explanation of properties without invoking brute laws, the panpsychist is seemingly left without strong reasons to posit them. Naturally, a panpsychist could claim that other theories do *not* offer a satisfying explanation, arguing instead that we need to have brute laws. Without going further into this extensive debate, I limit myself to proposing a solution to the grounding problem which will not rely on brute and inexplicable laws.

The latter option results in several problems as well. If consciousness is the categorical property that grounds dispositions, there is an immediate worry of *how* it could ground them if there are no brute laws. Positing consciousness as a categorical property is problematic unless it is in some sense connected to dispositions or powers. Without this connection, we end up with *epiphenomenalism*—the view that consciousness lacks causal efficacy. For an epiphenomenalist, mental events (or tokens of conscious experience) are caused by physical brain

³ Pereboom uses “micropsychism” for all views that see consciousness as present at the fundamental level of reality. This includes the form of panpsychism I am discussing.

⁴ Laws are brute when they have no further explanation or when they cannot be explained by appealing to something more fundamental.

⁵ In this context “categorical” and “dispositional” are interchangeable with “microphenomenal” and “microphysical”.

states, but mental events themselves have no effects on physical events whatsoever (Robinson 2015). If the panpsychist were to choose this option, they would have to deal with the following difficult questions:

- a. How does consciousness ground dispositions without brute laws?
- b. How do they avoid epiphenomenalism, a largely unattractive view nowadays, or—alternatively—why should epiphenomenalism be accepted?
- c. If there are no brute laws linking categorical and dispositional properties, then why do only certain types of physical systems result in consciousness?

Question c) might initially appear as a variation on the combination problem for panpsychism,⁶ but it is not. Instead, it is the following query: why would minds be specifically tied to brains (or any particular form of matter) if there were no laws linking categorical and dispositional properties? We have good reasons to accept a sort of parallelism between complex physical states and complex mental states: an intuitive and empirically justifiable answer to the question of why only human brains are capable of abstract and higher-order thought, as opposed to other animals, is that human brains are more advanced. A panpsychist claiming that there are no brute laws of grounding would have to deny this parallelism. In order to explain why only some physical states result in complex conscious subjects, the panpsychist would need to offer an account *alternative* to the claim that consciousness, as a categorical nature, is linked to certain types of physical or dispositional systems resulting in complex consciousness. Unless they introduce (brute) laws of grounding which hold between physical and mental states, it is not clear how they could explain the existence of such a parallelism, which is a largely uncontroversial concept. This is a big bullet to bite. However, this is not a reason to straight out reject a non-brute-law version of panpsychism. My intention here is only to show that this version of panpsychism leads to us having to accept a wide array of unappealing views. Because of that, I will try to develop a solution to the grounding problem which avoids these issues.

4. *The Identity Theory of Powers*

There is a way for the panpsychist to avoid the problems stated above and to offer a promising solution to the grounding problem. The identity theory of powers, discussed by Charles B. Martin (1994, 1997), John Heil (2003) and William Jaworski (2016), is uncommitted to the bifurcation of categorical and dispositional properties. For the identity theorist, “categorical” and “dispositional” only describe the differing theoretical roles properties play. In reality, though, there is no such

⁶ The combination problem, in its most common variant, is the difficulty of explaining how simple (or the simplest) subjects combine into more complex subjects (see Chalmers 2016 and Goff forthcoming).

division: categorical and dispositional properties are one and the same thing. Every property possessed by an object gives it the power to interact with other objects in various ways (Jaworski 2016: 57). To illustrate this, Heil (2003: 112) uses the example of a snowball, whose spherical shape is traditionally understood as a categorical property. He (Heil 2003: 112) argues that the shape of the snowball confers to it the power to roll on a flat surface. In other words, sphericity is a quality or categorical property possessed by the snowball, but at the same time its power. Jaworski (2016: 63) uses a clearer example—a diamond—and argues that the diamond’s hardness empowers it to scratch glass. In contrast, proponents of the hybrid view of properties would argue that the diamond’s tetrahedral arrangement of carbon atoms is a categorical property which grounds its powers. The identity theorist argues instead that these descriptions denote different theoretical roles that one property plays—the categorical “is made out of carbon atoms” and the dispositional “scratches glass” role (Jaworski 2016: 54). In reality, though, the diamond’s structure simply *is* its power to scratch glass (Jaworski 2016: 54).

