



A Panpsychist Solution to the Exclusion Problem

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Abstract

Most proposals on the problem of mental causation or the exclusion problem come from two metaphysical camps: physicalism and dualism. However, a recent theory called “Russellian panpsychism” (PRM) offers a distinct perspective on the relationship between consciousness and the physical world. PRM posits that phenomenal consciousness is ubiquitous and fundamental. It suggests that consciousness and physical properties are not entirely separate but rather intertwined. Phenomenal consciousness serves as a categorical/intrinsic ground for the extrinsic/dispositional nature of physical properties. By doing so, PRM proposes a novel solution to the exclusion problem, combining elements from both physicalism and dualism while addressing their inherent difficulties. Nonetheless, the success of PRM faces challenges, as argued by Howell (2015). In this paper, I argue that if PRM is formulated as a version of dual-aspect monism, it can offer a distinctive approach to tackling the exclusion problem.

Keywords Panpsychism · Russellian monism · Mental causation · Dual-aspect monism · Consciousness · The Exclusion problem

1 Introduction

One enduring philosophical puzzle revolves around the interaction between mental states, such as human phenomenal experiences, and propositional attitudes like thoughts, intentions, and more, as they relate to physical actions and bodily behaviors. The effectiveness of mental states in influencing the physical world seems evident from the perspective of commonsense (the manifest image). Undoubtedly, my perceptions, feelings, thoughts, beliefs, intentions, and so on have an impact on my

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bodily actions. However, a problem arises when one becomes acquainted with the depiction of the world presented by modern physical science (the scientific image).¹

Our behaviors and actions are inherently physical, meaning they are tangible, existing within space and time, and can be observed and studied through scientific investigation (third-person perspective). Empirical evidence supports the notion that the domain of the physical world is causally closed (CCP). This principle asserts that every physical event, when it has a cause, can be sufficiently explained by physical causes alone.² Consequently, our physical actions and behaviors are entirely determined by sufficient physical causes. Therefore, according to the scientific image, it appears that our actions are primarily caused by the physical states comprising the neuro-chemical network within our brains, rather than our mental states.

The contrast between the manifest image and the scientific image concerning the effectiveness of mental states highlights the philosophical puzzle of mental causation. This puzzle is encapsulated in the “exclusion problem,”³ which arises from the existence of two competing and independent causal explanations for our actions: a physical explanation and a mental/psychological explanation. However, these causal explanations cannot coexist simultaneously, as one must exclude the other. Otherwise, the occurrence of systematic overdetermination of physical effects would have to be accepted, which is widely regarded as an untenable position in the discourse on mental causation.⁴

In contemporary literature, numerous solutions have been proposed to address the problem. It is worth noting that a significant majority of these solutions are advocated by philosophers who align themselves with either physicalism or dualism. Physicalists adopt a broad perspective, asserting that “[e]verything that exists is either an element of the physical basis or is constituted by elements in that basis. Everything that exists is, in this sense, ontologically grounded in the physical domain” (Poland, 1994:18). In simpler terms, any physical duplicate of the actual world also duplicates the mental properties. Therefore, physicalism posits that mental states are either reduced to or realized by or grounded in physical brain states/processes.⁵ In contrast, dualists reject this necessary connection, asserting that it is

¹ Although the terms “the manifest image” and “the scientific image” are borrowed from Wilfrid Sellars (1963: 5), the distinction presented here does not exactly reflect his intended technical meanings.

² See Papineau (2001) and Kim (2005).

³ See Kim (1988) and Kim (1989).

⁴ Some philosophers argue for the indefensibility of systematic overdetermination (see Kim (1998: 65), Kim (1993a: 281), Schiffer (1987: 148), Melnyk (2003: 29), and Lycan (2009: 555); and I echo this view in this paper. However, like many other philosophical concepts, overdetermination can be formulated in more technical ways, which creates controversy over its defensibility. It is beyond the scope of this paper to explore this controversy in detail. For different outlooks, see Burge (1993) and Mills (1996); for different formulations, see Bernstein (2016).

⁵ Physicalism has been classically defined as a reductive view in which all mental states and properties can be fully explained by or reduced to physical states and properties. Alternatively, the non-reductive version holds that mental states and properties, while not fundamental, are grounded in, realized by, and dependent on fundamental physical states and properties. In this view, mental entities maintain a distinct status but are still non-fundamental and fully determined by physical ones. While contemporary physicalists mostly fall into this category, the position has more nuances in the literature. For instance, some defend eliminative materialism, which is the philosophical view that common-sense mental states and properties, such as beliefs and desires, do not exist, and that future scientific understanding will eliminate these concepts in favor of more accurate neuroscientific descriptions. For details on the variety of physicalism, see Stoljar (2024).

possible to have a physical duplicate of the world that is free of mentality. Thus, the mental is neither reducible to nor determined by the physical, and they both are real and pertain to distinct ontological categories.

