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The Elusive Origins of Consciousness: A Philosophical Argument for Panpsychism over Competing Metaphysical Theories of Mind

Tommy Tobias Aahlberg

Introduction

Underpinning everything that constitutes our perceived reality is consciousness. The fact that there is something that *it is like* to be us is at the foundation of everything we consequently come to care about in our lives. Every observation, sensation, thought, and emotion is predicated on the phenomenon that there is something that it is like to observe, sense, think, and feel. The awareness and experience of a world is the essential factor that separates our universe from any conceivable zombie universe where nothing is observed, sensed, thought, or felt. Necessarily, we filter every single moment through our consciousness. If consciousness did not exist there would be no groundwork for meaning as it would hold no basis in any conceivable creature's awareness, and therefore such a universe would be meaningless.

Despite, or perhaps due to, its fundamental nature and important implications – consciousness is poorly understood by contemporary science and philosophy alike, at least in the theoretical sense of understanding. Phenomenologically, we all have direct access to the contents of consciousness. Even though one may not effortlessly explain what it is like to see red or feel pain, we certainly know from first person experience what it is like due to our conscious awareness of these sensations. Because of consciousness' remarkable qualities that seem so distinct from the world of the physical stuff – matter and energy – around us, it is difficult to conceptualize how consciousness came to be, and what it consists of. There are quite a few philosophical, and more recently scientific, views on the topic of consciousness. In this paper I will examine a few of the most prominent of them. Notably, the views I will consider in this paper are mostly dealing with *metaphysics*, the branch of philosophy that is concerned with the nature of reality. However, there will also be an *epistemological* (concerned with knowledge) aspect present throughout my discussion. My central aim in this paper is to unravel panpsychism, specifically the type that postulates that physical stuff is intrinsically experiential, as the most probable and parsimonious metaphysical view of consciousness. I will do this by first examining Cartesian dualism and traditional physicalism, the two most pervasive metaphysical positions, as well as discuss a few problems with these views. I will then argue that panpsychism is more plausible than these alternatives because it provides adequate solutions to their largest issues while maintaining their respective virtues. I will conclude by considering some objections.

Cartesian Dualism: The Supernatural View

Prima facie, the most probable metaphysical position as it relates to consciousness might be that of Cartesian dualism. 400 years ago the French philosopher René Descartes, in his work *Meditations on First Philosophy*, deduced that the *one* thing that he could not doubt in this world was that he existed as a thinking thing (1641/2016, p. 76). Even if his thoughts were delusional, or fabricated by an all-powerful entity, his mind still existed to have these thoughts (Descartes 1641/2016, p. 70-76). We can expand his notion here to encompass the entire range of conscious experience. Regardless of whether we are fooled by sensory illusions or hallucinations, we are still consciously experiencing these sensations. Even a skeptic doubting consciousness would need consciousness in order to doubt it, and thus this skepticism folds on itself. As such, consciousness is the one thing we can be absolutely certain exists.

However, the body seemed to Descartes to be of a different constitution than the thinking mind, a sort of “*machine* so built up and composed of nerves, muscles, veins, blood and skin” (1641/2016, p. 113, my emphasis). Since the mind did not seem like a machine, he concluded that it had to be separate from the body and that it could exist independently of the body (1641/2016, p. 109). Chopping off a body part seemed to have no implication on the mind, and a mental state was always unified and indivisible, so Descartes reasoned that while the body is extended in space and is divisible in parts, the mind is unextended in space and is indivisible (1641/2016, p. 114). In sum, Descartes established his idea of himself as follows: “I have a clear and distinct idea of myself inasmuch as I am only a thinking and unextended thing, and as, on the other, I possess a distinct idea of body, inasmuch as it is only an extended and unthinking thing” (1641/2016, p. 113). Descartes as such separated the mind and the body as two fundamentally different entities and gave rise to a metaphysical dualism, where the mind consists of a non-physical substance and the body of a physical one. Cartesian dualism was born.

