

# **PANPSYCHISM AND COSMOPSYCHISM**

*PhD by Papers*

by

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## ABSTRACT

This collection of papers centres around a novel approach to the problem of phenomenal consciousness called cosmopsychism. A simple version of cosmopsychism says that the cosmos as a whole is conscious. In this collection, I focus on a comparison between arguably the most promising versions of cosmopsychism and panpsychism, called constitutive cosmopsychism and constitutive panpsychism, respectively. The first paper, ‘A Blueprint for Cosmopsychism’ offers a blueprint for a cosmopsychist approach, comparing it to the panpsychist approach. It highlights how following the blueprint allows one to sidestep the most serious of panpsychism’s problems, the combination problem, while also avoiding the problem of infinite decomposition. However, it notes that the approach must address a serious problem of its own in the derivation problem. The second paper, ‘Beyond Panpsychism and Cosmopsychism? Focuses’ on two related views that reject subjects of experience at the fundamental level, thus avoiding the subject aspects of the combination and derivation problems. Albahari’s perennialism is touted as the natural successor to cosmopsychism; avoiding its subject derivation problem while maintaining a cosmic consciousness. Meanwhile, Coleman’s panqualityism is touted as a natural successor to panpsychism; avoiding its combination problem while maintaining that phenomenality is present at the level of microphysical ultimates. However, I show both views seem to face problems equal in measure to those they seek to avoid. The third paper, ‘The Subject Problem for Panpsychism and Cosmopsychism’ targets the hardest problems for constitutive panpsychism and constitutive cosmopsychism; the subject combination problem and the subject derivation problem, respectively. I show that the two problems are almost identical, both hinging on the entailment of what I call synchronous perspectives scenarios. I formulate broad arguments from metaphysical impossibility (based on those by Coleman and Shani) and epistemic implausibility against both views, based on such scenarios. However, I provide a possible model of how to understand synchronous perspective scenarios unproblematically. I also provide several alternative responses. The fourth, and final, paper in the collection provides an account of, and motivation for, a version of cosmopsychism I call CRP cosmopsychism. This version of cosmopsychism is created on the priority cosmopsychism blueprint and has three further key commitments: simple panpsychism, priority monism and Russellian monism. The paper motivates each of these commitments both in isolation and in partnership, before responding to each of the derivation problems; the subject derivation problem, the quality derivation problem and the structure derivation problem. Furthermore, I argue that cosmopsychism should be preferred over panpsychism owing to considerations concerning internal relations.

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# SYNOPSIS

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## UNCOVERING A LANDSCAPE OF FUNDAMENTAL CONSCIOUSNESS

### 1 Introduction

This collection of papers can be considered an exploration of hitherto unexplored (or at least underexplored<sup>1</sup>) regions of the landscape of fundamental consciousness. By fundamental consciousness, I refer to approaches to the problem of phenomenal consciousness that argue that consciousness is a fundamental feature of reality. In this synopsis, I provide a map of the landscape of fundamental consciousness, before situating the papers included in this collection, within it.

My intention is that the map I provide has some value, over and above the function of embedding the papers, included here, in a wider context. The argument, if there is one in this synopsis, is that the landscape of fundamental consciousness is far richer and more expansive than it has been given credit for and that we are still in the early days of our expeditions into it. The map charts views, both actual and possible, that exist in logical

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<sup>1</sup> Over the course of my PhD studies, some of the views I focused on in this collection have been the subject of research, but for many of the views, this was not the case when I started out. For example, when I was the first writing about cosmopsychism (at the time I called the view 'dual-aspect priority monism') while completing my master's thesis, in 2010, the view did not exist in contemporary literature.

space. Some of these may be ultimately indefensible, but I offer them here as potential avenues for further research.

### 1.1 A Map of the Landscape

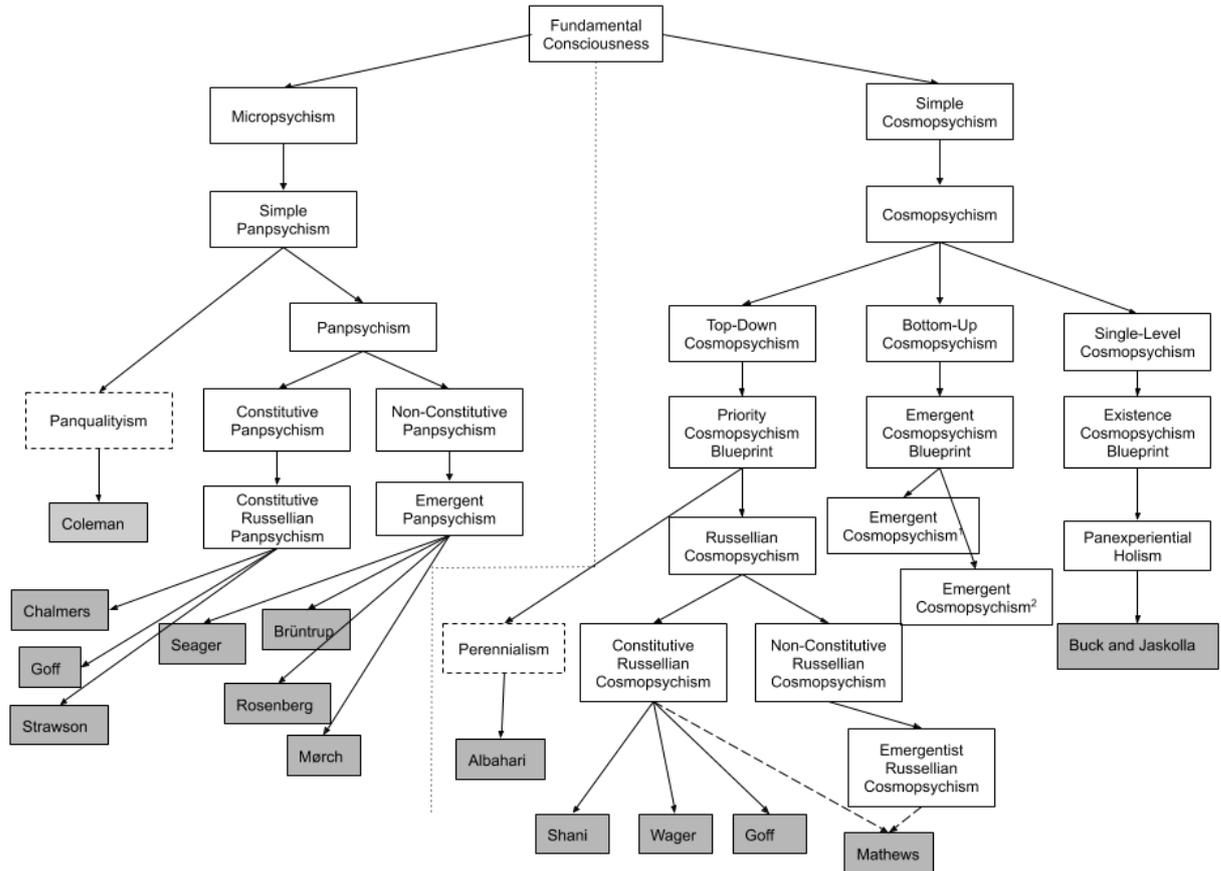


Figure 1: A map of the landscape

It is important to note that I refer to the above figure as *a* map rather than *the* map. The reasoning is that this is far from a complete map of the logical landscape and there are various possible ways to carve it up. There are undoubtedly many additional fundamental approaches to the problem of consciousness, actual and possible, that I do not include here. My purpose in this synopsis is not to provide a complete taxonomy of fundamental approaches, nor is it to provide a map of *the* landscape. It is, rather, to offer one possible way to view it.

With reference to the map I provide above, I will suggest that until very recently the fundamental consciousness approach has been limited to uncovering and exploring micropsychism, the left tranche of the map, leaving cosmopsychism, the right tranche of the map, uncharted. However, mapping the right tranche reveals a rich and fruitful extension to the landscape of fundamental consciousness, that may even hold the key to solving the problem of phenomenal consciousness.

It will be useful, at this point, to define what I mean by fundamental approaches to consciousness, micropsychism and cosmopsychism:

**Fundamental consciousness:** A fundamental approach to consciousness is one that affirms consciousness as a fundamental feature of reality.

**Micropsychism:** The view that at least some microphysical ultimates instantiate phenomenal (or protophenomenal) properties.

