The Status of the Mind within Neo-Russellian Monism

Master's Thesis submitted for the
Research Master's Philosophy
Utrecht University
June 21, 2019

Auke Alesander Montesano Montessori
Student Number: 4300939

Supervisor: Menno Lievers
Second Reader: Jesse Mulder
Third Reader: Mauro Bonazzi

Utrecht University

Abstract

Within this essay, I will be discussing whether Neo-Russellian Monism can deliver a satisfying theory of the mind. This central question was divided in three sub-problems. First, can Neo-Russellian Monism accommodate mental causation? Secondly, can Neo-Russellian Monism explain consciousness? And lastly, is multiple realizability possible on the Neo-Russellian Monist account? At the end of the essay, it will have become clear that Neo-Russellian Monism can accommodate mental causation, but not multiple realizability. Consciousness could not successfully be explained either. Especially the Neo-Russellian Monist failure to explain consciousness is painful, since solving this specific problem is the main goal of the theory. The conclusion is that Neo-Russellian Monism fails to deliver a satisfactory theory of mind.

Contents

Introduction

It is seductive to think that the relation between the mind and the body can only go two ways. The mind will either turn out to be nothing beyond the body, or the mind and the body are two related, but ultimately separate entities. Both positions have been held and both have been vigorously attacked.

The first option, physicalism, comes down to the idea that the mind can be reduced to the brain, or at least the body.[1] If I have a complete brain, I have a complete mind. This view has mostly been derided for the *prima facie* unlikely claim that a thinking and feeling mind can arise out of mere particles that seem to bear no relation to mentality whatsoever. It has been argued vehemently that getting consciousness out of the brain, in a reductive sense, cannot be done.[2]

The other option, dualism, holds that the mind is an ontologically novel entity that cannot be reduced to the body. However, this invites the thought that the mind would then have some causal influence independently of the causal activities of the body. Alas, it does not appear to be the case that this independent causal influence exists. Neuroscience is far from a finished branch of science, but it seems highly likely that all of our behaviours and feelings can be traced back to physical brain processes. If the mind gets involved at any point at all, we cannot find traces of or even obvious openings for it anywhere. Furthermore, it is hard to understand how the physical and the mental can interact with one another if they are two strongly separate entities.[3]

So, the two traditional theories about the mind, the body and their relationship, physicalism and dualism, both face major issues. Of course, we can try to fix these issues and there are ongoing efforts to do so. For instance, physicalists often try to interpret the notion of 'the mental' in such a way that that the mind can be reduced to the body. Dualists meanwhile might claim that looking at physical processes is not sufficient to fully explain our behaviours or feelings, even if neuroscientists sometimes imply or even claim the opposite. What we need for a full explanation is a non-reducible mental entity, perhaps one that emerges from the physical but is not reducible to it. Of course, all of these physicalist and dualist proposals have been debated thoroughly and none is without issues.[4]

Within this essay, I will not dive into these large and complex debates. Rather than trying to reinvent physicalism and dualism again, I will investigate a line of inquiry that moves in between the two. The alternative to dualism and physicalism I will discuss is called 'Neo-Russellian Monism'. The view has its origins in Russell[5], but the connections are rather slight. In the literature, it is known as 'Russellian Monism', but I find the name 'Neo-Russellian Monism' more apt since the contemporary shape of the theory came about in the late nineties after the original Russellian Monism had been lying dormant for decades.[6]

Since moving in between physicalism and dualism is one of the goals of the essay, I will try to avoid a collapse of Neo-Russellian Monism into either one of the two. This will include, amongst others, avoiding both type-identity and functionalist physicalism as well as emergentist and substance dualism.

---

[1] Eliminative materialism, though arguably a form of physicalism, would not fit this description. However, since eliminative materialism does not play any role within this essay, I will not treat this fact as a problem.

[2] A classic example is David J. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory* (Oxford University Press, 1996), 81–108.

[3] For an overview of the battles between dualism and physicalism, See Daniel Stoljar, "Physicalism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/win2017/entries/physicalism/. And Howard Robinson, "Dualism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/fall2017/entries/dualism/.

[4] Again, see Stoljar, "Physicalism." And Robinson, "Dualism."

[5] Bertrand Russell, *The Analysis of Matter* (London: Kegan Paul, 1927).

[6] Torin Alter and Yujin Nagasawa, "What Is Russellian Monism?," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015), 69–70.

In a nutshell, Neo-Russellian Monism claims that the mind cannot be reduced to the body, nor are they two ontologically separate things. Rather, both are brought about by, and even reducible to, a third entity. Within this essay, I shall call this third type of entities 'quiddities'. According to Neo-Russellian Monists, the physical world as presented by modern physics is structural and dispositional in nature. The universe as described by modern physics is more akin to a network of points and abstract relations, than a collection of concrete objects and more fleshy interactions. Neo-Russellian Monists think that there must be hidden properties or entities that are responsible for the structural surface that modern physics picks up on. And just as these quiddities ground the physical, they ground the mental as well. The motivation here is that we do not need to introduce problematic independent mental objects that we struggle to find a causal role for. Nor are we now committed to the view that the particles of physics can bring about the thinking, feeling mind. It is the quiddities that fulfil this task, which is thought to be an improvement over the story of physics. The suggestion is that we are fairly certain that the familiar particles of physics cannot do the job, so perhaps novel entities will fare better.

Neo-Russellian Monism has recently been defended by some major figures like David Chalmers[7], Derek Pereboom[8] and Galen Strawson[9]. It is a serious contender for solving the mind-body problem. My contribution here is to investigate how much warrant there is for optimism. Can Neo-Russellian Monism deliver on its promises to advance the mind-body problem? Investigating every single issue concerning the theory is, of course, not possible within the current constraints of space. So, I will focus on the question whether Neo-Russellian Monism can present us with a satisfactory theory about the mind. In the opening paragraphs of this essay, we saw that physicalism and dualism have difficulties delivering such a theory of the mind. Adopting Neo-Russellian Monism is supposed to make things go smoother. However, failure to present such a satisfactory theory of mind entails the failure of Neo-Russellian Monism as a theory, since it would lose its motivating appeal. Hence, inquiries into the status of the mind within Neo-Russellian Monism are of vital importance. Can Neo-Russellian Monism present us with a successful theory of mind and thus achieve their self-set lofty goals?

I divide this main question into three parts. First, can Neo-Russellian Monism help us explain consciousness? Second, does Neo-Russellian Monism allow for mental causation in a non-problematic way? Third, is multiple realizability possible on the Neo-Russellian Monist account? Each question is relevant in its own way, as we shall see further on in this introduction. Throughout this essay, it will become clear that there are sources of worry for the Neo-Russellian Monist contained in each of the three questions. If Neo-Russellian Monism can survive each question, I take it that the theory is in a reasonably good spot where the mind is concerned. That is not to say that no other issues might be looming over the Neo-Russellian Monist account of the mind, but solving these three questions should already be considered a major achievement.

The first chapter of this essay deals with some terminological issues. The literature about Neo-Russellian Monism enjoys little consensus on what name to give to the quiddities or how to use words like 'mental'. To prevent confusion for both those readers familiar and those unfamiliar with the literature, I spend this short chapter on which terms I shall use and in what manner. The chapter is not meant to solve any outstanding issues surrounding the correct readings of the terms involved, but is merely meant to indicate how I shall use them.

The second chapter deals with consciousness. As we have seen in the opening paragraphs, one of the major complaints about physicalism is that it cannot give us a proper story about how things like consciousness arise. How come that the deep and rich colour experiences of seeing a

[7] David J. Chalmers, "Panpsychism and Panprotopsychism," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015).

[8] Derk Pereboom, "Consiousness, Physicalism, and Absolutely Intrinsic Properties," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015).

[9] Galen Strawson, "Real Materialism," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015).

grand natural landscape can arise out of the lifeless particles of physics? However, this dismissal of physicalism only works in favour of the Neo-Russellian Monist if it can be shown that he can do better. Alas, it is not clear that replacing the particles of physics with quiddities is helpful. Given that consciousness is one of the fundamental aspects of mentality, solving this issue is of the upmost importance. The second chapter investigates the possibilities for Neo-Russellian Monism to improve upon physicalism in this regard.

The third chapter is on mental causation. Mental causation is one of the core desiderata for all those interested in a robust conception of the mind. Mental causation simply refers to the causal influence the mind is usually thought to have. Neo-Russellian Monists typically wish to avoid the unlikely epiphenomenalist claim that the mind lacks any causal influence on the world. Without any causal influence at all, the mind does not have much of a presence. Moreover, it seems straightforwardly true that my thoughts and experiences do change my behaviour in at least some way. If Neo-Russellian Monists seek to preserve this intuition, they must make space for the possibility of mental causation. The third chapter discusses whether this is possible.

The fourth chapter deals with multiple realizability. One of the classic arguments against at least some forms of physicalism concerns the idea that the same kind of mental state can be realized by several different kinds of physical states. For instance, pain can be felt by both me and my dog. Each experiences the same type of mental event, despite the fact that each has a pointedly different brain and body. Presumably, Neo-Russellian Monists wish to preserve this classic dogma. Saving multiple realizability might be less vital than explaining consciousness or preserving mental causation, but failure here would still count against the view. It is therefore worthwhile to see whether Neo-Russellian Monism can avoid the loss of multiple realizability. The fourth chapter looks into this issue.

With the structure of the essay being clear, let us move on to the first chapter.

Chapter 1 Terminology

One of the prominent issues within the literature on Neo-Russellian Monism concerns terminology. There is a lot of variation in how terms such as 'material', 'mental', 'Neo-Russellian Monism', 'quiddity' *et cetera* are used and named. Hence, I will devote this chapter to examining these terms one by one. However, I do not intend to solve the complicated issue of what the best definition for each term is.

Instead, I merely give a brief and hopefully simple indication of how I shall use the terms here. The choices I make during this chapter are mostly based on what we normally mean by the terms, on how the literature tends to use them, and on what is convenient in this context. The descriptions of the relevant concepts given here will have a quite general character and will remain at least somewhat open. Still, I hope that this chapter provides enough conceptual clarity to prevent confusion in the chapters to come.

Note that in going through the terminology, I will also on occasion sketch some of the argumentative context in which Neo-Russellian Monism came about.

Let me start with one of the central oppositions, namely the one between 'the physical' and 'the quiddities'. 'The physical', as I shall understand the term here, will be relatively limited. I will take 'the physical' to refer only to those relations, properties and entities that are described by modern physics, or by theories similar to modern physics.

To see why, recall that the basic premise of Neo-Russellian Monism is that modern physics is in some sense lacking. The common justification for this premise is that physics is only concerned with the relational structure of reality[10] or with the dispositions[11] that some particles have. The thought is that physics fails to look at the properties that are responsible for bringing about these structures and tendencies. These properties must exist according to the Neo-Russellian Monists. It cannot be the case that the world is merely a set of relations and dispositions. These relations and dispositions must be grounded by something. Neo-Russellian Monists call in the quiddities to perform this duty.

More importantly, these hidden properties are also thought to be responsible for creating the mental. Hence, Neo-Russellian Monists try to improve the lot modern physics leaves us with on two fronts. Quiddities are the underlying properties responsible for both the structure and dispositions of the physical and for the existence of the mental.

Because of this background, it makes sense to associate the physical explicitly with modern physics. 'The physical' can stand for all the things that are introduced by physics, but the Neo-Russellian Monists think are unable to explain the universe on their own. That is, 'the physical' refers to any set of relations, objects and properties that can be captured by relatively surface-level focused theories that are exclusively concerned with things like structure and/or dispositions. That means that things that are described by theories similar to modern physics also fall under the term 'physical'. This is convenient in the sense that the meaning of 'the physical' is not tied to the exact current state of modern physics. Major or minor variations on how modern physics works currently do not change the fact that modern physics is about the physical in my narrow sense. As long as physics does not make a radical move away from the surface-level focus the Neo-Russellian Monists complain about, it is apt to say that 'the physical' is about the things described by modern physics and similar surface-level focused theories.[12] Note that 'the material' will here mean the same thing as 'the physical'. I will mostly use the term 'the physical' rather than 'the material', but I treat the terms as synonymous.

[10] Alter and Nagasawa, "What Is Russellian Monism?," 70–73.

[11] R. Howell, "The Russellian Monist's Problems with Mental Causation," *Philosophical Quarterly* 65, no. 258 (2015): 24–25.

[12] This reading of 'the physical' is more or less equivalent to what Chalmers calls 'narrowly physical'. See Chalmers, "Panpsychism and Panprotopsychism," 255–56.

With this understanding of 'the physical' in place, it becomes possible to see what I mean by the term 'quiddity'. 'A quiddity' is simply a property or entity that is partially responsible for bringing about the physical in my narrow sense and for bringing about the mental. The quiddities are more full-blooded properties than physical properties in the sense that they cannot be captured by accounts that only involve structures or dispositions. The consequence is that being a quiddity and being a physical property or entity are mutually exclusive on my account.

Other words for 'quiddities' in the literature are 'inscrutables'[13] and 'intrinsic[14]/categorical[15] properties'. I choose the name 'quiddity' over 'inscrutable' because it is less epistemically committed. The name 'inscrutable' seems to imply that we can never learn the nature of the quiddities, which seems an unnecessary commitment to me. The terms 'categorical property' and 'intrinsic property' were not chosen because I find them a bit unwieldy, where 'quiddity' is a more elegant term. I also prefer giving quiddities their own term, rather than referring to rather broad notions like 'category' and 'intrinsic'.

Onwards to mentality. Roughly speaking, we could divide the mental into two subcategories. We could call these the normative side of the mental and phenomenal consciousness or experience. With the normative side of the mental we may associate things like beliefs, thoughts, values, principles, learning, language, intentionality and reasoning. On the phenomenal side, we have feelings and experiences, like pain, seeing a flash of red, experiencing the sublimity of the sun rising over an ancient city, *et cetera*. The normative is what makes us rational agents and persons and is connected with conceptuality. The phenomenal is what makes us creatures with a rich consciousness and is associated with qualitative experiences that are hard to capture precisely in language. Of course, this divide is a rough one and it is hard to see where the border lies. There might not even be a strict border. Regardless, I take it that most people will have a strong enough intuitive feel for the distinctions in play here to understand what is involved.

Now, Neo-Russellian Monists are primarily engaged with the latter side of the mental, phenomenal consciousness. This is mainly due to the legacy of Chalmers. He famously claimed that there is both a hard problem and an easy problem of consciousness. For Chalmers, the easy problem more or less consists in understanding how the normative side of the mental fits into a physical world. The hard problem concerns fitting phenomenal consciousness into a physical world. The easy problem, so Chalmers claims, is not too difficult to tackle. He thinks that the easy problem can be solved by using physicalist functionalist means. It is the hard problem that is the truly difficult issue.[16] Hence, Chalmers throughout his career has mostly focused on consciousness and has spent relatively little time on what he considers to be the easy problem. His interest in Neo-Russellian Monism is therefore mainly focused on its credentials for solving the hard problem. Whether this is justified or not, basically all Neo-Russellian Monists share with Chalmers this tendency to focus on the phenomenal side of the mental as opposed to the normative side.[17] The consequence is that when the mental is mentioned by Neo-Russellian Monists, we are really talking about the phenomenal.[18] I

[13] Barbara Montero, "Russellian Physicalism," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015), 211–13.

[14] Emmett Holman, "Panpsychism, Physicalism, Neutral Monism and the Russellian Theory of Mind," *Journal of Consciousness Studies* 15, no. 5 (2008): 50–53.

[15] Howell, "The Russellian Monist's Problems with Mental Causation," 24–25.

[16] Chalmers, *The Conscious Mind*, IX–XIII.

[17] See Galen Strawson, "Mind and Being: The Primacy of Panpsychism," in *Panpsychism: Contemporary Perspectives*, ed. Godehard Brüntrup and Ludwig Jaskolla (Oxford University Press, 2016) and Derk Pereboom, "Précis of Consciousness and the Prospects of Physicalism," *Philosophy and Phenomenological Research* 86, no. 3 (2013): 715–727 for instance.

[18] A possible exception is Thomas Nagel. See Thomas Nagel, *Mind & Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False* (Oxford University Press, 2012).That said, it is unclear whether Nagel is a Neo-Russellian Monist. See Daniel Stoljar, "Russellian Monism or Nagelian Monism," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015).

personally consider this disappointing, since I am not convinced that the easy problem is as simple to solve as the name implies. Furthermore, it seems to me that personhood, belief and value are more important than phenomenal experience. However, given that I wish to remain close to the literature within this essay, I too shall treat the phenomenal as being the most important aspect of the mental.

Next, the difference between what I shall call the 'macro-level' and the 'micro-level'. Roughly, with the 'micro-level' I refer to the quiddities and their relations. The macro-level consists of the physical and all mental things and relations that are not quiddities or quiddity relations. As we shall see, some Neo-Russellian Monists hold that the quiddities can be mental. This means that the mental can, on some accounts, occur both on the macro-level and the micro-level. The physical, as I use the term here, only occurs on the macro-level.

The main examples of macro-level mentality are the thoughts, feelings and so on that are had by humans and other conscious animals. Intuitively, the micro-level concerns the quiddities and the macro-level concerns all the physical and mental things we humans are readily familiar with, like rocks and perceptual experience. The quiddities, whatever they are, are not so readily recognisable and hence are not readily familiar.

Before we turn to describing the philosophical theories in play, let me clarify two final terms. These terms are 'neutral' and 'constitution'. 'Neutral' is simply whatever is not physical nor mental. Platonic ideas, for instance, are neutral entities. Since quiddities are never physical according to my charaterization, they are neutral as long as they are not mental.

Lastly, constitution. Constitution, or grounding, can occur between two different sets of properties, relations and entities. Set *x* constitutes set *y* if all the truths about the things in set *y* are true in virtue of the things in set *x*.[19] For instance, all things that are true about my refrigerator are true because of the properties of the parts of my refrigerator, in combination with the relations those parts stand in towards each other and the world. The parts of the refrigerator constitute the refrigerator. There is nothing about the machine that goes beyond its parts. Note that I take it that *y* reduces to *x* just when *x* constitutes *y*.

Let us now move on to a brief characterization of the philosophical views in play. First, physicalism versus dualism. Physicalism I will treat as the view that the mental can be constituted by the physical. Translated into how I use these terms, this means the following. Physicalists think that the things that physics tells us there are, or at least things close to the entities of modern physics, can ground both consciousness and the normative. So, anything true we can say about phenomenal experience is true in virtue of the entities of modern physics. The existence of consciousness does not imply any truth over and beyond the physical truths.[20]

Dualism opposes this view. According to dualists, the inclusion of the mental in the world leads to ontological novelties. The mere physical is unable to properly constitute the mental. Rather, there must be special mental properties or even substances that cannot be reduced to anything physical.

Neo-Russellian Monism is a position that is located in the logical space between dualism and physicalism. Like dualism, Neo-Russellian Monism claims that the physical on its own is not sufficient to ground the mental. From physicalism, Neo-Russellian Monism takes the idea that the mind is not a self-standing ontologically irreducible entity. Rather, the quiddities, whose nature is indicated above,

[19] I take this interpretation of constitution from David Chalmers. It is rather rough, but it will work for my purposes within this essay. Chalmers, "Panpsychism and Panprotopsychism," 248.

[20] Note that within this essay, I will not discuss materialism, at least not insofar materialism is different from physicalism. Neo-Russellian Monism typically uses physicalism as the arch-opponent, making materialism less relevant for my purposes.

constitute both the mental and the physical.[21] We can reduce both the physical and the mental to the quiddities. The motivation here is that this metaphysical set-up will give the mental a robust nature. Such a robust mentality, so Neo-Russellian Monists contend, is unavailable on the physicalist picture. Whether Neo-Russellian Monism succeeds here is of course the topic of this essay and will be discussed further on.

Note that I will presume that Neo-Russellian Monism wishes to avoid both emergentism and epiphenomenalism. Epiphenomenalism is the view that mental events have no influence on the world. So, I might see the bright yellow of a banana and pick the banana up, but the phenomenal aspect of this seeing does no causal work. The physical happenings that occur when I see something, like processes in the brain and the behaviour of light, are the only causal actors in the picking up of the banana. My mind is not causally involved.[22] Neo-Russellian Monism will want to avoid epiphenomenalism since giving the mind a robust nature involves giving the mind causal powers as well. The fact that I will spend an entire chapter on mental causation should suffice to drive the seriousness of this commitment home. A mind without causal influence does not have the strong presence in the world Neo-Russellian Monists wish the mind to have.