Currently, Cartesian dualism is commonly held, although by no means exclusively, by religious thinkers. In religious thought the soul, self, or other conceivable essence of human beings, is usually regarded as being separate from the physical realm of nature and of bodies. Furthermore, Cartesian dualism is likely the most natural view for people to hold as well, based on primary intuitions. It certainly *seems* as though our very being, and mode of experiencing, is distinct from the inanimate physical stuff around us. It *seems* as though we are living inside of our bodies, rather than just being our bodies. Despite these points in its favor, as we shall see, there are some serious problems with Cartesian dualism.

Objections to Cartesian Dualism

While there are plenty of objections to Cartesian dualism, in this section I will only cover the ones I believe to be the strongest and most fundamental. These are: (1) The Problem of the Strange Nature of the Mental, (2) The Problem of Other Minds, and (3) The Mind-Body Interaction Problem.

All of the problems can be introduced by articulating the views of the philosopher Gilbert Ryle. In his book *The Concept of Mind*, Ryle dubs the Cartesian view as “the dogma of the Ghost in the Machine” (1949/2009, p. 5). This idea refers to how Descartes gave the mind mysterious and immaterial qualities, much like a ghost, and left it “in charge” of the mechanistic body (Ryle 1949/2009, p. 8-9). Ryle accuses Descartes’ idea of being a myth originating from making a serious category-mistake (1949/2009, p. 6). An example of a category-mistake is explained by Ryle as follows: “A foreigner visiting Oxford ... for the first time is shown a number of colleges, libraries, playing fields, museums, scientific departments and administrative offices. He then asks ‘But where is the University?’” (1949/2009, p. 6). This foreigner made a category-mistake by assuming that ‘the University’ belonged to the same category as the buildings and offices which he visited, whereas in fact ‘the University’ is constituted by those very buildings and offices (Ryle 1949/2009, p. 6-7). In the same manner, Descartes made a mistake by categorizing the mind as a feature distinct from the features of emotions, sensations, thoughts, and behavior. As stated, Descartes held that there was something, namely the mind, that was engaged in the thinking. It is, on Ryle’s view, a mistake to invoke an extra substance to constitute the mind, these aforementioned mental states and dispositions *are* the mind, just like the institutions and offices *are* the university (Ryle 1949/2009, p. 6-9). As such, the first objection to Cartesian dualism is articulated: it is of a *strange* nature, and unnecessarily invoked, much like a ghost. Because Descartes’ conception of mind is non-physical, another reason why many scientists and philosophers refuse to accept it is because science involves empirical research of the physical

world, and as such we could never hope to find evidence for the non-physical Cartesian mind through the, mostly well-regarded, operations of the physical sciences.

From the first objection the second follows in close quarters. It turns to criticize Cartesian dualism for failing to give an adequate account for the existence of minds other than one's own. As stated, Descartes himself granted that the only thing we could be sure of was that we ourselves, as subjects, exist in our own right as thinking things (1641/2016, p. 76). This notion cannot be extended to certify the existence of a mind in another person as we do not have direct access to this person's consciousness. In the words of Ryle, "direct access to the workings of a mind is the privilege of that mind itself; in default of such privileged access, the workings of one mind are inevitably occult to everyone else" (1949/2009, p. 4). If we cannot express any certainty in, or find evidence for, the existence of other minds, this is clearly a problem for Cartesian dualism, as we would naturally want to be able to justify the existence of minds other than our own.

The third and final objection is perhaps the most common one that a metaphysical dualist of any type will encounter, and that is the problem of how something non-physical could possibly have causal relations with something physical. By definition, physical and non-physical stuff are made of different metaphysical substances, operating on different planes of existence. Yet it is fairly obvious that the mind and the body must somehow interact with one another. On Descartes' view, as articulated by Ryle, "Human bodies are in space and are subject to the mechanical laws which govern all other bodies in space ... But minds are not in space, nor are their operations subject to mechanical laws" (1949/2009, p. 1-2). Consequently, Ryle continues, "Theorists are found speculating how stimuli, the physical sources of which are yards or miles outside a person's skin, can generate mental responses inside his skull, or how decisions framed inside his cranium can set going movements of his extremities" (1949/2009, p. 1-2). Descartes himself hypothesized that the mind was outputting signals to the physical pineal gland of the brain through "pulling levers" located in the gland (Robinson 2017). However, this description does not specify how the problem posed above is solved, there is still a gap in conceivable interaction between two ultimately different types of substances. To this day The Mind-Body Interaction Problem remains the most prominent objection to Cartesian dualism, and together with the two previous objections it is often regarded as rendering it an implausible metaphysical theory.

