



Going Mental: Why Physicalism Should Not Posit Inscrutable Properties

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Abstract

Some philosophers argue that mental properties are ontologically distinct from physical properties and that, therefore, physicalism ought to be rejected. There are philosophers who feel the force of this challenge but who wish to maintain their physicalism. They suggest that mentality is grounded in inscrutable properties or ‘incurtables’: properties that are not revealed through physical enquiry but that do not violate physicalism. Our analysis reveals that appealing to inscrutables is not a successful strategy for these physicalists, for the following reasons: first, inscrutables likely do violate the conditions of physicalism; second, inscrutables lend greater support to panpsychism than physicalism; third, there is good reason to be agnostic as to whether or not inscrutables count as physical properties. Each of these reasons undermines the physicalist’s purpose in positing inscrutables. If one wishes to remain a physicalist, they ought to direct their philosophical analysis and energies toward revisiting and defeating the arguments that purport to show that mental properties are ontologically distinct from physical properties.

There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don’t know we don’t know.

—Donald Rumsfeld.

1 Introduction

Physicalism is the thesis that all fundamental properties in the universe are physical, and all other kinds of properties ultimately and categorically depend on these fundamental physical properties. Conversely, we can call the thesis that there exists

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at least one kind of thing—such as a category of properties—that is non-physical, non-physicalism. In response to certain challenges to physicalism, *some* physicalist philosophers posit the existence of a category of properties called ‘inscrutable properties’: properties whose intrinsic nature cannot be ‘scruted’ (Armstrong, 1961; Brown, 2017a, 2021; Chalmers, 2012; Lewis, 2009), which in this context means to be categorically revealed and understood, in principle, by means of the physical sciences. These physicalists hold that inscrutables are definitively physical, but some non-physicalists argue that (if inscrutables exist) then they are not. The purpose of our analysis is to show that these supposed inscrutable properties likely do not count as physical things, and therefore, physicalists should reconsider positing their existence.

We begin at Sect. 2 with some conceptual analysis of the key notions concerned. Then, at Sect. 3, we provide further clarification of what inscrutables are supposed to be, and why postulating inscrutables matters for physicalism. In Sect. 4, we show why inscrutables present a problem for physicalism. At Sect. 5, we consider a form of physicalism we call *non-fundamental physicalism* that potentially supports the existence of physicalism-friendly inscrutables in a world with no fundamental level. We determine that this view raises more problems for physicalism than it solves. Then, at Sect. 6, we argue that the existence of inscrutables abductively supports panpsychism; typically understood as the thesis that all fundamental properties have both physical and mental aspects. Finally, in Sect. 7, we acknowledge the appeal of mysterianism or permanent agnosticism as to whether or not inscrutables count as physical properties; a position we call *Kantian inscrutabilism*. This also undermines the physicalist claim that appealing to inscrutables supports physicalism.

2 Known Unknowns

To begin, some detailed but necessary conceptual house-keeping is in order. First, we take physicalism to be an ontological thesis about how the world is and what properties are, not just how we epistemically know about the world. Yet what exactly is a ‘physical property’? There is no apparent ontological definition, save for the circular definition that physical properties are properties that are categorically physical. One common definition of a physical property is that it is a property (an attribute of an entity) capable of being understood through scientific study and observation or is fully comprehensible through the physical sciences. Problematically, this is an epistemically-based definition of an entity in support of an ontological theory. This foreshadows one of the challenges present in this dialectic; that many of the problems arise from philosophers trying to draw ontological conclusions from epistemic insights. However, given that conceptually and historically the notion of the physical is grounded in the empirical methods of the physical sciences, this will have to be our working definition of a physical property.

There are also differing views regarding the exact commitments of physicalism. Some formulations include: the thesis that everything is physical; the thesis that everything depends upon a fundamental physical level (Loewer, 2001); the thesis that no non-physical categories are needed to describe the world as a whole (Fodor,

1981); a complete, purely physical description of reality that leaves nothing out (Mørch, 2017); the thesis that “all facts obtain in virtue of the distribution of the fundamental [physical] properties” (Loewer, 2001, p. 2), and so on.

Two popular accounts are *theory-based physicalism* and *via negativa physicalism*. The prior account says that a physical thing is something that is a posit of physics, or else ultimately depends on said posits of physics, and thus physicalism is true if all existing things are, or depend on, fundamental physical properties (Hellman & Thompson, 1975; Melnyk, 1997, 2002; Poland, 1994; Smart, 1978; Stoljar, 2001, 2010). The latter account says that physicalism is true so long as no fundamental properties are mental (Brown, 2022; Montero, 2005; Montero & Papineau, 2005; Papineau & Spurrett, 1999; Wilson, 2006). This is captured by Jessica Wilson’s (2006, p. 61) ‘no fundamental mentality constraint’, *NFM*.¹ We will discuss what is precisely meant by mentality shortly. Of course, the existence of *any* non-physical property, mental or otherwise, that falls within the purview of the physicalist claim—perhaps excluding things like mathematical objects or moral laws, for instance—would falsify physicalism, including a *via negativa* physicalism that does not define itself only in relation to one kind of non-physical thing, as we will come to understand in the course of our analysis. We can broaden Wilson’s position so as to adopt a more general principle, a ‘no fundamental non-physical entity’ constraint, or to put it in the positive, an ‘only fundamental physicality’ constraint. Call this constraint *OFP*. Hence, why we do not define *via negativa* physicalism as only being in opposition to mentality, lest we beg the question in favour of physicalism. Correctly understood, *via negativa* is a methodology, borrowed from apophatic philosophy and theology, which approaches problems by understanding concepts through negation. So, Wilsonian-style accounts will not have a monopoly on *via negativa* characterisations of physicalism. We will classify *via negativa* physicalism, for our purposes, as the thesis that physicalism is true so long as no fundamental properties are *non-physical*, where non-physical properties are taken to be any property that cannot be understood only by the physical sciences. The shared idea behind both theory-based physicalism and *via negativa* physicalism is: (a) that *all fundamental* properties are physical; and (b) that every non-fundamental property is physical or ultimately and categorically *depends* on fundamental physical properties.

Our conceptual house-keeping now brings us to another room: let us clarify what is meant by ‘fundamental’ and ‘depend’. In Latin *fundamentum* means the bottom, foundation, ground-work, or beginning. Thus, by ‘fundamental’, we mean that there is a grounding relationship between levels of analysis of reality (Schaffer 2012a), where higher levels are dependent upon the lower levels, excepting the fundamental level, which is not dependent upon anything further because it is the final, lowest

¹ See Wilson (2006, p. 91). Wilson’s position is that *NFM* physicalism preserves the historical meaning of physicalism and its status as the descendent of materialism. She also thinks that the constraint avoids two horns of what is called Hempel’s dilemma (Hempel 1969, 1980). The dilemma says that, firstly, one should not characterise the physical by reference to current physics because current physics is likely incomplete and partly inaccurate; and secondly, that a physicalism based on a future, ideal physics, has indeterminate content since we cannot yet know what a future ideal physics will look like (Hellman 1985, p. 609; Hempel 1969, 1980; Wilson 2006, p. 67).

level of reality, at the base of the chain of dependence (Schaffer 2012b, p. 1). The word ‘depend’ comes from Latin *dependere* and means ‘to hang from’. ‘Depend’ is here a neutral word that can capture a number of metaphysical relations between properties. Talk of dependence can mean that a property is fully constituted by x , reducible to x , inherited by x , supervenes on x , is determined by x , is grounded in x , and so on. The general idea is that higher level properties hang from the lower level properties. Unless explicitly stated otherwise, we will use ‘depend’ to mean that a non-fundamental property is *grounded in* a fundamental property. Now we must clarify what is meant by ‘grounded in’. According to Jonathan Schaffer (2017), the world is ‘layered’ in the sense that some entities are more fundamental than others, and ‘grounding’ is a distinctively metaphysical, non-causal determination relation, where the grounds metaphysically explain the grounded.² Readers are welcome to substitute a different understanding of dependence, for instance, they might substitute ‘explanation’ or ‘in virtue of’ as accounts. When applied to physicalism, we take something to be grounded in physical properties if and only if the grounded is categorically explained by the physical properties that form the fundamental grounds.