Emergentism within the philosophy of mind is the position that the mind emerges as an ontological novel entity whenever the fundamental physical entities get together in the right manner. So, our minds come about because the physical elements in our brain stand in the right kind of relations. This emergent mind is not reducible to the underlying physical elements. The emergent mind can also act independently of the underlying physical processes, which typically involves the thought that the mind can causally act upon these underlying processes as well.[23] Most Neo-Russellian Monists wish to avoid emergentism, typically because it gets too close to dualism and because emergence is a highly contentious notion.[24] I will follow the literature here and presume that emergentism is not an available option for the Neo-Russellian Monist.

There are a number of variations on Neo-Russellian Monism available. Roughly, there are two groupings in which they can be put. We can distinguish between panpsychist and panprotopsychist versions as well as between neutral, physical and phenomenal versions of Neo-Russellian Monism. For reasons that will become clear immediately below, I will follow the first grouping of positions within this essay and disregard the latter.

The distinction between panpsychism and panprotopsychism is based on a contention over the nature of the quiddities. As we have seen, on my reading, the quiddities cannot be physical. However, they can still be either mental or neutral. Panpsychist and panprotopsychist Neo-Russellian Monists bicker on precisely this issue. Are the quiddities mental entities/properties or not? The panpsychist Neo-Russellian Monist answers affirmatively, which means that the universe is constituted by mental things. Hence the name panpsychist. An example of this view is Strawson's.[25]

---

[21] There are versions of Neo-Russellian Monism in which the quiddities exist but in which they do not fully constitute the mental and the physical. I will ignore such versions here. See Philip Goff, "Against Constitutive Russellian Monism," in *Consciousness and the Physical World*, ed. Torin Alter Yujin Nagasawa (Oxford University Press, 2015).

[22] For an overview of the discussions on epiphenomenalism, see William S. Robinson, "Epiphenomenalism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2019), https://plato.stanford.edu/archives/sum2019/entries/epiphenomenalism/.

[23] For an introduction to emergent properties, see Timothy O'Connor and Hong Yu Wong, "Emergent Properties," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, 2015), https://plato.stanford.edu/entries/properties-emergent/.

[24] Chalmers, "Panpsychism and Panprotopsychism," 252–54.

[25] Strawson, "Real Materialism." The interesting thing is that Strawson calls himself both a panpsychist and a physicalist. Strawson has a rather broad definition of 'physical', which is not followed by me within this essay. Hence, this use of labels makes sense on Strawson's account, but not on mine.

The alternative is to say that the quiddities are not mental themselves, but are equipped in such a way that they can constitute the mental. It is of course understood that the physical lacks this special equipment, whose nature remains somewhat mysterious for panprotopsychists. An example here is Pereboom.[26]

I do not follow the distinction between physical, neutral and phenomenal Neo-Russellian Monism here, because it does not make sense given my definitions of the terms 'physical', 'mental' and 'neutral'. The distinctions are based on what the nature of the quiddities are. Are the quiddities mental, physical or neutral? Again, the quiddities cannot be physical on my reading of the terms involved, so a physical Neo-Russellian Monism does not make sense. Without the possibility of a physical Neo-Russellian Monism in play, the discussion between phenomenal and neutral Neo-Russellian Monism just collapses into a discussion between panpsychist and panprotopsychist Neo-Russellian Monism.[27] Hence, there is no real point in utilizing the distinction between physical, neutral and mental Neo-Russellian Monism here. Rather, I will only use the panpsychist-panprotopsychist terminology throughout the rest of this essay.

Before we move on to the real issues, a final reminder. I have not introduced the above distinctions in order to settle serious philosophical scores. I do not claim that my readings of terms like 'physical', 'normative' or even 'Neo-Russellian Monism' are superior to competing readings. I merely wanted to show how I shall use them, in order to forestall unnecessary confusion. The usages I suggested here will suffice for the project of the ensuing chapters. I invite anybody who has different preferences on these matters to ignore the semantics and to see whether there is something substantive we disagree on.

[26] Pereboom, "Consiousness, Physicalism, and Absolutely Intrinsic Properties." Like Strawson, Pereboom considers himself a physicalist but with a Neo-Russellian Monist bend. Again, this is due to the different ways Pereboom and I define 'physical', and is not caused by a deeper and non-semantic disagreement.

[27] Similar remarks to mine have been made by Amy Kind. See Amy Kind, "Pessimism About Russellian Monism," in *Consciousness in the Physical World: Perspectives on Russellian Monism*, ed. Torin Alter and Yujin Nagasawa, 2015, 401–421.

Chapter 2: Consciousness

2.1 The Zombie Problem and the Combination Problem

Now that the terminology is clear, or at least clear enough for my purposes here, we can turn to the substance of this essay. We start out with consciousness. As said, the main goal of Neo-Russellian Monism is to explain the place and nature of the mind. Most Neo-Russellian Monists follow Chalmers in thinking that the main priority is solving the so-called ''hard problem''. The hard problem is essentially the question ''where does consciousness come from?''.[28] Supporters of Neo-Russellian Monism think that physicalism, as it stands, cannot solve the hard problem. One cannot build consciousness merely out of the things current physics tells us about. The core premise of Neo-Russellian Monism is that the addition of quiddities to our ontology can help us solve the hard problem. If this move fails, Neo-Russellian Monism would immediately lose its lustre for most of its adherents.[29]

Alas for Neo-Russellian Monism, it is not obvious that quiddities, whether panpsychist or panprotopsychist, do help us explain consciousness. Within this area, Neo-Russellian Monism is haunted by one of its most notorious problems. This is the Combination Problem. It originates from the literature on panpsychism.[30] The Combination Problem questions whether the micro-experiences had by particles can combine together to form the macro-experience we as human beings are familiar with. Translated to Neo-Russellian Monist terms, the worry becomes whether quiddities can combine to form the kind of consciousness we are looking for.

Note that this worry holds regardless of the choice for a panpsychist or a panprotopsychist Neo-Russellian Monism, though the choice does make a difference for the kind of Combination Problem one runs into. The panpsychist Neo-Russellian Monist needs to explain how the phenomenal properties that constitute physics can combine to create macro-consciousness. Mixing together different phenomenal events to create a further phenomenal event entails problems that a panprotopsychist Neo-Russellian Monism need not deal with. Meanwhile, the panprotopsychist needs to explain how the combination of non-phenomenal properties can lead to the creation of our phenomenology. The core issue in both cases is how the combination of quiddities can result in consciousness on the macro-level, but the nature of the quiddities makes for some discrepancies in how the problem exactly pans out. [31]

The Combination Problem is best introduced by starting with the Zombie Problem for physicalism[32]. I will presume here that Neo-Russellian Monism wants to maintain that the Zombie Problem is valid, simply because it is helpful to motivate a rejection of physicalism. But this commitment to the Zombie Problem means that it is difficult to reject similar problems for Neo-Russellian Monism. After all, any solution to the Combination Problem that threatens the validity of the Zombie Problem will have to be rejected. As we shall see, this is a significant limitation for the Neo-Russellian Monist.

Schematically, I will render the Zombie Problem as follows:

1 Physicalism is committed to the idea that consciousness necessarily arises out of the physical.
2 We can conceive of a world where consciousness does not arise out of the physical.
3 If a world is conceivable, then it is metaphysically possible.

---

[28] See Chalmers, *The Conscious Mind*, 21–23.

[29] This commitment can be seen in a number of authors, such as Strawson, "Real Materialism." And Pereboom, "Consiousness, Physicalism, and Absolutely Intrinsic Properties."

[30] Philip Goff, "Why Panpsychism Doesn't Help Us Explain Consciousness," *Dialectica* 63, no. 3 (2009): 289–311.

[31] David J. Chalmers, "The Combination Problem for Panpsychism," in *Panpsychism*, ed. Godehard Brüntrup and Ludwig Jaskolla (Oxford University Press, 2016), 3–7.

[32] The Zombie Problem is made famous by Chalmers. For his original formulation of the Zombie Problem, see Chalmers, *The Conscious Mind*, 84–88.

Conclusion: It is metaphysically possible for consciousness not to arise out of the physical. Hence, physicalism is false.

Now, how does this work? We get the first premise by reflecting on how physicalism is supposed to work. Physicalism claims that there is no such thing as a special non-physical form of consciousness, at least not ontologically speaking. One way to formulate this thought is to say that the set of all physical facts concerning our world entails the set containing all the phenomenal facts concerning our world. Whatever is true about our phenomenology, about consciousness as it appears in our world, is entailed by the physical facts. It follows that if the physical facts do not change, then the phenomenal facts better not change either. Since all phenomenal facts are entailed by physical facts, any given set of physical facts can only produce one set of phenomenal truths. Regardless of how one wants to formulate and defend the first premise, the core idea is that the physical is primary and that the relation between the physical and the phenomenal is a necessary one.

With the second premise, whimsical creatures like zombies start playing a role. A physicalist zombie is somebody who shares all his physical features with a regular person, but who fully lacks consciousness. A zombie version of me would have the same brain, the same nerve system, the same dirt under his fingernails and is surrounded by a world that is physically the same one I inhabit. But unlike me, when zombie-me 'looks' at an apple, he does not have any qualitative experience. The zombie might utter the sentence ''hey, an apple'', or pick it up and eat it. Zombie-me will show the same outward behaviour I show. But it does not undergo a phenomenal experience of redness like I do when I see an apple. Though this zombie is an outlandish creature that probably cannot be found in our world, it is certainly perfectly conceivable.[33]

As for the third premise, it is partially banking on intuitive plausibility. If something is impossible, this is often so because of the very nature of the thing in question. Take a square circle for instance. By its very nature, a circle does not have exactly four corners. Just by knowing what a circle is, we know that square circles are impossible. We could not even coherently conceive of a square circle, even if we tried. With zombies, this phenomenon is not encountered. We undergo no difficulty whatsoever in conceiving zombies. It is not felt that physicalist zombies are somehow incoherent, even if we reflect on what we think consciousness and the physical are like. This is at least *prima facie* a reason for thinking that such a conceived world is metaphysically possible. At the very least, the burden of proof lies on the shoulders of those trying to prove that zombies are somehow metaphysically impossible.[34]

These three premises combined give us the result that physicalism is false. The first premise claims that physicalism stands or falls with the idea that all phenomenal facts are entailed by the set of all physical facts. The second premise claims that we can conceive of worlds in which a deduction of the phenomenal facts from the physical facts fails. The third premise implies that this conceived world is metaphysically possible, which means that phenomenal facts are not entailed by physical facts. Entailment, in this case, means the strong metaphysical entailment the physicalist is committed to. The entailment between phenomenal facts and physical facts is supposed to hold in every possible world. If the entailment fails in one world, it is not the strong metaphysical entailment we are looking for. The failure of entailment in the zombie world means that there is no strong

[33] The fact that we can worry about solipsism supports this intuition. The solipsist's worry that others do not have a true mental life would be void, if we could not conceive of people with a similar physique that lack consciousness. If this were to be inconceivable, the solipsist would merely note that he roughly shares his physique with others and would then let go of his worry. The age-old battle against solipsism shows that things are not so easy.

[34] To make matters worse, it seems that the conceivability of zombies is fairly robust as well. As Tim Crane points out, it is not so easy to argue that zombies are not conceivable. At least, it seems more difficult in the case of zombies than in the case of other types of possible entities. See Tim Crane, *Elements of Mind: An Introduction to the Philosophy of Mind* (Oxford: Oxford University Press, 2001), 99–101.

metaphysical entailment, neither in the zombie world nor in any other world. The sought after entailment does not hold up in our world either. Physicalism is false.

Of course, the above is just one way to formulate the Zombie Problem. There are alternative ways, but the core of the problem is that physicalism is committed to a certain kind of necessary relation between the physical and the phenomenal. The conceivability of possible worlds like the zombie world undermines this necessary relation, thus undermining physicalism itself.

There are numerous ways one could combat the Zombie Problem. All three of the premises of the Zombie Problem have been disputed. It has been claimed that the relation between the physical and the phenomenal within physicalism need not be a necessary one, or at least not a type of necessary relation that leads to the Zombie Problem. Or perhaps we cannot coherently conceive of a zombie world, but only think that we can. Others think that conceivability does not imply metaphysical possibility.[35] The Zombie Problem has led to a lively debate and I do not pretend that the superficial support I gave for each premise is sufficient to settle the matter. I did not present a full defence of the Problem and do not intend to do so in this essay. I merely described the Zombie Problem to show what it is that most Neo-Russellian Monists are committed to. My purpose in doing so is to enable us to see how we can construct a similar problem for Neo-Russellian Monism. This similar problem is the Combination Problem for Neo-Russellian Monism.

A quick look at the argumentative structure of the Combination Problem[36] betrays its close connection to the Zombie Problem:

> 1 Neo-Russellian Monism is committed to the idea that consciousness necessarily arises out of quiddities.
> 2 We can conceive of a world where consciousness does not arise out of quiddities.
> 3 If a world is conceivable, then it is metaphysically possible.
>
> Conclusion: It is metaphysically possible for consciousness not to arise out of quiddities. Hence, Neo-Russellian Monism is false.

The first premise follows from the commitments of Neo-Russellian Monism. Truths about consciousness are grounded in truths about quiddities. Knowing everything about the inner nature of quiddities and their relations with each other entails knowing everything about consciousness. This entailment relation means that this relation between the (macro)phenomenal and the quiddities is one of necessity.

For the second premise, we have to imagine a zombie world again. For the Zombie Problem, we imagined a person who is physically identical to me, but lacks consciousness. Neo-Russellian Monists are typically committed to thinking this to be conceivable. In the same vein, we can now conceive of a Neo-Russellian zombie. This is a person who is identical to me in terms of quiddities, but who lacks consciousness. *Prima facie*, the Neo-Russellian zombie seems to be as conceivable as the physicalist zombie.

The third premise of the Combination Problem is equal to the third premise of the Zombie Problem. Given that the premise is accepted in the case of the Zombie Problem, it seems that it must also be accepted for the Combination Problem.

The result is that Neo-Russellian Monism must be false. It is committed to a necessary relation that is rejected given the existence of a possible world with Neo-Russellian zombies. If the

---

[35] For a discussion of all these options, see Chalmers, *The Conscious Mind*, 81–159.

[36] The term 'Combination Problem' comes from Seager, though the problem itself is older. It has been traced as far back as William James. See William E. Seager, "Consciousness, Information, and Panpsychism," *Journal of Consciousness Studies* 2, no. 3 (1995): 272–88. And William James, *The Principles of Psychology* (Dover Publications, 1890).

Combination Problem is correct, then Neo-Russellian Monism must give up its pretentions to explain the place and nature of consciousness. The Combination Problem must be avoided, otherwise it seems that Neo-Russellian Monism is lost.[37]

2.2 Supporting the Combination Problem

As I represented the Zombie Problem and the Combination Problem above, they are mostly based on intuitions. That is to say, it is intuitively clear to us that we can indeed conceive of physicalist zombie worlds and Neo-Russellian zombie worlds. The physicalist and the Neo-Russellian Monist would resist these intuitions. They would insist that to be conscious simply is to be constituted by either the fundamental particles of modern physics or quiddities respectively. There is nothing beyond the combination of such fundamental elements. So, there could not be any extra features that we can imagine to be absent, while the fundamentals and their relations are present. To think that consciousness can be separated from the fundamentals is simply incoherent.

We have our hands on a mere ''clash of intuitions'', as Coleman calls it.[38] Some might find it intuitively plausible that zombies remain a possibility even if the fundamentals are in place, others might not. The Neo-Russellian Monist would be in the middle position where he finds physicalist zombies intuitively plausible whereas he is less inclined to think Neo-Russellian zombies plausible.[39]

Fortunately, the Zombie Problem and Combination Problem can be expanded. We do this by introducing some support for the conceivability of the physicalist zombie and the Neo-Russellian zombie. This is done by showing that there are strong dissimilarities between the mental and the physical/the quiddities. These dissimilarities, so the thought goes, are hard to bridge in a satisfactory manner. These unbridgeable dissimilarities are what causes the conceivability of the zombies.

For the physicalist zombies, there is a number of options. We could point out that consciousness has a certain unity and that it represents a more or less closed and individuated and subjective point of view. Consciousness is also typically thought to have a special sort of qualitative feel to it, and we are supposed to have special access to our phenomenology. The fundamental particles of modern physics lack this unity, subjectivity, qualitative feel and specialized access. It seems that these four elements can, in principle, be separated from the physical. This seeming lack of continuity between the physical and the phenomenal can serve to support the thought that it is conceivable for the physical and the phenomenal to come apart.[40]

For the Combination Problem, fairly similar support can be invoked. Following Chalmers, I shall name three elements. These are the subjectivity problem, the quality problem and the structure problem. The subjectivity problem is often considered to be the most difficult. The basic question is how we can reach macro-subjectivity. Panpsychist Neo-Russellian Monists often think that quiddities are subjects. They harbour experiences and it is often thought that experiences can only exist if there is somebody or something that is experiencing them. So, the quiddities must be able to experience things, making them subjects. They are of course very crude and simple subjects, but subjects with their own viewpoint nonetheless.[41]

The problem is that these subjects must somehow come together to form one unified macro-subject. This is difficult to envisage. Each micro-subject has its own point of view. How can these points of view mix together in the proper way? If the macro-subject just magically pops up as soon as enough micro-subjects come together, then the picture starts looking a lot like emergentism. Saying

[37] For alternative renditions of the Combination Problem, see Goff, "Why Panpsychism Doesn't Help Us Explain Consciousness," 291–98.

[38] Sam Coleman, "Mental Chemistry: Combination for Panpsychists," *Dialectica* 66, no. 1 (2012): 161.

[39] See Chalmers for such a tendency. Chalmers, "Panpsychism and Panprotopsychism," 256–58.

[40] Chalmers, *The Conscious Mind*, 84–88.

[41] Chalmers, "The Combination Problem for Panpsychism," 4–14.

that the micro-subjects simply merge into one seems similarly emergentist.[42] Emergentism, as has been indicated, must be avoided at all costs. We could also say that when micro-subjects come together, all the subjects get destroyed, until only one remains. The remaining one then becomes the macro-subject. But this is a competition between and not a combination of the micro-subjects, while it also has a host of different problems.[43] Somehow, the micro-subjects must together constitute the macro-subject without emergentism. This is a demand that is difficult to satisfy and has been called the Subject Summing Problem.[44]

The core intuition behind the Subject Summing Problem is that having a point of view is a property that has an air of isolation to it. Mixing together subjectivity goes against the intuitive privacy of consciousness. So, the very idea of mixing them already has intuitive difficulties.[45]

The panprotopsychist, meanwhile, has a different difficulty. Since he is not held to the idea that quiddities are subjects, he is not bothered by the Subject Summing Problem. His problem is more basic. How can we get subjectivity at all? With the panpsychist, subjectivity is already there at the start. The panpsychist then needs to transport it to the macro-level. The panprotopsychist faces the issue that subjectivity needs to be introduced into the system in the first place. How can panprotopsychist quiddities, which are in themselves not subjects, come together to create subjectivity? If the fundamental particles of the physicalist cannot do it, then how can the quiddities achieve this feat?[46]

The quality and the structure problem are similar to the subjectivity problem structurally speaking. For the quality problem, let us start again with the panpsychist. The panpsychist holds that qualitative feel can already be found on the micro-level. The problem is that these fragmented bits of qualitative feel need to be combined into one. The little bits of, say, looking red, looking yellow, tasting good, tasting salty, smelling of tomatoes and smelling of garlic needs to combine into the one experience where I see, taste and smell a pasta Bolognese. How to mix and match the simplistic micro-qualitative feels into one complex picture?[47]

Whereas the panpsychist only needs to find a way to combine qualities in the right way, the panprotopsychist has the problem that he needs to introduce quality in the first place. For the panprotopsychist, the quiddities do not contain any sense of quality. So how can we go from something that lacks the qualitative to something qualitative?[48]

The interesting thing about the structure problem is that it works in a similar fashion for both the panpsychist and the panprotopsychist. Both are committed to the idea that quiddities are responsible for consciousness. Now, the quiddities are fragmented bits. Of course, they might be part of an intricate web of relations. Still, we are looking at a structure of many individual objects, no matter how well connected.[49]

Consciousness, meanwhile, seems to have a different structure. We do not have the impression that our phenomenal experiences are fragmented in countless individual bits. Of course, we can make some divisions within our experiences. I can tell the difference between seeing the road ahead, feeling the wind in my hair and smelling freshly mowed grass. Still, the total package of sight,

---

[42] This is Seager's combinatorial infusion proposal, a possible solution I do not discuss in this essay. For a commentary, see Chalmers, 23–25. I do not discuss Seager because, as mentioned, he gets too close to emergentism. William E. Seager, "Panpsychism, Aggregation and Combinatorial Infusion," *Mind and Matter* 8, no. 2 (2010): 167–184.