Physicalism: The Reductive View

If one is convinced by the objections to Cartesian dualism formulated above, the most common alternative metaphysical position to turn to is *physicalism*. Contrary to Cartesian *dualism*, physicalism is a *monistic* metaphysic, meaning that it states that the nature of reality consists of only one substance, which on the picture of physicalism is physical. Consequently, physicalism has reduced the Cartesian non-physical mind into something purely physical.

Physicalism is the most prominent view among scientists and analytic philosophers of mind today. In part, what physicalism has going for it ties together nicely with the progress of the natural sciences; physics, biology, chemistry, and their sub-disciplines have evolved theories that are able to coherently explain phenomena of the natural world at an incredible capacity. They also show no signs of slowing down, as new data and novel hypotheses are being generated continuously, progressing towards ever new technologies and insights. This prominence of physicalism is itself often posed as a reason for rejecting Cartesian dualism. Partly given the exponentially growing explanatory power of the natural sciences in regards to our mental states being nothing but physical brain states, there is no need to introduce the existence of a non-

physical mind. The Problem of Other Minds would also be less of an issue if we could find a physical basis for the mind, because by virtue of being physical it would be spatially localizable in other people's brains (whereas the non-physical could not be). We also eradicate The Mind-Body Interaction Problem, as physicalism reduces the mental to physical brain processes.

The physicalist view might not seem as intuitively powerful as Cartesian dualism since our conscious experiences seem so different from physical stuff – it is hard to conceive of them as phenomena composed of the same stuff as the rest of the physical world. Yet, science and exploration time and time again prove our intuitions faulty. We have long ago learned that Earth is not flat, that the sun does not revolve around Earth, that we essentially consist of stardust, and share genetic material with onions, even though these are all counterintuitive ideas. Still, Descartes' original idea is lodged in the back of our heads, as our intuitions about the nature of the mind itself might be considered as different from our intuitions about the external world.

Objections to Physicalism

Despite the rather optimistic depiction of physicalism above, the view is not a perfect replacement of Cartesian dualism. There are strong philosophical objections that threaten the probability of the view as it relates to consciousness. I will here provide two prominent objections to the view: (1) The Knowledge Problem, and (2) The Brute Emergence Problem.

The first objection, The Knowledge Problem, was articulated by the philosopher Frank Jackson in 1982. In his paper "Epiphenomenal Qualia", he writes:

Tell me everything physical there is to tell about what is going on in a living brain, the kind of states, their functional role, their relation to what goes on at other times and in other brains, and so on and so forth, and be I as clever as can be in fitting it all together, you won't have told me about the hurtfulness of pains, the itchiness of itches, pangs of jealousy, or about the characteristic experience of tasting a lemon, smelling a rose, hearing a loud noise or seeing the sky. (Jackson 1982, p. 127)

Here, Jackson shines light on the issue that physical information by itself cannot give an adequate account for explaining phenomenal states, and as such pure physicalism seems to leave a fundamentally important aspect of reality out of its description of the world. Since phenomenal states are based in consciousness, this is a problem for the physicalist on the question of mind.