The panpsychist can accept the identity theory of powers as an ontological basis and so avoid the grounding problem. This move indicates a step away from the Russellian view of consciousness as a categorical property which grounds dispositions or powers. However, it remains loyal to the basic Russellian motivation for panpsychism—the idea that matter must have an intrinsic nature. For the identity theory panpsychist, consciousness is a fundamental and ubiquitous property which is at the same time categorical and dispositional; a quality and a power. Identity theory panpsychism solves the grounding problem by eliminating the grounding relation: consciousness is no longer an isolated intrinsic nature serving as the categorical basis for dispositions but a property which fulfils both the categorical and dispositional role.

One distinct advantage of identity theory panpsychism over Russellian panpsychism is that it normalises consciousness by giving it the same ontological status as it gives to every other fundamental property. In Russellian panpsychism, consciousness is *the* categorical property, the intrinsic nature of matter, given primacy over all other properties. In identity theory panpsychism, consciousness is a fundamental and ubiquitous property like every other such property (e.g. spin, mass, electric charge, colour charge). In other words, consciousness is *a* fundamental property whose existence we need to admit in order to explain how complex subjects come into being, not *the* fundamental property which grounds all others. The bifurcation of categorical and dispositional properties present in Russellian panpsychism is rejected here for a simpler model of powerful qualities or properties that are at the same time dispositional and categorical. Because of this, identity theory panpsychism is a more parsimonious view since it avoids introducing more than one type of property or “ultimate” categorical proper-

ties. These are the positive reasons for why we should consider identity theory panpsychism as a serious option.

5. *Objections to the Identity Theory of Powers*

Before adopting the identity theory of powers, the panpsychist must first address specific issues the theory faces in its own right. One very important issue was raised by David Armstrong, who argues (Armstrong, Martin and Place 1996: 95) that the categorical and dispositional roles of a property must be related either contingently or necessarily. He goes on to explain that if the relation were contingent, then it would be possible for the categorical side to have different powers “attached” to it, “or even with no powers at all” (Armstrong, Martin and Place 1996: 95). To turn back to an earlier example, this means that it would be possible for the diamond’s hardness to be correlated with the disposition *not* to scratch glass (Jaworski 2016: 78). This is not compatible with the identity theorist’s view that the diamond’s hardness is *identical* to its power to scratch glass (Jaworski 2016: 78). Armstrong (Armstrong, Martin and Place 1996: 96–7; as reported by Jaworski 2016: 79) further argues that if the relation were necessary, then it would be unclear why the roles are necessarily related. Importantly, the proponent of the identity theory would have to introduce *brute laws* to explain why the relation between categorical and dispositional roles is necessary (as reported by Jaworski 2016: 79). This means that accepting the identity theory of powers does not avoid the brute laws issue raised against panpsychism in the form of the grounding problem. Both panpsychism and the identity theory thus suffer from a version of the brute laws problem. If this is true, it would be devastating for the aims of this paper.