Both dualism and physicalism, in general, encounter significant challenges. Dualism, apparently violating the causal closure of physics and the uniformity of causal relationships, faces difficulties known as the interaction problem. This problem questions how something mental can causally interact with something physical, considering they belong to fundamentally distinct categories, and the physical domain is causally closed.⁶ Moreover, dualists are required to provide an explanation for why scientific investigations have not uncovered empirical evidence supporting the causal effectiveness of mental states on physical states.

Physicalists, on the other hand, face challenges in explaining the “explanatory gap” that exists between physical and mental states, despite disregarding our strong common-sense intuition. It is logically possible to conceive of a world that closely resembles our actual world in all physical characteristics but lacks any form of phenomenal consciousness (referred to as zombie worlds).⁷ Intuitively, these two worlds clearly appear distinct to us.⁸ However, if physicalism is true, it implies that the mental is nothing more than the physical, which counterintuitively suggests that the two worlds must be identical in every way. This creates a gap between what we can intuitively conceive, and the perspective presented by physicalists. As a result, physicalists are obligated to provide an explanation for bridging this gap.

Considering the mentioned problems, some⁹ advocate for a third theory known as “Panpsychist Russellian Monism” or Russellian panpsychism (PRM for short) as a plausible approach to address the exclusion problem. PRM, as a version of panpsychism, posits that phenomenal consciousness is both fundamental and ubiquitous,¹⁰ offering a distinct metaphysical perspective on the position of consciousness within the physical world. Unlike physicalism, PRM acknowledges the reality of mental states. However, unlike dualism, PRM does not commit to the existence of a separate category of entities that emerge at a higher level of reality to account for subjective experiences. Instead, PRM suggests that mental and physical entities are closely intertwined, with the former serving as the non-relational/non-structural foundation for the latter, which is structural/relational in nature.¹¹

Indeed, PRM, as an alternative to both physicalism and dualism, offers a fresh perspective on the interplay between physical and mental states. While it is beyond the scope of this discussion to delve into the detailed arguments supporting PRM,¹² it is worthwhile to consider whether adopting this approach can uniquely address the exclusion problem.

⁶ See Bennett (2003).

⁷ See Chalmers (1996: 93–171).

⁸ See Chalmers (2002).

⁹ Alter and Nagasawa (2012, 2015), Goff and Coleman (2020), Chalmers (2015), Goff (2017a), Strawson (2006), et al.

¹⁰ See Goff (2017b).

¹¹ Alter and Nagasawa (2015: 68).

¹² See Goff and Coleman (2020).

2 PRM and the Exclusion Problem

The core idea of PRM asserts that phenomenal consciousness and physical properties are not radically distinct and separated; rather, the former serves as a categorical or intrinsic base for the latter that is extrinsic or dispositional in nature. In this ontological framework, every physical event is accompanied by a corresponding phenomenal foundation. For example, if event E_1 causes another event E_2 based on its physical/extrinsic/dispositional property, the very physical property of E_1 is intricately interconnected with a mental property M_1 . Consequently, M_1 is inherently involved in the causal relationship as well.

PRM offers an elegant theory that reconciles two seemingly incompatible principles: (i) the mental state is real but is neither identical to nor realized by the physical state (a central tenet of dualism), and (ii) physical states have sufficient physical causes, if they have causes at all (CCP). PRM takes the former principle for granted by avoiding the treatment of mental and physical states as rival and distinct causal chains. It also upholds the latter principle by asserting that the mental element directly intervenes in the causal chain of action. Therefore, it appears that PRM can accommodate mental causation without disrupting causal homogeneity and violating CCP. In this manner, PRM seems to preserve the strengths of both physicalism and dualism in addressing the problem of mental causation while addressing the significant challenges faced by both theories.

While PRM presents a coherent explanation, it faces challenges that give rise to doubts regarding its effectiveness as a comprehensive solution to the exclusion problem. In the following section, I will outline these challenges as articulated by Robert Howell in his 2015 publication.¹³

3 A Challenge for PRM

According to Howell (2015), PRM's solution to the exclusion problem, despite being promoted as advantageous, does not offer significant advances over its counterparts, namely classical physicalism and classical dualism. Consequently, he argues that PRM is not sufficiently equipped to effectively address the exclusion problem (Howell, 2015: 26). The problem identified by Howell revolves around the core assumption of PRM, which posits a close interconnection between mental and physical entities, with mental properties serving as intrinsic/categorical foundations for physical/extrinsic/dispositional properties. The crucial question arises regarding the modal understanding of this relationship. In this context, three potential options can be considered:

- A. The strong version of PRM: all instances that share the same physical properties as the actual world are also instances that share the same phenomenal properties as the actual world, and vice versa.