**Cosmopsychism:** The view that the ultimate cosmos instantiates phenomenal (or protophenomenal) properties.

Viewing these definitions, it is plain to see why the map I provide moves from the starting point of fundamental consciousness into two separate branches, micropsychism and cosmopsychism. The move supposes that there are two options once fundamental consciousness has been accepted. There are two potentially fundamental levels to reality; either there is a plurality of microphysical ultimates, or the cosmos as a whole is ultimate. This translates into two options for the proponent of fundamental consciousness; either

consciousness is fundamental because it is instantiated by microphysical ultimates, or it is instantiated by the cosmos as a whole.<sup>2</sup>

This synopsis is structured as follows: in section 2, I suggest fundamental consciousness, until very recently, has been almost exclusively centred on the micropsychism tranche of the landscape, but that almost all views situated there are vulnerable to the combination problem. In section 3, I uncover an alternative branch of the map, the cosmopsychist pathway, where the majority of views do not face the combination problem. In section 4, I show how the four papers included in this collection are embedded in the landscape. Finally, in section 5, I conclude.

## **2 Fundamental Consciousness and Micropsychism: A Synonymy**

Until relatively recently, at least in contemporary literature, the landscape of fundamental consciousness has been quite restricted, despite its significance as a markedly unique approach to the problem of phenomenal consciousness.

The view that consciousness is, or might be, in some sense fundamental is not exactly new, as versions of panpsychism and idealism are well documented throughout history, with both typically affirming fundamental consciousness.<sup>3</sup> I am interested in fundamental approaches in the context of contemporary analytic philosophy, that seek a place for consciousness in the natural world. It is in this sense that the option of taking consciousness as fundamental is only a relatively recent endeavour. Moreover, I contend

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<sup>2</sup> To be clear, I do not rule out the possibility that the fundamental level is some intermediary level, between the top and bottom (for example Thompson (2016) argues for metaphysical interdependence, a view of fundamentality that rejects that both the top and bottom levels of reality are fundamental), but I do not know if such a position, with regards to fundamental consciousness, is tenable. For my purposes, at present, I leave it off of the map.

<sup>3</sup> For a thorough examination of the history of panpsychism, see Skrbina's 'Panpsychism in the West' (2005).

that this recent endeavour has equated fundamental consciousness with micropsychism, and as such has left the whole cosmopsychism tranche of the map uncharted. Recall that when I say ‘micropsychism’ I mean the view that at least some microphysical ultimates instantiate phenomenal or protophenomenal properties.

The view that consciousness is fundamental, and least with regards to contemporary analytic philosophy, was stimulated initially by Jackson’s knowledge argument (1982, 1986) against physicalism and then again, more explicitly, by Chalmers’s conceivability argument (1995, 1996, 1997, 2003).

The knowledge argument allegedly shows that a complete physical description of the world leaves phenomenality out of the picture. The most well-known thought experiment of the knowledge argument is that of Mary, the scientist who has complete physical knowledge of the world but has only ever experienced it in black-and-white surroundings. When she is finally exposed to colour, it seems she learns something new about the world. She learns what it is like to experience colour. Thus, the knowledge argument concludes, a complete physical picture of the world leaves out phenomenal properties. The conclusion of the knowledge argument does not imply micropsychism specifically, it also motivates dualism, for example, but it certainly paved the way for micropsychism,

The conceivability argument says that if we can conceive of exact physical replicas of humans, but which nonetheless lack consciousness, then they are possible, and if they are possible then our physical descriptions of the world are incomplete because we know consciousness to be real. Again, the conclusion is that consciousness is left out of physical descriptions of the world. Chalmers’s work from the mid-1990’s onwards has been

instrumental in not only arguing against physicalism but in explicitly arguing for a fundamental theory of consciousness. In this sense, the very existence of a map of fundamental consciousness is thanks to Chalmers, but his explorations have been limited to the micropsychism pathway.

Following the micropsychism path on the map, the next position we arrive at is panpsychism:

**Panpsychism:** The view that all physical ultimates instantiate phenomenal (or proto-phenomenal) properties.

The most well-known defence of panpsychism is by Strawson (2006), who argues that physicalism entails panpsychism. His argument can be summarised in two premises; (1) everything is entirely physical, and (2) consciousness is a real thing, therefore (3) consciousness is physical. This has not yet arrived at panpsychism, though. He further reasons that if consciousness is physical then it must either already be present in the microphysical ultimates of matter or emerge from them. However, the kind of emergence required would be brute emergence<sup>4</sup>, which, Strawson says, is impossible. Thus, the microphysical ultimates of matter must themselves be conscious. You may have noticed that this still does not bring us to panpsychism, only to micropsychism. Strawson has not yet established that *all* microphysical ultimates are conscious as opposed to just some of them. He justifies the move from micropsychism to panpsychism on the grounds that the former would represent a radical heterogeneity at the fundamental level that seems out of synch with other fundamental entities:

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<sup>4</sup> Also referred to as radical emergence, or strong emergence. In this collection I will tend to refer to it as strong emergence, but I do not mean to distinguish between strong emergence, brute emergence and radical emergence in doing so.

I think that the idea that some but not all physical ultimates are experiential would look like the idea that some but not all physical ultimates are spatio-temporal (on the assumption that spacetime is indeed a fundamental feature of reality). I would bet a lot against there being such radical heterogeneity at the very bottom of things. (2006, p. 25)

The no radical emergence argument for panpsychism is widely accepted as the strongest argument for micropsychism (including panpsychism).

At this point, I should distinguish between panpsychism and what I call simple panpsychism. Panpsychism, understood in the most literal terms, is the view that everything is conscious. Such a broad understanding of the position is useful because it captures the great variety of related views throughout history that posit consciousness ubiquitously, under a single term. However, in recent philosophical discussions, it is more readily understood as the view that consciousness is ubiquitous and fundamental and it is from this that I take my definition of simple panpsychism:

**Simple panpsychism:** The view that consciousness (or protoconsciousness) is fundamental and ubiquitous.

Panpsychism, as I define it above (as ‘panpsychism’) is the most typical development on ‘simple panpsychism’, so much so that until recently ‘simple panpsychism’, practically speaking, has implied ‘panpsychism’. What is interesting is that simple panpsychism does not actually imply any given fundamental level, it says simply that consciousness is ubiquitous and fundamental and it is in this sense that I state that many versions of cosmopsychism are also versions of panpsychism (more on this later).

From panpsychism, we see another branching. This time, one branch leads to constitutive panpsychism while the other leads to non-constitutive panpsychism. We can define these views as follows:

**Constitutive Panpsychism:** The version of panpsychism which says that macro-consciousness, like our own, is constituted out of a combination of micro-consciousness at the microphysical level.

**Non-Constitutive Panpsychism:** The version of panpsychism which says that macro-consciousness, like our own, is not constituted out of a combination of micro-consciousness at the microphysical level.

Constitutive panpsychism is by far the most common version and is usually taken to be the most promising (Chalmers 2016a, 2016b). Much of what I have to say in this collection focuses on constitutive panpsychism, given that it is taken to be the most hopeful. However, non-constitutive forms of panpsychism have received increasing attention, with some novel proposals (Bruntrup 2016, Seager 2010, 2016, Mørch 2014, Rosenberg 2004). One particularly promising version of constitutive panpsychism is constitutive Russellian panpsychism, which adds that phenomenal properties are fundamental and ubiquitous because they ground the spatio-temporal structure that is revealed by physics:

**Constitutive Russellian panpsychism:** A version of constitutive panpsychism which says that consciousness is fundamental and ubiquitous because phenomenal properties ground the spatio-temporal structure that physics describes.

A promising version of non-constitutive panpsychism is emergent panpsychism, which says that macro-consciousness emerges from micro-consciousness. It may seem strange to endorse a version that postulates the *emergence* of macro-consciousness, but it must be stressed that consciousness *per se* does not emerge, only macro-consciousness emerges

from micro-consciousness. However, that such views rely on some concept of emergence does raise an emergence problem of sorts, but it is arguably less severe because consciousness does not need to emerge from the entirely non-conscious, as is the case for many physicalist approaches.

**Emergent panpsychism:** A version of non-constitutive panpsychism which says that macro-consciousness emerges from micro-consciousness.

A few interesting versions of emergent panpsychism have been proposed in recent years. All state that macro-consciousness emerges from micro-consciousness but differ in other respects. Some (Rosenberg 2004, Brüntrup 2016) propose that the emergent macro-consciousness and the submergent micro-consciousnesses co-exist post-emergence, while others (Seager 2010, 2016) state that the submergent micro-consciousnesses cease to exist post-emergence. Another view (Mørch 2014), argues that micro-consciousness and macro-consciousness co-exist post-emergence but that the submergent micro-consciousnesses are dependent on the emergent macro-consciousness.

As we have seen in the definitions of micropsychism, panpsychism and simple panpsychism, the door is left open for views that do not maintain that consciousness is fundamental but do maintain the fundamentality of proto-consciousness. Fundamental proto-conscious properties are not full-blown phenomenal properties but are instrumental in giving rise to them in certain conditions.