[43] See Sam Coleman, "The Real Combination Problem: Panpsychism, Micro-Subjects, and Emergence," *Erkenntnis*, no. 1 (2013): 32–34.

[44] Goff, "Why Panpsychism Doesn't Help Us Explain Consciousness," 301–3.

[45] Nesic Janko, "Against Deflation of the Subject," *Filozofija I Društvo* 28, no. 4 (2017): 1111–16.

[46] Chalmers, "The Combination Problem for Panpsychism," 8–9.

[47] Chalmers, 11–12.

[48] Chalmers, 28–30.

[49] Chalmers, 13–14.

smell and touch do seem to have some sort of unity to them. There is a sense of smooth continuity to the various aspects of a single complex phenomenal experience. This perceived unity of consciousness stands in a stark contrast to the fragmentary nature of the quiddities, which is more akin to an enormously complex jigsaw puzzle than a smooth unified picture.[50]

But even if one is less keen to accept that consciousness is in some sense unified, the Neo-Russellian Monist is still not off the hook as far as the structure problem is concerned. Let us say that rather than a unity, consciousness is more diffuse. Our consciousness can at one time contain different pieces of phenomenality, each separate from the others. At this point, we note that consciousness is rather coarse-grained and the quiddities extremely fine-grained. The number of quiddities needed to constitute a human is presumably quite large, probably running into the millions. So, the network of quiddities that constitutes us is highly fine-grained, with millions of little distinct pieces. Our consciousness meanwhile, is certainly not so divided. We cannot identity millions of little bits of phenomenality, no matter how many of our senses are active. Our experiences are much coarser, leaving us with much larger chunks. In order to avoid the structure problem by denying the unity of consciousness, the Neo-Russellian Monist would still have to insist on a consciousness that is much more fragmented than seems reasonable.[51]

So, with or without accepting the unity of consciousness, the structure of consciousness appears to differ from the structure of the quiddities. The gap between these two structures needs to be explained. Otherwise, it can be used to justify the conceivability of Neo-Russellian zombies.[52]

Before we move on to possible solutions to the Combination Problem, a final note. In this chapter, I will only consider solutions that claim to be able to solve the Combination Problem wholesale. It is not sufficient to just solve the subjectivity, quality or structure problem. All three must be solved in one fell swoop or in a combination of moves. If Neo-Russellian Monism is to succeed, then the Combination Problem needs to be solved completely, not merely partially.[53]

In what follows, I will discuss two proposed solutions to the Combination Problem. Each presents a different method for solving the Combination Problem. Together, they are fairly representative of the types of overall solutions for the Combination Problem available.[54] If both proposals fail, I will take this as a strong indicator that Neo-Russellian Monism, at present, has not solved the Combination Problem.

The first solution attempts to solve the Combination Problem by investigating the relation between conceivability and metaphysical possibility. Perhaps we can understand this relation in such a way that the conceivability of the physicalist zombie implies metaphysical possibility, whereas the conceivability of the Neo-Russellian zombie does not imply metaphysical possibility. If this were to succeed, the Zombie Problem would valid, but the Combination Problem would not be.

The second solution attempts to solve the three sub-problems directly. If the subjectivity problem, the quality problem and the structure problem could all be solved, then the Combination Problem would lose important support.

---

[50] Andrew Brook and Paul Raymont, "The Unity of Consciousness," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2017), https://plato.stanford.edu/archives/sum2017/entries/consciousness-unity/.

[51] Michael Lockwood, "The Grain Problem," in *Objections to Physicalism*, ed. Howard M. Robinson (Oxford University Press, 1993), 273–75.

[52] Chalmers, "The Combination Problem for Panpsychism," 13–14.

[53] I also introduce this limitation to save some space, since I do not wish to spend this entire essay on the Combination Problem. Neo-Russellian Monism involves other issues that deserve attention.

[54] As can be glanced from Chalmers, "The Combination Problem for Panpsychism."

2.3 Goff's Solution

The first potential solution I will look at comes to us from Philip Goff. Goff starts his discussion by making some changes to the premise that conceivability implies metaphysical possibility. He introduces what he calls the ''Transparency Conceivability Principle''[55]. According to this principle, conceivability only leads to metaphysical possibility, if we have a strong *a priori* grasp on the concepts involved with the topic we are conceiving things about. In the case of the Zombie Problem for example, these concepts are 'the physical' and 'the phenomenal'. Those are the two concepts we are toying with when conceiving Zombie Worlds. In the case of the Combination Problem, the concepts in play are 'the (macro)phenomenal' and 'quiddities'.[56]

Goff cashes the idea of a strong *a priori* grasp out in terms of the notion that a concept can be transparent or opaque.[57] For a transparent concept, to know the concept is to know the nature of the type of object it refers to. Goff takes 'million-sided' to be a good example. Just by knowing what 'million-sided' means, I know what it is to be a million-sided object. To be a million-sided object is simply to have a million sides.[58]

As an example of an opaque concept, Goff mentions the commonsense concept water. Just by knowing what is meant commonsensically by 'water', I do not know what it is for water to be water. That is, I do not know that water is H_20. Nothing in the concept water could have told me that. It is only by further investigation that I could find out that to be water is to be H_20. Hence, water is an opaque concept.[59]

For Goff, the conceivability of some world only leads to the metaphysical possibility of this world, if the concepts involved are all transparent. If there are opaque concepts in play, then we simply lack the proper grasp on the material to be sure about the inference from conceivability to metaphysical possibility.[60]

Goff next uses the Transparency Conceivability Principle to try to stay clear of the Combination Problem while embracing the Zombie Problem. If he succeeds, then he has achieved the goal I set for the Neo-Russellian Monist.

Let us start with the Zombie Problem. Like other supporters of Neo-Russellian Monism, Goff thinks that the current story physics tells us about the micro-world is highly superficial. According to him, physics merely delivers the ''mathematico-causal structure''[61] of the world. In the essay in which he presents his solution to the Combination Problem, he does not precisely indicate what he takes this to mean. I take it that he means that physics gives us a highly formal description of reality. All is governed by abstract relations and numbers, as opposed to full-blooded concrete objects. The universe of physics is one of points and lines, as opposed to one with objects, powers and properties.

For Goff, this mathematico-causal structure is occupied with transparent notions. Given the abstract nature of mathematical notions like numbers and the relations of physics, to know the concept is to know the object it represents. If I know what '3' means, then I also know what is takes for there to be three things. The objects of a completely formal system, like physics as Goff sees it, can be known *a priori*, just by understanding the concepts involved in the system.[62]

The phenomenal, meanwhile, is also transparent for Goff. He claims that if we attend to some qualitative event, like seeing red, we immediately gain the concept of phenomenally

---

[55] Philip Goff, "The Phenomenal Bonding Solution to the Combination Problem," in *Panpsychism: Contemporary Perspectives*, ed. G. Bruntrup L. Jaskolla (Oxford University Press, forthcoming).

[56] Goff, chap. 3.

[57] Not to be confused with other types of transparency, such as epistemic transparency or semantic transparency.

[58] Goff, "The Phenomenal Bonding Solution to the Combination Problem," chap. 3.

[59] Goff, chap. 3.

[60] Goff, chap. 3.

[61] Goff, chap. 5.

[62] Goff, chap. 5.

experiencing red. He calls this ''a direct phenomenal concept''[63], a notion taken from Chalmers.[64] So in one swoop, we gain the concept and immediately understand what it is for something to undergo an experience of red. There is an intimate connection between having a phenomenal concept and knowing what the accompanying experience is like. This close connection is sufficient to say that the phenomenal is transparent for Goff. To have the concept of feeling pain is to know what it is to feel pain.[65]

The result is thus that both the physical and the phenomenal are transparent. The physical as described by modern physics is just a formal system whose objects are knowable *a priori* as long as the concepts are fully grasped. The phenomenal is also transparent, giving the validity of the theory of direct phenomenal concepts. Since both of the core concepts at work in conceiving a zombie world, namely the physical and the phenomenal, are transparent, the Transparency Conceivability Principle is satisfied. So, we may conclude that the zombie world is indeed metaphysically possible. The Zombie Problem is triggered.[66]

Now on to see how Goff thinks to avoid the Combination Problem from being triggered as well. When dealing with the Zombie Problem, Goff already granted that (macro)phenomenal concepts are transparent. This does not hold for the concept quiddity. After all, it is one of the core tenets of Neo-Russellian Monism that we do not know the exact nature of quiddities. If we want to discover this exact nature, we would have to await further fundamental research.[67] Or perhaps we can never discover what quiddities are like. Regardless of what scenario will become true, we do not know what quiddities are just by possessing the concept.[68]

Note that this does not mean that the term 'quiddity' does not have content. We have already seen that it does. 'Quiddity' refers to the kind of property that constitutes both the mental and the physical. Furthermore, something only counts as a 'quiddity' if it is dissimilar from the entities postulated by surface-focused theories like modern physics. Of course, 'quiddity' has a rather broad meaning and is not a highly precise notion. Still, the term clearly has meaning.[69] And as we shall see throughout this essay, there are plenty of interesting conversations to be had about the workings of the quiddities.

So, the concept quiddity is opaque, though not meaningless. Another important concept that is opaque, is the one that refers to the relations the quiddities have with one another. Goff thinks that if quiddities can work together to create macro-consciousness, then they must stand in some special relation. This relation is called ''phenomenal bonding''.[70] Just like we do not know what exactly quiddities are, we also do not know exactly how phenomenal bonding works. What we do know is that phenomenal bonding is talked about by us through opaque concepts. We can know what 'phenomenal bonding' means. It refers to the special relation quiddities have with one another to create macro-consciousness. But by knowing what 'phenomenal bonding' means we do not know

[63] Goff, chap. 4.

[64] David J. Chalmers, "The Content and Epistemology of Phenomenal Belief," in *Consciousness: New Philosophical Perspectives*, ed. Quentin Smith and Aleksandar Jokic (Oxford University Press, 2003), 220–72.

[65] Goff, chap. 4.

[66] Goff, chap. 5.

[67] This fundamental research could even be done by physics, but only if it undergoes a scientific revolution. After all, the quiddities are thought to be different from the entities physics normally engages with. So, the current theories of physics would have to change quite radically in nature.

[68] Goff, "The Phenomenal Bonding Solution to the Combination Problem," chap. 5.

[69] Goff, chap. 5.

[70] This notion of phenomenal bonding can result in problems concerning the borders of the consciousness of any given subject. For a description of these problems, see Chalmers, "The Combination Problem for Panpsychism," 23–24. And Goff, "The Phenomenal Bonding Solution to the Combination Problem," chap. 7. I will not discuss these problems in this essay.

anything about what it is for something to engage in phenomenal bonding. It follows that 'phenomenal bonding' is opaque.

Concerning conceiving Neo-Russellian zombies, we now find that we are using two sets of concepts. The phenomenal concepts are transparent. But the concepts concerning quiddities and phenomenal bonding contain opaque concepts. The Transparency Conceivability Principle indicates that even if Neo-Russellian zombie worlds are conceivable, we are not allowed to infer from this that these worlds are possible. The Combination Problem is not triggered.[71]

There is a number of ways to undermine Goff's solution. An option is to reject his Transparency Conceivability Principle as unsuitable. But that would go deeper into the semantics of 'conceivability' and its relation to metaphysical possibility than I would like to do here. What I will do instead is to show that the physical involves opaque notions, *pace* Goff.

Recall that Goff thinks that physics presents the world as a mathematico-causal structure. Presumably, that means that the two mains types of concepts involved in the purely physical account of the world are causal concepts and mathematical concepts. The concept causality is not transparent, however. One clue of the opaque nature of causality can be seen by noting that there is an expansive philosophical debate on the nature of causality.[72] Given that all philosophers involved do understand the concept causality, it is telling that they cannot automatically tell the nature of causality. If 'causality' was transparent, then, by definition, everybody familiar with the concept should know what it is to be a causal relation. Given that we do not, we must conclude that causality is opaque.

A different way to approach this would be to say that 'causality' is opaque because it is a concretely existing relation in the world. Causality is typically considered as dealing primarily with concrete objects. The classic example is a rock breaking a window. We say that the rock causes the window to break. One could insist that we are looking at a clearly non-formal relation between two concrete objects, the rock and the window. The effect of the causation is also quite tangible. Broken glass and a loud noise are not the kind of by-products we would expect from a highly formal kind of relation.

If this kind of thinking is on the right track, it means that it would be strange to consider 'causality' as a purely *a priori* notion. Causation is not a process that only occurs in abstract space, nor is it a mere invention on our part. It is a concrete element of existence and it must have some sort of underlying nature. And just like water does not give away its nature just because we know the concept 'water', it seems reasonable to think that causality also does not give away its inner nature just because we have a conception of it. Goff would have to argue that we have some special epistemic access to what it is to be caused if he wants to avoid 'causality' becoming an opaque concept. To my knowledge, Goff has not done so, and I personally don't see how this special epistemic access can be found.

The above relies on a realistic notion of causality. The story I introduced only works if we take causality to be an objectively real phenomenon within nature. But at least one prominent theory of causation denies this. I am of course talking about Humean notions of causality. Humean theorists of causality deny that causality has any ontological weight beyond mere regularity within events.[73] This gives causation a more formal existence. The thus introduced formality opens the gate for Goff to insist on the transparent nature of 'causality'.

---

[71] Goff, "The Phenomenal Bonding Solution to the Combination Problem," chap. 5.

[72] Jonathan Schaffer, "The Metaphysics of Causation," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2016), https://plato.stanford.edu/archives/fall2016/entries/causation-metaphysics/.

[73] A view that comes from the work of David Hume. See David Hume, *A Treatise of Human Nature: Being an Attempt to Introduce the Experimental Method of Reasoning Into Moral Subjects* (Oxford University Press, 2000).

The problem is that Goff may not simply assume that causation as it appears in modern physics is Humean in nature. It may very well be that modern physics has a highly formalized approach to reality, but that does not mean that causality must be radically deflated, be that deflation Humean or of another kind. The formal structure could still represent full-blooded causal activity. As things stand, both in physics and within the philosophy of physics, it simply is not clear yet what the nature of causality within modern physics is.[74] A highly deflated interpretation could be right, but giving a more robust role to causality in our understanding of the theories of physics is still a defendable move. This means that Goff is too quick in presuming that he can just consider every concept used in modern physics to be transparent. For causality, matters just are not yet clear enough. If Goff wants to push us to accept that causality truly is a transparent concept within modern physics, he would have to do some work to show this. Until he does, his solution for the Combination Problem rests on shaky foundations.

That said, Goff does not stand alone if he were to suggest that modern physics can function perfectly with a fully formalized Humean notion of causality in place.[75] Furthermore, it seems to fit with his view on modern physics. It is clear at this point that Goff, and many other Neo-Russellian Monists, think of physics as a highly formalized endeavour that is mostly concerned with abstract relations and dispositions. If we were to grant this vision, then it becomes sensible to accept a formalized notion of causation as well. Formalizing causation makes sense against a background in which all of physics is formalized already anyway. That is not to say that Goff may merely presume that his interpretation of modern physics is correct.[76] But it does mean that Goff can place his view of causality within a broader story.

So, there is some hope for Goff on the causality front. But recall that physics is supposed to present a ''mathematico-causal structure''. Even if we grant that the causal concepts in play here are transparent, the mathematical concepts might not be. So, let us see whether there is ground for doubting the transparency of mathematical concepts.

To begin with, note that it holds for mathematical concepts too that they refer to objects whose nature is debated. For instance, what is it for something to be three things? Does that require a relation to a certain abstract object, or does it only require a certain convention to exist? There are quite extensive philosophical debates as to how to understand this seemingly simple notion of 'three'.[77] It seems that all those involved know perfectly well what the word 'three' means. All can competently count to three, recognise when things are in groups of three, can contribute successfully to conversations that involve the number three, *et cetera*. And yet, these debates about number are ongoing. Apparently, more than knowledge about meaning is needed to decide what we should consider the nature of numbers like three.

Moreover, calling mathematical concepts transparent also entails claiming that all regular mathematical questions and disputes can be decided based on the meaning of the concepts involved. For instance, it would mean that it should be possible to know what it is to be π purely based on the meaning of the symbol 'π'. It is not clear that this is true. After all, π is the result of the circumference

[74] Stathis Psillos, *Causation and Explanation* (Routledge, 2002).

[75] Some philosophers have even suggested that the entire notion of causality can be eliminated from physics wholesale. A famous example of this is the philosopher Neo-Russellian Monism is named after, Bertrand Russell. See Bertrand Russell, "On the Notion of Cause," *Proceedings of the Aristotelian Society* 7 (1912): 1–26.

[76] For resistance against this, see Alyssa Ney, "A Physicalist Critique of Russellian Monism" (New York: Oup Usa, 2015).

[77] Leon Horsten, "Philosophy of Mathematics," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Metaphysics Research Lab, Stanford University, 2019), https://plato.stanford.edu/archives/spr2019/entries/philosophy-mathematics/.

of any given circle dived by the diameter of the same circle. Everybody who knows this, knows the meaning of π. What is not known by anybody currently is what exact number π is. The first six digits of π are 3,14159. However, more numbers need to be added after the 9 in order to fully write down π. In fact, an infinite amount of numbers needs to be added. Π is an irrational number, which not only means that an infinite number of digits follow the comma, but also that there is no sensible pattern in the numbers. A crude way to put it is to say that the numbers do not follow an order, but just appear randomly. This randomness in combination with an infinite number of digits guarantees that nobody alive knows exactly what π is, simply because the number is too large to contain in a limited mind.

Of course, π can be calculated with purely formal means. In fact, we know how to do so using computers. However, the claim was that purely based on the meaning of 'π', I could come to know what π is. Alas, despite knowing the meaning of 'π', I do not in fact know exactly the nature of π. And the complicated calculations that are involved in getting to know more about what π is seems to require more than just knowing the meaning of a word. It requires a lot of knowledge about mathematical formulae and how to solve them, for instance. Surely, all that knowledge is not contained in the meaning of 'π'. And if it is, then it is up to Goff to show this.

Let us take stock. Goff's gambit was to solve the Combination Problem by introducing the Transparency Conceivability Principle. In a nutshell, the Principle claims that the Zombie and the Combination Problems only trigger if the concepts at the core of conceiving the physicalist and Neo-Russellian zombie respectively are transparent. Goff's suggestion was that this is the case for the Zombie Problem, but not for the Combination Problem. In order to conceive a Neo-Russellian zombie, we invoke the concept quiddity as well as the concept phenomenal bonding. These are opaque, meaning that the associated Combination Problem does not trigger.

Alas, despite Goff's best efforts, it seems that the physicalist can hijack Goff's solution in order to get rid of the Zombie Problem as well. In order to field a physicalist zombie, we need the causal and mathematical concepts that are involved in physics. Goff indicated that these concepts are transparent, with the result that the Zombie Problem triggers.

This last claim by Goff turned out to be dubious. The nature of both causality and mathematical notions like numbers are heavily debated amongst philosophers, though every philosopher has a competent command of the meaning of the involved terms. This deep disagreement over words everybody knows how to use indicates that these concepts are opaque as opposed to transparent.

Moreover, Goff would have to maintain that modern physics can function perfectly well with a highly formal notion of causation, which is a controversial claim. It might fit Goff's general interpretation of modern physics, but that does not mean he may take his claim for granted. For mathematical notions, cases like π clearly indicate that knowing the meaning of a mathematical term does not at all entail knowing the nature of the object the term refers to.[78]

The two considerations above, in combination with the existence of grand philosophical debates concerning causality and mathematics, are convincing enough to conclude that causal and mathematical notions are not transparent, *pace* Goff. This means that the Zombie Problem does not trigger either if we accept the Transparency Conceivability Principle. This is bad news for Goff, since his goal was to allow the Zombie Problem while preventing the Combination Problem. This has failed, since both Problems have been dismantled. The result is that Goff's solution must be rejected, in order to maintain the Zombie Problem.

Now that Goff's attempt to solve the Combination Problem by looking at the conceivability-metaphysical possibility relation has failed, let us turn to Coleman. Perhaps Coleman's reductive

[78] If one does not like the π example, there are plenty of others. For instance, can knowing the meaning of the word 'prime number' give you enough information to solve, say, Landau's Problems?

attitude in combination with further emphasis on phenomenal bonding can rescue the Neo-Russellian Monist.