To further illustrate this point, Jackson invites us to picture the hypothetical neurophysiologist Mary (1982, p. 130). Mary has never seen color in her whole life, as she has been trapped in a black and white room; she has, however, accumulated all the physical information possible regarding the processes and facts about the perception of color (Jackson 1982, p. 130). Now Jackson poses the question, "What will happen when Mary is released from her black and white room ... Will she *learn* anything or not?" (1982, p. 130). It seems obvious that she will learn what *it is like* to perceive color. Jackson concludes by saying that "Physicalism is false. ... the polemic strength of the Knowledge argument is that it is so hard to deny the central claim that one can have all the physical information without having all the information there is to have" (1982, p. 130). Undoubtedly, if Jackson is correct, we cannot on a physicalist worldview explain conscious experience descriptively, and this gives us a good reason to consider rejecting it.

The second objection, The Brute Emergence Problem, is brought to life as one attempts to hold the view that (A) there exists non-experiential stuff (as most physicalists believe) together with the view that (B) there exists experience (as most physicalists also believe). This objection has been well documented by the philosopher of mind Galen Strawson. In his paper "Realistic Monism – Why Physicalism Entails Panpsychism" he explains that holding such a

view must invoke a phenomenon of *brute* – often termed *radical – emergence* (2006, p. 18). He states the idea of the traditional physicalist as follows: “physical stuff *in itself*, in its basic nature, is indeed a wholly non-conscious, non-experiential phenomenon. Nevertheless, when parts of it combine in certain ways, experiential phenomena ‘emerge’” (Strawson 2006, p. 12). The problem with this idea is of a similar kind to Descartes’ problem of mind-body causation, i.e. the problem of how something of a certain (non-experiential) nature could cause something of a different (experiential) nature to emerge.

Strawson elaborates on this issue by discussing perfectly valid cases of emergence in the physical world. In regards to liquidity and water, he writes that, “Liquidity is not a characteristic of individual H₂O molecules. ... Yet when you put many H₂O molecules together they constitute a liquid (at certain temperatures, at least) ... So liquidity is a truly emergent property of certain groups of H₂O molecules. It is not there at the bottom of things, and then it is there” (2006, p. 13). By using homogenous concepts of physics, Strawson continues, “We can easily make intuitive sense of the idea that certain sorts of molecules are so constituted that they don’t bind together in a tight lattice but slide past or off each other (in accordance with van de Waals molecular interaction laws) in a way that gives rise to – is – the phenomenon of liquidity” (2006, p. 13). It is evident from cases such as liquidity that the emergent phenomenon is wholly dependent on what it emerges out of; in the case of the liquidity of water we can say that liquidity, the emergent phenomenon, is wholly dependent on the, solitarily non-liquid, H₂O molecules themselves (Strawson 2006, p. 13-14).

This is where we run into problems with the view that experience emerges from non-experiential stuff. To say that experience is wholly dependent on features of non-experiential stuff put together in a specific way is, according to Strawson, “[to affirm] a miracle every time it occurs, for it is true by hypothesis that in brute emergence there is absolutely nothing about X, the emerged-from, in virtue of which Y, the emerger, emerges from it” (2006, p. 18). In other words, *brute emergence* entails emergence of a phenomenon from something that is completely unlike that phenomenon, and cannot as such in any conceivable way be wholly dependent on what it is supposed to have emerged from. As just explored, liquidity emerging from H₂O molecules is not brute because it is explicable under certain laws of nature and is dependent on the H₂O molecules themselves. Analogously to the inconceivability of something unextended emerging out of something extended, or something spatial emerging out of something non-spatial, experience cannot emerge out of non-experience without invoking a miracle (Strawson 2006, p. 16-17). This problem poses yet another obstacle for traditional physicalism, a view that is supposed to be able to reduce Descartes’ *miracle* of the non-physical mind into a wholly *non-miraculous* physical phenomenon.

Physicalist Panpsychism: The Fused View

Having now examined the two most prominent metaphysical positions, Cartesian dualism and physicalism, and raised their most damaging objections, I will move on to articulate the view of panpsychism, which I argue to be the most viable alternative to them. We could say that physicalism solves the prominent problems of Cartesian dualism, and I will argue that the type of panpsychism I will put forth in turn solves the problems of traditional physicalism.