**Microtopsychism:** At least some microphysical ultimates are proto-conscious.

**Panprotopsychism:** All microphysical ultimates are proto-conscious.

One example of such a view is panqualityism. It occupies an especially interesting position on the map because it overcomes the most pressing aspect of the combination problem for panpsychism, the subject combination problem. It does so by denying that there are subjects of experience at the microphysical level, namely, denying that microphysical ultimates are *subjects* of experience. Thus, it is clearly not a version of panpsychism, but is instead a version of panprotopsychism:

**Panqualityism:** The view that the microphysical ultimates instantiate phenomenal qualities.

It is closely related to panpsychism because, like panpsychism, it posits phenomenality (broadly construed) as fundamental, and, moreover, it says that all microphysical ultimates instantiate phenomenality. In this case, the phenomenality referred to is phenomenal *quality*. These are the qualities that characterise conscious experience, for example, colour qualities, auditory qualities, olfactory qualities, etc. The critical problems for panqualityism are that (1) it is widely considered a conceptual truth that conscious experience implies a subject of experience instantiating phenomenal properties, so, what motivates a departure from such a perceived conceptual truth? And, (2) how is it that subjects like us arise from a fundamental level devoid of subjecthood?

What I hope I have illustrated in this section is that there has been a significant groundswell of interest in fundamental consciousness over the last two to three decades. Although this interest is welcome, not least because micropsychism offers a way around the knowledge argument, the conceivability argument, and also avoids the problem of strong emergence, each version of micropsychism does come with its own set of challenges, most notable are variations of the combination problem. My contention is, however, that until

very recently there has been an implied synonymy between fundamental consciousness and micropsychism. Meanwhile, an entire parallel pathway, branching out from fundamental consciousness in a different direction to micropsychism, has been left uncharted.

### **3 Mapping the Uncharted Landscape**

The uncharted pathway is the cosmopsychism pathway, on the right-hand side of the map. As I said previously, this side of the map, unlike the micropsychism side, has remained unexplored in analytic philosophy until very recently. I first proposed cosmopsychism in my master's thesis submitted in 2011, at which point the view was unprecedented<sup>5</sup>.

Cosmopsychism, in its most simple formulation, can be understood as the view that there is a cosmic consciousness. There are all manner of potential ways that this could be cashed-out, but I am primarily interested in the way in which it is most often defined (and which also holds the most potential with regards to addressing the problem of phenomenal consciousness). Consider the following definitions of simple cosmopsychism and cosmopsychism:

**Simple Cosmopsychism:** The view that there is a cosmic consciousness.

**Cosmopsychism:** The view that there is a cosmic consciousness, which is the fundamental form of consciousness.

As we can see, cosmopsychism is to simple cosmopsychism, what panpsychism is to simple panpsychism. 'Simple cosmopsychism' is the most literal definition of the view, but 'cosmopsychism' is the definition that is considered standard.

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<sup>5</sup> In my master's thesis I called the view 'dual-aspect priority monism' and a little later in a development of that thesis (in 2012), I referred to it as 'priority panpsychism'. I didn't start using the term 'cosmopsychism' until my co-authored paper with Yujin Nagasawa (published in 2016, but written years earlier).

From this point, as I see it, three potential paths are branching off; a top-down route, a bottom-up route, and what I call a single-level route. The ‘top-down’/’bottom-up’/’single-level’ ascription denotes something about how the cosmic consciousness relates to sub-cosmic consciousness:

**Top-down Cosmopsychism:** Sub-cosmic consciousness is derived from the fundamental cosmic consciousness

**Bottom-up Cosmopsychism:** The fundamental cosmic consciousness is derived from sub-cosmic consciousness.

**Single-level Cosmopsychism:** The fundamental cosmic consciousness is the only form of consciousness.

Of the limited attention that cosmopsychism has received, all has been focused on top-down cosmopsychism. This is not without good reason, as we will see, but it is right to also draw attention to the other two routes as they are potential avenues of further research (but I do not claim they are tenable).

For each of the routes just outlined, we can formulate a blueprint on which to build more well-developed views. The blueprint will provide the basis on which to create a view of that kind. Consider the following blueprints:

**Priority Cosmopsychism Blueprint:** There is a fundamental cosmic consciousness from which derivative sub-cosmic consciousness derives.

**Emergent Cosmopsychism Blueprint:** There is a fundamental cosmic consciousness that emerges from sub-cosmic consciousness.

**Existence Cosmopsychism Blueprint:** The cosmic consciousness is the only form of consciousness.

Each of the blueprints can be taken as providing a guide to how the cosmic consciousness relates to sub-cosmic consciousness in a broad sense, and each will bring to any future development on it a particular set of advantages. Each will likely permit several possible developments.

For example, the top-down route, taking us to the priority cosmopsychism blueprint, offered by myself and Nagasawa (2016), has seen numerous developments on it (or developments consistent with it). In fact, cosmopsychism has become synonymous with versions of priority cosmopsychism. Consider one development on this blueprint; Russellian cosmopsychism, and then two developments branching off, further, from that:

**Russellian Cosmopsychism:** The cosmos has a ‘revealed’ and a ‘concealed’ form. The revealed form is the world as revealed by physics while the concealed form is its consciousness. The cosmic consciousness is the fundamental form of consciousness from which all sub-cosmic consciousness are derived. The cosmos as a whole, in its revealed concrete form, is the fundamental concrete entity from which all derivative concrete entities derive.

Russellian Cosmopsychism has been endorsed, or suggested, by Wager (2011, 2020<sup>6</sup>), Nagasawa and Wager (2016), Shani (2015), Goff (2017, 2020) and Mathews (2011). In addition to the priority cosmopsychism blueprint, Russellian cosmopsychism implies a commitment to priority monism and Russellian monism.<sup>7</sup> From here we have two further branching views:

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<sup>6</sup> Throughout this collection, but especially the papers ‘The Subject Problems for Panpsychism and Cosmopsychism’ and ‘An Account of Cosmopsychism’.

<sup>7</sup> I should note that Mathews does not make any reference to priority cosmopsychism, priority monism or Russellian monism, and it is not presented in a way familiar to contemporary metaphysics or philosophy of mind, but her view is broadly consistent with the views I mention.

**Constitutive Russellian Cosmopsychism:** The version of Russellian cosmopsychism which says that sub-cosmic subjects of experience are constituted of the cosmic subject of experience.

**Non-Constitutive Russellian Cosmopsychism:** The version of Russellian cosmopsychism which says that sub-cosmic subjects of experience exist but are not constituted of the cosmic subject of experience.<sup>8</sup>

These branches are defined by how they propose that fundamental consciousness relates to derivative consciousness. They are versions of cosmopsychism, so we know that the cosmic consciousness is considered fundamental in both cases. The difference between them is how they account for the derivation of derivative subjects of experience from the cosmic subject. In the case of constitutive Russellian cosmopsychism, derivative subjects are grounded in the cosmic subject as its partial aspects. This is the approach endorsed by Wager (2020), Goff (2017, 2020) and Shani (2015). Non-constitutive Russellian cosmopsychism says that derivative subjects are not grounded in the cosmic subject. There are several ways the details of this could be filled in, but to my knowledge the only version in the literature that could possibly be construed as a case in point is Mathews (2011).<sup>9</sup> Perhaps the best way to formulate non-constitutive Russellian cosmopsychism is as a kind of emergentist view, such as:

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<sup>8</sup> This might seem like a strange view because cosmopsychism is the view that sub-cosmic consciousness is derivative of the cosmic consciousness, but there is space for a view whereby sub-cosmic consciousness is derived from the cosmos, itself conscious, but yet it is not constituted of the cosmic consciousness. Such a view might be better understood as a kind of emergent cosmopsychism whereby sub-cosmic consciousness emerges from the cosmic consciousness.

<sup>9</sup> This is hard to call; Mathews's view could perhaps be seen as a version of non-constitutive Russellian cosmopsychism because, for her, sub-cosmic consciousnesses are not grounded in the cosmic consciousness, so much as they are embedded within the cosmos, that is conscious. It is also possible to see her view as a version of constitutive Russellian cosmopsychism, too, however.

**Emergentist Russellian Cosmopsychism:** The version of Russellian cosmopsychism which says that macro-subjects (weakly) emerge from the cosmic subject but are not constituted of it.