2.4 Coleman's solution

As indicated earlier, the Combination Problem is thought to be supported by three sub-problems. These are the quality problem, the subjectivity problem and the structure problem. Sam Coleman, whose solution I discuss here, takes the subjectivity problem to be the core issue. The quality problem and the structure problem are not very deep problems in his eyes.[79] In an analysis I will not discuss further here, Coleman even argues that some of the most important formulations of the Combination Problem can be reduced to the subjectivity problem.

Coleman thus starts his solution by facing subjectivity directly. He thinks that the Combination Problem is at its worst, when we take quiddities to be subjects. For panpsychists, it typically holds that quiddities undergo experiences. To have phenomenal properties is to have experiences. Otherwise, quiddities would contain micro-phenomenality that goes unperceived. For some phenomenal aspect to go unperceived just means that it does not truly exists, or not as a phenomenal aspect at least. If we are to be panpsychists, the quiddities must be subjects, with their own point of view. In a slogan, no phenomenality without subjectivity.[80]

But Coleman rejects the above. He thinks that there can be micro-experience without subjectivity. An experience is simply part of reality and does not disappear when we do not look. If we can accept this vision, then we can get rid of the idea that quiddities must be subjects. They can contain phenomenal elements and even harbour experiences without being subjects. The micro-phenomenality simply goes unperceived, unless it becomes part of macro-phenomenality.[81]

With quiddities no longer being subjects, we have bypassed the Subject Summing Problem described earlier. But now Coleman somehow needs to reintroduce subjectivity elsewhere. After all, even if there need not be subjectivity at the micro-level, there surely must be subjectivity on the macro-level.

Coleman attempts to do this by using phenomenal bonding and deflating subjectivity. 'Phenomenal bonding', just like in Goff's work, refers to a special relation quiddities have with one another. It is through this relation that quiddities can combine their phenomenal features into one macro-consciousness. Like Goff, Coleman can only roughly sketch their workings. However, he is confident that phenomenal bonding and subjectless quiddities that harbour experiences can account for consciousness and subjectivity.[82]

For Coleman, the quiddities underlying our brain matter are extremely well connected, since they are able to create macro-consciousness. Some event amongst quiddities at the one end of our brain will affect the quiddities at the other end. The phenomenal properties of the quiddities are constantly involved with these interactions. It is through these connections that the phenomenal features start mixing together. The workings of quiddities in one part of the brain might conjure up a red sight, another a good taste, a third part a garlic smell, *et cetera*. The quiddities, through phenomenal bonding, can in a sense communicate this to one another. As the phenomenal information is shared around throughout the brain, a single coherent picture is brought into being. It simply follows from the incredibly complicated workings of the quiddities in our brain.[83]

For Coleman, the creation of such complete pictures in which a significant number of the brain quiddities are involved is simply what true conscious subjective awareness is like. If we have such a well-connected phenomenal picture, what more would we want? In Coleman's own words:

[79] Coleman, "The Real Combination Problem," 25–29.
[80] Coleman, "Mental Chemistry," 144–48.
[81] Coleman, 148–52.
[82] Coleman, 154–60.
[83] Coleman, 154–60.

> ''We build up a phenomenal representation of the complex state of the whole system, the organism. This phenomenal representation of phenomenality, connected to decision-making and motor circuits, appropriately insulated and identified through its constitutional boundary, and able to carry information about the environment, to act upon this information, and to exist as a standalone locus of executive representational phenomenality, in contradistinction from other such systems populating the landscape, is our subject, I propose. To be such a representational system is to be conscious in the way that we recognize each in our own case.''[84]

Does this suffice for subjectivity? Is the creation of a well-connected ''phenomenal representation'', or phenomenal picture, all that is needed? I would not say so.

To be sure, there is some progress here. I do take it to be plausible that if the brain quiddities were tightly connected, that some coherent picture could come about. If we were to imagine some observer with the right kind of access to the united quiddities, then this observer would indeed have a phenomenal experience as we are used to having them. But herein lies the trouble. In order to reach proper subjectivity, there should be a subject. A certain point of view needs to be brought about, the entity that is undergoing this phenomenal picture. Coleman was supposed to deliver this point of view. We shouldn't have to imagine some observer separately afterward. An observing entity, namely the subject, should have arisen out of the quiddities. But Coleman does not seem to do this. We only have a picture and lack an entity to actually be conscious of this picture. We still lack the subject.

Coleman could insist that the subject arises simultaneously with the phenomenal picture. This does not help however, since he did not present us with anything to show that the subject must arise. We can easily conceive a well-connected collection of quiddities that can produce a picture, but lacks a subject. Coleman must either supplement the story or reimagine the nature of subjectivity.

It is my view, and that of others[85], that Coleman does the latter. He thinks that the picture production of the brain quiddities and its interactions with other parts of the body is all there is to subjectivity. This is a straightforward denial of the traditional notion of subjectivity where there is a subject that has a robust awareness relation with a piece of phenomenology. Coleman's alternative is a functionalist or even an eliminative treatment of traditional subjectivity.

In a nutshell, Coleman solves the subjectivity problem by doing away with subjectivity altogether. How does he fare with structure and quality? For quality, it seems that the story Coleman provides works. The interconnectivity of the quiddities makes it seem possible that they can somehow share qualitative information and mix it into one picture. The proof that qualities can indeed mix is given by things like paintings and lasagnes, as Coleman indicates. The individual smears of paint combine in our minds in one picture, and the diverse tastes of ingredients of a lasagne combine into one flavour. If some form of quality combination is possible here, then it seems equally plausible in the case of quiddities.[86]

Of course, Coleman argues a bit too quickly if he thinks that the lasagne and the painting examples can show that qualities can mix, or rather that the qualities that quiddities carry can mix in the way he wants. Combination for paintings and lasagnes may well be different from the combination that quiddities engage in. The interactions of lasagne ingredients are mostly chemical, and smears of paint barely interact at all. Coleman clearly does not want the combination of quiddity

[84] Coleman, 160.

[85] Janko, "Against Deflation of the Subject." And Chalmers, "The Combination Problem for Panpsychism," 25–27.

[86] Coleman, "Mental Chemistry," 138–44.

qualities to be chemical[87] in nature. Painting combination, meanwhile, seems mostly to take place in the eye of the beholder. This is also a non-starter for Coleman, since he wants a process of combination that does not rely on beholders. He would not deflate the subject that much otherwise.

Still, paintings and lasagnes do show that qualities can combine and thus constitute some larger quality. (Provided that we think there is no strong emergence of a lasagne flavour from the ingredients. But I take it that we cannot conceive of a lasagne that contains all the common ingredients with their usual flavour, but that somehow lacks a lasagne flavour.) And if we have established that qualities can combine properly in some cases, then it does look plausible that a combination of well-connected quiddities qualities can constitute a further quality.

With regard to structure, Coleman is more blunt. He takes it that the structure of the quiddities is united enough to be similar to the structure of our consciousness.[88] But this is too quick. As indicated, we can interpret consciousness in roughly two ways. Either its structure is unified, or it is diffuse. Regardless of what interpretation we pick however, it is not clear how Coleman can bring us much advancement.

First, take the unity approach. Presume that our consciousness is not just some bundle of experiences. Rather, it is *one* unified thing. There might divisions within a single phenomenal state, like the difference between smelling and tasting tuna, but there is still a sense of smooth continuity.[89]

This structure is notably different from Coleman's suggestion for how the quiddities look with phenomenal bonding in place. As said, I am willing to grant that the result is a coherent phenomenal picture, but this does not mean that the picture is no longer a collection of connected points, structurally speaking. The quiddities might be able to create an impressively interwoven network, but this simply does not entail the type of unity our macro-consciousness has. At the end of the day, the quiddities are still fragmentary. If we opt for the unity interpretation, Coleman's solution for the structure problem fails.

If we claim that consciousness is diffuse, Coleman is still not out of trouble. Recall that we said that consciousness is relatively coarse-grained. The number of different pieces of experience we can distinguish in experience is limited. Most certainly, the number of separate experiences that make up our macro-consciousness is not as large as the number of quiddities that are involved in constituting our mind. The amount of quiddities involved probably runs into the millions, whereas our consciousness, even if not unified, certainly is not fragmented into more than a million pieces. [90]

Furthermore, Coleman's claim that one coherent picture emerges from the quiddities can now work against him if he were to opt for a diffuse interpretation of consciousness. If consciousness is truly fundamentally diffuse, then multiple separate pictures should arise. On Coleman's account however, we only see one picture. So, the fact that Coleman opts for a singular picture spells trouble for him, should he prefer the diffuse interpretation of consciousness.

The upshot is that Coleman does not have enough tools to solve the structure problem. His coherent phenomenal picture is still a fragmented, though closely interwoven, network of quiddities. So, the structure he ascribes to the quiddities is dissimilar to the structure of a unified consciousness. And the quiddities are still too numerous to be similar to a diffuse consciousness. Even if our consciousness is fragmented, it is certainly not split in as many pieces as there are quiddities. Regardless of one's stance on the issue of the unity of consciousness, the structure problem remains standing.

---

[87] At least not chemical in the literal, physical sense.

[88] Coleman, "Mental Chemistry," 138–44.

[89] Brook and Raymont, "The Unity of Consciousness."

[90] Lockwood, "The Grain Problem." And Daniel Stoljar, "Two Conceptions of the Physical," *Philosophical and Phenomenological Research* 62, no. 2 (2001): 253–281.

Let us take stock. Unlike Goff, Coleman did not undermine the Combination Problem as such. Instead, he tried to deal with the underlying issues. As Coleman says about conceivability arguments like the Combination Problem:

> ''Even the zombie argument against physicalism does not rest on a bare claim of physical zombie conceivability: instead that argument, indeed the zombie thought experiment, depends upon some important further considerations.''[91]

These further considerations are the subjectivity, the quality and the structure arguments. Coleman's results are, however, mixed. For subjectivity, his solution is to do away with subjectivity rather than really solving the problem. His solution for the structure problem simply fails, since Coleman does not manage to make the structure of the quiddities resemble that of our consciousness. The quality problem I will accept as solved. That makes it Coleman's most successful gambit, though his focus was on subjectivity.

Coleman's results are not sufficient to solve the Combination Problem. I take it that most philosophers who are interested in Neo-Russellian Monism want to preserve the major aspects of consciousness, including subjectivity and awareness.[92] Losing some of these aspects constitutes a major cost for Neo-Russellian Monists who wish to embrace Coleman's proposal. Coleman's way of dealing with the structure problem is also not appealing. Only the quality problem is improved upon. Alas that is the easiest of the three problems. As long as one has qualities on the micro-level, it does not seem too difficult to solve. A true panprotopsychist might suffer difficulties here, but a (pseudo-)panpsychists like Coleman already has good prospects for solving it from the very start.

All in all, Coleman's solution does not deliver much. But what is even worse, the solutions he has to offer can be used by physicalists as well. For instance, if the structure of the bonded quiddities is similar to the structure of consciousness, then why can the physicalist not say the same thing about the brain? The physical brain is a very well-connected object. If the quiddities have a similar enough structure to consciousness, then why not braincells?

The subjectivity issue physicalism faces can also be solved by borrowing Coleman's solution. If we may approach subjectivity and awareness in a functionalist manner or even eliminate it, then things become easier for the physicalists. Functionalism and eliminativism are exactly the strategies they have been employing for decades now. So, if Coleman is allowed to use such tactics, then it seems that we should also accept them from physicalists.

Only Coleman's solution to the quality problem cannot be hijacked by physicalism. Coleman relies on qualitative elements existing on the micro-level. Physicalism obviously cannot do this. But if the only difference between Coleman's solution and the physicalist solution to the hard problem lies in the quality problem, then we should get worried. To only save qualitative feel from the wildfire that is the discussions on the hard problem is not exactly a landslide victory. Not enough of consciousness is preserved, at least when compared to the position that needs to be avoided, namely physicalism.

I conclude that Coleman's solution fails. Not only is it not highly appealing on its own terms, the sub-solutions can also be used by physicalism to avoid the Zombie Problem. Only the quality problem is solved in a manner that cannot be borrowed by physicalism. Alas, this is not enough. To properly solve the Combination Problem, and the hard problem in general, one also needs to solve the

[91] Coleman, "Mental Chemistry," 162.

[92] Indeed, Michael Blamauer, "Panpsychism Without Subjectivity? A Brief Commentary on Sam Coleman's 'Mental Chemistry' and 'The Real Combination Problem,'" *Disputatio* 5, no. 37 (2013): 299–309. And Galen Strawson, "Radical Self-Awareness," in *Self, No Self?: Perspectives From Analytical, Phenomenological, and Indian Traditions*, ed. Mark Siderits, Evan Thompson, and Dan Zahavi (Oxford University Press, 2010).

structure problem and the subjectivity problem. The result is that both solutions we considered during this chapter, Goff's and Coleman's, have failed. It seems that the Combination Problem remains standing.

2.5 Conclusion

This chapter was about explaining consciousness. The main obstacle Neo-Russellian Monism faces here is the Combination Problem. The Problem challenged the core Neo-Russellian Monist thesis that consciousness necessarily arises out of the quiddities. It seems that we can imagine a Neo-Russellian zombie world in which the quiddities are the same as in our world, but in which consciousness is fully absent. If this is truly possible, then the necessary link between the quiddities and consciousness does not appear to exist after all. The conceivability of the Neo-Russellian zombie world is supported by the subjectivity problem, the quality problem and the structure problem. We also noted that any potential solution to the Combination Problem must retain the Zombie Problem.

In the latter half of the chapter, we looked at two possible solutions for the Combination Problem. Goff tried to solve the problem by looking at the conditions under which the conceivability of a world becomes relevant, Coleman attempted to solve the Combination Problem by answering the three sub-problems supporting it. Alas, both solutions failed. Goff's suggestion for how we should understand the relevance of the *prima facie* conceivability of a world could eliminate both the Combination and the Zombie Problem, which goes against the goal we had set. Coleman's solutions for the subjectivity problem and the structure problem both failed. He could not make the structure of the quiddities resemble that of consciousness and he eliminated subjectivity rather than showing how it could arise out of the quiddities. Only the quality problem was successfully solved, though this was the least pressing of the three. All in all, Coleman did not make enough process with the three sub-problems to solve the Combination Problem.

The upshot of this chapter is that the Combination Problem stands. Challenging the relevance of Neo-Russellian zombie worlds nor attempts to solve the sub-problems worked. There are alternative routes to travel here, but Goff and Coleman were representatives of a fair portion of the solutions available. Hence, it is not unfair to conclude that solving the Combination Problem while retaining the Zombie Problem is a very difficult, if not impossible, feat. So, Neo-Russellian Monism's process *vis a vis* physicalism is limited. Both struggle to explain consciousness, since they each have a fundamental problem they seem unable to deal with.

Chapter 3 Mental Causation

The name 'mental causation' already gives away what it tries to capture. The doctrine of mental causation is the idea that the mental has causal influence. My ideas and sensations can cause certain things to occur in the world. Mental events can influence other mental events as well as physical events. For example, the sensation of a sudden red flash of light or the thought of my own death might cause fear in me. Or, the experience of seeing a brightly yellow banana might cause me to notice it and pick it up. The former is a case of mental-mental causation, the latter is a case of mental-physical causation. In order for Neo-Russellian Monism to allow full causal powers for mentality, I take it that both mental-mental and mental-physical causations must be possible.

The reason we would want mental causation is that a robust notion of the mental should allow for it. Without mental causation, the mental does not fully participate in the workings of the universe. It would float above it, fully inert. The counter-intuitiveness of this picture of the mind without a punch is bad enough in itself. But one also becomes worried about parsimony. If the mind barely has a role to play in worldly affairs, then why include it in the inventory of things? Why not eliminate the mental, if it hardly does anything? Considerations like these, as well as others[93], have made the position that the mental is causally inert very unpopular.

Of course, there exists a view that claims that the mental lacks causal influence, or at least that mental-physical causations are impossible. The physical has causal influence on the mental, but not the other way around. Despite this, the mental is still seen as ontologically independent and is not reduced to the physical nor anything else. This view is typically called 'epiphenomenalism'.[94] Epiphenomenalism is not often seen as an appealing position and I take it that Neo-Russellian Monism would want to stay clear of it. [95] This means that mental causation must be respected.

In this chapter, we will look at two attempts to show that mental causation cannot be accommodated within a Neo-Russellian Monist framework. The first considers whether the mental can be causally active on the macro-level. The second looks at the micro-level. Section 3.2 also contains a discussion of an epistemic attack on Neo-Russellian Monism that involves mental causation. We deal with each issue in turn.

3.1 Mental Causation on the Macro-level

To see how mental causation would work on the Neo-Russellian Monist account, consider how the causal structure of the universe is set up according to that account. First, we have the quiddities. They form the core elements of the universe and all other entities can be reduced to them. Now, we have already seen that Neo-Russellian Monists tend to argue that quiddities have plenty of relations with one another. Some of these relations are presumably causal. Given the significant causal interactivity of our world, it would be surprising if not a single quiddity relation could be characterised as causal.[96] If this is right, then there is causality on the level of the quiddities.

Recall that, within this essay, I will be avoiding emergentism. Normally, emergentism within the philosophy of mind refers to the thought that there is a strong emergence of the mind from the body. Something is strongly emergent, if it is created through the complex combination of a number of lower-level entities. Though the strongly emergent object is dependent for its existence on the continued combination of the lower-level entities, it is still an ontologically novel object with its own

[93] Robinson, "Epiphenomenalism."

[94] Robinson.

[95] Howell, "The Russellian Monist's Problems with Mental Causation," 22–23. And William S. Robinson, "Russellian Monism and Epiphenomenalism," *Pacific Philosophical Quarterly* 99, no. 1 (2018): 100–101.

[96] Causal relations amongst quiddities play a significant role in the work of Gregg Rosenberg on Neo-Russellian Monism. See Gregg Rosenberg, "Causality and the Combination Problem," in *Consciousness in the Physical World: Perspectives on Russellian Monism.* (New York: Oup Usa, 2015).

novel causal influences. Both the object itself and its causal influence cannot be reduced to the lower-level entities.

If Neo-Russellian Monism is to avoid emergentism, there must be no strong emergence of the mental from the quiddities. However, I also seek to deny that the physical is strongly emergent from the quiddities. Neither the mental, nor the physical, strongly emerge from the quiddities. Mental and physical objects, as well as any causal influence they might have, can be reduced to the quiddities.

Where does this leave mental causation? Well, we cannot say that the mental has independent causal powers. Any mental causation can be reduced to a quiddity causation. But that does not mean that mental causation is irrelevant or can simply be eliminated. When we are talking about, say, the experience of yellow, we are referring to a specific set of quiddities. If that quiddity-set causes some further event *x*, then it makes perfect sense to say that the experience of yellow caused this *x*. The quiddity-set causing *x* is just the same thing as the experience of yellow causing *x*. Thus, whenever the specific quiddity-set that the experience of yellow reduces to causes any given further event, it automatically becomes true that the experience of yellow caused that further event. As long as the quiddity-sets that the mental reduces to remain causally influential, it remains undeniably true that the mental has causal influence as well.

What about physical causation then? Physical causation is, just like mental causation, the idea that the physical has a causal influence on both mental and physical events. A knife, when in the right position, can cause both the experience of fear and physical damage to my body. Both physical-mental and physical-physical causation should be possible.

In principal, what holds true for mental causation also holds true for physical causation. The physical gets its causal influence from the quiddities on the Neo-Russellian Monist account. So, physical causation is reducible to quiddity causation. When I am stabbed by a knife, it is both true to say that a set of quiddities caused damage and that the knife caused damage. After all, the knife and its causal influence can simply be reduced to that set of quiddities. There is no problem with combining the statements ''the knife caused damage'' and ''the quiddity-set caused damage'', just like there is no problem with thinking that both an alarm and the little cogs that make up the alarm caused me to wake up.

Note that all physical events still take place following the regular rules of physics. Only, underneath all of these events are quiddities. The physical and emotional damage done by the knife are grounded in quiddities. It is still true that the physical knife causes fear and blood. The Neo-Russellian Monist merely adds that this causal influence is there because of the close ontological tie between the physical and the quiddities.