When we take ‘fundamental’, ‘depend’, and ‘ground’ together, we have a clearer picture of what physicalism claims: the only fundamental properties in the universe are physical, and all other properties depend on physical properties because they are ultimately and categorically grounded in them. For instance, chemical properties depend on atomic properties of chemical-constituting atoms, which depend on subatomic properties of atom-constituting subatomic properties. If the subatomic properties cannot be decomposed into smaller parts, then subatomic properties are fundamental, and the other properties are grounded in them. What is common between the above physicalist accounts is that the point of the theory is to explain *every* entity in terms of the physical sciences. One might consider this universalist account a stronger form of physicalism, in contrast to weaker forms which hold that physics need only *partly* explain every entity. We will consider this distinction at Sect. 4. Opposed to physicalism is non-physicalism, the view that there exist properties or kinds of properties that are not ultimately and categorically grounded in fundamental physical properties, and that this will remain the case no matter how sophisticated the physicalist account becomes.

One reason one might be sceptical of physicalism is if it cannot account for the first-person, phenomenal character of consciousness. This phenomenal character is sometimes expressed as the ‘what-it-is-like’ aspect of consciousness (Nagel, 1974), such as is experienced in seeing a red tomato or tasting a sour lemon. This purported what-it-is-like aspect of consciousness is also called the ‘mental’ or ‘mentality’. One popular way of understanding mentality is that it is an ineffable property, exemplified by Ned Block’s (1978, p. 281) claim, expressed in a quote from musician Louis Armstrong: “if you got to ask, you ain’t never gonna get to know”. Without committing to an exact account of mentality, we can say that it is that which we know

² For an alternative account of grounding see Goff (2015), who says: Fact X grounds fact Y iff Y obtains in virtue of X obtaining. (p. 3).

directly via the first-person-perspective, that *seems* non-physical. The existence of mentality motivates scepticism about physicalism for some philosophers because they think it is a kind of property that is not physical and may not be categorically grounded in any fundamental physical properties. Non-physicalism is true so long as there is at least one kind of property that is non-physical. If mental properties are not categorically grounded in fundamental physical properties, then physicalism is probably false.

Of course, not everyone accepts that the mental is something distinct from the physical, for instance, David Rosenthal (2010) argues that such things like colours, tastes, and so forth, only seem non-physical if one holds a specific theory of the world or accepts a particular intuition. However, the same reasoning holds for non-physicalism: non-physical things like mentality only seem physical if we hold a specific theory of the world or accept a particular intuition. Regardless, most philosophers involved in the physicalism/non-physicalism debate agree that there is something sufficiently interesting about mentality, such that one ought to address the notion that ‘mentality seems distinct from physical properties’. This proposition may or may not be true, but any philosopher engaged in the dialectic would be remiss to neglect its philosophical importance. A diligent physicalist should explain how mentality is grounded in the physical *and* why ‘mentality seems distinct from physical properties’, or else they would be ignoring a notion that *prima facie* appears to capture something about the way reality is. Likewise, a diligent non-physicalist ought to address the notion that ‘mentality appears to be strongly intertwined with a world full of physical properties’. This proposition also may or may not be true, but it would be neglectful to ignore it when arguing for non-physicalist theories. The point is that we ought to be receptive to these philosophically important notions if we wish to account for how reality is. Thus, for the purposes of our analysis, we take it that for physicalism to be a persuasive theory of reality, it must explain how mentality is grounded in the physical.

A number of arguments have purported to show that mentality is *inscrutable* to physical enquiry. These are the conceivability argument (Chalmers, 1996, 2010; Kirk, 1974), knowledge arguments (Jackson, 1982, 1986; Renero, 2023; Robinson, 1982) and the explanatory gap argument (Levine, 1983). The notion of ‘scrutability’ is related to David Chalmers’ (2012, p. 30) *scrutability theses*, which say that all truths can be determined—‘scried’ is his term—from a relatively spartan class of truths.³ Physicalists who talk about inscrutables usually take scrutability to mean

³ There are different ways of characterising scrutability, and much of this has to do with the interplay between physical things and laws of entailment and identification. In the literature on physicalism and mentality, the general idea is that if the grounding relations between mental properties and physical properties are covered by laws then there are some laws which, together with the physical properties and some identifications, ground the mental properties. There is debate as to whether or not the laws themselves ought to be scrutable from physical truths, but for our purposes we will adopt something akin to what Chalmers (2012) calls ‘weak scrutability’: all phenomenal properties are grounded in some physical properties together with some laws. This means we will remain agnostic about the scrutability of laws. For discussion of various notions of ‘scrutability’, see Balog (2012), Block and Stalnaker (1999), Chalmers (2012), Loar (1990) and Tye (1999).

that something can be fully revealed and understood, in principle, by means of the physical sciences. As a reaction to the claim that mental properties are inscrutable, some philosophers conclude that mentality is not grounded in fundamental physical properties and is, therefore, non-physical. Interestingly, some physicalists also feel the force of the above arguments in favour of inscrutability, yet rather than disavowing physicalism, they instead appeal to inscrutables to ground mentality in a way that accommodates the challenge presented by the inscrutability of the mental (Brown, 2017a, 2021; Montero, 2015). Physicalists who posit inscrutables allege that these things stand as fundamental properties that ground less fundamental properties, such as mental properties, and thereby account for the apparent distinctiveness of phenomenal character. At the same time, these properties allegedly do not violate the conditions of physicalism, because they themselves are inferentially physical (Armstrong, 1961; Chalmers, 2012; Lewis, 2009).

Our analysis reveals that appealing to inscrutables is not a successful strategy for these physicalists. First, physicalist accounts that posit inscrutables to explain mentality are not compelling because they do violate the conditions of physicalism. Second, if one does postulate inscrutables, then by inference to the best explanation, inscrutables lend greater support to panpsychism than physicalism. Third, there is good reason to be agnostic as to whether or not inscrutables count as physical properties, which supports *Kantian inscrutabilism*. From this analysis two responses present themselves to these physicalists. First, if one accepts arguments that purport to show that mentality is inscrutable to physical enquiry, then one ought to reject physicalism in favour of panpsychism or Kantian inscrutabilism. Second, if one wishes to remain a physicalist, one ought to direct their philosophical analysis and energies toward revisiting and defeating the arguments that purport to show that mentality is inscrutable to physical enquiry. Either way, we can appreciate that appealing to inscrutables provides no benefit for physicalism. We might also reconsider how the physicalism/non-physicalism debate is framed by revisiting the value of entertaining the debate at the fundamental level, which is far-removed from the human-level mentality that engendered the concerns in the first instance.

3 Why Inscrutables Matter

The conceivability argument, knowledge arguments, and the explanatory gap argument, support what is known as the mind–body problem and the hard problem of consciousness (Chalmers, 1995). These are, respectively, the difficulty of explaining the exact relationship between mentality and the physical body, and the problem of accounting for mentality in a way that is consistent with the seemingly completely physical universe in which we find ourselves. These two problems motivate scepticism about physicalism because physicalism denies the existence of fundamental mental properties, yet these two problems are sometimes taken to support the view that mentality is not physical nor dependent upon the physical. Non-physicalism accepts that there might be fundamentally non-physical properties, hence why most non-physicalists take mentality as the non-physically explicable property *par*

excellence. Non-physicalists include, but are not limited to, idealists, substance and property dualists, and panpsychists.