Turning to emergent cosmopsychism (distinct from top-down emergentist Russellian Cosmopsychism), as far as I know, there are no versions of emergent cosmopsychism in the literature, but I will propose two possible elaborations on the emergent cosmopsychism blueprint. One is a cosmopsychist equivalent of the emergent panpsychism proposed by Seager (2010) and Mørch (2015) (emergent cosmopsychism<sup>1</sup>), the other is a cosmopsychist equivalent of the emergent panpsychism offered by Rosenberg (2004) and Bruntrup (2016) (emergent cosmopsychism<sup>2</sup>):

**Emergent cosmopsychism<sup>1</sup>:** A version of emergent cosmopsychism which says that the fundamental cosmic consciousness emerges from fundamental sub-cosmic consciousness, but that the emergence of the former supersedes the latter.

**Emergent cosmopsychism<sup>2</sup>:** A version of emergent cosmopsychism which says that the fundamental cosmic consciousness emerges from fundamental sub-cosmic consciousness, such that the emergent and submergent co-exist.

One version of emergent cosmopsychism<sup>2</sup> might be similar to Mørch's emergent panpsychism, whereby the submergent base of sub-cosmic consciousnesses co-exist with the emergent cosmic consciousness such that submergent sub-cosmic consciousnesses become dependent on the cosmic consciousness post-emergence.

It is not my aim to provide details on how the above views could be cashed-out into more fully-formed approaches, but only to uncover the outline of possible positions. Emergent views like those just listed above will, however, need to address their own version

of the problem of emergence; the emergence of the cosmic consciousness from a base of sub-cosmic consciousness. They will also have questions to answer regarding either the co-existence with, or elimination of, the base of sub-cosmic consciousnesses. Furthermore, it would remain to be seen if emergent cosmopsychism could offer anything over and above emergent panpsychism. Perhaps it will even turn out that certain versions of emergent panpsychism entail cosmopsychism.

Finally, concerning the existence cosmopsychism blueprint, to my knowledge there is perhaps one view in the literature that could be considered a development on it, Jaskolla and Buck's (2012) panexperiential holism:

**Panexperiential holism:** The view that there is exactly one entity, the cosmos, and that entity is conscious.

This view throws up problems related to the fact that it presupposes existence monism (the view that exactly one entity – the cosmos - exists), which comes with its own set of challenges. For example, how does it account for the existence or non-existence of the universe of multiplicity, and our commonly held intuitions about it? It also faces the problem of explaining the apparent existence of a multitude of sub-cosmic subjects of experience.

This brings us to cosmoqualityism and perennialism. Earlier, I mentioned that there is a thread running through the panpsychism pathway on the map, which replaces consciousness at the fundamental level with protoconsciousness (referred to as panprotopsychism rather than panpsychism, or microprotopsychism rather than micropsychism). The same thread runs through the cosmopsychism pathway, too. We can call these versions of cosmoprotopsychism:

**Cosmoprotopsychism:** The view that the cosmos as a whole is proto-conscious.

Two developments following this thread, along the route of the priority cosmopsychist blueprint, are cosmoqualityism and perennialism (proposed by Albahari, 2020):

**Cosmoqualityism:** The view that the cosmos as a whole exemplifies fundamental phenomenal quality. The cosmos itself is not a subject of experience.

**Perennialism:** The view that the universe of multiplicity is grounded in a universal non-dual consciousness (non-dual in the sense of being beyond the subject-object distinction).

Both views reject the premise that the cosmos itself is a subject of experience, which arguably allows them to avoid the subject derivation problem for cosmopsychism. However, there are obvious questions about both. Albahari's perennialism posits an ultimate ground of unconditioned, non-dual, universal consciousness, but it needs to explain how the universe of multiplicity can be grounded in such an unconditioned non-dual universal consciousness. A related problem concerns how subjects of experience can be derived from a ground that is beyond the subject-object distinction.

Cosmoqualityism, is the cosmopsychist version of panqualityism. Panqualityism says that the microphysical ultimates are phenomenally qualified, but not subjects of experience. Instead, what we think of when we think about macro-subjects is just the awareness of phenomenal qualities. For Coleman's panqualityism, awareness comes about in virtue of a higher order thought about the phenomenal qualities. Cosmoqualityism is

similar in that macro-subjects are really just awareness of phenomenal qualities, however in this case, all phenomenal qualities are derivative on the cosmic quality. A problem, for cosmoqualityism, will likely relate to whether or not the position has any advantages over panqualityism. I suspect that it does but do not have the space to explore the view here.

## **4 Exploring the Landscape**

Now I have uncovered the landscape of fundamental consciousness, I can situate the papers included in this collection within it. My attention is focused on a comparison between constitutive panpsychism and constitutive cosmopsychism, as they are arguably the most promising and also the most comparable versions of views along each of our two main pathways. This is not to say other areas of the map chartered above will not ultimately turn out to be more fruitful.

### **4.1 Paper 1: A Blueprint for Cosmopsychism<sup>10</sup>**

The first paper in the collection, co-authored with Yujin Nagasawa and published under the title ‘Panpsychism and Priority Cosmopsychism’, provides a blueprint for a novel approach to the problem of phenomenal consciousness. On the map, this is the blueprint for priority cosmopsychism, which turns panpsychism on its head. Rather than posit micro-consciousness that must sum to form macro-consciousness, it posits a cosmic consciousness from which macro-consciousness derives. The paper shows that panpsychism faces both the combination problem and the problem of infinite decomposability, it motivates the priority cosmopsychism blueprint on the grounds that it can avoid both of these problems. Though, it states that the blueprint paves the way for a new problem for cosmopsychism, called *the*

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<sup>10</sup> Co-authored with Yujin Nagasawa and published under the title ‘Panpsychism and Priority Cosmopsychism’ (2020) in *Panpsychism: Contemporary Perspectives*, Oxford University Press, edited by Bruntrup and Jaskolla. It is a development on Wager’s (2011) master’s thesis ‘Dual-Aspect Priority Monism’ and Nagasawa’s (2012) ‘Infinite Decomposability and the Mind-Body Problem’ (2012).

*derivation problem*. Rather than giving a detailed account of an approach to the problem of phenomenal consciousness, the blueprint offers a new general approach that can be adopted to gain its advantages, while being developed in a variety of ways, forming numerous distinct and more detailed views. The blueprint can be seen as setting the scene for much of the cosmopsychist tranche of the map.

#### **4.2 Paper 2: Beyond Panpsychism and Cosmopsychism? Panqualityism and Perennialism**

The second paper in the collection focuses on the two views on the map (one from the panpsychism tranche and one from the cosmopsychism tranche) that reject full-blown consciousness at the fundamental level in favour of fundamental proto-consciousness. These views occupy especially interesting positions on the map because they reject the typical stipulation that the fundamental form(s) of consciousness are themselves subjects of experience. It is this move that purportedly allows them to sidestep the combination problem and the derivation problem. Albahari's perennialism is touted as the natural successor to cosmopsychism; avoiding its subject derivation problem while maintaining a cosmic consciousness. Meanwhile, Coleman's panqualityism is touted as a natural successor to panpsychism; avoiding its combination problem while maintaining that phenomenality is present at the level of the microphysical ultimates. However, I show that both of these views are a lot less appealing after taking a closer look at the details and, as such, do not seem fit to be considered successors to panpsychism or cosmopsychism. Perennialism, for example, faces the problem of motivating the very idea of non-dual consciousness, let alone the further stipulation that non-dual consciousness grounds the universe of multiplicity. Additionally, it faces tough questions relating to the existence and emergence of conscious perspectives. Panqualityism also faces problems relating to its subject-absent phenomenally qualified ground, as well as issues relating to how to think about perspectives.

### **4.3 Paper 3: The Subject Problem for Panpsychism and Cosmopsychism**

The third paper targets, arguably, the hardest problems for constitutive panpsychism and constitutive cosmopsychism; the subject combination problem and the subject derivation problem, respectively. Cosmopsychism is touted as a promising alternative to panpsychism because it can avoid the combination problem while maintaining some other of its advantages. However, it faces the derivation problem, which is cosmopsychism's equivalent to the combination problem. If it is to be considered a genuine alternative to panpsychism, then it must (at least) avoid its derivation problem being any more of a challenge to solve than the combination problem. In this paper, I take the most difficult aspects of the two problems, which pertain to the combination (for panpsychism) and derivation (for cosmopsychism) of subjects of experience. I show that the two problems are almost identical, both hinging on the entailment of what I call synchronous perspectives scenarios. There are existing arguments from metaphysical impossibility against such scenarios, but I also provide alternative epistemic implausibility arguments that turn on an apparent inconsistency between what we should expect our everyday experience to be like (given the views) and what our everyday experience is actually like (through introspection). However, I provide a possible model of how to understand synchronous perspective scenarios unproblematically. I also provide several alternative responses. I conclude that if there is a way to determine which of the two views to support, it is not to be found by comparing their respective subject problems. However, far from leaving panpsychism and cosmopsychism where I found them, the responses I provide to the various arguments leave both views in a significantly stronger position.