To recapitulate, what have we discovered? First, there are no independent causal capabilities beyond the quiddities. For any causation, it holds that it can be reduced to the workings of the quiddities. For both physical and mental causation, the consequence is that they have causal influence by virtue of the quiddity-sets each reduces to. This makes it true to say that both the experience of yellow and its constituting quiddity-set can cause the same event. Ontologically speaking, there simply is no distinction between the causal influence of the experience of yellow and of the quiddity-set. Thus, it is not even in principle possible for the one to be causally active without the other. That would imply an ontological distinction that just is not there.

With the nature of mental causation and physical causation on the Neo-Russellian Monist picture being clear, let us turn to our first interlocutor, William S. Robinson. He tries to show that mental causation cannot be accommodated on a Neo-Russellian Monist worldview. He attempts to do this by relying on causal closure. Causal closure is the idea that every event has a sufficient physical

cause. In the Neo-Russellian Monist context, we take this only to apply to the macro-level of the universe. Thus, whenever a macro-event takes place, there must be a sufficient physical cause.[97]

The complication that arises, if one were to accept causal closure with Robinson, is that it does not leave room for our macro-consciousness to play a causal role. With causal closure in place, every event on the macro-level has a sufficient physical cause. If we add mental causation to the mix, it would mean that some events have multiple sufficient causes. Such events would have a physical cause *and* a mental cause. That is, there would be causal competition between the mental and the physical cause. This leads to overdetermination, and that is not a desirable outcome. A choice between overdetermination and rejecting mental causation is a poor one indeed. Robinson considers it a dilemma that, as it stands, could be strong enough to prove deadly for Neo-Russellian Monism.[98]

Concerning overdetermination, we have of course seen that the presence of a physical causation implies the presence of a quiddity causation as well for Neo-Russellian Monism. After all, every physical causation reduces to some quiddity causation. However, the relation between the physical and the quiddities is such that there is no competition between the two. The physical causation can be reduced to a quiddity causation. There are no two independent causations, since the one is ontologically reducible to the other. Without causal competition, there is no overdetermination either. Thus, causal closure does not create overdetermination problems between the quiddity causation and physical causation.

Now, the reason causal closure might create problems between mental causation and physical causation is that it is unclear what the relation between mental causation and physical causation is. If there is a strong ontological distinction between the mental and the physical, then there is causal competition. If a given mental cause and a given physical cause are distinct and they cause the same event, then we have a clear case of overdetermination on our hands. The challenge, then, is to show that the mental and the physical are not deeply ontologically distinct after all. If this can be established, then there is no longer any causal competition. In that scenario, a given event can have both a physical and a mental cause, just like a given event can both have a physical and a quiddity cause.

Of course, there is a quicker way to solve the problem Robinson introduces. We could simply deny that causal closure holds. By denying causal closure, the conflict between mental and physical causes I described above disappears. If we think that it does not hold that every event has a sufficient physical cause, we could just say that some events have a sufficient physical cause, while other events have a sufficient mental cause. As long as no event has both a mental and a physical cause, we should be fine.

However, it might be beneficial for Neo-Russellian Monism if they could claim that an event can have both a sufficient mental and a sufficient physical cause. One important reason is that this would avoid an awkward form of causal dualism. If we choose the above route, we are committed to the idea that mental and physical causes are completely distinct. But consider what happens in cases where, say, I raise my arm. What happens mentally is that I have the intention to raise my arm, and that this intention causes my arm to go up. Physically, what happens is that complex chemical processes are taking place in my brain. Electrical signals are then sent through my nerve system to my arm, which responds by raising. On causal dualism, the causal influence of the intention and the causal influence of the chemical processes and electrical signals are ontologically distinct. This means that we will need a story as to how the two relate. Because both the physical and the mental causes reduce to quiddity-sets, this does not immediately lead to problems that are as complicated as the notorious interaction problem for regular dualism. Still, giving an account as to how the distinct mental and physical causes are supposed to interact is a significant task.

[97] Robinson, "Russellian Monism and Epiphenomenalism," 106–7.
[98] Robinson, 106–7.

Furthermore, there are a fair number of philosophers convinced of the truth of causal closure. And indeed, there are some reasons to suppose that causal closure makes sense as a principle. The current state of the sciences, especially considering physics and neuroscience, play an important part in such reasonings.[99] Admittedly, the principle is contested, so there is no consensus about the truth of causal closure.[100] Still, it would be good if Neo-Russellian Monism could at least in principle accommodate causal closure. Authors who want to maintain causal closure would then still be able to embrace Neo-Russellian Monism. At the very least, it would rob opponents of Neo-Russellian Monism, like Robinson, of the possibility of using causal closure against the theory.

With all of the above in mind, let us try to see whether we can overcome the Robinsonian challenge by arguing that the same event can have a sufficient metal cause and a sufficient physical cause, rather than simply combing causal dualism with a denial of causal closure.

Our goal then is to make sure that the mental and the physical are ontologically close enough to prevent causal competition. At first glance, one might want to point to the relation with the quiddities both the mental and the physical enjoy. Both can be reduced to the quiddities. Does that not already suggest a close ontological tie?

As it stands, this suggestion is too quick. Being grounded in the same type of entity does not guarantee a close ontological tie. My liver and my kidney both roughly reduce to body cells, but are clearly ontologically distinct, including independent causal capabilities. They might reduce to the same basic entity, but they each are reduced to a strongly different set of such basic entities. So, reduction to the same kind of entity does not bring us what we want.

Perhaps we gain progress, if we say that the mental and the physical are always reducible to the same sets. What I mean here is that whenever there is a macro-mental event that can be reduced to quiddity-set *x*, there is also some physical event that can be reduced to set *x*. Every single mental event is then accompanied by some physical event and both events reduce to the same set of quiddities. In this way, every single sufficient mental causation has an accompanying sufficient physical causation. The result is that mental causation does not go against causal closure, since the requirement that every causation on the macro-level must contain a sufficient physical causation is met. Meanwhile, the fact that there is a sufficient mental causation present as well does not result in overdetermination, given the ontological closeness of the two causations with their shared roots in the quiddities. All in all, this move should deliver us what we want.

However, note that we must be rather strict on the nature of the relation between the mental and the physical we now sketch. For instance, we must not say that mental events and physical events each represent different features or properties or relations of some given set. That would imply an ontological distinction, since the mental event and the physical event then reduce to different elements within the same set of quiddities. We must insist that a given mental event and its accompanying physical event do not merely reduce to the same set of quiddities, but also represent the same properties, features, relations *et cetera* from that set. You might say that the ontological overlap between a given mental event and its accompanying physical event must be total. Each event simply covers the exact same elements, hence the term 'total overlap'.

A question that crops up is what exactly this total overlap means for the relation between the mental and the physical. Robinson, for instance, suggests that we should think of that relation as one of reduction. Specifically, the mental simply reduces to the physical. That is, the right kind of physical

[99] An example of an author arguing in favor of causal closure is Agustín Vicente. See Agustín Vicente, "On the Causal Completeness of Physics," *International Studies in the Philosophy of Science* 20, no. 2 (2006): 149–171.

[100] For instance, Barbara Montero argues against causal closure. Barbara Montero, "Varieties of Causal Closure," in *Physicalism and Mental Causation*, ed. Sven Walter and Heinz-Dieter Heckmann (Imprint Academic, 2003), 173–187.

objects and relations between those objects can together constitute a macro-mental event or entity. Our mind, presumably, is constituted by the physical particles in our brains.[101]

Of course, the thought is still that brain cells can only bring about consciousness thanks to the underlying quiddities and their extraordinary phenomenal or protophenomenal properties. The quiddities form the ultimate constitution of the mental, even if the mental manifests itself through the physical. So, we are not giving up Neo-Russellian Monism, but are merely adding that the mental reduces to the physical as well as to the quiddities. A possibility, since the physical itself also reduces to the quiddities.[102]

Alternatively, we could take the rather surprising position that the physical reduces to the macro-mental. That is, the physical is constituted by the combination of the right kind of macro-mental elements. So, if experiences, beliefs or perceptions come together in the right way, we get things like rocks, cars, bodies, and so on. This would require the premise that each physical event has some accompanying mental event. Otherwise, there is no macro-mental event to reduce to. Still, this option is on the table should we want it.

Note here that the above is not just panpsychist Neo-Russellian Monism. According to that view, the quiddities are mental entities. Panpsychist Neo-Russellian Monism is merely claiming that the physical reduces to quiddities, which are mental. The above is different in that the physical reduces to macro-level mental entities. So, the physical does not just reduce to the quiddities, it also reduces to the kind of macro-mentality our minds engage in. So, rocks and bodies do not merely reduce to the rudimentary mental properties of the quiddities, it reduces to the kind of experience and beliefs we, humans, can have. A subtle difference, but a notable one.

A last option I shall mention here is identity. Perhaps, the best way to think about the exact relation between macro-mentality and the physical is to say that they are the just the same thing. Our mind just is our brain. Perhaps the only reason why we have two different words is due to ignorance or pragmatic reasons.

The above suggestion is distinct from simple type-type identity physicalism, since we also believe that the physical and the mental reduce to the quiddities. So, when we say that the mind and the brain are the same, we are not simply reducing the mind to the brain. Rather, the two turned out to be the same thing. And both the physical and the mental are equally reducible to the quiddities. Identity, without reductionism of the mental to the physical or *vice versa*.

I have here presented three options for what the relation between any given mental event and its accompanying physical event can be. The one could be reducible to the other, or the two might be simply identical. Apart from these, there might be other options that explain the ontological ties between the mental and the physical. For my purposes here, not much seems to hang on the issue. All that is required here is that there is a total ontological overlap between every mental event and its accompanying physical event. Any of the three presented options can achieve this goal. All alternatives that can achieve the same, without major problems, will work for my purposes here as well. Since I do not have to settle the question of the exact relation between mental events and their accompanying physical event, I will not do so here. The reader may feel free to choose the relation they like best, while I move on to see whether Neo-Russellian Monism can indeed accommodate mental causation.

Robinson is willing to accept that, given the story above, the mental does in some sense have causal influence. The mental is grounded in the quiddities, which are the source for all causal influences in the universe. Further, we claimed that each mental event is accompanied by a physical event. Both events are always rooted in the same set of quiddities and represent the same elements from that

[101] Robinson, "Russellian Monism and Epiphenomenalism," 107–9.
[102] Robinson, 107–9.

set. In this way, there is always a sufficient physical causation for every mental causation, without causal competition. Hence, causal closure is preserved.[103]

However, so Robinson argues, the mental does not have causal influence in virtue of its mentality. To see why this is a problem, take the banana again. We see a bright yellow and the banana is lifted. It is specifically this bright yellowness present in the sensation that caused us to move. So only if we can show that it is this mental presence, the yellowness, that is responsible causally speaking, do we have the type of mental causation we are looking for. It is exactly this that Robinson wants to show we cannot have.[104]

First, Robinson notes that, for the Neo-Russellian Monist, there must be some specific way the quiddities combine in order to yield macro-consciousness. Every rock, planet and spiderweb contains quiddities, but presumably only a relatively select group of objects has macro-consciousness in the manner we do. So, quiddities only yield the kind of macro-sensations we are looking for under certain circumstances. Such circumstances might be the coming together of certain types of quiddities, special relationships amongst them, *et cetera*. According to Robinson, these special circumstances could theoretically be captured by a ''Theory of Inscrutables[105] Yielding Our Sensations''[106], or TIYOS. We do not currently have a TIYOS yet, and we might never get a proper one. However, for Neo-Russellian Monism, there must be some TIYOS that correctly describes how quiddities get together to form macro-consciousness.[107]

What Robinson does next is to suggest that TIYOS is perfectly independent of how the physical functions and how quiddities constitute the physical. That is, the way quiddities constitute the physical has little to do with how the mental is constituted. Why this has a disruptive effect can be seen as follows. Imagine that God is creating the universe and has established how the quiddities will constitute the physical. The physical is then indeed put into place. Given causal closure, we already at this point have the full causal nexus of the macro-universe. God still has plenty of options for continuing Creation. He could set things up in such a way that seeing a banana gives us a sensation of bright yellow, or a dark blue. Seeing a banana might even give us an itch. It all depends on the TIYOS God settles on. Note the consequence of all this still being possible. Since the physical is already in place, there is already a sufficient cause for the banana to be lifted up. Causal closure ensures this. But this is established without it being settled whether my banana sensation will be of a bright yellow or dark blue! Hence, it doesn't matter what exactly my banana sensation is like. The banana will be lifted regardless. The fact that bananas appear yellow to me given the TIYOS in place in our world does not appear to have an impact. In other words, any sensation could be anything without this changing the causal structure of the universe. With that, Robinson is in the position to conclude that mental causation has slipped through our fingers again.[108]

The way to rebuke Robinson's objection is to insist on the monistic nature of Neo-Russellian Monism. We already saw a strong monism on the macro-level. We claimed that every mental event has an accompanying physical event, where each event reduces to the same elements from some set of quiddities. We shall further reinforce this monism by also introducing monism on the micro-level.

The idea is that the quiddities are not engaged in a dual role of constituting the physical and the mental. To suggest that these tasks are separate is just to reintroduce dualism. We do not quite get a dualism of substances or properties, but we do have a dualism of quiddity functions. The

[103] Robinson, 109–12.

[104] Robinson, 109–12.

[105] 'Inscrutables' is the term Robinson uses for quiddities. See chapter one of this essay for a short discussion on different terms for quiddities.

[106] Robinson, "Russellian Monism and Epiphenomenalism," 110.

[107] Robinson, 110–11.

[108] Robinson, 111–12.

quiddities function to create the physical and the mental, and these two tasks are kept apart on Robinson's view.

The Neo-Russellian Monist should resist this picture and take on board a monism of functions. The quiddities constitute both the physical and the mental in one unified movement. Quiddities constitute the entire universe according to some ruleset and this ruleset is not such that we can distinguish between the constitution of the physical and of the mental. This constitution is one unified monist event, without Robinsonian duality. This is quite a fitting picture upon reflection. Given that the mental and the physical are so close ontologically, it seems right to think that their constitution on the micro-level must be close as well.

If this monistic picture is embraced, then we can see that Robison's objection that the mental does not have causal influence in virtue of its mentality no longer works. He thinks that once the physical stands, the mental can still be basically anything. It does not matter how the mental turns out to be, there are no causal consequences. Now we can see that this is false. The physical and the mental are created together, they are deeply intertwined. So, when the physical arises, the mental rises with it. As the physical gets its causal capabilities, the mental gets them as well. There is simply no scenario where the physical and its causal capabilities are there without a causally active mentality as well. This could only occur if we can pry apart the rules of constitution in such a way that we get the physical but not the mental. This is impossible given the monistic nature of these rules.

So yes, there is a reason why it is causally relevant that my sensation of the banana is of a bright yellow. The constituting work done by the quiddities that makes the banana sensation one of yellow is the same work that gives the sensation its physical background and causal capabilities. If the yellow was not there, there would be no causal influence either. The yellow and the casual influence go together. No yellow, no causal influence. Hence, the yellowness matters.

Of course, Robinson might wish to fight me on this. Why would the constitution of the physical and the mental be one? Would that not lead to problems? Investigating such worries is the topic of the next section of this chapter, to which we now turn.

3.2 Mental Causation on the Micro-level

In the previous section, we had our first foray into mental causation and its functions on the micro-level. We saw that there must not be a dualism concerning the constituting task of the quiddities. That is, there is no split between constituting the physical and constituting the mental. The quiddities constitute both in one movement.

Robinson, the antagonist to whose arguments I reacted with the above monism, lacked the means to stop me from making just that move. Alas, others have raised trouble more specifically aimed at micro-level mental causation. Robert Howell[109] and Lok-Chi Chan[110] have claimed that it can be shown, on the micro-level, that the mental causation problem is lethal for Neo-Russellian Monism. So, my suggested solution will only succeed, if it can survive Howell and Chan's attack. Let us start with Howell.

The basic question Howell asks is similar to Robinson's worry. Is it in virtue of the phenomenology constituting aspect of the quiddities that they have casual impact? Or is it purely by constituting the physical that the quiddities influence the universe? If the answer to the last question is yes, then the mental, or rather its constitution, seems causally irrelevant. As we have seen, this form of the mental causation problem, if successful, can refute Neo-Russellian Monism.[111]

The way to overcome Howell's objection is similar to how Robinson's objection was solved: insist on monism. Howell anticipates movements of this kind and insists on the complexity of the

[109] Howell, "The Russellian Monist's Problems with Mental Causation."

[110] Lok-Chi Chan, "Can the Russellian Monist Escape the Epiphenomenalist's Paradox?," *Topoi*, forthcoming, 1–10.

[111] Howell, "The Russellian Monist's Problems with Mental Causation," 32.

constitution of the universe by the quiddities. That is, Howell thinks that the constitution of the physical must be different from the constitution of the mental. He argues for this kind of complexity by producing a thought experiment. Imagine a world, *w1*, in which the micro-process that brings about the experience of green also brings about negative charge and its associated causal profile. Next, take *w2*. In *w2*, the process that brings about the experience of red also brings about negative charge and its causal capabilities. Finally, take world *w3* in which the process for both the experience of red and green also constitutes negative charge and its related causal profile. Howell thinks that all of these worlds are in principle possible, which shows that there must be a distinction between the constitution of the phenomenal and the physical. Complexity is established.[112]

In principle, I can simply repeat here what I said against Robinson. Given the monistic nature of the constitution of the world, there is no clear distinction between the constitution of experiences of red and green and the physical phenomenon called 'negative charge'. So, we cannot just take experience of red constitution and negative charge constitution and randomly rearrange them as Howell does. In our world, there is nothing on the micro-level that can be identified by the categories Howell uses.

However, let us see whether we can do a bit more. After all, it does seem plausible that something like worlds *w1*, *w2* and *w3* are conceivable. Perhaps we cannot freely rearrange physical and mental events, but surely something in the vicinity of Howell's worlds should be possible? It would be good to see what makes us think so and why this seeming conceivability is not a threat.

So far, I have been presuming that both Howell and Robinson are basing the elements within their thought experiments on how constitution works in this world. That is, when the constitution of the mental is mentioned, I took it that the phrase refers to the constitution of the mental in this world. So, when Howell mentions the constitution of the experience of red, I take it that he tries to capture some event on the actually existing micro-level, as opposed to just any event that could constitute something like the experience of red. Given the monism I have been pushing for, Howell ends up empty handed. There is no special constitution of the experience of red. That would require a dualism of functions that does not exist on the micro-level.

If we let go of the assumption above, then we can see how *w1*, *w2* and *w3* are possible. They simply describe possible worlds in which constitution has a different character. The micro-level works in a completely different manner. Whereas experience of red in our world is associated with a certain type of quiddity-set *x*, there is some possible world in which something akin to the experience of red is associated with a type of quiddity-set *y*. Likewise, negative charge might be associated with a certain type of quiddity-set *x*, whereas in another possible world, something akin to negative charge is associated with quiddity sets of the type *z*. Hence, in our world, quiddity sets of type *x* constitute both experience of red and negative charge. Meanwhile in other worlds, things akin to the experience of red and negative charge are the responsibility of two distinct types of sets, namely *y* and *z*.

I use the phrase 'akin to the experience of red' here for a reason. In the next chapter, we shall see that macro-mental kind terms like 'experience of red' are associated with certain types of quiddity-sets. Thus, even if some mental event is very similar to an experience of red, it is not truly such an experience. The similar event has a different kind of underlying quiddity set. Since the kind of quiddity set determines the kind of mental event, the result is that the similar event and the true experience of red are of two different kinds.

So, we can have something like worlds *w1*, *w2* and *w3* in which the relations between the experience of red, the experience of green, and negative charge change. Or rather, mental and physical events akin to experiences and negative charge occur. Why does this not lead to the conclusion that complexity exists like Howell seems to think?

[112] Howell, 28–31.

The reason is that Howell thought to create *w1*, *w2* and *w3* in a particular way. He wanted to change the constitution of the mental, while leaving the constitution of the physical in place. So, experience of red and green where to be constituted differently, whereas negative change was to be constituted in the same way as it is in our world. If this is possible, then that would indeed imply complexity. However, that is not what I suggested. What I suggested was that we completely overhaul the way the quiddities constitute the world. Both mental and physical constitution are completely changed. The reason we have to do this is exactly, because there is no Howellian complexity. We cannot pry mental and physical constitution apart. Hence, if we want to change the one, we have to change the other as well. Now, if we indeed do this, worlds *w1*, *w2* and *w3* become available. However, the possibility of these worlds does not in any way establish complexity of the kind Howell seeks.