¹³ Similar challenges raised by Robinson (2018).

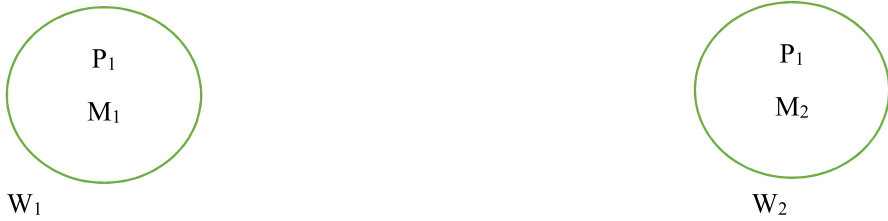


Fig. 1 Scenario 1 of physical properties and their phenomenal bases



Fig. 2 Scenario 2 of physical properties and their phenomenal bases

- B. The moderate version of PRM: there exist instances that possess the same physical properties as the actual world but differ phenomenally, and vice versa.
- C. The weak version of PRM: there exist physical duplicates of the actual world that lack phenomenal properties.

B and C are compatible with the thesis of contingency¹⁴ according to which the actual relation between physical properties and their phenomenal bases is a matter of contingency, i.e., there are possible worlds in which mental properties are swapped (as B holds) or absent (as C holds). Now, let's assume that P_1 is a physical property that has a certain causal profile, M_1 and M_2 are different phenomenal properties that can provide intrinsic/categorical bases for P_1 . According to B, the following scenarios are possible: W_1 and W_2 are physically indiscernible, but mentally different.

According to C, the following scenarios are possible:

Howell asserts that the scenarios depicted in Figs. 1 and 2 present significant challenges for PRM. In the case of Scenario C, it appears that even in World W_1 , where M_1 exists, M_1 is causally epiphenomenal. Howell questions why one should believe that M_1 has causal efficacy in W_1 when it is possible to have a physically indiscernible World W_2 . If Scenario B is true, it is conceivable that the phenomenal base of P_1 , denoted as M_1 , could be replaced with M_2 , while the causal profile of P_1 , specifically the physical cause, remains unaltered. If W_1 and W_2 are physically indistinguishable, then it appears that the causal profile of P_1 is unaffected by its specific mental base (M_1) and thus M_1 , qua M_1 , lacks causal

¹⁴ Alter and Coleman (2021: 410).

efficacy in the causal chain attributed to P_1 . Howell argues that in both scenarios, PRM does not effectively integrate mentality into the causal network, leading to a failure in addressing the exclusion problem. Consequently, he concludes that the thesis of contingency poses a significant challenge to PRM's solution to the exclusion problem. This outcome is certainly undesirable, as it implies that if the thesis of contingency holds true, the mental property, in its specific mental capacity, does not play any role in the physical causal chain (Ibid, 31).

Now, let's consider scenario A, which assumes the thesis of metaphysical necessitarianism, stating that if W_1 and W_2 are indistinguishable in terms of their physical properties, they are also indistinguishable in their mental properties. In this version, PRM can effectively accommodate the efficacy of mental reality within the physical causal framework. Physical properties derive their causal profile from being grounded in their phenomenal bases, indirectly integrating the phenomenal bases into the causal network of concrete reality. Howell agrees that the strong version of PRM can explain the efficacy of the mental qua mental; nevertheless, he argues that scenario A is flawed as it eliminates the conceivability and ultimately the possibility of zombie-world scenarios. This poses a problem for PRM because zombie-world scenarios have been used to reject physicalism and support PRM. If PRM excludes the possibility of zombie worlds, it may also eliminate their prima facie conceivability. Consequently, PRM would transform into a type A physicalism without much plausibility. On the other hand, if PRM rejects the possibility but allows for conceivability, it becomes less preferable compared to type B physicalism (Ibid, 37). Hence, Howell concludes that A is not theoretically advantageous either.

If Howell's argument is sound, it demonstrates that neither version of PRM holds a philosophical advantage over physicalism and dualism in addressing the exclusion problem. In the following section, I argue that there is an alternative interpretation of PRM that overcomes the objections raised previously. Before delving into that, it is worth considering a different response proposed by Alter and Coleman (2021) who counter Howell's argument by asserting that the thesis of contingency does not necessarily render the phenomenal element epiphenomenal. They make a distinction between metaphysical and nomological possibilities and argue that in both cases, PRM can effectively incorporate mentality into the causal framework of the world. Given that the thesis of contingency is interpreted metaphysically, then the causal relation is metaphysically contingent, and this issue, Alter and Coleman argue, can still accommodate the causal efficacy of mental qua mental in the actual world. They say:

For example, suppose W_1 , where R grounds negative charge, is actual. The Russellian monist can argue that in W_1 negative charge has physical effects at least partly in virtue of R [...] even though that is not true of other metaphysically possible worlds, such as W_2 , where negative charge has those same effects at least partly in virtue of not R but G. This is so, she can argue, because the quiddistic grounding laws in W_1 differ from those in W_2 : those laws differ with respect to which quiddistic aspect of RM properties grounds negative charge (Alter & Coleman, 2021: 416).