#### **4.4 Paper 4: An Account of Cosmopsychism**

The fourth, and final, paper in the collection provides an account of, and motivation for, a version of cosmopsychism I call CRP cosmopsychism. This version of cosmopsychism is created on the priority cosmopsychism blueprint and has three further key commitments: simple panpsychism, priority monism and Russellian monism. The paper motivates each of these commitments both in isolation and in partnership, before responding to each of the derivation problems; the subject derivation problem, the quality derivation problem and the structure derivation problem. Furthermore, I argue that cosmopsychism should be preferred over panpsychism owing to considerations concerning internal relations. I end the paper by responding to some possible objections to the account on offer. I conclude that cosmopsychism is in a significantly stronger position than panpsychism, and very much alive and well.

### **5 Future Expeditions into the Fundamental Consciousness Landscape**

This collection, taken as a whole, can be understood as an exploration of the landscape of fundamental consciousness, with a particular focus on mapping, and trail-blazing, the largely uncharted cosmopsychism pathway. Throughout the collection, I have often focused on comparisons between panpsychism and cosmopsychism, with some important glimpses into what I believe will be the ultimate comparison, between physicalism and cosmopsychism. It is my view that fundamental approaches to the problem of consciousness, but especially those following the cosmopsychism pathway, are teeming with potential yet untapped. There are many positions still un(der)explored which future expeditions into the landscape will hopefully map. Some, no-doubt, will turn out to be dead-ends, but any genuine explorers searching for the solution to the problem of phenomenal consciousness should not ignore vast regions of the map.

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# PAPER 1

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## A BLUEPRINT FOR COSMOPSYCHISM

### 1 Introduction

A contemporary form of panpsychism says that phenomenality is prevalent because all physical ultimates instantiate phenomenal or protophenomenal properties. According to priority cosmopsychism, an alternative to panpsychism that we propose in this paper, phenomenality is prevalent because the whole cosmos instantiates phenomenal or protophenomenal properties. It says, moreover, that the consciousness of the cosmos is ontologically prior to the consciousness of ordinary individuals like us. Since priority cosmopsychism is a highly speculative view our aim in this paper remains modest and limited. Instead of providing a full defence of priority cosmopsychism, we try to show only the theoretical advantage of the view over panpsychism. This, however, by no means entails that we develop the view in logical space merely for its own sake. We offer instead a blueprint for a new alternative to panpsychism and explain how such a view avoids some of the most persistent problems for panpsychism while maintaining several of its strengths.

This paper has the following structure. In Section 2, we discuss panpsychism and priority monism, which are relevant to priority cosmopsychism. In Section 3, we introduce priority cosmopsychism. In Section 4, we show that priority cosmopsychism overcomes the main difficulties for panpsychism, including the problem of infinite decomposition and the

combination problem. In Section 5, we defend priority cosmopsychism against possible objections. Section 6 concludes.

## 2 Panpsychism and Priority Monism

Priority cosmopsychism is structurally parallel to both panpsychism and priority monism. We therefore address each of these views before formulating priority cosmopsychism.

### 2.1 Panpsychism

Since the present volume is devoted to panpsychism we will not provide a comprehensive overview of panpsychism here. Nevertheless, some essential preliminaries are in order. The most straightforward version of panpsychism is formulated in terms of ordinary mental states. It says that everything has mental states in the same sense as we do—for example, rocks have thoughts to the same extent that we do. This is highly implausible. Contemporary panpsychism is, on the other hand, typically formulated in terms of phenomenal or protophenomenal properties instead of all types of mental states. There are many contemporary formulations but in this paper we focus on Philip Goff's formulation as follows (2009, p. 294):

**Panpsychism:** All physical ultimates instantiate phenomenal properties.

As Goff notes, this view is closely related to the following view:

**Micropsychism:** Some physical ultimates instantiate phenomenal properties.

Panpsychism is an extreme form of micropsychism because it says that all, not merely some, physical ultimates instantiate phenomenal properties. That is why the view is called *panpsychism*.

Some formulate panpsychism in terms of protophenomenal properties instead of phenomenal properties. They say that some physical ultimates instantiate protophenomenal, rather than phenomenal, properties. Chalmers (1996) addresses the distinction between the phenomenal and protophenomenal versions of panpsychism:<sup>11</sup>

There are two ways this might go. Perhaps we might take [phenomenal] experience itself as a fundamental feature of the world, alongside space-time, spin, charge and the like. That is, certain phenomenal properties will have to be taken as *basic* properties. Alternatively, perhaps there is some *other* class of novel fundamental properties from which phenomenal properties are derived...[T]hese cannot be physical properties, but perhaps they are nonphysical properties of a new variety, on which phenomenal properties are logically supervenient. Such properties would be related to experience in the same way that basic physical properties are related to nonbasic properties such as temperature. We could call these properties *protophenomenal* properties, as they are not themselves phenomenal but together they can yield the phenomenal. (Chalmers 1996, pp. 126–127)

The main reason for holding panpsychism is that it avoids the problem of strong emergence. This problem arises from the unexpectedness of phenomenal properties: phenomenal properties are instantiated by physical entities such as aggregates of neurons but this is unexpected and surprising because neurons seem to be fundamentally non-experiential. It seems impossible to explain how something experiential can be instantiated

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<sup>11</sup> To be precise, in this passage Chalmers is talking about the phenomenal and protophenomenal versions of what he calls Type-F monism, which subsumes some versions of panpsychism. So his focus in the passage is more general than ours.

by something fundamentally non-experiential. According to Strawson, the instantiation of experiential phenomena by wholly non-experiential phenomena is as extraordinary as the instantiation of spatial phenomena by non-spatial phenomena. He contends that such emergences are impossible because the following is true: For any feature *Y* of anything that is correctly considered to be emergent from *X*, there must be something about *X* and *X* alone in virtue of which *Y* emerges, and which is sufficient for *Y*. Strong emergence violates such a law and, hence, it is, “by definition, a miracle every time it occurs” (2008, pp. 64-65). Panpsychism avoids the problem of strong emergence by stipulating that physical ultimates are themselves phenomenal or protophenomenal. That is, according to panpsychism, it is not surprising that phenomenal properties are instantiated by aggregates of neurons because physical ultimates, which constitute neurons and other physical entities, are already phenomenal or protophenomenal.

## **2.2 Priority Monism**

Priority monism says that exactly one *basic* concrete object, that is, the cosmos, exists (Schaffer 2008). Priority monism should be distinguished from existence monism, according to which exactly one concrete object, that is, the cosmos, exists.<sup>12</sup> Unlike existence monism, priority monism is compatible with the existence of multiple concrete objects because it says only that there is exactly one *basic* concrete object. According to priority monism, the cosmos is more basic than other concrete objects in the sense that it is ontologically prior to, or ontologically more fundamental than, those other objects. In other words, all concrete objects, except the cosmos itself, are derivative of the cosmos.

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<sup>12</sup> For a discussion of existence monism see Horgan and Potrč (2000).

Priority monism appears counterintuitive initially because in most instances we think that a whole is not ontologically prior to its parts. We think, for example, that the grains of sand constituting a heap are prior to the heap or that tiles in a mosaic are prior to the mosaic. Schaffer points out, however, that there are many other examples in which we think that a whole is, in fact, prior to its parts. For instance, we think that a circle is prior to semicircles of the circle or that a body is prior to organs of the body (Schaffer 2008). This is because, according to Schaffer, our common sense distinguishes between mere heaps and genuine unities. A heap of grains of sand and a mosaic are mere heaps but a circle, a body, and the cosmos are, according to Schaffer, genuine unities.

Schaffer notes that priority monism is concerned with concrete objects and excludes everything else. He writes:

I assume that there is a maximal actual concrete object—*the cosmos*—of which all actual concrete objects are parts. I should emphasize that I am only concerned with actual concrete objects. *Possibilia*, *abstracta*, and actual concreta in categories other than *object* are not my concern (deities and spirits, if such there be, are not my concern either). When I speak of the world—and defend the monistic thesis that the whole is prior to its parts—I am speaking of the material cosmos and its planets, pebbles, particles, and other proper parts. (2010, p. 33)

Phenomenal properties are not within the scope of priority monism as they are not concrete objects.

### 3 Priority Cosmopsychism

We are now ready to formulate priority cosmopsychism. Again, priority cosmopsychism is structurally parallel to both panpsychism and priority monism.