Note that the rejection of Howellian complexity does not imply that the constitution of the world is a metaphysically simple event. By simplicity, I mean that the constitution of the world cannot be divided into parts in any way. The whole process would take place without inner distinctions. This would be unlikely, given how complex the macro-world is. However, it takes little reflection to see simplicity does not follow from the claims I have made so far or will make later on.[113]

On my monist account, it is perfectly possible that constituting any part of the world involves various steps, properties, types of quiddities, *et cetera*. That is, complexity *an sich* is not what I am seeking to deny. What I do deny is the type of complexity Howell defends. That is, I deny that a line can be drawn between the activities of the quiddities that constitute the mental and those that constitute the physical. There is no joint present that we can utilise to divide nature in this manner. Of course, there are plenty of other divisions amongst the workings of the quiddities that can be made. For instance, it might be perfectly possible to distinguish amongst different kinds of quiddities. Or perhaps all the relations that quiddities enjoy with each other can be categorized in a small number of types. All of this I can accept. I merely reject the idea that the distinctions that can be found amongst the quiddities allow for a mental constitution – physical constitution divide. Any other form of complexity is unproblematic on my view. Thus, Howell's accusation of introducing undue simplicity is unwarranted.

As a last resort, Howell could ask why we should think that our world has a monist-style micro-level. It might not be possible to show that we must embrace dualism, but that in itself does not mean we should accept the monism I introduced. There is some *prima facie* intuitiveness to the idea that the mental and the physical are brought about by independent processes. So why opt for monism?

One reason for this goes back to the discussion we had with Robinson. Recall that we said that there is ontological overlap between the physical and the mental. This close ontological tie could be a reductive one, could be an identity relation, or some third alternative. Regardless, the mental and the physical are ontologically incredibly close. This means that it is very hard to conceive how the two could be constituted independently. For instance, if every mental event is identical to some physical event, then both must be constituted at the same time. After all, constituting some mental event is simply the same thing as constituting some physical event, if the two are identical. A similar story holds for a reductionist reading of ontological overlap. If the mental reduces to the physical, then the mental automatically arrives as soon as the physical is constituted. With reductionism, there can be no two different constitutions. This also holds for the scenario where the physical reduces to the macro-mental. Even for those insisting on some third interpretation of the ontological overlap, it is unclear how there could ever be a dualism of constitution. If the macro-mental and the physical are so close ontologically, how could they be constituted by two different processes?

An alternative reason for monism could be this. One of the core premises of Neo-Russellian Monism is that we have experiences. Even more, these experiences have a causal impact on our behaviour. A

[113] Howell, 28–31.

flash of yellow can attract us towards a banana, I might become emotional from a particularly well done painting or musical performance, *et cetera*. It is a widely shared intuition that these causations are in virtue of the nature of these experiences and not just some physical reaction ultimately unrelated to our phenomenology. It seems clear that it would be preferable to safeguard this intuition if possible. Indeed, it is the very motivation for Neo-Russellian Monism to provide a theory that can embrace this widespread intuition. We have already seen that this task is impossible if we embrace a dualism of the functions of quiddities. Only if monism reigns on the micro-level can we escape the undesirable result that the mental lacks causal influence. This could be a reason for accepting monism as well.

As it happens, the next author under discussion here, Chan, tries to show that exactly the basic premise of Neo-Russellian Monism described above is threatened, if Neo-Russellian Monism is true. Unlike Howell, Chan does not try in a direct manner to show that Neo-Russellian Monism degenerates into epiphenomenalism. Rather, Chan tries to show that a certain problem that haunts epiphenomenalism also haunts Neo-Russellian Monism. This is so regardless of whether Neo-Russellian Monism is a form of epiphenomenalism.[114]

The problem Chan wishes to saddle Neo-Russellian Monism with is what he calls the ''paradox of phenomenal judgement''. For epiphenomenalism, it runs as follows. Epiphenomenalism's core claim is that the mental lacks all causal influence. This means that the mental has no causal effects on our judgements either. So, when we judge that we have experiences, this judgement cannot be caused by our experience. Rather, it must be caused by the physical processes in our brain. This means that anybody with our physique, like zombies that lack experience altogether, would have the same judgements as we do. The result is that on an epiphenomenalist account, we cannot tell whether we have experiences or not. After all, how could we ever tell whether we are living in a zombie world or in a world with experience? Both we and the zombies judge of themselves that they have experience. There is not even a causal tie between our experiences and our judgements, according to epiphenomenalism. There is seemingly no way we can reliably judge whether we have experience or live in a zombie world. Therefore, on an epiphenomenalist account, we do not know whether we have experiences or not.

This result is self-defeating, since epiphenomenalism is based on the intuition that we are clearly aware of the existence of our experience. Without this premise, epiphenomenalism loses all appeal.[115] The paradox is established.[116]

To get a similar result for Neo-Russellian Monism, Chan invites us to imagine a particular possible world. This world contains quiddities that constitute all other elements of this world. However, unlike our world, there is no trace of the phenomenal on either the micro- or the macro-level. Chan calls these thoroughly non-phenomenal quiddities ''zombie bases''[117]. Let us say that the world we are imagining shares with ours the same physical structure and causal network. It merely lacks the phenomenal aspects of our world.[118]

Alas for Chan, there is a problem here right at the start. Recall that the mental and the physical are supposed to overlap ontologically. This makes it very hard to conceive of a world that has the one, but not the other. For instance, if the mental reduces to the physical, then it cannot be

[114] Chan, "Can the Russellian Monist Escape the Epiphenomenalist's Paradox?," sec. 3.

[115] Chan, secs. 3–4.

[116] Of course, it is debated whether the paradox of phenomenal judgement actually constitutes a problem for epiphenomenalism or not. Within this essay, I will remain silent on the issue. If the solution I will provide for the Neo-Russellian Monist variety works for the epiphenomenalists as well, then that is fine by my lights. For an epiphenomenalist resistance to the paradox, see William S. Robinson, "Phenomenal Realist Physicalism Implies Coherency of Epiphenomenalist Meaning," *Journal of Consciousness Studies* 19, no. 3–4 (2012): 3–4.

[117] Chan, "Can the Russellian Monist Escape the Epiphenomenalist's Paradox?," sec. 3.

[118] Chan, sec. 3.

that the physical is as it in our world, while the mental does not exist. The mental exists automatically, if the physical exists. This is especially clear if the relation between the mental and the physical is one of identity. If two things are identical, it is impossible to have the one without the other. But even if we think that ontological overlap can be gained by means other than reduction or identity, it is not clear whether we can have the physical without mentality or *vice versa*. Thus, it seems that Chan's zombie base world is not a possibility.

However, for the sake of the argument, let us see what happens, if we were to grant Chan that his zombie base world is possible. The problem that follows is that the inhabitants of the zombie base world will share all of our judgements, at least insofar as judgements are possible without a phenomenology.[119] They too will claim, like us, that they have experiences. This means that we cannot tell whether we truly have experiences or not. We might be living in a zombie base world without realising it. The result is that according to Neo-Russellian Monism, just like with epiphenomenalism, we cannot tell whether our judgements about our phenomenology are true or not.[120] Earlier in this essay, we saw that one of the core premises of Neo-Russellian Monism is that we do have experiences and are keenly aware of them. Now we find ourselves in the undesirable position that Neo-Russellian Monism undermines this core premise by making it doubtful whether we can tell when we have experiences. This should be avoided.

Since the threat Chan introduces is primarily an epistemological one, it is with epistemological means that I shall reply. Informed by metaphysical considerations, of course.

The way forward is to look at Chan's justification that there is a true problem here. After all, there are grounds to deny this. Why should we care that there is a possible world where people falsely judge that they have experiences? So what if we cannot tell whether we are in such a world? More or less the same can be said for any given judgement of ours! For example, there are the classic possible worlds in which demons are deceiving us or in which we are brains in vats. Following Chan's model, we would have to disregard all our common beliefs given the existence of these possible worlds! Or take a possible world in which all apples are elaborate illusions that undermine all of our apple beliefs. Should we now become wary of our apple beliefs? Chan's defence of the paradox of phenomenal judgement for Neo-Russellian Monism seems to imply so. That is, Chan's objection is full-blown scepticism in disguise. Surely, to demand of Neo-Russellian Monism to solve the problem of scepticism goes too far. Any reasonable thinker would concur, even if only because scepticism could undermine any given theory of mind. Classic physicalism and dualism too take certain premises for granted. Neither theory is obviously strong enough to prevent the existence of possible worlds in which one of those premises fails and in which we do not notice this failure. So, to only demand of Neo-Russellian Monism to solve scepticism would be unfair. Chan needs to elaborate.

And indeed, Chan does elaborate. He thinks that we cannot properly track whether we live in a zombie base world or a Neo-Russellian Monist world containing phenomenality and the regular quiddities. Tracking here refers to the ability to be responsive to the facts under investigation. There are numerous ways to approach this basic idea, of which Chan names two.[121]

The first conception of tracking is a counterfactual one. If *x* is tracking *p*, then this means that *x* believes that *p* if and only if *p* is actually true. In the zombie base world, we believe that we have

[119] Recall that this essay assumes, with Chalmers, that the easy problem of consciousness, which involves believes and judgements, can be solved by physicalist means. Hence, a person with judgements but no experiences could in principle be possible.

[120] Chan, "Can the Russellian Monist Escape the Epiphenomenalist's Paradox?," sec. 3.

[121] Chan, sec. 3.

experiences even though we do not. So, we cannot be tracking whether we have experiences or not.[122]

Under the second interpretation, tracking means that there is some account as to how the things we are tracking can explain our beliefs. My apple beliefs can be partially explained by referring to facts about apples. This account should involve some precision, for example by describing causal connections, uses of perception or abduction, the utilisation of special instruments, *et cetera*. Given the nature of Neo-Russellian Monism, no precise story seems forthcoming. The micro-level, after all, cannot currently be investigated precisely.[123]

Let us respond to each of the two interpretations of tracking and their threat towards Neo-Russellian Monism in turn. For the counterfactual interpretation, it still proves too much. It is true that there are some possible worlds in which our counterparts believe that they have experiences, whereas they do not. But the same holds for almost all my beliefs. I might correctly believe that there is food in my fridge, and on good grounds. Alas, in some possible world, I am deceived. This holds even if I am looking in my fridge right now and see the food. The counterfactual interpretation still ends up being too close to scepticism for Chan's purposes.

As to the precise account interpretation, I do not think Chan's pessimism is justified. It is true that there is no account as to how the Neo-Russellian quiddities exactly constitute the world. But that does not leave us empty-handed. According to Neo-Russellian Monism, the quiddities bring about the mental and the physical. This constituting act itself we cannot epistemically access currently. Luckily for us, constitution leaves behind a fairly obvious hint for its existence. This hint is the presence of the thing constituted. In this case, the fact that we find ourselves with a phenomenology is a clear hint that some mind constituting event took place at some point in time.

The relation between our phenomenal judgements and our actual experience seems fairly robust on the Neo-Russellian picture. For one thing, we already found that the mental has a causal impact on our behaviour, presumably including our beliefs. So at least, there is a causal connection between our experience and our judgements, meaning that Neo-Russellian Monists are at least ahead of the epiphenomenalists.

Furthermore, it is often thought that we have some special introspective epistemic access to our experience. Introspection, as it is called, is highly regarded in some corners. It is sometimes even considered infallible.[124] If introspection is infallible, then the possibility to be mistaken about our experience is of course lost. Arguing for infallibility would thus be a quick way to defeat Chan. Still, even if this route is not chosen, introspection should still count as a fairly robust epistemic strategy for detecting experiences. Especially if we realise that it is not required that we can perfectly tell what experience we are having at what time. All that is needed is for us to tell whether we have any experience at all. Since we constantly and confidently report experiences of all kinds, only massive, general and consistent delusion could throw us off track. I am not referring to illusions here, since even illusions are a kind of experience.[125] Rather, we must be hit by some consistent misleading confusion that makes us think that we have experience whereas we do not. Even if this is possible, it is not an immediately plausible scenario.

Normally, a causal connection and introspective access would constitute a sufficient justification for trust in our phenomenal judgements. And a reliable method for checking whether we have experience entails a reliable method for checking whether we live in a zombie base world or a Neo-

[122] Chan, sec. 3.

[123] Chan, sec. 3.

[124] See for instance Michael Tye, *Consciousness Revisited: Materialism Without Phenomenal Concepts* (MIT Press, 2008). And Chalmers, "The Content and Epistemology of Phenomenal Belief."

[125] Note that this claim does not commit me to anti-disjunctivism of any kind. I am not saying that illusions and true perceptions are the same kind of thing, merely that both are experiences.

Russellian Monist one. After all, the existence of experiences is exactly the distinction between the two.

Of course, under the second interpretation of tracking, a somewhat precise account was asked for. Alas, both the causal influence of the phenomenal on our beliefs and the exact nature of introspection are rather difficult to give precise accounts of. But this does not mean that nothing can be done. What we can give more precise accounts of are the relations between verbal and non-verbal reports of people, of the behaviour of people and of activities in the brain. All three phenomena share intricate relations and correlations. It is the task of, amongst others, psychology and the neurosciences to discover and map those relations. Take colour for example. There have been plenty of discoveries concerning how the eye catches colour and how the brain tries to deal with the input of the eyes.[126] On the behavioural side, it has been researched how colour affects moods and hence behaviour.[127] All the while, scientific investigations like these rely in a multitude of ways on the testimonies of their subjects. Similar research has been done on various other things as well. Examples are sounds[128] and even intentionality[129]. The fact that these relations between behaviour, reports and physical processes can be found can serve as an indicator that experiences indeed exist. On the Neo-Russellian Monist account, there is a tight bond between the mental and physical, which explains the correlations between the reports and the physical activities. The causal influence of the mental can account for the reports themselves and the changes in behaviour. This of course does not give us any epistemological guarantees, but it certainly counts as some form of evidence. Apart from that, the research gives us a fairly precise account of how experiences are investigated, namely through looking at the correlations between reports, physical events and behaviour. Finally, the metaphysics indicate that the research and the facts are well connected. For Neo-Russellian Monism, our behaviour, our reports, physical events and experiences are well connected and can at least indirectly be investigated by scientific means. So, not only is there a precise account available, Neo-Russellian Monism supports optimism about the chances of the sciences to gain knowledge in this manner.

It seems that referring to tracking did not help Chan. On the first interpretation of tracking, Chan's objection simply amounts to scepticism. On the second interpretation, Neo-Russellian Monism seems to be in an acceptable position in terms of tracking. It seems that Chan's epistemological attack disintegrates on closer inspection. The paradox of phenomenal judgement thus collapses, since we no longer have reasons to think that Neo-Russellian Monism undermines our phenomenological intuitions.

Before we close this section, one final remark. Chan mentions towards the end of his essay that it need not matter, if his attack collapses into scepticism. It simply means that Neo-Russellian Monism will have to show that it can benefit from possible solutions to scepticism.[130] It is unclear to me why beliefs concerning Neo-Russellian Monism would have difficulties benefiting from such a solution, whereas beliefs about apples, my fridge or basic chemistry would not. As we have seen, if Neo-Russellian Monism is true, we are in a reasonably comfortable epistemological position to investigate whether we have experiences or not. I take it that a proper solution for scepticism would make most of those beliefs we form in reasonable epistemological situations acceptable. So why not beliefs about experience as well? I am not familiar with any peculiarity about beliefs concerning

[126] Stephen Palmer, *Vision Science: Photons to Phenomenology* (MIT Press, 1999).

[127] For example, Ravi Mehta and Rui (Juliet) Zhu, "Blue or Red? Exploring the Effect of Color on Cognitive Task Performances," *Science* 323, no. 5918 (2009): 1226–29.

[128] Jan Schnupp, Israel Neiken, and Andrew King, *Auditory Neuroscience. Making Sense of Sound* (Cambridge (Mass.): MIT Press, 2011).

[129] An early, and infamous, example of this are the Libet experiments. Benjamin Libet, "Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action," *Behavioral and Brain Sciences* 8, no. 4 (1985): 529–66.

[130] Chan, "Can the Russellian Monist Escape the Epiphenomenalist's Paradox?," sec. 4.4.

experience that could justify the suspicion that they would not be rescued by any proper solution to scepticism. I am willing to accept that it would be beneficial for Neo-Russellian Monism if scepticism could be solved, but that holds for any given theory. I fail to see why scepticism constitutes an especially severe problem for Neo-Russellian Monism and not for competitor theories. I conclude that Chan's attack on Neo-Russellian Monism fails.

3.3 Conclusion

In this chapter, I have been defending the idea that Neo-Russellian Monism can accommodate mental causation. Originally, the worry was that the mental cannot have causal influence, because each macro-event has a sufficient physical cause, given causal closure. The solution was to claim that each macro-level mental event has an accompanying physical event. This ensures that each event caused by a mental event also has a sufficient physical cause. As long as it holds for each mental event that it and its accompanying physical event reduce to the same elements from some set of quiddities, this does not lead to overdetermination.

Of course, it was not enough for mentality to have a causal influence. It must have influence because of its mentality, and not just because of an accompanying physical event. This worry was formulated by noting that it is possible for the mental to change, while the physical remains the same. Since each event still has the same sufficient physical cause, it would then seem that the causal structure does not change if the mental changes. This would imply the mental has no causal influence.

This move was prevented by insisting on a monism of constitution. That is, the constitution of the mental and the physical is one unified event. A fitting move, given the ontological closeness of the two. This monism entails that the physical and mental cannot be pried apart. Hence, any change in the mental implies a change in the physical as well. Thus, if the mental changes, the physical as well as the causal structure of the world changes with it.

Lastly, we considered an epistemic threat. How do we know that we truly have consciousness? The suggestion was that Neo-Russellian Monism cannot show us a path to such knowledge, even if we do have experiences.

This last idea simply proved to be mistaken. We surely do have epistemic access to whether we have experiences. For one thing, we can use introspection to see whether we are conscious. Furthermore, research has been done on how our experiences link up with our behaviour, verbal output and brain state. The possibility of such research implies that experiences do exist. Attempts to show that this is not enough to gain knowledge either resulted in global scepticism or failure.

The conclusion of this chapter is not only that the mental does have causal influence, thanks to ontological overlap and a monism of constitution. The mental also has enough influence to allow us to know that it exists.

Chapter 4 Multiple Realizability

Multiple realizability normally refers to the idea that the same mental type can be brought about, or realized, by several different physical types. For instance, the mental kind called 'pain' might be realized by a certain kind of brain state *a* in humans. In dogs, whose brains are quite different from humans, pain is realized by some different kind of brain state, *b*. If pain can be realized by two different kinds of physical brain states, then it means that pain is multiple realizable.

Of course, for Neo-Russellian Monism, it does not hold that the mental is realized by the physical at all. Rather, the mental is realized by the quiddities.[131] Therefore, multiple realizability works a bit differently for Neo-Russellian Monism. As we have seen in the last chapter, each mental state is always accompanied by a physical state. The doctrine of multiple realizability holds, in this context, that each mental type can have several possible accompanying physical types. That is, the mental type called 'pain' can be accompanied by both brain states of type *a* and type *b*. This does not imply that the physical is irrelevant, where the mind is concerned. It does mean that strongly different physical states could accompany the same kind of mental states, like pain.

The doctrine of multiple realizability was originally introduced by Putnam to combat type-type identity theories of mind, that claim that all mental states are simply identical to physical states.[132] Later, it came to be used against any type of physical reductionism.[133] The basic thought is that multiple realizability cannot be accommodated on a reductionist view. The reason for this is that reductionists hold that the mental can be reduced to the physical. Pain, for instance, is just a specific type of brain state. However, if my pain is reducible to a specific type of human brain state, then dogs cannot have pain. After all, they do not have the same kind of brain states I do. Since pain reduces to the kind of brain states humans like me have, anything that lacks my kind of brain states lacks pain. The anti-reductionist argument that follows is that the unavailability of multiple realizability is undesirable, since it seems *prima facie* intuitive that multiple realizability holds true. Surely, is the thought, dogs can feel pain. A theory that can uphold the doctrine is preferable to a theory that cannot. If reductionism indeed cannot allow multiple realizability, then this should be considered a vice of that view.[134]

Typically, most anti-reductionists akin to the Neo-Russellian Monists wish to maintain multiple realizability. If the doctrine cannot be accommodated on the Neo-Russellian Monist view, this means that this classic anti-reductionist argument can now be turned against Neo-Russellian Monism. To prevent this from happening, the Neo-Russellian Monist would want to seek a place for multiple realizability in his theory. This chapter investigates whether this is possible.