Now let's assume that the thesis of contingency is understood nomologically, and scenarios where mental properties are swapped are nomologically possible. According to Alter and Coleman, a proponent of PRM can argue that in the actual world, "only R can ground negative charge," which would imply that worlds like W_2 and W_3 , where other quiddities ground negative charge, would not be nomologically possible (Alter & Coleman, 2021: 416). Or perhaps, she can argue, the actual quiddistic grounding laws permit some variation in what can ground what. For example, perhaps according to those laws either R or G can ground negative charge, as in W_3 . In that scenario, negative charge might sometimes cause physical event E partly due to quiddistic element R, even though there could be nomologically possible worlds where, on the same occasion, negative charge causes E partly due to a different quiddistic element, G (Ibid 416).

I believe that Alter and Coleman present a different interpretation of the assumption made in Howell's thesis of contingency. In Figs. 1 and 2, W_1 and W_2 are depicted as physically indiscernible but differ only in their mental properties. Thus, from a physical standpoint, there is no distinction between W_1 and W_2 . However, in the scenarios assumed by Alter and Coleman, W_1 and W_2 are not only distinguishable based on their mental foundations, but they also should differ physically either in terms of the quiddistic grounding laws (the metaphysical interpretation of contingency) or in terms of the laws of nature (the nomological interpretation of contingency). In this picture, given the metaphysical interpretation, the thesis of contingency implies that if X causes Y in W_1 , the same X can cause Z or something else (maybe because of different quiddistic laws) in W_2 . In other words, W_1 and W_2 are indiscernible in every case except that in W_1 , Y is the effect of X, while in W_2 , Z is the effect of X; nothing else changes. Now, let's turn to the nomological interpretation. In this view, the causal relation in every world is governed by the world's laws of nature. Thus, if X causes Y in W_1 and X causes Z in W_2 , W_1 and W_2 have different laws of nature.

But the thesis of contingency, in Howell's argument, is applied differently. Given the moderate and the weak versions of PRM (B and C respectively as depicted in Figs. 1 and 2), the assumption is that W_1 and W_2 are physically indiscernible. The metaphysical interpretation of the thesis of contingency allows for both B and C, but the concern is that B and C are only mentally different. In other words, there is no difference between the physical causal behavior of W_1 and W_2 . Therefore, how can the thesis of contingency make mental properties causally efficacious in these two worlds if they are entirely indistinguishable in terms of their physical behavior? The concern persists even if the thesis of contingency is understood nomologically, i.e., the changes between W_1 and W_2 are due to differences in their laws of nature. Recall the assumption that these two worlds are physically indiscernible, meaning that in terms of their physical laws, the worlds are indistinguishable. The difference, then, is due to their different mental or phenomenal laws (the laws that govern intrinsic phenomenal properties only) or purely quiddistic grounding laws which still make the physical behavior unchanged, as assumed. In this situation, if changing the phenomenal law from W_1 to W_2 does not yield a change in the physical behaviors of these two worlds, then it seems that Howell's argument about the lack of causal efficacy of such

phenomenal properties remains valid. Consequently, PRM aligned with the thesis of contingency renders mental qua-mental epiphenomenal.

To illustrate the situation, the analogy employed by both sides would be helpful. According to Howell, mental property can be compared to the color of a brick. Let's consider W_1 where a red brick breaks a window. Howell argues that it is possible to have W_2 , which is similar to W_1 except for the fact that in W_2 the brick has a different color, such as yellow. Since the color of the brick does not have any causal influence on the chain of events involving the brick, Howell concludes that the mental base of P_1 , the mental property associated with the brick, is not physically effective either. In contrast, Alter and Coleman present a different interpretation of W_1 and W_2 . They suggest that "the brick's color is disanalogous to the Russellian monist's quiddities." They argue that the actual laws of nature that govern mental properties are not completely indifferent to the identity of quiddities. In other words, they believe that the specific quiddistic features of mental properties can have an impact on the laws of nature, differentiating W_1 and W_2 (Ibid 417).