Consider, first, the parallel structure between priority monism and priority cosmopsychism. Priority monism says that exactly one basic concrete object, the cosmos, exists. In parallel to this, priority cosmopsychism says that exactly one basic consciousness, the cosmic consciousness, exists. Recall that priority monism is concerned only with concrete objects. Priority cosmopsychism is, on the other hand, concerned only with phenomenal and protophenomenal properties, which fall outside the scope of priority monism. Priority cosmopsychism should be distinguished from existence cosmopsychism, according to which exactly one consciousness, the cosmic consciousness, exists. Unlike existence cosmopsychism, priority cosmopsychism is compatible with the existence of multiple individual consciousnesses because it says only that there is exactly one *basic* consciousness. The cosmic consciousness is more basic than other consciousnesses in the sense that it is ontologically prior to or ontologically more fundamental than other consciousnesses. All consciousnesses except the cosmic consciousness itself are derivative of the cosmic consciousness, in a manner similar to that in which all concrete objects except the cosmos itself are, according to priority monism, derivative of the cosmos.

Consider now the parallel structure between panpsychism and priority cosmopsychism. Panpsychism says, again, that all physical ultimates—that is, physical entities on the bottom level of reality—instantiate phenomenal properties. In parallel to this, priority cosmopsychism says that the cosmos, which is on the top level of reality, instantiates phenomenal properties. Panpsychism claims that phenomenal properties that physical

ultimates instantiate are more fundamental than phenomenal properties of ordinary individuals. In fact, according to panpsychism, phenomenal properties of physical ultimates are the most fundamental form of phenomenality. In parallel to this claim, priority cosmopsychism says that phenomenal properties that the cosmos instantiates are more fundamental than phenomenal properties of ordinary individuals. In fact, according to priority cosmopsychism, the cosmic consciousness is the most fundamental form of phenomenality.

It is interesting to note that the combination of priority monism and (priority) cosmopsychism entails a unique version of panpsychism. Recall the formulation of panpsychism we adopt in this paper: all physical ultimates instantiate phenomenal properties. Priority monism says that the phrase ‘physical ultimates’ in the formulation refers to a single entity, the cosmos, and (priority) cosmopsychism says that the cosmos instantiates phenomenal properties. This means that the combination of priority monism and (priority) cosmopsychism entails that the physical ultimate instantiates phenomenal properties, which is exactly what panpsychism says. In this paper, however, in order to avoid confusion, by the term ‘physical ultimates’ we mean fundamental physical entities on the bottom level of reality, rather than the cosmos. Also, we remain neutral about the compatibility of priority monism with (priority) cosmopsychism because priority cosmopsychism does not rely on priority monism (and vice versa). We also remain neutral about the nature of the cosmic consciousness. Some pantheists or panentheists might think that the cosmic consciousness is the consciousness of a higher being, such as God, which shares phenomenal experiences of individual conscious beings. Some others might think that the cosmic consciousness is not in itself phenomenal but only protophenomenal. However, these issues are not crucial to our discussion.

## 4 Priority Cosmopsychism vs. Panpsychism

Why should we consider priority cosmopsychism as a serious alternative to panpsychism? First, like panpsychism, priority cosmopsychism is not vulnerable to the problem of strong emergence. This is because priority cosmopsychism rejects the claim that something experiential can be instantiated by something fundamentally non-experiential. Second, more importantly, priority cosmopsychism avoids some of the most persistent problems for panpsychism albeit that priority cosmopsychism is structurally parallel to panpsychism. In this section, we consider two such problems, the problem of infinite decomposition and the combination problem.

### 4.1 The Problem of Infinite Decomposition

Again, panpsychism holds that all physical ultimates instantiate phenomenal properties. This means that panpsychism presupposes fundamentalism. Fundamentalism identifies entities on the bottom, fundamental level as ultimate reality.<sup>13</sup> Consider, for instance, physicalism as a version of fundamentalism. According to one form of physicalism, the ultimate level of reality is physical because, roughly speaking, microphysical theory describes the properties and behaviours of fundamental subatomic particles, on which everything else in the actual world supervenes. This means that entities on the fundamental level are entirely physical and, hence, everything in the actual world is ultimately physical. Panpsychism, at least the version that we have been considering here, adds to this form of

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<sup>13</sup> As Barbara Montero (2006, p. 181) points out, fundamentalism can be formulated in many ways. For example, it can be formulated in terms of decomposition, in which case entities on the fundamental level are undecomposable proper parts (i.e., mereological atoms or simples) that constitute everything else on higher levels. To take another example, it could be formulated in terms of supervenience, in which case entities on the fundamental level are the bases on which all entities on higher levels supervene. It can also be formulated in terms of realisation, explanation, reduction, determination, and so on. In this paper, we focus on decomposition because that seems to be most intuitive. However, most of the claims that we make over the course of this paper apply equally to other formulations.

physicalism that the fundamental subatomic particles, that is, physical ultimates, instantiate phenomenal properties.

Schaffer (2003) and Montero (2006) consider the argument that physicalism is false because fundamentalism is false. According to this argument, since the cosmos is stratified infinitely into levels, physicalism cannot be true. They are right in thinking that, insofar as physicalism is formulated as a version of fundamentalism, the falsity of fundamentalism entails the falsity of physicalism. However, the falsity of fundamentalism also entails the falsity of panpsychism because, again, panpsychism presupposes fundamentalism.

Schaffer tries to show that it is at least possible that the cosmos is stratified infinitely into levels by appealing to the conceivability and logical consistency of infinite decomposition (Schaffer 2003, p. 501). First, he says, infinite decomposition is metaphysically possible because it is conceivable that everything has parts. It is conceivable that everything is extended and everything that is extended is decomposed into further entities. If conceivability entails possibility, then it is possible that everything has parts. Second, he says, infinite decomposition is metaphysically possible because it is logically consistent. There are consistent models of mereology that allow infinite decomposition. Given that there are such consistent models there is no *a priori* ground for rejecting the possibility of infinite decomposition as a metaphysical possibility. Schaffer contends, moreover, that infinite decomposition might be not only possible but also actual because it is taken seriously by scientists. For example, the quantum physicist David Bohm (1957) says that his formulation of physics is ‘consistent with an infinity of levels’. To take another example, the physicist Hans Dehmelt (1989) postulates an infinite regression of subelectron

structure. So it appears that while it remains inconclusive whether or not the lack of physical ultimates is actually true it should be taken seriously.

Again, if fundamentalism is false and there are no physical ultimates, then panpsychism is false. In such a case, contrary to what panpsychism says, there are no physical ultimates to instantiate phenomenal properties. One might suggest at this point that if there are no physical ultimates, then panpsychism can be defined as a thesis that certain microphysical entities, but not physical ultimates, instantiate phenomenal properties. However, such a view is arbitrary. It is unclear why certain microphysical entities on a certain level of reality instantiate phenomenal properties while others on lower levels do not. The possibility of infinite decomposition therefore threatens panpsychism.

Priority cosmopsychism, however, is not vulnerable to the problem of infinite decomposition. This is because priority cosmopsychism does not rely on fundamentalism. More specifically, it attributes basic consciousness to the cosmos, which is on the top level of reality, rather than physical ultimates, which, if they exist, are on the bottom level. Whether or not there is a bottom level, therefore, is irrelevant to the cogency of priority cosmopsychism. As long as the cosmos exists, priority cosmopsychism is intact, and indeed the cosmos does exist. These observations give us a reason to prefer priority cosmopsychism to panpsychism.

We have considered the possibility of infinite decomposition of concrete objects, but we might extend this idea to phenomenal properties as well. Chalmers, for example, seems to think that phenomenal properties are properly arranged sums of protophenomenal properties when he says that phenomenal properties logically supervene on protophenomenal properties (1996, p. 126). If that is true, it might be the case that

phenomenal properties are infinitely decomposable into more and more primitive forms of protophenomenal properties and that the chain of decomposition or supervenience continues infinitely. Such a possibility would also undermine panpsychism because the whole point of panpsychism is to introduce phenomenal or protophenomenal properties as fundamental building blocks of phenomenal reality on the bottom level so that the existence of consciousness does not entail strong emergence. If phenomenal properties are infinitely decomposable they cannot be fundamental building blocks.

Priority cosmopsychism is not threatened by the possibility of infinite decomposition of phenomenal properties either, because, again, priority cosmopsychism regards the cosmic consciousness as ontologically prior to ‘smaller’ forms of consciousness, so whether or not there are ‘smallest’ forms of phenomenal or protophenomenal properties is irrelevant to the cogency of priority cosmopsychism.<sup>14</sup>

#### **4.2 The Combination Problem**

The combination problem arises from the apparent discrepancy between a highly complex, structured aggregate of atoms and brain cells, on the one hand, and a smooth, uniform phenomenal experience such as a visual experience, on the other. The problem can be formulated as an objection to panpsychism as follows: Ordinary phenomenal experiences present themselves as smooth, continuous, and unified. They do have distinct aspects but they have an underlying homogeneity. According to panpsychism, however, all physical ultimates instantiate phenomenal or protophenomenal properties and our ordinary phenomenal experiences result from combinations of these properties. It is hard to see,

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<sup>14</sup> Here we use the term ‘small’ metaphorically. Phenomenal properties are not concrete objects so, of course, they do not occupy physical space.

however, how phenomenal or protophenomenal properties of microphysical entities could add up to the homogeneous character of phenomenal experiences that we have.