Broadly speaking, panpsychism is the view that consciousness or experience is not unique to certain types of physical systems, such as brains. Rather, panpsychism regards consciousness as being *everywhere*, a fundamental component of *everything*. There are quite a few different forms of the theory, and in this paper I will specifically argue for a physicalist kind of panpsychism that states that consciousness is the intrinsic nature of physical stuff itself. As hinted by its name, this

is still a position of monistic physicalism, it simply augments the claims made by traditional physicalism by introducing an experiential nature to the physical. This view can be distinguished from the panpsychism that, for instance, states that in a top-down manner the cosmos as a whole is conscious (cosmopsychism); or the panpsychism that states that consciousness, while existing in everything physical, is non-physical rather than physical (property dualistic panpsychism) (Goff et al. 2017).

A physicalist panpsychist holds that since physics and the other sciences tell us about the structure and behavior of physical reality, without giving it a specific nature, we are ignorant in regards to what the intrinsic nature of reality really is. Therefore, it is not contradictory to hold that the intrinsic nature of physical reality might itself be experiential. The view is in this aspect similar to a view referred to as *Russellian Monism*. In the words of the analytic philosopher and mathematician Bertrand Russell himself:

[Our] knowledge of the physical world is purely abstract: we know certain logical characteristics of its structure, but nothing of its intrinsic character. There is nothing in physics to prove that the intrinsic character of the physical world differs, in this or that respect, from that of the mental world, thus from both ends, both by the analysis of physics and by the analysis of psychology, we find that mental and physical events form one causal whole, which is not known to consist of two different sorts. ... We know the intrinsic character of the mental world to some extent, but we know absolutely nothing of the intrinsic character of the physical world. (Russell 1927, p. 306-307)

In the footsteps of Russell, Galen Strawson argues, echoing Descartes, that since we know that experience exists by virtue of experiencing, the real question is whether something non-experiential exists (2006, p. 4). The reason I spent quite some time articulating Strawson's critique of brute emergence in the above section on traditional physicalism was not coincidental, but rather because the issue transitions naturally into the view of panpsychism. Strawson argues that the massive problem of trying to provide an explanation of the relationship between experience and non-experiential phenomena (i.e. solving the brute emergence problem), as traditional physicalists and scientists engage in, is born out of the unjustified assumption that there must exist something wholly non-experiential (2006, p. 20). Strawson suspects that a large portion of this move originates from the belief that physics can tell us all there is to know about the universe (2013/2018, p. 158). This, as already articulated, is a mistake as "Physics may tell us a lot about the structure of physical reality, but it doesn't and can't tell us anything about the intrinsic nature of reality insofar as its intrinsic nature is more than its structure. On this matter physics is perfectly silent" (Strawson 2013/2018, p. 158). In fact, the only direct knowledge of something intrinsic we have is our own subjective experience. Since on a physicalist picture this experience must be physical, and at the same time we really have no evidence that there is the phenomena of non-experience, it is perfectly tenable to argue that physicalist panpsychism – the view that everything physical is intrinsically experiential – is true.

Upon contemplation, we find that the burden of proof weighs on the person trying to justify the existence of non-experience, "for which there is *absolutely no evidence whatever*", as opposed to the person arguing that experience, "the phenomenon whose existence is more certain than the existence of anything else", is fundamental to reality (Strawson 2006, p. 20; p. 1). This point was also facilitated by the astrophysicist Arthur Eddington in 1928. In a similar manner as Russell, in his book, *The Nature of the Physical World*, Eddington writes:

[Science] has nothing to say as to the intrinsic nature of the atom. The physical atom is, like everything else in physics, a schedule of pointer readings. The schedule is, we agree,

attached to some unknown background. Why not then attach it to something of spiritual nature of which a prominent characteristic is thought. It seems rather silly to prefer to attach it to something of a so-called “concrete” nature inconsistent with thought, and then to wonder where thought comes from. (Eddington 1928, p. 259)

As implicitly illustrated by Russell, Eddington, and Strawson, one positive attribute of physicalist panpsychism is that it seems to follow Occam’s razor, i.e. that it is the most parsimonious and simple explanation of how consciousness might exist in a purely physical world. Again, there is no good reason to rapidly leap to the conclusion that everything else is non-experiential when we know that there is experience in ourselves.