What is at stake here is where we ought to direct our philosophical attention, and how we can best approach making sense of reality. On the one hand, physicalists encourage continuous pursuit of physicalist explanations to unanswered questions, because they suspect that the correct ontology is one that fits into a physicalist framework. A non-physicalist thinks that we need to be open to non-physicalist frameworks in response to challenges to the physicalist picture. Some physicalists, such as Barbara Montero (2010, 2015), and Brown (2017a, 2020, 2021), appeal to inscrutables to characterise a physicalism that allows one to maintain their commitment to the proposition that ‘mentality seems distinct from physical properties’, thus satisfying non-physicalist concerns, while still firmly denying the existence of non-physically dependent mental properties, because the inscrutables are the grounds of mental properties.⁴ They suggest that inscrutables are properties that are not revealed through physical enquiry, but may still stand as the fundamental base for everything else (Brown, 2021; Montero, 2015). Brown (2017a, 2021) suggests that the best way to understand inscrutables is as a class of properties that ground dispositional properties but that are not themselves physical. The obverse of inscrutables are, therefore, ‘scrutables’, which are the dispositional, structural, and relational properties posited, and in principle knowable, by physics. For these physicalists, the above arguments undermine versions of physicalism that invoke dispositional, relational, and/or structural properties as being the fundamental properties of the universe.⁵ Notably, these properties are all cashed out in terms of measurable behaviours and/or spatio-temporal relations. Some philosophers, like Daniel Stoljar, think that inscrutables are neither dispositional, relational, or structural, *but* they still might form the physical base for all other properties, and therefore, are not undermined by the above arguments. The idea then is that physics refers to inscrutables indirectly, such as how one might refer to “the dark figure in the alley”, even if one does not know any of the other properties of said figure. In this case, one is referring indirectly to particular properties of the person, for instance that they are a person, by referencing other features, such as that they are a dark figure (Stoljar, 2001). So, while the nature of inscrutables is not known, we can allegedly make indirect inferences about them.

Here is our working definition of an inscrutable:

x is an inscrutable if it is a property posited by a theory to explain or ground, in whole or in part, other properties, objects, or events; this property is incapable of being categorically understood or revealed through physical study and observation; or being comprehensible by the physical sciences.

⁴ Brown prefers to refer to these properties as ‘categorical properties’.

⁵ The dispositional versus categorical distinction was introduced by Gilbert Ryle (1949, p. 117) for the purposes of distinguishing certain types of statements.

On this definition, an inscrutable might ground mentality without this being any indication whether the inscrutable is or is not itself mental. Hence, the definition does not automatically lend support to either physicalism nor non-physicalism.

Why do some people posit inscrutables, let alone care about them? Physicalists who feel the force of the conceivability argument, knowledge arguments, and explanatory gap argument—and consequently the mind–body problem and the hard problem of consciousness—are allegedly confronted by two inconsistent claims (Brown, 2021):

Physicalism: the only fundamental properties in the universe are physical, and all other properties depend upon, and are grounded in, physical properties.

Inscrutability: mental properties appear not to be physical properties, nor grounded in fundamental physical properties.

On the one hand, physicalism is attractive as it can in principle account for all non-mental properties, and this is a great deal of known properties in existence. It also addresses the proposition that ‘mentality appears to be strongly intertwined with a world full of physical properties’. For instance, Papineau (2001) argues that physicalism is supported by the causal closure argument that concludes that all physical effects (including human behaviour) have only physical causes. In summary, the force of physicalism lays in the parsimony and simplicity of positing only one kind of fundamental property; the physical properties with which we are already well-acquainted.

On the other hand, the arguments presented earlier purport to show that mentality is inscrutable to physical enquiry. For instance, the conceivability argument says that if we can conceive of a minimal physical duplicate of our world, including all and only our world’s fundamental physical properties and whatever properties they metaphysically necessitate, but that has different mental properties than our world, then such a world is possible (Chalmers, 1996, 2010). If a minimal physical duplicate of our world with different mental properties is possible, then physicalism is false. Such a world is conceivable, therefore possible, so physicalism is false. According to this argument, it is the very fact that mental properties are inscrutable to scientific enquiry that renders physicalism false. Thus, any property that is inscrutable to scientific enquiry, be it mental or otherwise, appears to undermine physicalism. At first pass, it appears that *inscrutability* and *physicalism* cannot both be true.

Non-physicalists resolve the tension by rejecting *physicalism*. Some physicalists deny *inscrutability*, perhaps because they feel no compulsion to posit inscrutables, or if they do, no compulsion to explain what they intrinsically are, why they are not mental, and how they ground the mental. Lewis (2009) and Armstrong (1961) adopt this position, which is called the *scientific categorical ignorance thesis* (Chan, 2021). Both kinds of responses are certainly available to the interested philosopher. Yet we think that whether or not inscrutables exist, and if they can explain mentality, is integral to the physicalism/non-physicalism debate. The problem is that if these properties cannot be revealed by physical enquiry then (a) how do we know that they are themselves physical? And (b) how do we know that they ground the mental? We hold that the appeal to inscrutables is inadvisable for physicalists because they cannot satisfactorily address the above two challenges. Here are three reasons

why. First, positing properties that are incapable of being understood through study and observation or being comprehensible by physical science, violates the spirit, and more importantly the conditions, of physicalism. It even violates the conditions of *via negativa* physicalism, because by holding that there can be no non-physical properties, there remains a positive account of what a physical property is. Second, even if the existence of inscrutables somehow does not contradict physicalism, inscrutables still do not explain how mentality depends on, or is grounded in, physical properties.⁶ Thus, positing inscrutables does not advance the physicalist/non-physicalist dialectic, rather, it places it on hold by suggesting that perhaps there is a solution, but one that cannot be explained because the relation is mysterious. Third, mental properties appear distinct to physical properties; even these particular physicalists must grant us this, as this is why they are engaging in the debate. If mental properties are grounded in inscrutables *and* seem distinct to physical properties, then abductively the case is stronger that inscrutables are mental or non-physical kinds of properties. After all, our only evidence for inscrutables is our phenomenal character.

In support of the case against the value of inscrutables to physicalism, we will assess four distinct responses to the conjunction of *inscrutability* and *physicalism*:

Physical inscrutabilism: Maintain *physicalism* and *inscrutability*: inscrutables count as physical properties.

Non-Fundamental Physicalism: Maintain *physicalism* and *inscrutability*: inscrutables are either physical properties or not fundamentally non-physical properties in a world with no fundamental level. Call this view *non-fundamental physicalism* (Brown, 2017b, 2020).

Panpsychism: Reject *physicalism* and maintain *inscrutability*: inscrutables are not purely physical properties and likely mental. This view is popular with panpsychists, so call it *panpsychism*. Note that it might also support dualism or, with additional argumentation, idealism.

Kantian inscrutabilism: Adopt agnosticism about either or both *physicalism* and *inscrutability*: inscrutables may be physical, non-physical, mental, etc., but are epistemically inaccessible. This view is similar to that held by Immanuel Kant (1999), so call it *Kantian inscrutabilism*.

First, we will argue against physical inscrutabilism. Then we will consider non-fundamental physicalism as an alternative formulation of physicalism that might reconcile physicalism with the real existence of inscrutables. This view holds that infinite, non-fundamental, non-physical properties count as physical in a world with infinite, non-fundamental, physical properties: such a world is one with no fundamental level. This solution fails because it cannot explain the grounding relation between mentality and inscrutables, and a world with no fundamental level renders physicalism compatible with non-physicalist views like panpsychism, which dilutes physicalism by reducing it to a view about how to carve up conceptual space, instead of a view making ontological claims.

⁶ This concern may not be applicable to Lewis' quiddities because they are not supposed to solve the problem of the existence of mentality; that is done by functionalism. The quiddities are there to constitute the relata for the causal relations. Armstrong holds a similar view.

Therefore, we will reject non-fundamental physicalism. We will then show that if one posits inscrutables, abductively there is a stronger case for panpsychism than physicalism. However, inscrutables also lend support to Kantian inscrutabilism, given that the nature of inscrutables cannot be definitively shown to be mental.

4 Physical Inscrutabilism

According to physical inscrutabilism, the mental properties that motivate *inscrutability* are grounded in inscrutables, and although the nature of inscrutables cannot be revealed by physical enquiry, the mental properties themselves are not fundamental and thus do not count against physicalism (Montero, 2010; Stoljar, 2001). Brown (2017a) says that if we were to duplicate both the scrutable and the inscrutable fundamental properties, in a manner analogous to the thought experiments involved in conceivability arguments, then it is not necessarily conceivable that phenomenal properties would fail to be realized as well. It could be the case, he argues, that although physical inscrutables are properly physical and not ‘infected’ by some special relationship to mentality, the mental properties might yet still be grounded in them. In this manner, appealing to inscrutables could undermine the anti-physicalist interpretation of the conceivability argument if the inscrutables are the underlying role-fillers of the properties revealed through physics that ground mentality. Brown says that this characterisation of inscrutables is compatible with a specific kind of physicalism called *Russellian monism*—the view that a single kind of property grounds both the mental and physical—for although the nature of the inscrutables is not positively known, we can infer that they are probably physical (Alter & Nagasawa, 2012, pp. 70–1; Brown, 2017a; Chalmers, 2015, p. 43; Russell, 1900, p. 274; 1912). According to Brown, we do not need to say what the inscrutables are in order to get a physicalism that explains mentality, because if we duplicate both scrutable and inscrutable, then we see that inscrutables are not mental, and we thereby get a workable physicalism.