The combination problem is arguably the most difficult problem for panpsychism. Chalmers, for example, writes, “It is certainly the hardest problem for any sort of Russellian view [which includes a version of panpsychism we consider here]” (Chalmers 1996, p. 307). Seager also regards it as “the most difficult problem facing any panpsychist theory of consciousness” (1995, p. 280). Priority cosmopsychism, however, does not face the combination problem because, unlike panpsychism, it denies that phenomenal experiences are constituted by phenomenal properties of physical ultimates.<sup>15</sup> Again, priority cosmopsychism attributes basic consciousness to the cosmos and regards individual consciousnesses as derivatives of it. That is, contrary to what panpsychism says, priority cosmopsychism regards phenomenal experiences as derivatives of something ‘larger’ (i.e., the cosmic consciousness) rather than as the aggregate of something ‘smaller’ (i.e., phenomenal or protophenomenal properties of physical ultimates). In other words, panpsychism faces the combination problem because it is a bottom-up view—it starts with

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<sup>15</sup> Similar points are made by Jaskolla and Buck (2012) and Freya Mathews (2011), but the cosmopsychist views to which they appeal are radically different from ours. Consider, first, Jaskolla’s and Buck’s “panexperientialist holism”. Panexperiential holism presupposes existence monism, saying “there is exactly one entity—the Universe itself”. Existence monism is a highly controversial thesis, on which our view, priority cosmopsychism, does not rely. Priority cosmopsychism does not even rely on priority monism, which is more modest than existence monism. Panexperiential holism also stipulates that the Universe is “a subject of experience . . . exemplifying experiential content”. Priority cosmopsychism does not make such a claim as it is a minimalist view that is parallel to panpsychism. Insofar as panpsychism does not assume that physical ultimates are subjects of experience exemplifying experiential content, priority cosmopsychism does not assume that the cosmos is a subject of experience exemplifying experiential content. Consider, second, Freya Mathews’s “cosmological panpsychism”. According to this view, “the One” is a subject that “may feel the effects of finite centres of subjectivity in the field of its own larger subjectivity, even though it may not be able actually to experience the way such finite selves feel to themselves” (p. 149). Priority cosmopsychism is not committed to such a claim as, again, it does not assume that the cosmos is a subject of experience. Also, in explaining the nature of the consciousness of the One, Mathews appeals to an idea in psychoanalysis saying, “Amongst the unconscious components of psyche are enduring constellations of psychophysical energy which never surface into ego consciousness yet which nevertheless may be active in the psychic life of a person” (p. 148). Again, priority cosmopsychism does not make such a claim.

phenomenal properties or protophenomenal properties of physical ultimates and tries to build ordinary phenomenal properties from them. Priority cosmopsychism, on the other hand, is a top-down view—it starts with the cosmic consciousness and tries to derive ordinary phenomenal properties from it. Here is an analogy to illustrate this point. Suppose, *per impossibile*, there is an absolutely perfectly smooth painting, which is analogous to a smooth, homogeneous phenomenal experience. Such a painting cannot be an aggregate of small dots, which are analogous to phenomenal or protophenomenal properties of physical ultimates, but it can be a segment of a larger painting that is equally smooth and homogeneous, which is analogous to the cosmic consciousness.

One might point out here that while priority cosmopsychism avoids the combination problem it does seem to face a problem of the same structure on a larger scale. The combination problem asks how medium-size consciousnesses can be built from minute phenomenal or protophenomenal properties of physical ultimates. Similarly, the problem in question asks how the cosmic consciousness can be built from medium-size individual consciousnesses.

Fortunately, this is not a serious problem because it is based on a misinterpretation of priority cosmopsychism. Priority cosmopsychism says that medium-size individual consciousnesses are derivatives of the cosmic consciousness but that does not entail that medium-size individual consciousnesses constitute the cosmic consciousness as ontologically prior building blocks of the cosmic consciousness. On the contrary, according to priority cosmopsychism, the cosmic consciousness is ontologically prior to medium-size individual consciousnesses.

One might claim, however, that priority cosmopsychism still fails to provide an answer to the following crucial question: How could medium-size individual consciousnesses be derived from the cosmic consciousness? Let us call this problem the ‘derivation problem’. It is not easy to provide an answer to the derivation problem because we do not know the exact nature of the cosmic consciousness. Yet we can speculate how we might be able to respond to the problem.

It is reasonable to assume that the cosmic consciousness is somewhat comparable to the consciousness of an ordinary individual because, after all, it is a form of consciousness. If we can then show that the consciousness of an ordinary individual can be divided into smaller, less fundamental segments, then we have reason to think that the cosmic consciousness can also be divided into smaller, less fundamental segments. And it seems indeed possible to divide the consciousness of an ordinary individual into smaller segments.

Consider, for example, a visual experience. A visual experience can be considered to be a unity which may be segmented into distinguishable colour experiences (e.g., experiences corresponding to red and green hues) or experiences of separable regions in space (e.g., experiences corresponding to the right-hand side and the left-hand side of the visual field). Yet the whole visual experience is considered to be a unity that is more fundamental than the segments. Perhaps the cosmic consciousness unifies individual consciousnesses in a similar way. The cosmic consciousness is more fundamental than individual consciousness, so it is not the case that individual consciousnesses are fundamental building blocks of the cosmic consciousness. On the contrary, smooth, continuous and unified individual consciousnesses are derived from the smooth, continuous and unified cosmic consciousness.

It may be useful to recall, here, that priority cosmopsychism shares a parallel structure with priority monism. Priority monism states that the concrete cosmos, as an integrated whole, is the only basic concrete object and other ordinary concrete objects are derived from it. Priority cosmopsychism states that the cosmic consciousness, as an integrated whole, is the only basic form of consciousness and ordinary consciousnesses are derived from it. As a result of this parallel structure, just as priority cosmopsychism has to address the derivation problem, so too priority monism has to address its own equivalent of the derivation problem. In the case of priority monism, the derivation problem can be stated as the problem of how the many concrete parts of the cosmos are derived from the basic concrete whole.

Schaffer (2010, p. 57) offers a number of possible solutions to the derivation problem for priority monism and the same responses can be adapted to answer the derivation problem for priority cosmopsychism. As such, priority cosmopsychism can offer accounts of how the derivation problem might be resolved.

Recall that for priority monism the derivation problem is the problem of accounting for the derivative parts in terms of the basic cosmos. Schaffer addresses the problem in terms heterogeneity. It is typically an uncontroversial premise that the basic feature(s) of the cosmos must be homogenous. According to priority monism the cosmos itself is the only basic feature, yet it claims that the cosmos is also heterogeneous because it contains derivative parts. Schaffer offers three different options for explaining the heterogeneity of the cosmos whilst still allowing that it is, as an integrated whole, basic. He also notes that *any* view positing basic features needs to account for their being heterogeneous as opposed to homogenous (see Schaffer 2010 for details). The three accounts of the heterogeneity of

the cosmos are given with respect to; firstly, distributional properties, secondly, regionalised properties, and finally, regionalised instantiation.

On the first account the cosmos, as an integrated whole, is heterogeneous due it instantiating distributional properties,

‘For the monist, the general fact that the world is heterogeneous is due to the world’s instantiating the determinable property of being heterogeneous. The specific way that the world is heterogeneous is due to the world’s instantiating the determinate property of tracing such-and-such a curve through physical configuration space. Thus the one whole can be parturient’ (2010, p. 260)

On the second account, the cosmos is heterogeneous due to regionalised properties. The cosmos has the monadic property of being the cosmos, yet it bears a relation of, say, spikiness to one region and flatness to another. The third account also makes use of regionalisation, but instead appeals to regionalised instantiation, where the cosmos is heterogeneous due to it, say, instantiating-here spiky and instantiating-there flat.

There are differing views regarding the three accounts, but the important thing is that they are consistent ways to make the move from, in concrete terms, a cosmos that is a basic integrated whole to a derivative heterogeneity. As a result of priority cosmopsychism sharing a parallel structure with priority monism, we might adopt these responses in response to the derivation problem for priority cosmopsychism. A version of all three accounts could be given to explain the heterogeneity of the cosmic consciousness.