Luckily, there is a way of responding to this objection. The identity theorist could provide the following account of the categorical-dispositional relation and argue that it *is* necessary:

[T]he reason why the diamond’s hardness is necessarily correlated with the diamond’s power to scratch glass is that the diamond’s hardness is identical to the diamond’s power to scratch glass. (Jaworski 2016: 79)

Armstrong finds this proposition “totally incredible”; claiming that it is a category mistake to identify categorical properties with dispositional properties; and concluding that “they are just different” (2005: 315). Jaworski responds by saying that Armstrong is begging the question: “To assume at the outset that qualities and powers are ‘just different’, as he says, is simply to assume that the identity theory is false” (2016: 79). In other words, when Armstrong claims that identifying categorical and dispositional properties is a category mistake, he is assuming without arguing that they cannot be identified at all. For Jaworski (2016: 79), this alone is enough to reject Armstrong’s objection. Thus, while Pereboom’s grounding problem does raise a valid point about brute laws to

Russellian panpsychism, Armstrong does not raise a valid point about brute laws to identity theory panpsychism. In the former case, there is an ontological bifurcation of categorical and dispositional properties, so Pereboom is justified in demanding an explanation of the relation holding between those properties. In the latter case, there is no such *ontological* bifurcation—“categorical” and “dispositional” are merely ways of describing the different theoretical roles a property can play. Hence, there is no need for an explanation of how these roles are related, unless one assumes (like Armstrong does) that these roles *cannot* be identified. However, as was shown, this assumption is question-begging.

Armstrong raises one further important objection. He (Armstrong, Martin and Place 1996: 16) starts by explaining that it is not a necessary truth that every power of an object is always manifested at some point of the object’s existence. If we imagine an object which has some power but never manifests it, then its power is directed towards a manifestation which does not actually exist (Armstrong, Martin and Place 1996: 16–7). For example, even in a world without water, sugar would still have the disposition to dissolve when put in water. This means that its disposition to dissolve is aimed at some non-existent manifestation—and Armstrong thinks that properties cannot “point beyond themselves to what does not exist” (Armstrong, Martin and Place 1996: 17). In other words, Armstrong (as reported by Jaworski 2016: 58) is implying that the identity theory of powers is committed to Meinongian⁷ non-actual entities since it allows that dispositions or powers can be related to not-yet-existent manifestations. This is deeply problematic.

As a response, proponents of the identity theory can reject the claim that powers are *real* relations to their manifestations (Jaworski 2016: 58). Instead, as Jaworski argues (2016: 58), the directedness of powers towards their manifestations can be understood through an analogy with intentional mental states. For example, I have a desire to eat pizza, but my desire can remain unfulfilled. It is the same case with powers—salt has the disposition to dissolve, but its solubility does not stand in a real relation to its manifestation. It is directed towards it analogous to how my desire for pizza is directed towards pizza, even if all pizzerias in my town go bankrupt and close down (Jaworski 2016: 57). In other words, the directedness of powers does not depend upon the existence of the manifestations they are directed towards (Jaworski 2016: 58). If the directedness of powers can be conceived of as analogous to intentional mental states, then the identity theorist can avoid the charge of being committed to Meinongian non-actual entities (Jaworski 2016: 57).

⁷ Alexius Meinong, an Austrian philosopher and psychologist, is known for introducing non-existent objects as part of his ontology (Marek 2013).

Armstrong is suspicious of this solution. He (Armstrong, Martin and Place 1996: 17) claims that mental states have the property of being intentional, but expresses hope that they will ultimately be logically or empirically analysable. He thinks it strange and objectionable to put intentionality, or something like it, into the “ultimate structure of the universe” (Armstrong, Martin and Place 1996: 16). Similarly, Jaworski (2016: 58) stresses that the analogy between intentional mental states and the directedness of powers is merely that—an analogy. He claims, without providing an argument, that “intentional mental states are powers and the directedness of those states is a species of the directedness of powers in general” (Jaworski 2016: 58).