Regarding necessitarianism and the claim that zombie worlds are impossible, as posited in option A, Alter and Coleman acknowledge this implication. However, they argue that PRM still has a stronger defense compared to physicalism. Physicalists, whether of type A or type B, struggle to provide a satisfactory explanation for why one can imagine zombie worlds that are not actually possible or even conceivable. In contrast, PRM can argue that one's lack of knowledge regarding mental properties prevents them from recognizing any a priori connections between dispositional properties and quiddities, even if such connections exist. So, the zombie-world scenarios are metaphysically impossible, and their conceivability is erroneous. They are impossible because, given PRM, a physical duplicate of the world would necessarily share the same mental elements. Their conceivability is also erroneous and illusory due to epistemic ignorance about the quiddistic nature of physical properties; in other words, zombie-world scenarios are truly inconceivable. I agree with Alter and Coleman that PRM, in line with the thesis of necessitarianism (option A), can explain the explanatory gap by making zombie-world scenarios metaphysically impossible. However, even if necessitarianism is true and zombie-world scenarios are impossible, I believe that this issue is still puzzling because it raises the question of how it is possible to conceive of a scenario that is not genuinely conceivable. In the following section, I will argue that a more compelling and coherent response is available.

4 Dual-Aspect Monism and Mental Causation

In this section, I will argue that PRM can effectively incorporate mentality into the causal network of reality by adopting a proposal based on the model of dual-aspect monism. Before delving into the details, it is crucial to highlight the specific characterization of PRM that makes it vulnerable to the objections raised earlier. As explored previously, these objections stem from applying the thesis of contingency and necessitarianism to PRM, revealing that, fundamentally, the theory is treated as

dualism in disguise. In this framework, both mental and physical properties coexist and intricately intertwine ubiquitously and fundamentally throughout the natural world. Hence, the thesis of contingency introduces challenges as it allows for scenarios wherein mental properties can be swapped or absent. If phenomenal properties are distinct from physical ones, and it is possible (either metaphysically or nomologically) for phenomenal properties to vary across possible worlds without corresponding physical changes, then there is a legitimate concern that the mental property, considered in itself, may be epiphenomenal. Conversely, if these two types of properties are metaphysically tied and inseparable, as necessitarianism suggests, then the conceivability of such separation presents its own set of difficulties.

Given these challenges, it is worth exploring an alternative approach that rejects property dualism and instead embraces a form of property monism. While this may initially seem knotty since PRM is founded on the categorical/dispositional or extrinsic/intrinsic distinction, I argue that it is possible to maintain this metaphysical distinction without adopting any form of property dualism. The alternative characterization I defend is a version of dual-aspect monism according to which the categorical/dispositional or intrinsic/extrinsic distinction is understood in terms of different *aspects* of a single property.¹⁵ In this monistic view, there is only one type of property that is neither exclusively physical nor exclusively mental; instead, it encompasses both aspects. In other words, the properties are both mental and physical, with each aspect representing a *different way* of conceiving and describing the same underlying property. Embracing this dual-aspect monism allows us to maintain a distinction between the physical and the mental without needing to posit separate and distinct mental properties. An essential question arises: What defines an aspect, and how does it remain ontologically innocuous? Elsewhere (Hashemi 2024), I have undertaken this task in detail, explaining how dual-aspect monism should be understood to present PRM as a distinctive alternative to dualism, physicalism, and even idealism. Here, drawing from that source, I rely on the definition of the aspect developed in that paper and focus more on how and why this model of PRM can uniquely explain the exclusion problem, distinguishing it from both physicalism and dualism (Hashemi 2024: section 4). The central idea in this interpretation is that these aspects are not treated as separate entities, nor are they mere lenses or perspectives imposed on unknown objects by our minds. Instead, they represent different ways to truly conceive and describe an object. More precisely:

¹⁵ Historically, dual-aspect monism, that can be traced back to philosophers such as Spinoza, Schopenhauer, and Fechner, among many others, has been interpreted in various ways. The theory is often understood as a form of dualism at a fundamental level, treating mental and physical aspects as two fundamental and irreducible properties (see Nagel, 1986). Alternatively, for many, including Ernst Mach, William James, and Bertrand Russell, dual-aspect monism is a form of neutral monism, emphasizing epistemic conditions that distinguish the mental from the physical due to our cognitive inability to comprehend the true essence of nature. Davidson's account of anomalous monism (1970) also offers a version of this view where property dualism exists only conceptually, not ontologically. Indeed, it is beyond the scope of this paper to explore the controversy in detail. For a comprehensive historical perspective on this view, see Skrbina (2014). What is important to emphasize is that in this paper, dual-aspect monism is neither property dualism nor neutral monism. Instead, it should be understood as a version of panpsychism.