We can appreciate that there are two reasons why physicalists appeal to inscrutables: (a) the ontological reason: physical inscrutabilism holds that ontologically mental properties are grounded in fundamental physical properties; and (b) the explanatory reason: physical inscrutabilism can explain mentality on a physicalist picture by grounding mentality in fundamental physical properties. Note that if (a) fails as a strategy, then (b) also likely fails, as its explanatory value is connected to (a). Below are two arguments that show that the real existence of inscrutables implies that physical inscrutabilism is false. The *incompatibility argument* shows that (a) is not a convincing reason because inscrutables violate the condition of physicalism that there are no non-physical fundamental properties. The *non-explanatory argument* shows that (a) and (b) are not convincing because inscrutables do not help ontologically ground mentality in fundamental physical properties, and thus physicalism cannot explain mentality.

4.1 The Incompatibility Argument

Is the concept of an inscrutable even compatible with physicalism? The fact we can talk about inscrutables indicates that they are conceptually coherent, yet there appears to be a gap between the concept and its physical credentials. The notion of an ‘inscrutable’ is developed in response to the inability of physics to reveal the grounds of certain kinds of properties, thus if something is inscrutable, it is by definition *physically inscrutable*. This entails that the intrinsic nature of the inscrutable property lies outside the purview of the physical sciences, *in principle*. If physics could in principle reveal these properties, they would be inscrutables-for-now. Inscrutables-for-now are like the dark figure in the alley, in that they can eventually step forward into the light and reveal themselves. However, the lesson usually taken from the conceivability argument, knowledge arguments, and explanatory gap argument, is not that mentality cannot *for now* be shown to be grounded in physical facts, but that mentality is a distinct kind of fundamental property that can never be fully grounded in the physical: hence why the mind–body problem and the hard problem of consciousness follow. Thus, an inscrutable-for-now is not the kind of inscrutable under discussion in the literature. Inscrutables are fundamental properties that are not revealed through physical enquiry: they cannot step forward into the light. So, if inscrutables are existing ontological entities, then their existence renders physicalism false.

A response to this line of objection is that we should not discount physicalism because a minuscule fraction of properties in our ontology cannot be physically revealed. For example, Chan (2021) says that the existence of far-fetched, non-physical things, “distant from the standard concerns of physicalism” should not discredit the view:

Recall the scientific categorical ignorance thesis—a component of Russellian monism—according to which categorical properties are not knowable by the natural sciences. Not only do Russellian monists accept this thesis, often for reasons independent of the philosophy of mind (see e.g. Stoljar, 2001, pp. 258–259; Montero, 2015, p. 217), but so do many respected physicalists such as Armstrong (1961), Jackson (1998), and Lewis (2009). In fact, this thesis is widely accepted in contemporary metaphysics, though it is accepted for different reasons[...]While it is possible to count, as do, every person who accepts both the existence of categorical properties and the scientific categorical ignorance thesis as a non-physicalist, this is certainly a radical move. For we should be reluctant to put the metaphysical frameworks of all the leading physicalists and Russellian physicalists mentioned above in the anti-physicalist camp if the only reason is one that is very much distant from the standard concerns of physicalism: namely, debates such as whether there are disembodied minds or whether God exists. As Stoljar remarks, ‘there seems no reason not to count [unknowable categorical properties] as physical in some sense or other’ (Stoljar 2015); and, as Montero remarks, ‘[unknowable categorical properties] are not uniquely important to the mental and so a world with them should be perfectly acceptable to a physicalist’ (Montero, 2015, p. 217). Such

reluctance leads theorists such as Stoljar (2001a, b) and Montero (2010, 2015) to favour a more moderate, revisionary move, can be understood as follows: if our conception of physicalism is mistaken because of some reason distant from the classical discussions of the doctrine, we should simply say that the conception is mistaken, not that the doctrine is mistaken. (pp. 2045–2046).

This hand-waving away non-physical properties is unconvincing, just as unconvincing as Chan's (2021, p. 2046) claim that the existence of God is a distant concern for metaphysicians and physicalists. No concern is too distant for physicalism, for the whole point of physicalism is to employ the universal quantifier: no fundamental properties are non-physical, which is equivalent to claiming that all fundamental properties are physical. It is precisely the existence of non-physical properties, mental or not, that is a concern for physicalism; there is no such thing as far-fetched, non-physical things "distant from the standard concerns of physicalism", according to physicalism itself. If physicalism is the claim that everything is physical, then the existence of even one non-physically dependent property is sufficient to render the theory false, unless philosophers beg the question by stating that physicalism is the claim that everything in reality is physical. And this is an ontological not an epistemic claim; that such things are posited but cannot be definitively known means they might intrinsically be non-physical. We ought, therefore, to conclude that to dismiss the importance of inscrutables that are unknowable by physics is to commit a *petitio principii*.

Chan might have in mind what we called a weaker kind of physicalism, one which holds that physics need only partly explain every entity, and hence reject the premise that inscrutables are outside the purview of the physical sciences, in principle, because they are only so for now. For instance, Chalmers (1996) distinguishes between three kinds of physicalism in response to the mind–body problem and the hard problem of consciousness: a type-A materialist denies that there is the relevant sort of epistemic gap between the mental and physical; a type-B materialist accepts that there is an unclosable epistemic gap yet denies an ontological gap, and a type-C materialist concedes that there is an epistemic gap yet thinks that it can in principle be closed. Take 'materialist' here to be synonymous with 'physicalist'. So, a type-C materialist will reject the premise that inscrutables are in principle inscrutable to physical enquiry. Here is an example. According to Russellian monism, 'protophenomenal properties' are alleged properties that ground mentality without themselves being mental, because they are the underlying role-fillers of the dispositional and other properties revealed through physics that explain consciousness. Russellian monists hold that mentality is an aspect of fundamental properties, but that it is grounded in the these inscrutable 'protophenomenal' properties (Alter & Nagasawa, 2012, pp. 70–71). Although the Russellian monist cannot close the epistemic gap between the mental and physical, they think that with complete knowledge of inscrutables, it would be revealed that they would count as fundamentally physical properties. We are interested in a stronger kind of physicalism, one that commits to the traditional understanding of physicalism as claiming that everything is categorically grounded in the physical. If something is only partly grounded in

the physical, and partly grounded in something else, say mental properties, this clearly violates the claim that physicalists make when they say everything is physical. This almost sounds like a kind of dualism.

If inscrutables are non-physical then they present a concern for physicalism, but problematically, there is no persuasive reason to infer that inscrutables are physical. Morris (2016) suggests that an exact duplicate of our world in every physical respect, excepting that it lacks inscrutable properties that ground the mental, would both be physical in an identical way to our own world, and yet would be lacking in mentality. He concludes that “[inscrutables] probably do not have a place in physicalist metaphysics” (Morris 2016, p. 6). It seems then that the inscrutables that ground mentality should be inferred to be at least partly non-physical, and this puts mentality into the fundamental level. Thus, Russellian monism faces a dilemma: either inscrutables are at least partly mental which entails that Russellian monism surrender its physicalist credentials, or inscrutables are not mental at all, but then Morris’ thought experiment shows that mentality is grounded in some further, fundamental property, because it is not accounted for by the originally postulated inscrutable properties. Positing physical inscrutables simply increases the distance between human mentality and the fundamental level which grounds it, but it does not resolve the problem in a physicalist-friendly manner. A Russellian monist might deny that inscrutables are protophenomenal and assert that they are only physical, but then they again run into the problem of showing why this kind of property is both physical and categorically grounds the kind of mentality that follows from the conceivability argument. By explaining away the tension between *inscrutability* and *physicalism*, the Russellian monist is only explaining away inscrutables or physicalism, but not mentality.