4.1 What Are Mental Kinds?

First, let us look closely at the nature of mental kinds. Previously, we have been mostly concerned with how a mental state is constituted and whether it has causal influence. What we did not discuss is what determines the border of mental types. That is, how do we decide which mental state counts as pain and which as a feeling of sadness? This question I do not take to be about how words like 'pain' or 'sad' are used or taught. Rather, the idea is that there is a natural kind that such words pick

[131] Of course, we saw in chapter three that it is possible for a Neo-Russellian Monist to hold that the mental reduces to the physical. If this possibility is taken up, then it would mean that the physical in at least some sense realises the mental. Still, the arguments that follow in this chapter concerning multiple realizability still apply, regardless of whether one prefers to say that the physical realises the mental or merely accompanies the mental.

[132] Hilary Putnam, "Psychological Predicates," in *Art, Mind, and Religion*, ed. W. H. Capitan and D. D. Merrill (University of Pittsburgh Press, 1967), 37–48.

[133] Jerry A. Fodor, "Special Sciences," *Synthese* 28, no. 2 (1974): 97–115.

[134] For a discussion on these debates, see John Bickle, "Has the Last Decade of Challenges to the Multiple Realization Argument Provided Aid and Comfort to Psychoneural Reductionists?," *Synthese* 177, no. 2 (2010): 247–260.

up on. What I am after is what these natural kinds exactly are. Somehow, we can be correct or incorrect when we call some feeling 'pain'. What determines this?

Roughly, there are three available routes to answer the question above. We can go the ontological route, the behavioural route[135] or the subjective route. Within this essay, I will take it that Neo-Russellian Monism must pick one of the three if there is to be any method of deciding which mental state belongs to which mental kind. I will discuss all three routes and see whether they are available for the Neo-Russellian Monist. Then we shall see whether Neo-Russellian Monism can salvage multiple realizability, given the method of kind-determination we end up with.

Let us start with the behavioural route. This route is somewhat reminiscent of David Lewis' response to Putnam's multiple realizability argument.[136] The idea here is to mix some functionalism into our notion of the mental. We hold on to the belief that the mental reduces ultimately to the quiddities. So, when I feel pain, there is some specific set of quiddities that is responsible.[137] For the dog, there is a different kind of quiddity-set. However, this does not necessarily mean that we cannot both have pain. The proposal is to not focus merely on ontology, when we are determining who is feeling what. Rather, we associate things like pain with certain behaviours, bodily reactions, speech acts, and so forth. So, if somebody is engaging in such activities, then this person is in pain. Or, if we want a stronger functionalist bend, we might say that pain is just the thing that sets in motion pain reactions in response to the right kind of input. In me, it is my set of quiddities that is responsible for reacting to input and providing pain output. It is because of my quiddities that I engage in the kind of activities we wish to call typical for pain. In other creatures, there might be some other kind of quiddity-sets that are responsible for the activities or for responding to input. So, the mental still reduces to the quiddities. It just varies across animals what exact type of quiddity-set is associated with a given mental type.[138]

With this semi-functionalist behavioural route for determining mental kinds in place, Neo-Russellian Monism could allow for multiple realizability. After all, who has what type of mental state will then be determined mostly by the type of role some given mental state plays. So, if my mental state and that of the dog play more or less the same role, then we can say that they are the same kind of mental state. As seen, this still allows for a reductionism of the mental to the quiddities. It just happens to be the case that different types of quiddity-sets are responsible for the same tasks.

Alas, the behavioural route is unavailable to Neo-Russellian Monists. The reason is that allowing this semi-functionalism means inviting physicalism through the back door. Neo-Russellian Monism must not claim that something only needs to fulfil a relatively superficial role in order to count as a mental state. The core idea of Neo-Russellian Monism is that one needs a special set of elements in order to get to a mental state. The physical, for instance, lacks those elements. Such commitments do not combine well with saying that anything that can play a certain superficial role can be, for instance, a feeling of pain. If all something needs to do to be pain is to satisfy the semi-functionalist demands, then why do we need fancy things like quiddities? Given the type of things involved in both the

[135] The behavioural route is not necessarily connected to behaviourism. It is true that behaviourism follows the behavioural route, but not all theories that follow the behavioural route are behaviourist theories.

[136] David Lewis, "Review of W. H. Capitan and D. D. Merill, Eds. Art, Mind and Religion," *Journal of Philosophy* 66, no. 1 (1969): 22–27.

[137] Recall that in chapter 2, we saw that the particular relations the quiddities stand in towards each other are important as well. So, when I say that a set of quiddities does something, assume that I mean to include the relations the quiddities engage in as well.

[138] Again, note that the semi-functionalism I describe here is only loosely based on actual versions of functionalism. This is done because I want to show that the general type of move the functionalists make is unavailable here, as opposed to showing that specific versions of functionalism fail here. Lewis' own account is quite different from mine for instance, since species play a relevant role in his account. See David Lewis, "Mad Pain and Martian Pain," in *Readings in the Philosophy of Psychology*, ed. Ned Block (Harvard University Press, 1980), 216–222.

superficial roles and semi-functionalism, it is unclear why we could not manage with the physical alone. Indeed, Lewis himself was both a functionalist and a physical reductionist.[139] The physical is perfectly capable of responding to input and playing superficial roles. If Neo-Russellian Monism embraces semi-functionalism, then it can no longer easily reject physicalism. Given that the rejection of physicalism was one of the major motivating factors for Neo-Russellian Monism, this is an unacceptable result. In order to remain an anti-physicalist position, Neo-Russellian Monism must avoid the behavioural route.

Next, the subjective route. The subjective route bases the determination of mental kinds on what they are like for the subject. That is, something is pain as long as it feels painful for the subject.

However, there is a problem with this method of determining what mental kind some given mental event is. For one thing, we are not after the way we in practice determine what kind of mental event we are undergoing. We want to know what the natural borders between objects are, not what the borders look like to us. So, how can we get from the distinctions we notice when experiencing to the natural borders between mental kinds?

The way we answer this question depends on how transparent we consider our mind to be. That is, how good are humans at noticing what kind of mental event they are undergoing?

If we presume that humans are bad at obtaining self-knowledge, then it seems that the subjective route is simply unsuitable for the determination of mental kinds.[140] Recall that we are presuming that mental kinds are natural kinds. That is, the determination of mental kinds must be based on something within objective reality. It seems strange to let the determination of mental kinds be done by introspection, if it is truly such an opaque and confused process.

Of course, most Neo-Russellian Monists seem inclined to believe that the mind is not opaque, or that we are at least decent at telling what mental state we are in.[141] Surely, we can tell that pain and sadness are two different states? It seems plausible enough that the differences we notice in our experiences are objectively there. Thus, why not let the distinctions as they appear to us determine mental kinds?

The reasoning that shows why this is complicated starts with a simple question. What could be responsible for the perceived distinctions? Well, it seems that the only candidate is the quiddities. Again, the mental reduces to the quiddities. This means that the mental may not have novel ontological features that are independent of the quiddities. Whatever distinctions there may be on the subjective level, any distinction that truly exists must be based on the quiddities. If introspection is really tracking existing distinctions, then these distinctions must be present amongst the quiddities. That is, by introspectively tracking mental kinds, we are also tracking different types amongst the quiddities. We are simply basing our mental kinds on the kinds that exist amongst the quiddities. As we shall see immediately below, this is the same as the ontological route. The result is that the subjective route is either unsuitable or simply is the ontological route in disguise.

What is the ontological route? When following this route, we look closely at the nature of the objects and make distinctions of kind based on that. An example of this is water. As chemistry progressed through time, we learned much about the nature of liquids. It turned out that liquids consist of many kinds of atoms, like oxygen, hydrogen, carbon, *et cetera*. Scientists, in this case, took the ontological route of kind division for the term 'water'. That is, the border of the kind 'water' was based on the nature of the objects in question. Amongst those objects, there is a distinction between those liquids that have H_20 as their chemical structure and those that do not. 'Water' was connected with those

[139] Lewis, "Review of W. H. Capitan and D. D. Merill, Eds. Art, Mind and Religion," 23–25.

[140] Examples of philosophers who think that the mind is relatively opaque to us are Eric Schwitzgebel, "The Unreliability of Naive Introspection," *Philosophical Review* 117, no. 2 (2006): 245–273. And Gilbert Ryle, *The Concept of Mind* (Hutchinson & Co, 1949).

[141] Goff is an example of this. See Goff, "The Phenomenal Bonding Solution to the Combination Problem."

liquids that do have that structure. Thus, whether some liquid belongs to the kind 'water' depends on its inner nature. Hence the term 'ontological route'.

Of course, it is quite clear what the nature of the objects in question is, according to Neo-Russellian Monism. Mental events are reducible to sets of quiddities. Hence, on the ontological route, the kind of distinctions there are amongst the quiddities determine what mental type some given mental event belongs to.

And, indeed, it seems that if we take it for granted that the mind is transparent to us, the subjective route is the same as the ontological route. Recall that we said that when we are following the subjective route, we are simply picking up on distinctions amongst the quiddities. The subjective route comes down to determining mental kinds based on types that exist amongst the quiddities. This is of course the same thing as following the ontological route.

The result so far is that Neo-Russellian Monism must go down the ontological route for determining what mental type a given mental event belongs to. The behavioural route leads to physicalism, while the subjective route turned out to be either unsuitable or the same as the ontological route. Thus, the question we must answer now is whether we can allow for multiple realizability on the ontological route.

Alas, it seems that we cannot. The reason is this. On the ontological route, the assignment of mental kinds is based on divisions within the quiddities. When we are dealing with a different type of quiddity-set, we are also dealing with a different mental type. It is straightforwardly impossible to say that the same mental kind can have multiple kinds of underlying sets of quiddities. A given mental type cannot by realized by multiple types of quiddity-sets. Ad minimum, quiddity-mental multiple realizability is unavailable.

However, recall that multiple realizability is typically about the relation between the mental and the physical. Multiple realizability might not hold between mental types and types of quiddity-sets, but perhaps the same mental type can be accompanied by different physical types?

As it turns out, this is not a possibility. I will presume here that for the determination of physical types, we shall use the ontological route as well. That is, any given physical type can only be realized by one type of quiddity-set. The situation we end up with is that every mental type *and* every physical type are realized by one specific type of quiddity-set. The result of this situation is that multiple realizability is not available.

To see why, we must think carefully. Take any given mental type *a*. Mental type *a* is realized by quiddity-set type *f*. Given that the ontological route is the correct one and that each mental type can only be realized by one specific type of quiddity-set, it follows that mental type *a* can exclusively be realized by quiddity-set type *f*. Furthermore, every token mental event is accompanied by some token physical event, as we have seen in the last chapter. Thus, whenever a type *a* token mental event occurs, there is some accompanying physical event as well. However, what physical type can such a token physical event be? It seems that it can only be one specific type. Imagine that *a* could be accompanied by two different types of physical events, types *b* and *c*. If we were to say that, it would mean that two different physical types, *b* and *c*, are both realized by the same type of quiddity-set, *f*. Given the ontological route for determining physical kinds, this is not possible. Physical kinds follow the distinctions amongst the quiddity-sets. Therefore, if there is no distinction amongst the quiddity-set types, there is no distinction amongst the physical types. Thus, the same quiddity-set will always produce the same physical type. It follows that quiddity-sets of type *f* can only produce one type of physical type. Let us say this type is type *b*.

What is the result? Mental type *a* can only be realized by quiddity-set type *f*. Meanwhile, each token mental event of type *a* must be accompanied by some token physical event. However, quiddity-set *f* can only produce type *b* physical events. Thus, type *a* mental events are always accompanied by type *b* physical events. Multiple realizability is impossible.

4.2 A Lesser Form of Multiple Realizability

We have now seen that the ontological route for determining mental kinds leads to the downfall of multiple realizability. Well, perhaps a reduced form of multiple realizability is possible. That is, maybe the same mental type can have several physical partners across multiple possible worlds. As we have seen, with our current metaphysical set-up, each mental type has one unique corresponding physical type. Which mental type belongs to what physical type depends on the workings of the quiddities. However, the quiddities and their relations can differ a bit across possible worlds. In this world, contact with fire results in a feeling of pain. Dopamine, when in the right position, brings happiness. In some possible world, fire might cause an itch and dopamine can bring the sensation of yellow. So, the same mental type can have multiple physical partners across possible worlds, depending on the exact workings of the quiddities in each world. This is true even if a mental type only has one available physical partner in this world, given the ontological route. This is a far cry from proper multiple realizability in which the same mental type can be realized by multiple physical types within the actual world. But we are in dire straits at this point, so even this lesser form of multiple realizability is worth some consideration.

Alas, even this lesser form of multiple realizability is not in the cards. Consider the constitution monism that we introduced in order to rescue mental causation. As we saw in the last chapter, we needed this monism in order to escape the problems people like Howell and Robinson introduced. Because of process monism, it is not possible to tinker with the constitution of the physical without also impacting the constitution of the mental. This is the case simply because there are no two separate processes we can tinker with individually. Rather, there is one unified process of world constitution where the many subprocesses can freely cross the mental-physical boundaries. Changing the subprocesses influences the constitution of both the mental and the physical.

This is not to say that the exact workings of the quiddities could not be different in any way. If the exact workings of the quiddities can vary a bit across different possible worlds, then we can indeed see that the quiddities will produce worlds that contain differences from ours in both the mental and the physical department. In principle, there is nothing wrong with a world in which something that behaves a lot like dopamine can create something that looks a lot like the experience of yellow. And something akin to fire might cause something akin to an itch in some possible world. That, in itself, is not necessarily problematic.

Problems only arise when we think that the dopamine in our world is of the same kind as the dopamine in the possible world where dopamine is deeply connected with the experience of yellow. Or indeed if we think that our experience of yellow is of the same kind as the experience of yellow in that possible world. Recall that we are committed to the ontological route. So, both the physical type ‘dopamine’ and mental type ‘the experience of yellow’ are ultimately just various types of quiddity-sets. Both are simply a kind of collection of quiddities, the relations amongst those quiddities and the exact rules for how the quiddities and their relations work. Let us say that in our world, the dopamine and the experience of yellow are constituted by some type of set *a*. In the possible world, dopamine and the experience of yellow are constituted by some type of set *b*. Since dopamine and the experience of yellow behave differently in the possible world, set *a* and *b* are not the same type. The result of this conclusion is that actual experience of yellow and possible experience of yellow are not of the same kind. They reduce to different types of quiddity-sets and we said that the mental type ‘experience of yellow’ just is a specific kind of quiddity-set. If the two have different kinds of underlying sets, then they must be different things.

The result is that even the lesser form of multiple realizability is not available. The experience of yellow cannot have different physical partners, even across possible worlds. If the experience of yellow is to have a new partner, then some changes need to occur to the underlying quiddities. Alas, since the experience of yellow is reducible to a kind of quiddity-set, any change of the type of quiddity-set means that we are no longer dealing with an experience of yellow. It might behave

similarly to the experience of yellow, but it is not the same kind as an experience of yellow in the actual world.

Now that even the lesser form of multiple realizability turned out to be impossible, I think it is time to throw in the towel. If even something as weak as the lesser form cannot be had, then it is extremely unlikely that full-blown multiple realizability can still be rescued. It seems that multiple realizability is simply impossible within Neo-Russellian Monism.

4.3 Conclusion

The goal of this chapter was to investigate whether multiple realizability can be combined with Neo-Russellian Monism. First, we looked at how we exactly determine which mental type some given mental event belongs to. We rejected the behavioural route and the subjective route. The first invites physicalism, while the second ultimately relies on the ontological route. It was indeed the ontological route we choose to pursue in the end.

What followed was an attempt to procure a lesser form of multiple realizability across possible worlds was made, but this also failed in the end.

The upshot of the chapter is therefore straightforward. Unless someone is deeply impressed by the intuition pump, multiple realizability and Neo-Russellian Monism simply do not go together. This is not a deal breaker *per se*, since the Neo-Russellian Monist can claim that his theory is so appealing that the sacrifice of multiple realizability is worth the prize. Still, the loss of multiple realizability is a downside to the theory.

5 Conclusion

There has been a single question at the core of this essay. What is the relation between the mind and the body? Neo-Russellian Monism, a position that attempts to move in between physicalism and dualism, sought to provide the answer. This view holds that both the mental and the physical are reducible to a third type of entity, the quiddities. In this manner, Neo-Russellian Monism is not committed to ontologically independent mental properties, nor is it committed to the idea that the mental can be reduced to the physical. This middle position, claims the Neo-Russellian Monist, is able to avoid the main issues physicalism and dualism struggle with. The goal of this essay has been to see how much progress this Neo-Russellian Monist approach can make regarding the mind-body problem.

Of course, investigating every single possible problem facing Neo-Russellian Monism is not feasible in just one essay. Hence, I focused on the mental. Can Neo-Russellian Monism give us a good theory concerning the mind?

This basic question was divided in three parts. First, can Neo-Russellian Monism explain consciousness? Second, is mental causation possible on the Neo-Russellian Monist picture? Lastly, does multiple realizability hold in a Neo-Russellian Monist world? All three elements, the explanation of consciousness and the availability of mental causation and multiple realizability, seem desirable to obtain for Neo-Russellian Monism. If Neo-Russellian Monism can secure all three, then the theory would be in a good position where the mind is concerned.

Alas, the second chapter of the essay showed that the first and arguably foremost objective, the explanation of consciousness, could not be obtained for Neo-Russellian Monism. The reason for this is the Combination Problem. Roughly, the Combination Problem comes down to the question how the combination of the quiddities can necessarily bring about consciousness. The issue is that we can conceive of a copy of me that contains the same quiddities as me, but lacks consciousness. If this creature, a Neo-Russellian zombie, is a metaphysical possibility, then it is false to say that the combination of quiddities necessarily yields consciousness. Apparently, it is possible to have the right combination of quiddities without consciousness, meaning that there is no necessary entailment.

The Combination Problem was reinforced by three further considerations. These were the structure problem, the quality problem and the subjectivity problem. The structure problem questions how consciousness can be brought about by the quiddities, when each has a strikingly different structure. The quiddities are a fragmented network of individual bits, whereas our consciousness is either a united whole or at least contains a much smaller number of fragments. For the quality problem, the issue is how the separate qualitative elements of the quiddities can combine into one unified qualitative state on the macro-level. The subjectivity problem concerns the issue that is it unclear how our macro-subjectivity can be brought about. How does the combination of many smaller parts together lead to the existence of a point of view where before there was either none or many distinct points of view?

In order to see whether the Combination Problem could be solved, we looked at two different types of responses. We considered an attempt by Philip Goff to change the relation between conceivability and metaphysical possibility in such a way that the Combination Problem does not trigger. We also looked at an attempt by Sam Coleman to solve the Combination Problem by solving the three underlying problems. The goal of these attempts was to solve the Combination Problem, without solving the similar Zombie Problem for physicalism. The Zombie Problem uses the conceivability of physicalist zombies, a physical copy of me that lacks consciousness, to show that the mental cannot be reduced to the physical. Neo-Russellian Monists would want to maintain this Problem, since it is useful for combating physicalism, one of the main opponents of Neo-Russellian Monism.

Goff tried to pull this feat off by noting that conceivability only leads to metaphysical possibility if the concepts involved are transparent as opposed to opaque. He claimed that this is the case for the physicalist zombie of the Zombie Problem. Conceiving the physicalist zombies requires physical concepts and phenomenal concepts. The physical, as it is understood by modern physics,

can be fully captured by mathematico-causal terms. Such terms, Goff thinks, are transparent. Consciousness is a transparent notion as well for Goff. Thus, the Zombie Problem only employs transparent concepts, meaning that conceivability here leads to metaphysical possibility. The Combination Problem, meanwhile, needs to employ phenomenal concepts and concepts involving quiddities. Alas, quiddity-concepts are opaque, since we cannot know the nature of the quiddities through knowing the meaning of the concepts. Thus, the Combination Problem does not trigger, since the opaque notions involved prevent the conceivability of Neo-Russellian zombies to lead to their metaphysical possibility.

The reason this fails is that, *pace* Goff, mathematico-causal terms are not transparent. Simply by knowing what the concept 'causality' or mathematical concepts like '3' mean, I do not yet know their nature. The fact that both the nature of causality and that of mathematical entities are heavily debated amongst philosophers is evidence of this. Furthermore, how can I know the exact nature of π merely by knowing the meaning of 'π'? Mathematico-causal terms do not seem to be transparent, meaning that we cannot show the metaphysical possibility of physicalist zombies by being able to conceive of them. Thus, the Zombie Problem fails to trigger. Because of this, Goff fails to achieve the goal we had in mind, namely the preservation of the Zombie Problem in combination with the solution of the Combination Problem.