Def. Aspect of X is *the manner in which the essence of X is genuinely conceived and accurately described.*

In this context, the concept of essence is pivotal for defining aspects. Drawing from the Aristotelian tradition, and as revived by contemporary analytic metaphysicians such as E. J. Lowe (2018), Kit Fine (1994), and John Heil (2021: Ch. 4), essences are not viewed as entities themselves; rather, they represent what it is to be the very same entities. Put differently, the essence of X reveals metaphysically speaking, what it is to be X or its true nature. Being a thing implies possessing an essence, which reveals the fundamental nature of that thing. As articulated by Lowe (2018), the essence of a thing, in its original and proper sense, is “the very existence of any thing, by which it is what it is.” In general, X’s essence represents its core identity, and to be an entity entails having to have an essence; however, this essence does not add another entity to one’s ontology. It is mistaken to think that the essence of a thing is itself an entity. If it were, it would require a third entity as its essence, leading to an infinite regress that undermines the existence of anything. Existence implies having an essence, but if this essence relies on another essence endlessly, the existence of the first thing becomes impossible (Lowe, 2018: 20). Thus, treating essence as an entity is a fallacy, though it does not negate the reality of essence. Hence, in this view, the concept of essence is not merely epistemological; it is also metaphysical. The metaphysical essence of an object highlights the reality of its aspect—how the object is truly understood and accurately described. Since essences are real, so are these aspects. Importantly, the reality of essence, like that of the object itself, does not add another entity to the world. Furthermore, aspects are not mere lenses or guises that we project onto the unknown properties of the world. Thus, the perspective advocated here presents a fundamentally different view from anti-realist or perspectival accounts of aspects according to which aspects are distinct perspectives through which we conceptualize the properties of the world.¹⁶

In brief, an aspect of an object metaphysically explains how its essence can be genuinely conceived and accurately described. However, my view avoids property dualism, as aspects are neither entities themselves nor constituents of entities; rather, they are distinct ways for genuinely conceiving and accurately describing the essence of the same object. Within this framework, where the distinction between mental and physical is understood to apply to different aspects of a single entity or property, a monistic perspective emerges. According to this perspective, there exists only one type of object or property that is not exclusively physical or mental but encompasses both aspects. In simpler terms, the properties and objects that constitute the world possess both mental and physical aspects without being ontologically divided into two separate entities. Embracing dual-aspect monism allows us to maintain the distinction between the physical and mental within a unified framework. This approach acknowledges the diverse ways properties can be described without suggesting separate mental and physical properties. Instead, it recognizes that properties inherently possess both mental and physical aspects, providing a more nuanced understanding of their nature.

¹⁶ See Benovsky (2016).

To further illustrate this perspective, consider Jastrow and Wittgenstein's duckrabbit example.¹⁷ According to the dual-aspect monism proposed here, the "duckrabbit" is a single object with two distinct aspects: the duck-wise and the rabbit-wise. This unique feature allows us to describe the object in two fundamentally different ways: from its rabbit-like and duck-like perspectives. Both descriptions are accurate, and the object itself validates both. However, the essence of the object is neither purely a rabbit nor purely a duck; it is a composite entity, a duckrabbit. Similarly, the dual-aspect version of PRM (DPRM for short), as a version of kind monism, states that there is a single type of property (PRM's property) that exhibits different aspects, each corresponding to its physical and mental characteristics.

In light of the ontological framework of dual-aspect monism, PRM can provide a satisfactory solution to the exclusion problem. According to this perspective, when a property or event, let's call it E_1 , causally influences another property or event, there is a uniformity in the causal relationship since both entities belong to the same category, unified by a simple property. Importantly, it is this simple PRM property that is involved in the causal network of reality, rather than its individual aspects. In other words, neither the physical aspect nor the mental aspect causes anything; instead, it is the simple PRM property that is causally efficacious. Our understanding (conceptually and descriptively) of this causal efficacy, however, is attained through the aspectual descriptions that are determined by the essence of PRM properties. To address the modal variance of PRM more precisely within the framework of dual-aspect monism, we will now proceed with a detailed examination of the following three options.

A*. The strong account of DPRM: all instances sharing the same PRM properties in the actual world, as causes, will have the same effects as the actual world.

B*. The moderate version of DPRM: there are instances sharing the same PRM properties in the actual world as causes but differing in their effects.

C*. The weak version of DPRM: PRM properties only constitute the causal network of the actual world, and there are worlds in which radically different properties constitute the causal network.

Similar to A, option A* assumes the thesis of metaphysical necessitarianism, while options B* and C*, like B and C, are compatible with the thesis of contingency. The main difference is that DPRM, unlike the dualist interpretation of PRM that intertwines physical and mental properties (whether necessarily or contingently), posits only one type of PRM property, and such PRM properties alone play the causal role in every world they exist. The intriguing point is that PRM operates under different modal conditions without imposing a metaphysical stance on causation and the laws of nature. For example, B* allows the same PRM property to have different causes in different worlds. Even C* suggests that PRM is contingently true, meaning that our world is constituted by PRM properties; nevertheless, it is not true that all possible worlds are constituted by PRM worlds; instead, according to C*, there are possible worlds where physicalism is true—where everything

¹⁷ Wittgenstein (1963: 194)

is physical—or where idealism is true—where everything is mental, and so forth. These worlds are radically different. Nevertheless, these possibilities do not undermine the truth of PRM in the actual world or its causal efficacy.