Morris’ thought experiment shows that inscrutables are not merely epistemically distinct, but ontologically so, and thus one cannot resolve the problem by appealing to type-C materialism and rejecting the premise that inscrutables are only epistemically but not ontologically outside the purview of the physical sciences. Indeed, as Howard Robinson (2016) argues, positing properties hidden to physics that still interfere in the physical world leads to a contradiction:

Our scientific knowledge seems to be adequate for fine tuning the operations of matter to a remarkable degree[...]There is a paradox here. If the hidden property did ‘interfere’ with the operations that science seemed to predict, then it would no longer be hidden. But if it does not, then in what sense is it a physical property? (p. 206).

If inscrutables are a kind of mental property, then physicalism fails. If they are categorically physical, then they do not ground mentality. If we call them ‘protophenomenal’ physical properties, then this is a misleading title for ‘inscrutable-for-now physical properties’, and any physicalism making an ontological claim fails. The conclusion we can draw from all this, is that ‘inscrutable physical properties’ appears to be a contradiction, and thus physicalism cannot account for inscrutables without changing the necessary conditions of physicalism.

4.2 The Non-Explanatory Argument

The incompatibility argument shows that the existence of inscrutables is incompatible with the requirements of physicalism, but there is a further conditional argument available: were inscrutables not to violate the conditions of physicalism, appealing to inscrutables still does not afford physicalism a way to explain the existence of seemingly non-physically dependent mentality, because inscrutables do not show how mentality is grounded in fundamental physical properties. In other words, appealing to inscrutables does not explain phenomenal character in a physicalism-friendly manner, which is the motivation for positing them in the first instance.

Consider two commons ways in which physicalists articulate the relationship between mental properties and inscrutable properties: constitution and grounding. Brown and Chalmers both say that inscrutables could *constitute* the mental because if a minimal physical duplicate of our world with different mental properties is possible, then mental properties are not fully constituted by physical properties, but rather by inscrutable properties. Here is a definition of ‘constitution’ provided by Goff (2015):

Truth X constitutes truth Y iff (i) X is a fundamental truth and Y is a non-fundamental truth, (ii) the fundamental reality specified by X satisfies the metaphysical truth condition of Y .

We should take ‘constitutes’ to mean ‘fully-constitutes’, which means that X is a fundamental property that is not constituted by any further properties. Yet because we can conceive of a world wherein all physical facts exist sans mentality per the conceivability argument, then inscrutables must be the property that partly or fully constitutes the mental. Thus, the mental is not fully constituted by the physical.

The same reasoning applies to physicalism that substitutes ‘constitutes’ for our preferred concept of ‘grounding’. The problem is identical: mentality is grounded in inscrutable properties and, therefore, not fully-grounded in fundamental physical properties. If mentality were fully-grounded in fundamental physical properties, then there would be no need to posit inscrutables in the first instance. It follows that physical properties are not the grounds of mentality. Physicalism thus does not give us an explanatory account of how mentality is fundamentally physical, nor what mentality is, unless it can definitively show that inscrutables are physical.

The purpose of positing inscrutables is to explain mentality.⁷ If positing inscrutables explains mentality, but inscrutables cannot be shown to be fundamentally physical, then physicalism is in trouble. Why posit inscrutables that count as physical, if they thereby do not categorically explain the mental? As physicalism cannot show that inscrutables are physical nor how they thereby fully explain the mental, we must conclude that physical inscrutabilism fails. Of course, this conditional non-explanatory argument is secondary to the stronger incompatibility argument, which shows that inscrutables violate the conditions of physicalism.

⁷ Again, excepting Lewis’ account.

5 Non-Fundamental Physicalism

Is there a way to rescue physical inscrutabilism? It has been acknowledged by Alter and Nagasawa (2012), R. Brown and Ladyman (2009), Montero (2006), and Schaffer (2003), that the existence of inscrutables that are not definitively physical properties renders physicalism false in worlds that have a fundamental level. However, if we get a bit ontologically creative, we might be able to come up with a kind of world in which physical inscrutabilism is true. Brown (2017b) argues that one can maintain *physicalism* and *inscrutability* in a world with *no* fundamental level. This is because there could be an infinite descent of ever-lower-level mental properties which are all nonetheless dependent on ever-lower-level physical properties (Brown, 2017b). Call the view that physical inscrutabilism is true in a world with no fundamental level *non-fundamental physicalism*.

Here, in brief, is the case for non-fundamental physicalism. Brown and Ladyman (2009), Montero (2006), and Schaffer (2017) have proposed a divide in the world between a subvening set of non-mental bottom levels, and a supervening set of mental top levels. Now imagine that there is a world that has no fundamental level, such that every top level subvenes on a bottom level, which then subvenes on yet a lower level. For example, presume that fermions and bosons (which current physicists take to be fundamental) are themselves composed of lower-level things, which are composed of lower-level things, and so on, ad infinitum. In such a world it seems that it is not a necessary condition for physicalism that that every fundamental property is physical, for where there is no fundamental level, there are also no fundamental non-physical properties. Yet what if in a world with an infinite descent of physical properties there is also an infinite descent of mental properties? One might expect this to render physicalism false. Brown (2017b) says that an infinite descent of mentality is possible in a physical world, provided there is also an infinite descent of the physical. Brown describes a possible world that is infinitely both all-physical and all-mental “all the way down”, which he calls *MPW*.

In *MPW* there are no fundamental properties. Additionally, each level has compositional complexity; any property at any level n has many constituent parts at the next lowest level, $n - 1$. How many parts n decomposes into is irrelevant, only that each property is composed of however many parts are required for the given complexity. Thus, if there is a highest-level system, A , such as phenomenal character, then A is mental in virtue of the relations between the B s that compose A , and the B s are mental in virtue of the relations between the C s, and C s the D s, ad infinitum. In *MPW* mentality is generated at every level through the dynamic compositional structure of lower-level properties. In essence, says Brown, he is just positing many quasi-brains, all the way down. In this possible world, there is an infinite descent of mental levels, yet physicalism is allegedly still true, because these mental levels are grounded in an ever-lower mental and physical level. Thus, we can reject any ‘no-infinite-descent-of-mentality’ criterion for physicalism.

Brown addresses three counter-arguments to his conjecture. First, one response is to suggest that physicalism implies eliminativism about mental properties,

which would trivially mean that no way of arranging only physical things could ground mentality. However, given that most physicalists are not eliminativists, Brown rejects eliminativism about the mental for physicalism to argue that *MPW* contains physicalism-friendly mentality.

A second critique of the argument is to say that nothing in *MPW* is genuinely mental, perhaps because no mental thing can have another mental thing as a part. This would render Block's (1978) Chinese nation or Searle's (1980) Chinese room not genuinely mental. One response to this objection comes from cognitive science: arguably the human brain is composed of mental sub-systems, and this is especially evident if any modularity thesis is true (Fodor, 1983). Brown's second response is to appeal to an argument from Eric Schwitzgebel (2015) that there are nomically possible alien creatures who could be constructed out of undeniably mental parts and who would count as mental, and that it would be chauvinistic for humans to deny that such beings—some of which might resemble incredibly sophisticated ant colonies—could be mental.

The third critique is that any plausible revision of physicalism which allows it to be true in a world without a fundamental level will have panpsychism come out true in *MPW*. For instance, if panpsychism is revised into the thesis that mental and physical properties are ubiquitous at every level of nature below some level n , then panpsychism so conceived is true in *MPW*. It is peculiar if in *MPW* both panpsychism and physicalism come out as true because panpsychism is usually considered incompatible with physicalism. Brown suggests that one way to resolve this tension is to bite the bullet and give up the idea that panpsychism and physicalism are inconsistent with one another. This is undoubtedly controversial, yet Stoljar (2001) claims that while panpsychism posits more and stranger mental properties than we typically suppose exist, the quantity and location of mentality alone is not enough to make physicalism false. Of course, this would violate any physicalism with an *OPF* or *NFM* constraint (Wilson, 2006). In response, Brown suggests that if we drop *NFM* as a condition of physicalism, then there is no apparent tension, and presumably, he might recommend we drop *OPF* as a condition too.