Furthermore, in the case of Mary and The Knowledge Problem posed in my discussion of physicalism, we might be able to better explain her lack of knowledge by using panpsychism. If we grant that the intrinsic nature of the physical is itself experiential, it follows that unless Mary experiences something, she does not have the complete physical information regarding it. We can recall that in traditional physicalism, experience is supposed to arise out of processes that can be perfectly understood theoretically through the natural sciences. In the case of physicalist panpsychism, part of what is to be understood is *experience itself* for a complete picture of reality. The only way we could have the information of seeing color is to *experience seeing color*. An intrinsic nature of something cannot be fully understood unless it is embodied. This also turns out to be a general problem with panpsychism as it relates to the empirical nature of scientific knowledge, but in the case of The Knowledge Problem articulated by Jackson, it provides an adequate solution.

It is important to note, at this point, that physicalist panpsychism does not necessarily claim that rocks, buildings, or plants, are conscious – at least not in the same way we humans are. It is rather conceivable that consciousness operates in degrees, where a single atom may be minimally conscious by itself, whereas a complicated brain gives rise to the rich experience of human subjectivity. Strawson himself believes that “experience is ‘really just neurons firing’, at least in the case of biological organisms like ourselves,” it is simply that, “there is a lot more to neurons than physics and neurophysiology record (or can record)” (2006, p. 7).

If we think of a more primitive physical system or particle (such as a plant or an atom), we find that, unlike some animals, there is no complicated brain or nervous structure to support and augment its consciousness. If we try to picture being conscious without these systems and structures in place, what would it look like? It is inconceivable for a human to picture this of course, but we should grant that it would undoubtedly be a very primitive and minimal form of consciousness. Perhaps it is not like much at all to be an atom, and still rather minimal of an experience to be a plant. Giulio Tononi and Christof Koch, in their paper “Consciousness: Here, There, and Everywhere?”, draw a helpful hypothetical analogy between primitive forms of consciousness and the idea that at -272.15°C there is still 1°C of heat present – absolute zero is -273.15°C or 0 Kelvin (Tononi and Koch 2015, p. 11-13). The presence of the degree is there, even though to a human this degree is non-noticeable and incomparable to what we commonly consider ‘heat’ to be. Regardless, just like there is 1°C of heat present in this case rather than the temperature being absolute zero (i.e. -273.15°C), the important distinction with consciousness in lieu of panpsychism is that there is at least *a minimal experience*, rather than no experience at all, that is intrinsic to the atom’s and the plant’s natures. A further analogy of a light bulb might be helpful here, where the degree of illumination would represent the degree of consciousness. Human experience would represent an intensely bright luminosity whereas that of an atom would be so dim it could barely be perceived at all (the plant would be somewhere in between). Again,

the important distinction is that there is *some* illumination fundamentally, as opposed to the light bulb being switched off altogether.

For several of the reasons I have outlined in this section, Strawson makes the bold claim that anyone who is a *real* physicalist should embrace panpsychism, because any other type of physicalism fails to take proper account of experience, the one thing we can be certain exists (2006, p. 3). I'm inclined to share this insight that since the only real certainty is experience, it makes more sense to attribute experience as a fundamental characteristic of physical stuff itself, as opposed to trying to puzzle it together with certain vastly distinct non-experiential pieces. Rather than giving in to Descartes' ghost in the machine, or eliminating the ghost leaving only the machine, why not give the machine itself a ghost-like nature? There are a few reasons why one might be hesitant to make this move, which I will explore next.

Objections to Physicalist Panpsychism and My Responses to Them

There are three major objections to panpsychism that I will cover in the following section: (1) The Intuition Argument, (2) The Combination Problem, and (3) the empirically non-verifiable nature of panpsychism. As they are raised I will subsequently respond to them with what I believe to be their strongest refutations.