With these preliminaries in mind, let's revisit the objections raised by Howell against PRM and consider how the dual-aspect version of PRM (DPRM) addresses them. Howell's argument shows that PRM aligned with the thesis of contingency PRM yield the swapped-and-absence scenarios (options B and C). However, for DPRM, the thesis of contingency does not entail such scenarios because aspects, by definition, are inseparable from the object. To possess a property in the framework of DPRM means to have both aspects inherently. Consequently, a proponent of DPRM, as shown in B* can consistently embrace the thesis of contingency and maintain that the same causes may lead to different effects in different worlds, as according to B*, causes themselves do not necessitate specific effects. Thus, the thesis of contingency can coherently be reconciled with DPRM without requiring swapped-and-absence scenarios or rendering mental-qua-mental epiphenomenal. This is because, within DPRM, aspects of PRM properties are inseparable, and they do not exist independently or in isolation. This resolves the concern raised by Howell regarding the swapped-and-absence scenarios, as DPRM posits a simple property (i.e., PRM property) with both aspects always present. Therefore, DPRM provides a coherent framework that allows for the coexistence of the thesis of contingency and the integration of mentality into the causal network of reality.

Additionally, as A* demonstrates, DPRM is compatible with the thesis of necessitarianism without dismissing the conceivability of zombie-world scenarios or questioning our cognitive ability to comprehend these cases. As noted earlier, due to the impossibility of zombie-world scenarios, proponents of PRM like Alter and Coleman argue that their conceivability is illusory and erroneous, casting doubt on our cognitive abilities to grasp these scenarios. Indeed, if the thesis of necessitarianism is true, a zombie world would be metaphysically impossible. However, why should we discredit our cognitive ability, which can coherently and clearly conceive of zombie-world scenarios? Why should this clear and distinct conception be considered illusory and erroneous? I believe that we can still entertain the conceivability of zombie-world scenarios, even if their possibility is ruled out. Remember, within DPRM, the actual monistic reality is truly conceived and described in two distinct ways: physically and mentally; these two conceptions and descriptions are parallel, distinct, and mutually exclusive. Thus, one can and should conceive and describe one without the other, and it is wrong and impossible to blend these conceptions/descriptions to truly describe the world. This is like the example of the duckrabbit object, where we can conceive and describe the object as either entirely a rabbit or entirely a duck, even though it can never be solely one or the other. The ability to conceive different scenarios is rooted in the nature of the properties that constitute the world. Since these properties can be described using two different conceptual and descriptive frameworks, we can coherently conceive of one aspect without the other.

Therefore, DPRM, or the dual-aspect version of Russellian panpsychism, can coherently address the concerns raised by Howell and offer a distinctive solution to the exclusion problem. It is worth noting that Russellian panpsychism, in contrast to physicalism, does not claim that all aspects of reality are empirically detectable.

Instead, within the broader framework of PRM and its specific dual-aspect version presented in this paper, the mental aspects of reality are empirically hidden and privately knowable only to conscious subjects. This way, Russellian panpsychism, as opposed to dualism, can coherently explain why mental causation is absent in the causal interactions discovered by the physical sciences. According to DPRM, a complete physical theory of the universe only uncovers the physical aspects of reality. Physical sciences provide insights accessible through physical descriptions, but there is another dimension of reality revealed through introspective examination and first-person experience, which involves phenomenological investigations. Thus, from this viewpoint, the intention that I am aware of through direct acquaintance is genuinely involved in causing my physical behavior, and the phenomenal aspects of events are not epiphenomenal or devoid of efficacy. PRM, in its dual-aspect monism formulation, offers a coherent and integrated framework where both the mental and the physical aspects of reality play a causally efficacious role.

5 Conclusion

Russellian panpsychism (PRM) presents a unique viewpoint on the intricate connection between consciousness and the physical realm. By asserting that phenomenal consciousness is both fundamental and ubiquitous, PRM offers a novel approach to understanding the nature of consciousness. Throughout this paper, I have delved into how PRM provides a distinctive solution to the exclusion problem. Through the lens of the dual-aspect interpretation of PRM, it becomes apparent that this theory has the capacity to seamlessly incorporate mentality into the intricate causal fabric of reality. This nuanced perspective not only addresses theoretical challenges but also opens up new avenues for exploring the profound interplay between consciousness and the physical world.