Although a creative way to rescue physicalism, non-fundamental physicalism is unsatisfactory in relation to physical inscrutabilism. First, let us consider the ontological issues. If at each respective level what grounds mentality are composite physical properties, but all these properties are physically scrutable, then they will still fall afoul of the conceivability argument. Alternatively, if inscrutable properties play a role in the grounding relation, then it is they, and not physical composition alone, that accounts for mentality at each level. And so mentality is not categorically grounded in physical properties. Although in *MPW* inscrutables are also explained by lower-level physical things, so too are physical things explained by lower-level inscrutables. Thus, the grounding relation of the mental is infinitely passed downwards. In one sense, non-fundamental physicalism fails as a physicalism, because it never ultimately grounds mentality in physical properties, or indeed anything, because there is no ultimate grounds.

If we are charitable and dispose of our definitions of physicalism in favour of something more nebulous—how such a physicalism should be characterised eludes us—then perhaps non-fundamental physicalism is true in a world (nomically

improbable) where there is an infinite descent of physical and mental levels. Yet this is hardly a victory for physical inscrutabilism, for aside from side-stepping the primary challenge in the physicalism-non-physicalism debate—whether there are fundamental non-physical properties—by denying fundamentality, it also provides little comfort to a this-world physicalist who accepts fundamentality.

Second, we come to the epistemic concerns. It is not clear that *MPW* actually explains phenomenal character. In *MPW*, whatever gives rise to human-level mentality can be iterated ad infinitum to smaller and smaller degrees, but at no point does it actually explain how such a mechanism gives rise to mentality. It appeals to compositionality, but as we know from the conceivability and knowledge arguments, compositionality leaves many philosophers dissatisfied with how mentality arises at the human level, let alone how it infinitely arises. For all we know, *MPW* necessarily requires emergentism, parallelism, or entails an explanatory gap, iterated infinitely many times (presuming the story is identical at each level, which is not guaranteed). Thus, Brown's solution still does not account for the mental, even at each respective level. Consider Agrippa's trilemma about explanations. The trilemma is the proposition that the attempt to justify any philosophical belief can only end in one of three ways: a circular argument; an infinite chain of explanation; or a foundational assumption that can no longer be questioned. To account for mentality, Brown has fallen upon the second horn and presented us with an infinite chain of explanation. And no matter how far down the chain we descend, we are no clearer about the connection between physical properties and mentality than we are when we ask how the many interacting components of Alex's brain gives rise to his mentality. Brown never explains how Alex's mentality is grounded, so his story does not dispel the hard problem or mind-body problem which motivated non-physicalism in the first instance.

In other words, non-fundamental physicalism has taken our initial problem, the hard problem of consciousness and the mind-body problem, and infinitely reiterated it. We are as much in the dark after accepting Brown's infinite mentality in a non-fundamental physical world, as we were before. Perhaps we are now infinitely further from explaining human consciousness! *MPW*, therefore, fails to explain the explanandum, human mentality. We have now come a long way from explaining human mentality, the problem that sent physicalists down the path of positing inscrutables in the first place. If a physicalist is positing an infinite descent of inscrutable, alien-structured mentality, in a possible world without a fundamental level, to explain the human mind in this world, they might wonder how parsimonious physicalism is, and why they are willing to sacrifice so much to defend it.

Non-fundamental physicalism purports to save physicalism, but does so by deracinating the definition of physicalism, because it concedes that there are no fundamental physical properties or explanations. If theory-based physicalism fails to capture some aspects of reality (such as fundamental mentality), then it fails to quantify over all of reality, and thus is false. If *via negativa* physicalism fails to capture some aspects of reality (such as fundamental mentality), then it fails to quantify over all of reality, and thus is false. If non-fundamental physicalism fails to account for some aspects of reality (like non-physically-grounded mentality), then it too fails to quantify over all of reality, and thus fails as a kind of physicalism. If there is no

fundamental level, then non-fundamental physicalism infinitely reiterates the hard problem and the mind–body problem. The postulation of non-fundamental physicalism provides an opportunity to take stock of the state of the physicalist/non-physicalist dialectic. By passing the buck of explanation of mentality to an infinitely-receding level, all kinds of erstwhile contradictory theories can be made palatable. Consider that in *MPW*, not only is physicalism arguably compatible with ubiquitous mentality, but dualism comes out as compatible with physicalism! Even Berkeley's (1948–1957) subjective idealism—the view that reality consists ultimately of minds and their ideas—becomes compatible with physicalism: the physical level is explained by a lower ideal level, which in turn is explained by a lower physical level, and so on. If we are correct about this, then the terms ‘physicalism’ and ‘non-physicalism’ are not worth the paper they are written on.

Non-fundamental physicalism risks reducing itself to a metaphysical position we call *descriptive universalism*:

Theory *X* (e.g. call it ‘physicalism’) is the notion that all *f*s (properties in reality) can be quantified over by *P* (a descriptor for all properties in reality).

In this instance, non-fundamental physicalism says that ‘physicalism is the notion that all properties in existence (i.e. everything), mental or physical, can be quantified over by the term ‘physical’’. This reduces the physicalism/non-physicalism debate to an epistemic disagreement about how to carve up conceptual spaces. What we call ‘mental’ or ‘physical’ are terms for classifying different-seeming stuff, without a commitment to their fundamental properties, constitutions, powers, nature, and so on. Yet because the seeming distinction between these properties, physical and mental, is what generated the trouble in making sense of reality in the first instance, reverting to an epistemic or linguistic debate about how to characterise the distinction is tantamount to admitting that no progress can be made on the problem. We are left with no explanation for the apparent uniqueness of human mentality and the notion that ‘mentality seems distinct from physical properties’. Of course, we do want to make sense of reality and account for the above notion, and so we ought to resist adopting descriptive universalism, and persist in making sense of the real distinctions that exist in the world.

6 Quis Separabit? A Panpsychist Account of Inscrutables

We have shown that physical inscrutabilism cannot make *inscrutability* and *physicalism* compatible in a satisfactory manner. We now come to the third response to the conjunction of *inscrutability* and *physicalism*: maintain *inscrutability* but reject *physicalism*. This view implies that inscrutables must be non-physical. Given the earlier appeal to the conceivability argument, this means that for our purposes, if inscrutables are non-physical, we will take them to be mental.

The only way inscrutables are recognizably present to us is by their grounding mentality. We may know inscrutables indirectly just like ‘the dark figure in the alley’, but that indirect reference is a necessarily mental-based connection. On the physicalist view something is missing, something intrinsic, and it is a kind of thing onto which the language of physics cannot attach. Perhaps it is a *tertium quid*

property that explains consciousness, but as Robinson asks, why is this property and its influence not felt elsewhere (Robinson, 2022)? If inscrutables only reveal themselves as mentality, should not parsimony, Grice's (1989, p. 47) 'Modified Occam's Razor', and abductive reasoning, lead us to conclude that they are mental?⁸ For the fact that the only way inscrutables are recognizably present to us is by their grounding consciousness, is a reason to infer that inscrutables are mental. We can reinforce this with two arguments in support of the view that that which reveals itself only via mentality is itself mental: the *no emergentism* argument, and the *grounding argument against physicalism*, to explain why panpsychism is more compelling than physical inscrutabilism.

6.1 No Emergentism Argument

Let's begin with Galen Strawson's case for panpsychism. Interestingly enough, Strawson (2006) calls his panpsychist position 'real materialism', because he takes it to be the case that there is such a physicalism that asserts the irreducible reality of phenomenal character. Strawson holds that any concrete object that occupies space–time is physical, and this includes conscious creatures such as ourselves. This is allegedly a kind of physicalism according to Strawson, because he purports that all the properties of concrete objects, including conscious states of objects, are categorically explained by an object's physical nature but are still not reducible to the physical properties of the object. Strawson thinks physicalism, even without an *OFF* constraint, is true.

Strawson (2006, p. 60) also holds that if there can be no reductionism about phenomenal character and if physicalism is true, then "physical stuff is, in itself, in its fundamental nature, something wholly and utterly non-experiential". So from whence comes mentality on this picture?