Coleman's solution involved solving the structure problem, the quality problem and the subjectivity problem. Essentially, his solution came down to claiming that the quiddities can engage in a special relation called phenomenal bonding. Through bonding, they can create a single coherent phenomenal picture. This picture was thought to be well-connected with other activities within the mind, such as intention-creation as well as the outside world. Coleman claimed that this picture in itself was potent enough to solve the three problems.

However, this proved to be mistaken. Coleman's solution may help with the quality problem, since we now indeed have a story how the qualities amongst the quiddities combine into one big picture. However, the structure of the picture is still a fragmented one, since it is made up out of countless quiddities. This means that the structure of the picture is still too dissimilar to the united or at least less fragmented experiences we enjoy. The subjectivity problem is not solved either. Coleman holds that the coherence and connectivity of the picture suffices to count as subjectivity. However, for subjectivity, we would expect a proper point of view, some sort of actual subject that undergoes an experience. Coleman does not deliver such a point of view. Thus, the subjectivity problem remains standing. With only one out of three problems solved, Coleman's solution cannot save Neo-Russellian Monism from the Combination Problem.

In the end, the result of chapter two was a defeat for Neo-Russellian Monism. Both Goff and Coleman failed to eliminate the Combination Problem while retaining the Zombie Problem. Thus, it seems that Neo-Russellian Monism cannot explain consciousness.

Matters improved for Neo-Russellian Monism when we turned to mental causation. First, we noted that all causal influences must have their roots in the quiddities, in order to avoid emergentism. Next, we saw, with William Robinson, why causal closure might bring trouble for mental causation. Causal closure holds that each macro-level event must has a sufficient physical cause. Meanwhile, events must avoid overdetermination, which occurs when the same event has multiple sufficient causes. Given that each event has a sufficient physical cause, how can any event still have a sufficient mental cause? That would bring overdetermination. How can we allow the mental to have causal influence without overdetermination?

However, overdetermination only occurs if the sufficient causes are ontologically distinct. For instance, an event may have a sufficient physical cause and a sufficient quiddity cause, since the physical cause can be reduced to the quiddity cause. The solution to the mental causation issue was therefore to ensure that the mental causes and physical causes were not ontologically distinct. The way to do this was by saying that each mental cause has an accompanying physical cause. Both reduce to the same set of quiddities. The mental and the physical cause represent the same properties, features, *et cetera* of that quiddity-set. That is, there is complete ontological overlap. Hence, an event can have a mental and a physical cause without overdetermination.

Of course, it is not enough for some mental event to have causal influence. The very fact that the event is mental must somehow be relevant. For instance, it must not be the case that removing all mental elements from the world would leave the same causal structure. The causal network contained in our world must change if mental event were removed. Robert Howell suggested a thought experiment which was to show that the former is not the case. Imagine a world in which the physical is kept the same, but the mental is removed. Since each event has a sufficient physical cause, the causal structure of the world is unchanged. Hence, mentality has no causal influence.

We fought this suggestion by insisting on constitution monism. That is, the physical and the mental are constituted in one movement, as opposed to two distinct processes. This lack of a mental-physical divide on the quiddity level means that one cannot change, or even eliminate, the mental without changing the physical. They come about by the same movement, and changing that movement has consequences for both the mental and the physical. Thus, the existence of a mental cause does influence the causal structure. Without that mental cause, the network, including the physical causes, would look different.

Lok-Chi Chan, as a final effort to show that Neo-Russellian Monism has issues with mental causation, introduced epistemic worries. There is some possible world, Chan thought, that contains the same physical causes as ours, but no mental causes whatsoever. Since the physical causes are the same, and every event has some sufficient physical cause, all events are the same as well. Thus, in that possible world, there is a copy of me. That copy presumably believes or in some other sense judges that he has consciousness. This, of course, is not the case, since mentality is absent in that world. The problem, Chan claims, is that we cannot know whether we are in that world or not. If we were truly tracking the truth concerning facts about consciousness, we would be able to tell the difference between a world in which we have consciousness and one in which we do not. Since we cannot, it follows that we are not truly tracking whether we have consciousness. The undesirable result is that, on the Neo-Russellian Monist picture, we do not know whether we have consciousness.

Of course, the possible world Chan suggests is not actually possible. Removing or changing mental causes means changing physical causes and the causal structure of the world as well. However, even if Chan's world was available, the epistemic situation would be rather strong. For one thing, for the Neo-Russellian Monist, the mental has causal influence. This mental causal influence probably affects our judgements, meaning that there is a link between us having consciousness and us judging that we have consciousness. Furthermore, we have introspection, a special epistemic tool to check whether we have experiences. Introspection is often seen as very potent or even infallible. Its availability strongly improves our epistemic situation where consciousness is concerned. Lastly, modern research is quite successful in investigating the relations between our experiences, our behaviour and our brain state. This success means that experience has a respectable place within modern scientific theories, implying that they have some level of existence. All in all, it seems that, *pace* Chan, the epistemic situation concerning consciousness is quite strong, even if we accept Neo-Russellian Monism.

Thus, it seems that mental causation is available on the Neo-Russellian Monism picture, and the view allows us knowledge about consciousness as well. This is good news for the Neo-Russellian Monist.

Things went less well for Neo-Russellian Monism when we discussed multiple realizability. First, we had to see what exactly determines mental kinds on the Neo-Russellian Monist account. That is, how do we decide which mental events count as, say, pain? It was presumed that mental kinds could not be carved up freely, but must have some sort of objective base in reality. That is, we presumed mental kinds to be natural kinds of some sort.

We considered three methods. The behavioural, the subjective, and the ontological method. The behavioural method holds that we should decide mental kind based on the role the event plays. It was rejected because it moves us too close to functionalism, which is a road that ultimately leads to physicalism. When following the subjective method, we decide mental kind based on what the event looks or feels like for the subject experiencing it. However, the distinctions picked up on by the subject only count if they are based on more objective distinctions. Such distinctions can only be

found on the level of the quiddities, since the mental and all its features reduce to the quiddities. Because of this, we opted for the ontological method. That is, mental kinds are based on distinctions that we discover when we closely consider the nature of the event in question. Given Neo-Russellian Monism, this means that we base the assignment of mental types on distinctions amongst the quiddities. That is, mental types are based on types of quiddity-sets.

This results in the loss of multiple realizability. After all, each mental type is associated with one specific type of quiddity-set. If we presume that the same holds for physical types, then it follows that multiple realizability does not hold. A given mental type can only be associated with one type of quiddity-set and this type of quiddity-set can only be associated with one type of physical event. Thus, every type of mental event can only be associated with one type of quiddity-set. Multiple realizability is lost.

We then tried to salvage a lesser form of multiple realizability. The idea was that a given mental type might have multiple accompanying physical types across possible worlds. However, this attempt was thwarted when we again considered the monistic nature of Neo-Russellian Monism. We cannot have the same mental type when the physical type is changed. Both types are tied to the same type of quiddity-set. If the physical type of some event changes, then the type of quiddity-set changes as well. With a change in the type of quiddity-set, we also get a different mental type. Thus, even across possible worlds, any given mental type is always associated with the same physical type.

The result of the fourth chapter is, given the above, clear. Multiple realizability and Neo-Russellian Monism cannot be combined.

The upshot, after the four chapters, is that Neo-Russellian Monism is in a bad position. True, mental causation could be maintained on the Neo-Russellian Monist picture of the world. However, multiple realizability turned out to be impossible. But most importantly, the explanation of consciousness was not obtained. It seems that the hard problem, the very problem that Neo-Russellian Monism hoped to move beyond, was not solved. This, of itself, is bad enough to be deeply disappointed with Neo-Russellian Monism. The lack of multiple realizability only reinforces this feeling. The conclusion is that Neo-Russellian Monism failed to deliver a good theory about the mind.

With the above, it is clear that the result of this essay is negative. Neo-Russellian Monism did not achieve its own goals. However, perhaps we can draw lessons from what went before and suggest some alternative paths of investigation. For instance, it seems that the introduction of quiddities did not aid the project of Neo-Russellian Monism, since the attempt to reduce consciousness to the quiddities led to the Combination Problem. It would perhaps be better to refrain from attempts to reduce consciousness to a different kind of entity. A fairly strict monism with total ontological overlap between the mental and the physical was more fruitful, as we have seen in the chapter on mental causation. Perhaps some suitable combination of no reduction of consciousness with a strict monism could be found, one that still avoids both physicalism and dualism.

Of course, the combination of monism and no reductionism is not an easy find, especially if we are to avoid physicalist and dualist theories. Perhaps a theory broadly akin to Davidson's could pull such a combination off.[142] Rather than saying that the mental-physical divide is ontological, we shall consider it a linguistic divide. That is, we can describe the exact same object in multiple different ways. For some objects, it holds that we can describe it in mental terms as well as in physical terms. For instance, I could describe my grandmother physically by talking about her cells and organs. At the same time, I could also give a mental description using terms like 'intention', 'emotion' or 'experience'. There is to be no suggestion that we can reduce mental terminology to physical terminology or *vice versa*. That is, no reductionism. Meanwhile, mental and physical descriptions are allowed to cover the same objects. My grandmother is an example. Thus, as long as we are willing to

[142] It can, of course, be debated how close my suggestion here follows Davidson. Any reader who thinks that I move too far away from Davidson may feel free to treat my suggestion as unrelated to, or merely loosely inspired by, Davidson. See Donald Davidson, "Mental Events," in *Essays on Actions and Events*, ed. L. Foster and J. W. Swanson (Clarendon Press, 1970), 207–224.

accept that every object that can be described mentally also has a physical description, monism is also still accepted. After all, if the mental and the physical describe the same objects, there is ontological overlap. Thus, we indeed have a theory without reductionism and with strict monism. That should give us some hope for overcoming the mental causation problem and the Combination Problem.[143]

Note that there might also be a way to accept multiple realizability if we follow this route. Since we would no longer think of mental and physical kinds as natural objects, we could let go of the ontological route for kind determination. It was this ontological route that brought us the multiple realizability problem in the first place. The abandonment of this route could result in a solution to the problem.

Of course, much more can be said about this broadly Davidsonian suggestion. For instance, what about the objects makes the mental and physical descriptions true or at least apt?[144] There could also be legitimate doubts whether the suggestion above can truly escape issues with mental causation, or problems similar to the Combination Problem. It is also possible that there are alternative theories that are equally promising or can do even better. The Davidsonian suggestion could be just one amongst several options. Regardless, it would be worthwhile to look at theories like the one above. In the past few chapters, it has become clear that we must somehow avoid reductionism and retain monism if we are to have a successful theory that moves in between physicalism and dualism. Perhaps the Davidsonian suggestion is potent enough, perhaps some alternative works better. Only further research could show us which of these scenarios is true.

[143] Jaegwon Kim famously argued that Davidson's theory runs into the mental causation problem. However, I think that Kim's objection relies on a wrong reading of Davidson's work, as John Heil pointed out. See Jaegwon Kim, "The Myth of Non-Reductive Materialism," *Proceedings and Addresses of the American Philosophical Association* 63, no. 3 (1989): 31–47. And John Heil, "Anomalous Monism," in *From Truth to Reality: New Essays in Logic and Metaphysics*, ed. Dyke, Heather (Oxford: Routledge, 2008).

[144] John Heil has tried to answer this question, though his solution seems suspiciously close to physicalism. John Heil, *The Universe as We Find It* (Oxford University Press, 2012).

Bibliography

Alter, Torin, and Yujin Nagasawa. "What Is Russellian Monism?" In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.

Bickle, John. "Has the Last Decade of Challenges to the Multiple Realization Argument Provided Aid and Comfort to Psychoneural Reductionists?" *Synthese* 177, no. 2 (2010): 247–260.

Blamauer, Michael. "Panpsychism Without Subjectivity? A Brief Commentary on Sam Coleman's 'Mental Chemistry' and 'The Real Combination Problem.'" *Disputatio* 5, no. 37 (2013): 299–309.

Brook, Andrew, and Paul Raymont. "The Unity of Consciousness." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, Stanford University, 2017. https://plato.stanford.edu/archives/sum2017/entries/consciousness-unity/.

Chalmers, David J. "Panpsychism and Panprotopsychism." In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.

———. "The Combination Problem for Panpsychism." In *Panpsychism*, edited by Godehard Brüntrup and Ludwig Jaskolla. Oxford University Press, 2016.

———. *The Conscious Mind: In Search of a Fundamental Theory*. Oxford University Press, 1996.

———. "The Content and Epistemology of Phenomenal Belief." In *Consciousness: New Philosophical Perspectives*, edited by Quentin Smith and Aleksandar Jokic, 220–72. Oxford University Press, 2003.

Chan, Lok-Chi. "Can the Russellian Monist Escape the Epiphenomenalist's Paradox?" *Topoi*, forthcoming, 1–10.

Coleman, Sam. "Mental Chemistry: Combination for Panpsychists." *Dialectica* 66, no. 1 (2012): 137–166.

———. "The Real Combination Problem: Panpsychism, Micro-Subjects, and Emergence." *Erkenntnis*, no. 1 (2013): 1–26.

Crane, Tim. *Elements of Mind: An Introduction to the Philosophy of Mind*. Oxford: Oxford University Press, 2001.

Davidson, Donald. "Mental Events." In *Essays on Actions and Events*, edited by L. Foster and J. W. Swanson, 207–224. Clarendon Press, 1970.

Fodor, Jerry A. "Special Sciences." *Synthese* 28, no. 2 (1974): 97–115.

Goff, Philip. "Against Constitutive Russellian Monism." In *Consciousness and the Physical World*, edited by Torin Alter Yujin Nagasawa. Oxford University Press, 2015.

———. "The Phenomenal Bonding Solution to the Combination Problem." In *Panpsychism: Contemporary Perspectives*, edited by G. Bruntrup L. Jaskolla. Oxford University Press, forthcoming.

———. "Why Panpsychism Doesn't Help Us Explain Consciousness." *Dialectica* 63, no. 3 (2009): 289–311.

Heil, John. "Anomalous Monism." In *From Truth to Reality: New Essays in Logic and Metaphysics*, edited by Dyke, Heather. Oxford: Routledge, 2008.

———. *The Universe as We Find It*. Oxford University Press, 2012.

Holman, Emmett. "Panpsychism, Physicalism, Neutral Monism and the Russellian Theory of Mind." *Journal of Consciousness Studies* 15, no. 5 (2008): 48–67.

Horsten, Leon. "Philosophy of Mathematics." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, Stanford University, 2019. https://plato.stanford.edu/archives/spr2019/entries/philosophy-mathematics/.

Howell, R. "The Russellian Monist's Problems with Mental Causation." *Philosophical Quarterly* 65, no. 258 (2015): 22–39.

Hume, David. *A Treatise of Human Nature: Being an Attempt to Introduce the Experimental Method of Reasoning Into Moral Subjects*. Oxford University Press, 2000.

James, William. *The Principles of Psychology*. Dover Publications, 1890.

Janko, Nesic. "Against Deflation of the Subject." *Filozofija I Društvo* 28, no. 4 (2017): 1102–1121.

Kim, Jaegwon. “The Myth of Non-Reductive Materialism.” *Proceedings and Addresses of the American Philosophical Association* 63, no. 3 (1989): 31–47.
Kind, Amy. “Pessimism About Russellian Monism.” In *Consciousness in the Physical World: Perspectives on Russellian Monism*, edited by Torin Alter and Yujin Nagasawa, 401–421, 2015.
Lewis, David. “Mad Pain and Martian Pain.” In *Readings in the Philosophy of Psychology*, edited by Ned Block, 216–222. Harvard University Press, 1980.
———. “Review of W. H. Capitan and D. D. Merill, Eds. Art, Mind and Religion.” *Journal of Philosophy* 66, no. 1 (1969): 22–27.
Libet, Benjamin. “Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action.” *Behavioral and Brain Sciences* 8, no. 4 (1985): 529–66.
Lockwood, Michael. “The Grain Problem.” In *Objections to Physicalism*, edited by Howard M. Robinson, 271–291. Oxford University Press, 1993.
Mehta, Ravi, and Rui (Juliet) Zhu. “Blue or Red? Exploring the Effect of Color on Cognitive Task Performances.” *Science* 323, no. 5918 (2009): 1226–29.
Montero, Barbara. “Russellian Physicalism.” In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.
———. “Varieties of Causal Closure.” In *Physicalism and Mental Causation*, edited by Sven Walter and Heinz-Dieter Heckmann, 173–187. Imprint Academic, 2003.
Nagel, Thomas. *Mind & Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False*. Oxford University Press, 2012.
Ney, Alyssa. “A Physicalist Critique of Russellian Monism.” New York: Oup Usa, 2015.
O’Connor, Timothy, and Hong Yu Wong. “Emergent Properties.” In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, 2015. https://plato.stanford.edu/entries/properties-emergent/.
Palmer, Stephen. *Vision Science: Photons to Phenomenology*. MIT Press, 1999.
Pereboom, Derk. “Consiousness, Physicalism, and Absolutely Intrinsic Properties.” In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.
———. “Précis of Consciousness and the Prospects of Physicalism.” *Philosophy and Phenomenological Research* 86, no. 3 (2013): 715–727.
Psillos, Stathis. *Causation and Explanation*. Routledge, 2002.
Putnam, Hilary. “Psychological Predicates.” In *Art, Mind, and Religion*, edited by W. H. Capitan and D. D. Merrill, 37–48. University of Pittsburgh Press, 1967.
Robinson, Howard. “Dualism.” In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, Stanford University, 2017. https://plato.stanford.edu/archives/fall2017/entries/dualism/.
Robinson, William S. “Epiphenomenalism.” In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, Stanford University, 2019. https://plato.stanford.edu/archives/sum2019/entries/epiphenomenalism/.
———. “Phenomenal Realist Physicalism Implies Coherency of Epiphenomenalist Meaning.” *Journal of Consciousness Studies* 19, no. 3–4 (2012): 3–4.
———. “Russellian Monism and Epiphenomenalism.” *Pacific Philosophical Quarterly* 99, no. 1 (2018): 100–117.
Rosenberg, Gregg. “Causality and the Combination Problem.” In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.
Russell, Bertrand. “On the Notion of Cause.” *Proceedings of the Aristotelian Society* 7 (1912): 1–26.
———. *The Analysis of Matter*. London: Kegan Paul, 1927.
Ryle, Gilbert. *The Concept of Mind*. Hutchinson & Co, 1949.
Schaffer, Jonathan. “The Metaphysics of Causation.” In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, Stanford University, 2016. https://plato.stanford.edu/archives/fall2016/entries/causation-metaphysics/.

Schnupp, Jan, Israel Neiken, and Andrew King. *Auditory Neuroscience. Making Sense of Sound*. Cambridge (Mass.): MIT Press, 2011.
Schwitzgebel, Eric. “The Unreliability of Naive Introspection.” *Philosophical Review* 117, no. 2 (2006): 245–273.
Seager, William E. “Consciousness, Information, and Panpsychism.” *Journal of Consciousness Studies* 2, no. 3 (1995): 272–88.
———. “Panpsychism, Aggregation and Combinatorial Infusion.” *Mind and Matter* 8, no. 2 (2010): 167–184.
Stoljar, Daniel. “Physicalism.” In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. Metaphysics Research Lab, Stanford University, 2017. https://plato.stanford.edu/archives/win2017/entries/physicalism/.
———. “Russellian Monism or Nagelian Monism.” In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.
———. “Two Conceptions of the Physical.” *Philosophical and Phenomenological Research* 62, no. 2 (2001): 253–281.
Strawson, Galen. “Mind and Being: The Primacy of Panpsychism.” In *Panpsychism: Contemporary Perspectives*, edited by Godehard Brüntrup and Ludwig Jaskolla, 000–00. Oxford University Press, 2016.
———. “Radical Self-Awareness.” In *Self, No Self?: Perspectives From Analytical, Phenomenological, and Indian Traditions*, edited by Mark Siderits, Evan Thompson, and Dan Zahavi. Oxford University Press, 2010.
———. “Real Materialism.” In *Consciousness in the Physical World: Perspectives on Russellian Monism.* New York: Oup Usa, 2015.
Tye, Michael. *Consciousness Revisited: Materialism Without Phenomenal Concepts*. MIT Press, 2008.
Vicente, Agustín. “On the Causal Completeness of Physics.” *International Studies in the Philosophy of Science* 20, no. 2 (2006): 149–171.