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Declarations

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References

- Alter, T., & Nagasawa, Y. (Eds.). (2015). *Consciousness in the physical world: Perspectives on Russellian monism*. Oxford University Press.
- Alter, T., & Coleman, S. (2021). Russellian monism and mental causation. *Noûs*, 55, 409–425.
- Alter, T., & Nagasawa, Y. (2012). What is Russellian monism? *Journal of Consciousness Studies*, 19(9–10), 67–95.
- Bennett, K. (2003). Why the exclusion problem seems intractable, and how, just maybe, to tract it. *Noûs*, 37(3), 471–497.

- Benovsky, J. (2016). Dual-aspect monism. *Philosophical Investigations*, 39(4), 335–352.
- Bernstein, S. (2016). Overdetermination underdetermined. *Erkenntnis*, 81, 17–40.
- Burge, T. (1993). Mind-body causation and explanatory practice. *Midwest Studies in Philosophy*, 18(1), 209–231.
- Chalmers, D. (2015). Panpsychism and panprotopsychism. In T. Alter & Y. Nagasawa (Eds.), *Consciousness in the physical world: Perspectives on Russellian monism* (pp. 246–276). Oxford University Press.
- Davidson, D. (1970). Mental events. In L. Foster & J. W. Swanson (Eds.), *Experience and theory* (pp. 79–101). University of Massachusetts Press.
- Fine, K. (1994). Essence and modality: The second philosophical perspectives lecture. *Philosophical Perspectives*, 8, 1–16.
- Goff, P. (2017a). *Consciousness and fundamental reality*. Oxford University Press.
- Goff, P. (2017b). Panpsychism. In S. Schneider & M. Velmans (Eds.), *The Blackwell companion to consciousness* (pp. 106–124). John Wiley & Sons.
- Goff, P., & Coleman, S. (2020). Russellian monism. In U. Kriegel (Ed.), *The Oxford handbook of the philosophy of consciousness* (pp. 301–327). Oxford University Press.
- Hashemi, A. (2024). How to Understand Russellian Panpsychism. Manuscript submitted for publication.
- Heil, J. (2021). *Appearance in reality*. Oxford University Press.
- Howell, R. (2015). The Russellian monist's problems with mental causation. *The Philosophical Quarterly*, 65(258), 22–39.
- Kim, J. (1988). Explanatory realism, causal realism, and explanatory exclusion. *Midwest Studies in Philosophy*, 12, 225–239.
- Kim, J. (1989). Mechanism, purpose, and explanatory exclusion. *Philosophical Perspectives*, 3, 77–108.
- Kim, J. (1998). *Mind in a physical world*. MIT Press.
- Kim, J. (2005). *Physicalism, or something near enough*. Princeton University Press.
- Lowe, E. J. (2018). Metaphysics as the science of essence. In A. Carruth, S. Gibb, & J. Heil (Eds.), *Ontology, modality, and mind: Themes from the metaphysics of E. J. Lowe* (pp. 14–34). Oxford, United Kingdom: Oxford University Press.
- Lycan, W. G. (2009). Giving dualism its due. *Australasian Journal of Philosophy*, 87(4), 551–563.
- Mills, E. (1996). Interactionism and overdetermination. *American Philosophical Quarterly*, 33(1), 105–117.
- Nagel, T. (1986). *The view from nowhere*. Oxford University Press.
- Papineau, D. (2001). The rise of physicalism. In C. Gillett & B. Loewer (Eds.), *Physicalism and its discontents* (pp. 3–36). Cambridge University Press.
- Poland, J. S. (1994). *Physicalism, the philosophical foundations*. Oxford University Press.
- Robinson, W. S. (2018). Russellian monism and epiphenomenalism. *Pacific Philosophical Quarterly*, 99(1), 100–117.
- Schiffer, S. (1987). *Remnants of meaning*. MIT Press.
- Sellers, W. (1963). *Science, perception, and reality*. Routledge and Kegan Paul.
- Skrbina, D. (2014). Dualism, dual-aspectism, and the mind. In A. C. Grantham & R. C. Koons (Eds.), *Contemporary dualism* (pp. 220–244). Routledge.
- Stoljar, D. (2024). Physicalism. In E. N. Zalta & U. Nodelman (Eds.), *The Stanford Encyclopedia of Philosophy* (Spring 2024 Edition). Retrieved from <https://plato.stanford.edu/archives/spr2024/entries/physicalism/>
- Wittgenstein, L., Anscombe, G. E. M., & Wittgenstein, L. (1963). *Philosophical Investigations...* Translated by GEM Anscombe. [A Reprint of the English Translation Contained in the Polyglot Edition of 1958.]. Basil Blackwell.

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