The first, and likely most easily contrived, objection to physicalist panpsychism is that seeing reality as fundamentally experiential is *deeply counterintuitive* and is therefore likely not true. While some philosophers might value intuitions above other epistemic means I believe that this objection ultimately fails. Just as I have argued that the intuitive power of Cartesian dualism does not strengthen the theory that we are ghosts inside machines, as Ryle put it, I do not think that the lack of intuitive power can alone weaken a theory either. As I have discussed, we often err by using our common-sense intuitions, and as such we cannot use them to prove or disprove philosophical arguments. At least not when we have alternative means that corroborate these arguments – such as parsimony and the certainty of consciousness on panpsychism. Furthermore, as I have argued, it is important to keep in mind that having an experiential quality without any type of system to support and augment it – such as a brain or a nervous system – as an atom might, would be so fundamentally different from the experiential qualities of things with such systems – such as human beings – that they would be incomparable. I find it likely that many that take The Intuition Argument seriously anthropomorphize the atom by conceiving of it as having feelings, sensations, and thoughts. I will reiterate: a physicalist panpsychist is not wedded to this doctrine.

The second, and often regarded as most powerful, objection to panpsychism holds that there is a problem with combining micro-experiential entities (such as neurons) to give rise to macro-experiences (such as human consciousness). This has been known as *The Combination Problem*. It was articulated by William James, in his work *Principles of Psychology*, with the following analogy: “Take a sentence of a dozen words, and take twelve men and tell to each one word. Then stand the men in a row or jam them in a bunch, and let each think of his word as intently as he will; nowhere will there be a consciousness of the whole sentence” (James 1890, p. 343-344). In his book *Panpsychism in the West*, David Skrbina poses the problem accordingly: “If each particle of matter is individually intelligent, how do they combine to form the single sense of being that we all feel?” (2005, p. 108). Here we risk running into another problem of emergence. Although it is important to note that the emergence would not be *brute* as in the case of experience emerging from non-experiential stuff. Rather, we have a macro-experience emerging out of micro-experiences. While the potential mechanisms and phenomena that could

be involved are unknown, explaining this macro-experiential emergence is by its very nature less hopeless than explaining a case of brute emergence.

Unfortunately, we cannot escape the combination problem this easily. If macro-experientiality is a truly emergent phenomenon of micro-experiences, one further implication is that it is not contradictory on the panpsychist view to state that inside of us right now, every single atom, neuron, nerve bundle, module, and the brain in its entirety, are all conscious at the same time. This would mean that there are many lower forms of consciousness operating in me as a person right now, some of which (the more complicated systems within my brain and perhaps my gut) would conceivably have their own thoughts, feelings, sensations, volitions, and intentions. Philip Goff, in his paper “Why Panpsychism Doesn't Help Us Explain Consciousness”, invites us to picture a “micro-experiential zombie” (2009, p. 296). Goff argues that, on the view of panpsychism, it is perfectly plausible to conceive of a creature identical to human beings, but which nevertheless has no overarching human consciousness but is simply conscious in its micro-parts (2009, p. 296). In order to get around this problem there has to be an account for how micro-experiences could give rise to a macro-experience that *replaces* the micro-experiences. In other words, the combination problem needs to be properly solved.

The contemporary philosopher Hedda Hassel Mørch articulates an interesting response to the combination problem in her dissertation, *Panpsychism and Causation: A New Argument and a Solution to the Combination Problem*. She argues that one way to get around the problem is to embrace the idea that as systems integrate, the more advanced or integrated system is conscious while the consciousness of its smaller parts dissipates (Mørch 2014, p. 169). They *fuse* together as a larger singular whole and as such the view has been dubbed *the fusion view* (Goff et al. 2017). In order to make her case Mørch cites one of the philosopher Derek Parfit's famous thought experiments in which a brain has been severed in half and each hemisphere is psychologically recording information independently of the other. As the two hemispheres are put back together their two vastly distinct experiences fuse together to form one unified experience (Mørch 2014, p. 169-170). In a similar vein, Mørch argues that distinct micro-experiences could plausibly fuse into a unified experience, she writes:

Combination of microsubjects could be analogous to this scenario of unification of hemispheres, where two streams of experiences fuse. In a simple case of combination, we would have two microexperiences in separate streams constituting individual microsubjects. Combination happens when two experiences at some point jointly cause a single new experience that is equally similar and equally strongly causally connected to both of them, so that they both count as “surviving” as it. (Mørch 2014, p. 170)

Mørch continues by detailing the potential qualities of a fused experience as follows:

The new experience will, in some sense, have to be twice as rich and complex as the two previous experiences, having similarities to both of them. Let us say that each of the streams consist of experiences that are simple in the sense of having one quality. One is the experience of, say, pure red and the other is the experience of pure blue. The experience they jointly cause would be an experience of red fading into blue with some purple in between. (Mørch 2014, p. 170)

Mørch's view is definitely interesting and would seem to get around the combination problem. While currently being a purely philosophical thesis, I find it more plausible and coherent than invoking brute emergence in ordinary physicalism, or arguing in a Cartesian fashion that something non-physical can share a causal relationship with the physical.

The third and final objection to physicalist panpsychism that I will mention draws its firepower from the empirical nature of science. In short, it conveys that if we can never hope to empirically gain insight into the nature of the physical, we will never be able to scientifically verify that panpsychism is true. Regardless of whether a scientific theory could accurately measure the level of consciousness in a system based on its integration or complexity, we would yet remain ignorant as to whether or not the intrinsic nature of the systems that are said to be experiencing is itself truly experiential. This argument can be likened to the idea that we cannot be sure of whether or not anyone other than ourselves is really conscious, as we cannot enter into someone else's brain to phenomenally perceive if, and if so what, they are perceiving (The Problem of Other Minds). Yet we commonly regard this epistemic gap as insignificant enough to resist the impulse to doubt the existence of other minds. I argued that a physical basis for minds strengthens their existence, and physicalist panpsychism does not divert from the path of traditional physicalism in this respect. I argue that we can extend this epistemic generosity to include that of physical systems other than our own brains, that after all are composed of the same stuff simply organized in different ways, since, even without panpsychism, we have reasons to believe that humans are not uniquely conscious. To finish this point, and section as a whole, it is worth mentioning that the claim that the fundamental nature of the physical world is non-experiential could not, following the same objection, be scientifically verified either. In this case then, science cannot overrule our commonsense intuitions in either direction, at which point I think we should adhere to Occam's razor and accept physicalist panpsychism over competing metaphysical theories on the question of consciousness and its grounding in reality.

Conclusion

I have in this paper only scratched the surface of physicalist panpsychism and its possibilities. As we have seen, there are some clear problems with the view as well. One of which, the problem of empirical insight into the intrinsic nature of reality, might stay with us forever. Regardless, Cartesian dualism and ordinary physicalism have their problems as well. I have argued, following Galen Strawson and others, that physicalist panpsychism yields the better and more parsimonious explanation out of the three when it comes to unravelling the mysterious origins of conscious experience.

Physicalist panpsychism resists The Mind-Body Interaction Problem of Cartesian dualism by being a monistic view while also getting around its strangeness – some would argue at the cost of embracing another type of strangeness – and it is better suited to explain the presence of other minds than Descartes' view since it is a physicalist theory. Furthermore, it helps us amend The Knowledge Problem that ordinary physicalism struggles with because by virtue of the physical being intrinsically experiential, the complete physical information of a phenomenal experience is not attained unless this intrinsicness is experienced. Finally, and perhaps most importantly, it handles one of the hardest problem of all, the Problem of Brute Emergence, by turning all conceivable non-experiential stuff into experiential stuff, leaving no room for miracles. Despite these virtues, as we have seen it also carries its own problems, the largest of which is The Combination Problem. In response I have argued that Hedda Hassel Mørch's fusion view is a promising potential solution to this problem. In the end, unravelling the elusive origins of consciousness may prove an unsurpassable obstacle for human knowledge. Whether we shall ever have a complete theory of consciousness remains an open question.

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