A physicalist might appeal to 'emergence' of the mental. Strawson (2006) says that:

For any feature *Y* of anything that is correctly considered to be emergent from *X*, there must be something about *X* and *X* alone in virtue of which *Y* emerges, and which is sufficient for *Y*. (p. 18).

The problem is that if physical properties are utterly non-mental, then for the mental to be grounded in them, the emergence of the mental is actually what Strawson calls 'brute emergence'. According to Strawson (2006, p. 65), brute emergence is the idea that "there is absolutely nothing about *X*, the emerged-from, in virtue of which *Y*, the emerger, emerges from it". In other words, brute emergence happens when a new kind of property appears, independently and inexplicably, from other existing kinds of properties.

And yet, Strawson says that emergence cannot be brute, because the very idea is incoherent. Why is brute emergence incoherent? The main reason is because there is simply nothing in common at all between something like physical and mental

⁸ Grice's (1989, p. 47) 'Modified Occam's Razor' tells us: "Senses are not to be multiplied beyond necessity".

properties, so any reduction or emergence of one into, or from, the other would be without any rational support. Strawson argues that what are considered usual cases of emergence, for instance with liquidity arising from atoms that are not themselves liquid, are not cases of *brute* emergence. The liquid is coherently grounded in the atoms in a way that the mental is not coherently grounded in physical properties. Once one understands how the atoms behave, they are in a position to see that the macro phenomena cannot fail to be liquid. In other words, there is no ‘explanatory gap’ in the liquidity scenario. Brute emergence specifically means that there is a new, distinct, kind of property. In the case of the emergence of mentality, there is a gap, for we are no longer appealing to a new level of reference only—like with the chemical or biological—but a new kind of property altogether. Hence why it is brute. While it is possible that mentality always emerges from physical properties and structures, there is nothing here that amounts to an explanation as to why and how. At best we would have a correlative account, but this is not a good enough reason to say that brute emergence is likely and that physical properties ground mental properties.

Brute emergentism implies the hard problem and mind–body problem again, because the physical and the mental can and do come apart. As Strawson is a physicalist, and because he rejects reductionism of the mental and brute emergence, he concludes that physical properties must not be utterly non-mental at the fundamental level. This is why he is a panpsychist. Strawson thinks his panpsychism is compatible with physicalism because, he argues, the mental and the scientific conception of the physical fit easily together, while a dualistic picture offends against Occam’s razor. While we agree with Strawson’s position for non-reductionism of the mental, and find his argument against brute emergentism compelling, we must, for the reasons outlined earlier, reject the notion that physicalism is compatible with fundamental mentality. Further, as helpful as Occam’s razor may be as a methodological aid, it is of no use if it does not lead one to the correct answer, as it does not appear to do in this case. Sometimes only a more complex explanation will do. For example, to explain how King Charles III was crowned King of England, Scotland, Northern Ireland, and the Commonwealth Realms, involves a complex explanation steeped in Norman law, Anglo-Saxon custom, theology, and history: by no means a simple explanation. And yet, only the complex account explains the event. That the separability of the mental and the physical might require a complex explanation is not alone a sufficient reason to presume that physicalism is compatible with fundamental mentality. At least some additional support is required.

Thus, a physical inscrutabilism that cannot appeal to brute emergence fails to account for the mental. In this case, we ought to infer that inscrutables are possibly fundamental properties with both physical and mental aspects, and this lends support to panpsychism.

6.2 The Grounding Argument Against Physicalism

Here is a modified form of an explanatory gap argument from Goff (Brown, 2017a; Goff, 2019, p. 12) to support the claim that panpsychism is not a kind of physicalism. Let us call it the *grounding argument against physicalism*:

1. Physicalism is true only if the fundamental physical properties fully ground the existence of all macro-level (human level) properties.
2. If it is not the case that the fundamental physical properties fully ground the existence of a macro-level property, then physicalism is false.
3. It is not the case the fundamental physical properties fully ground the existence of a macro-level property.
4. Therefore, physicalism is false.

Physicalism is true only if the fundamental physical properties ground the existence of all the macro-level properties. This includes phenomenal character. Yet if phenomenal character is grounded in inscrutables, not fundamental physical properties, then the grounding follows from the inscrutables (Goff, 2015, 2019, p. 12). This is why Goff takes P2 to be true in his own version of the argument.⁹ This follows even in the *MPW* of non-fundamental physicalism: the things that gives rise to the mental at each physical level—such as Alex’s mind—are inscrutables, or else it is grounded in instances of brute emergence connected to compositionality.

If our earlier arguments hold then these inscrutables cannot be wholly physical, and so physicalism fails to fully ground mentality. If inscrutables are actually ‘inscrutables-for-now’, then we can still conclude that physicalism fails to ground mentality, for now. If they are not ‘inscrutables-for-now’ but inscrutables in principle—which physicalism should be committed to—then they might also be fundamentally mental properties, or fundamental properties with mental aspects. Per the grounding argument, we have no reason to think that there is anything physical about inscrutables that ground phenomenal character. We do, however, have reason to think that physical properties do not ground mentality per the inconceivability argument. Thus, physicalism and panpsychism come apart on this account because one can ground the mental while the other cannot, and hence, panpsychism should not be considered a kind of physicalism (Stoljar, 2001). Given the seeming existence of mentality, abductively we ought to drop physicalism in favour of panpsychism, at least when it comes to explaining what inscrutables are.

6.3 Panpsychic inscrutabilism

Just because inscrutables are non-physical, it does not follow that they necessarily must be mental. There may, therefore, be another scrutability problem: if inscrutables are mental, then they should be scrutable to us ‘mentally’. And while there may be something it is like for one to taste a sour lemon, one is unable to employ the same methods of inferring what-it-is-likeness (for example introspection) to the qualitative nature of a quark, or whatever is fundamental. Perhaps that is for the quark to do. Yet the fact remains, that the panpsychist faces a similar epistemic problem to the physicalist: they cannot scrutate what inscrutables are. This is not an argument against panpsychism being ontologically compatible with inscrutables, but

⁹ Goff talks about entailment but we prefer talk of grounding.

it is an interesting epistemic puzzle, and one which may give one pause before committing to a panpsychist explanation for human phenomenal character.

7 Kantian Inscrutabilism

A physicalist might suggest that just because we cannot show that inscrutables are physical, this does not imply that they are non-physical. Perhaps some future breakthrough in the scientific method, that we cannot comprehend, will reveal the nature of inscrutables in a way that seems impossible today. If the physicalists cannot make the positive case that inscrutables are themselves physical or grounded in physical properties, but still hold that these properties can be conceptually counted as physical, then they can maintain an agnosticism about how exactly they are physical, yet ground mentality.¹⁰ Of course, if this is the case, then once again, we are no longer discussing inscrutables but rather inscrutables-for-now.

This approach is reminiscent of Colin McGinn's (1989) proposal for mysterianism about the nature of consciousness at the human level, due to his scepticism of the mind's capability of ever unravelling the mystery of consciousness. The view is well captured by a quote attributed to Thomas Aquinas: "All the efforts of the human mind cannot exhaust the essence of a single fly". Physicalists who continue to advocate for inscrutables-for-now, seem to be similarly committed to a mysterianism about the fundamental level. All the efforts of the human mind cannot exhaust the essence of a single fundamental entity.

A related position is agnosticism about the nature of inscrutables and how they ground mentality. This is perhaps the most intuitive perspective on the matter at hand. After all, we are talking about inscrutables, things that are not scrutable, in other words, things of which we do not know, and perhaps cannot know, even in principle. Kantian inscrutabilism is the position that we are trying to characterise, and appeal to, the unknowable: at worst unknowable in principle, and at best, unknowable at present. This is not the view that inscrutables do not exist. It is the view that the shadowy figure in the alley's mentality-grounding properties are mysterious because "we see now through a glass in a dark manner" (*Douay-Rheims Bible*, 2011, 1 Corinthians 13:12). Perhaps inscrutables are fundamentally physical, perhaps they are fundamentally mental, perhaps triism is plausible (three distinct properties: physical, mental, *tertium quid*: whatever inscrutables intrinsically are).