However, hopes and claims are not convincing arguments, which brings us to the question: why do Armstrong and Jaworski put the directedness of powers over mental intentionality? Their insistence on the primacy of directedness appears to be ad hoc. Otherwise, it could be understood as an intuitive argument, based on current sentiments in metaphysics and philosophy of mind. Whatever the case, Armstrong and Jaworski did not extensively discuss reasons for why they give primacy to directedness of powers. They could argue that we have no reason to ascribe intentionality or any aspect of consciousness to non-living matter since it does not exhibit behaviour we would characteristically describe as conscious. However, what we first observe as human beings is the fact that we are conscious and, as part of that, our ability to have intentional mental states. Indeed, the first piece of knowledge we ever acquire is the knowledge of conscious experience. We know for certain that consciousness exists and that we are conscious, but we can never know for sure whether other living and non-living beings have conscious experiences. The solution to this was to ascribe consciousness based on behaviour: x is conscious because it behaves similarly enough to us, while y is not conscious because it does not behave similarly to us (or behave at all).

Is behaviour really a good criterion for ascribing consciousness? We could easily imagine a dormant super-intelligent being, or a being so advanced that we appear as non-conscious or barely conscious to it. It is a relative scale. Cats and dogs appear less conscious (or less complexly conscious) to us, while plants and rocks appear non-conscious, but we could be so low on this scale relative to some existing or hypothetical intelligence that *we* would then be the rocks. Less extravagant examples are comatose patients. While outwardly these people appear unconscious, brain scans strongly suggest that they retain *some* level of consciousness (Cyranoski 2012). Of course, we know that patients were fully conscious before they fell into a coma, but would not very simple conscious subjects, whose standard level of consciousness is very low, always appear comatose to us? We would have no way of detecting conscious activity in such subjects. Thus, behaviour seems more like a provisional and pragmatic criterion for consciousness rather than as

a certain nomic principle. Moreover, since we know that consciousness exists with more certainty than we know anything else, positing that there are things which are not conscious introduces a new kind of entity to our ontology—non-conscious existents.⁸ A more parsimonious view is one where consciousness comes in degrees, from rocks to amoebas to dogs to humans. That way, we avoid introducing a new and unproven ontological entity. The view that there are non-conscious existents has been so deeply ingrained into us that we cannot even consider the possibility that it might be wrong (or at least less explanatorily powerful). Nonetheless, in conjunction with independent arguments for panpsychism, I believe that we have good reasons to doubt that there are non-conscious existents.

6. *Concluding Remarks*

It is important to note that I have not been arguing for panpsychism in this paper. The discussion presented is aimed at philosophers who are already sympathetic to panpsychism. Specifically, in view of the grounding problem, I have argued that panpsychists are better off rejecting the Russellian ontological commitment to a hybrid view of properties, where the categorical grounds the dispositional. Instead, as I have claimed, there are good reasons for why they should accept the identity theory of powers as their ontological basis. The first reason is that identity theory panpsychism avoids the grounding problem. The problem of needing to introduce brute laws between two things disappears when only one thing with differing roles exists. The second reason, more positive in nature, is that identity theory panpsychism normalises consciousness by giving it the same status it gives to other fundamental properties, thus eliminating the need for introducing an additional special type of property.

Apart from addressing objections to panpsychism, I have also demonstrated that the combination of the identity theory of powers and panpsychism successfully addresses objections raised to the identity theory in its own right. Most importantly, an identity theory panpsychist has independent reasons for thinking that mentality, especially intentionality, is part of the structure of reality. In contrast, at least in cases addressed by this paper, Armstrong and Jaworski seem to merely assume that intentionality cannot be a part of reality and that primacy should be given to the directedness of powers. They are introducing more entities than panpsychism does to explain the same thing. Considerations of parsimony thus push us to consider identity theory pan-

⁸ As a side note: The idea of matter being directed towards manifestations in a way analogous to intentionality, but without intentionality, is more mysterious to me than simply saying that this directedness is a form of intentionality, considering that we already know what intentionality is but have no idea of what the directedness of powers is, apart from the technical definition of the term and the demand that it involves no intentionality.

psychism as the theoretically more adequate explanation. That is why I believe that the combination of panpsychism and the identity theory is indeed a powerful one, and that it could serve as a future starting point for many philosophers of mind and metaphysicians.

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