We call this position Kantian inscrutabilism as it is reminiscent of aspects of Immanuel Kant's philosophy. In *The Critique of Pure Reason* (Kant, 1999), Kant argues that human beings experience only the appearances of things, but not things-in-themselves, as they intrinsically are. Space and time, says Kant, are only subjective forms of human intuition, and therefore, dependent upon humans. This thesis is called transcendental idealism. In Kant's (1999) words:

The things that we intuit are not in themselves what we intuit them to be[...]What may be the case with objects in themselves and abstracted from all this receptivity

¹⁰ See Robinson (2016; 2022) for a discussion of this.

of our sensibility remains entirely unknown to us. We are acquainted with nothing except our way of perceiving them, which is peculiar to us, and which therefore does not necessarily pertain to every being, though to be sure it pertains to every human being. (p. 42).

Scholars disagree on how exactly to interpret these claims. Our focus is not Kant scholarship, so we will outline only two standard interpretations of transcendental idealism, as they pertain to our analysis of inscrutables. These two interpretations are ‘two-object’, and ‘two-aspect’. According to the two-object interpretation, transcendental idealism is a metaphysical thesis that distinguishes between two classes of objects. Those classes are ‘appearances’ and ‘things-in-themselves’. According to the two-aspect interpretation, Kant does not distinguish between two classes of objects but two aspects of the same class of objects: an aspect that appears to humans and an aspect that does not.

For our purposes, we can appreciate how both might inspire agnosticism about inscrutables. That which grounds the mental may be a distinct property that coincides with fundamental physical properties; a kind of fundamental-level dualism, or inscrutables may be a distinct aspect of fundamental (physical) properties. The latter is compatible with panpsychism or Russellian monism. On both interpretations, there is something that appears to us—a property or aspect—and something that is inscrutable—another property or aspect. Both the two-object and two-aspect views suggest agnosticism about inscrutables. Of course, that is not to say that the distinction is unimportant. Both interpretations of transcendental idealism imply that some properties or aspects are inscrutable in principle, and will always elude human understanding. This arguably makes the view incompatible with physicalism, as physicalism requires that inscrutables can be scrutured in principle. On the Kantian view, ontologically speaking, inscrutables may forever remain, well, inscrutable.

Not only could the nature of inscrutables remain mysterious, but how their properties ground mentality and how these properties relate to fundamental physical properties also remains mysterious. The general idea is that the inscrutable is responsible for the powers and dispositional properties of the object, such as phenomenal character, but the ‘how’ is mysterious. Robinson (2022) points out that this is a problem facing all ‘qualitative core’ theories; whether or not they are deployed, as in neutral monism, to solve the mind–body problem. It seems then that we are left with no explanatory connection between the inscrutable properties, and the scrutable ones; a kind of fundamental-level explanatory gap. And we do not know how both kinds of properties can be fundamental without being identical kinds.

There is even an issue as to whether the inscrutable ‘core’ properties, as Robinson calls them, are themselves necessary properties or not. Robinson (2016) says:

On one picture, the cores could be swapped around, like an inverted colour spectrum, and it would make no difference to the causal powers. On the other, the nature of the core explains what the causal powers are: it is because electrons have the core they do that they have a negative charge. (p. 207).

The upshot is that it remains a mystery if ‘core’ or inscrutable properties play any explanatory role. Therefore, Kantian inscrutabilism is additionally the epistemic position that we ought to be agnostic about what explanatory role, if any, inscrutables play when it comes to the physical and mental. Recall that although physicalism

is making ontological claims, it must couch those claims in the epistemic nature of physical enquiry.

Throughout the literature, inscrutables are taken to be the categorical grounds of dispositions or pre-dispositional properties or aspects, that interact with physical, scrutable properties. Yet need we limit ourselves to only this option? If we cannot say whether an inscrutable is a property, power, aspect, disposition, and so on, how can we be confident that they are mental or physical things? In Western metaphysics, fundamental properties are often supposed to be objects with properties. However, there is no reason to restrict ourselves to this account. By way of contrast, other philosophical traditions propose different views about the nature of what is fundamental. For instance, according to philosopher James Maffie (2014), in Aztec or Nahua philosophy the fundamental entity known as *teotl* is a process, event, power, or grounds for dispositions, that is always in flux. Hence why he concludes that Aztec philosophy involves a *process metaphysics*, where everything is always in motion and reality is ultimately a process. Might physical inscrutabilism avail itself of this metaphysics? On the one hand, this makes the physicalist position less tenable: not only do they not know how inscrutables ground and explain the mental within a physicalist framework, they do not even know whether inscrutables are powers, potencies, dispositions, aspects, properties, and so on (see Foster, 2008). The precise nature of what kind of thing we are trying to scrutate will undoubtedly influence the plausibility of physicalism. On the other hand, a broader metaphysical perspective on the nature of inscrutables may provide the physicalist with alternative ways to account for mentality. For example, Lewis (1997, p. 149; 1999) argues that what manifests a disposition is not the occurrence of a type of event, but the causing of the event by some intrinsic property of the object *in conjunction with* an appropriate, extrinsic ‘stimulus condition’. Fragility, for instance, is manifested by an external cause together with the intrinsic properties of the object. Houranszki (2022, p. 212) similarly argues that intrinsic inscrutables, be they dispositions, potencies, powers, abilities—‘one-off’, maximally specific, dispositions (2022, p. 13)—and so on, may be necessarily dependent on extrinsic properties. The general idea is that inscrutables could be co-dependent on scrutable, extrinsic, physical properties. Call this a kind of *extrinsic necessity metaphysics* or specifically *extrinsic necessity physicalism*. This account would make inscrutables at least partly physically explicable, which may fit the weaker reading of physicalism whereby physical properties must only partly ground mentality, not fully. While extrinsic necessity physicalism presents an interesting avenue for further investigation, for now, we are still unable to speak on the nature of the inscrutables themselves. This lends support to a rejection of physical inscrutabilism in favour of alternative views, including Kantian Inscrutabilism.

8 Unknown Unknowns?

Physicalism says that all properties in the universe are physical or ultimately depend on, or are grounded in, fundamental physical properties. Yet the conceivability argument (Chalmers, 1996, 2010), knowledge arguments (Jackson, 1982, 1986; Renero, 2023; Robinson, 1982), and explanatory gap argument (Levine,

1983) show that there can be no adequate account of mentality in physicalist terms. Hence, why physical inscrutabilists appeal to inscrutables to ground mentality. Yet the existence of inscrutables as non-physically scrutable properties violates the conditions of physicalism. Per the incompatibility and non-explanatory arguments, these properties are likely non-physical if they really do ground and/or explain phenomenal character. In response, non-fundamental physicalism proposes that the existence of infinite, non-fundamental, non-physical properties does not violate physicalism in a world with equally infinite, non-fundamental, physical properties. Non-fundamental physicalism is unsatisfactory because it does not categorically ground mentality in fundamental physical properties, it renders both physicalism and non-physicalism true which undermines the purpose of physicalism, it commits a physical inscrutabilist to a nomological view which they may not wish to subscribe to, and it risks rendering the physicalist/non-physicalist debate redundant by collapsing physicalism into descriptive universalism. Were brute emergence possible, then inscrutables might not violate physicalism. However, we have good reason to reject brute emergence according to the no emergentism argument. If one posits inscrutables then panpsychism appears to be the more reasonable position because it accepts that inscrutable properties ground mentality by being mental themselves. This was supported by the grounding argument. Alternatively, a physicalist might explore extrinsic necessity physicalism in support of weak physicalism. Mysterianism or Kantian inscrutabilism are also tenable options.

Our analysis reveals two paths forward. First, if one accepts arguments that purport to show that mentality is inscrutable to physical enquiry, then one probably ought to reject physical inscrutabilism in favour of panpsychism or Kantian inscrutabilism. As this undermines the purpose of appealing to inscrutables for the physicalist, then second, if one wishes to remain a physicalist, one ought to direct their philosophical analysis and energies toward revisiting and defeating the arguments that purport to show that mentality is inscrutable to physical enquiry. Both options indicate that we should reconsider the value of engaging in the physicalist/non-physicalist debate at the fundamental level, and return to investigating the human-level mentality that engendered the debate. If not, we may perennially debate the nature of something that is unknown. This may be enough to make one go mental.

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