In parallel to the first response, priority cosmopsychists might say that the cosmic consciousness is heterogeneous due to it instantiating the determinable property of being heterogeneous. According to this response the cosmic consciousness would instantiate the

distributive property of following a particular path through phenomenal configuration space (no doubt an extremely complex path through a configuration space of many dimensions). In parallel to the second response, priority cosmopsychists might say that the cosmic consciousness is heterogeneous due to regionalised properties, where the cosmic consciousness is a monadic property which bears a relation of redness to one region and blueness to another region. The monadic property of being the cosmic consciousness would demonstrate many relations among regionalised phenomenal properties. Finally, in parallel to the third response, priority cosmopsychists might say that the cosmic consciousness is heterogeneous due to regionalised instantiation of phenomenal properties, the cosmic consciousness instantiates-here red and instantiates-there blue. A thorough exploration of such possibilities is not within bounds of the present paper but will make for interesting future work.

Let us recap what we have seen. Panpsychism faces the infinite decomposability problem because it relies on fundamentalism. Priority cosmopsychism, on the other hand, does not face that problem as it is free from fundamentalism. Panpsychism also faces the combination problem, which is recognised as the strongest objection to the view. Priority cosmopsychism, on the other hand, offers a satisfactory answer to this problem. Instead of the combination problem, however, priority cosmopsychism faces the derivation problem. Yet, as we have seen, there are *prima facie* reasons to think that it can be resolved. Therefore, priority cosmopsychism seems more attractive than panpsychism.

## **5 Objections to Priority cosmopsychism**

We have seen that priority cosmopsychism overcomes some of the most persistent problems associated with panpsychism. One might argue, however, that priority cosmopsychism still

seems more implausible than panpsychism. In this section, we review some objections to priority cosmopsychism.

### **5.1 Inexplicability of the Cosmic Consciousness**

One might reject priority cosmopsychism by saying that it is silent about exactly what the cosmic consciousness is. The attribution of phenomenality to the cosmos is essential for priority cosmopsychism, so without explaining what the cosmic consciousness is, one might say, priority cosmopsychism is incomplete.

Priority cosmopsychism is not completely silent about the nature of the cosmic consciousness. It says, for example, that the cosmic consciousness is ontologically the most fundamental form of consciousness of which the consciousnesses of ordinary individuals are derivative. We can also speculate about further possibilities. For example, we might think that since the cosmos on the whole is not complex enough in a relevant sense to instantiate phenomenality to the fullest extent there is no such thing as the phenomenal self for the cosmic consciousness. Perhaps the cosmic consciousness is an organic unity of phenomenal and protophenomenal forms of conscious experiences. Recall again however that our purpose here is not to offer a full defence of priority cosmopsychism but only to show that priority cosmopsychism is more attractive than panpsychism insofar as it avoids some of the most persistent problems for panpsychism. If panpsychism does not say much about the nature of the consciousness of physical ultimates, priority cosmopsychism is not committed to saying much about the nature of the cosmic consciousness either. And, in fact, panpsychism says very little about the consciousness of physical ultimates. Chalmers, for example, writes, “Of course it is very hard to imagine what a protophenomenal property [which a physical ultimate instantiates] could be like but we cannot rule out the possibility

that they exist” (Chalmers 1996, p. 127). We can make a parallel claim here: Of course it is very hard to imagine what the cosmic consciousness could be like but we cannot rule out the possibility that it exists. And, again, there are reasons to prefer priority cosmopsychism to panpsychism.

## 5.2 Counterintuitiveness

Priority cosmopsychism attributes consciousness to the cosmos, which seems highly counterintuitive. One might wonder how we could take such a counterintuitive thesis seriously.

Recall, once again, that we are comparing only the plausibility of priority cosmopsychism with that of panpsychism. So our interest here is to show only that priority cosmopsychism is no more counterintuitive than panpsychism. Panpsychism holds the fundamentalist view that there is a fundamental bottom level of reality and it adds that physical ultimates on the fundamental level instantiate phenomenal properties. Priority cosmopsychism, on the other hand, holds that the cosmos is on the top level of reality and adds that the cosmos instantiates phenomenal properties. Structurally speaking, therefore, they are parallel and there seems no reason to think that either of them is distinctively more counterintuitive than the other.

One might claim, however, that the attribution of phenomenality to the cosmos is particularly absurd. The brain can instantiate phenomenal properties because it has the right structural complexity. Yet, one might continue, the cosmos is not comparable to the brain in terms of structural complexity.

While this might be a good argument to show that priority cosmopsychism is counterintuitive it is not a good argument to show that priority cosmopsychism is *more*

counterintuitive than panpsychism. This is because panpsychism faces an objection of the exact same form: physical ultimates do not have the structural complexity of the brain, so it is counterintuitive to think that they can instantiate phenomenal properties. (If structural complexity is really crucial it might be more implausible to say that physical ultimates have consciousness than that the cosmos does because they are structurally much less complex than the cosmos.)

Notice that panpsychism itself is often rejected on the ground that it is highly counterintuitive. John Searle (1997), for example, calls panpsychism an ‘absurd view’ and characterises Chalmers’s defence of panpsychism as follows: “when faced with a *reductio ad absurdum* argument he just accepts the absurdity” (p. 156). It would be ironic if panpsychists were to dismiss priority cosmopsychism because of its counterintuitiveness when they emphasise that panpsychism should not be dismissed on the basis of its counterintuitiveness.

We can apply the same reasoning to many other objections to priority cosmopsychism. For example, one might say that priority cosmopsychism is absurd because there is no sign that the cosmos is conscious (the ‘no sign’ problem for priority cosmopsychism) or because there is no definitive empirical test to prove that the cosmos is conscious (the ‘no test’ problem for priority cosmopsychism). In response to the ‘no sign’ problem, one might say that there is no sign because the cosmos is not structured in such a way that it behaves in accordance with the phenomenal or protophenomenal properties it has, unlike the way in which human bodies behave in accordance with the phenomenal or protophenomenal properties humans have. In response to the ‘no test’ problem, one might point out that, to the extent that there is no definitive empirical test to prove that the cosmos

has consciousness, there is similarly no definitive empirical test to prove that higher animals have consciousness. That is why the problem of animal minds (and other minds) is intractable. However, it is unnecessary to offer such philosophically substantial responses because these problems apply as much to panpsychism as to priority cosmopsychism. There is no sign that physical ultimates are conscious (the ‘no sign’ problem for panpsychism) and there is no definitive empirical test to prove that physical ultimates are conscious (the ‘no test’ problem for panpsychism). Again, we are comparing only priority cosmopsychism and panpsychism. It is, therefore, sufficient to say that while these problems might be genuine challenges for priority cosmopsychism they apply equally to panpsychism. Hence, these problems do not make priority cosmopsychism any more implausible than panpsychism.

### **5.3 Estrangement from Current Science**

It might be contended that priority cosmopsychism is not to be preferred since it is less compatible with features of current science than contemporary panpsychism is. It might be argued, for example, that priority cosmopsychism is an especially estranged view since it is not concerned with the same physical ultimates that are the focus of current physics. One might claim panpsychism is preferable on the grounds that it is concerned with the same physical ultimates described by current physics, since it states that fundamental phenomenal, or protophenomenal, properties are associated in some sense with such ultimates.

One particular objection of this kind might be that priority cosmopsychism is unable to adhere to the causal closure of the microphysical. This is the principle which says that the causal efficacy of the world is fully accounted for in terms of the causal efficacy of the physical ultimates. One might claim that panpsychism can address the problem of causal

closure but priority cosmopsychism cannot. Panpsychism might adhere to the principle by claiming that since all physical ultimates instantiate phenomenal properties any causal efficacy that they may have is already accounted for in current physics.

In response to such objections, we first note that the purpose of this paper is to defend a blueprint for a new alternative to panpsychism, here we do not defend any specific view based on this blueprint. In this paper we only address phenomenality and do not endorse a particular relation between phenomenal properties and physical properties. Since it is in such a relation that it will become clear if priority cosmopsychism can adhere to the causal closure of the microphysical, it is after developing a specific view based on the blueprint that one would be fully equipped to respond to this objection. However, it might be interesting to note that one possible development on the blueprint we offer here is a *dual-aspect* version of priority cosmopsychism, according to which the phenomenal and the physical are co-extensive, with the respective properties at the level of the cosmos being basic. On such a view it might be considered more plausible for the priority cosmopsychist to follow the panpsychist in claiming that the principle of causal closure is adhered to on the grounds of the phenomenal already being accounted for in our current physics.

## **6 Conclusion**

Panpsychism is an attractive view because, by attributing phenomenality to the fundamental nature of reality, it avoids the problem of strong emergence. However, on the other hand, panpsychism faces the infinite decomposition problem because it presupposes the existence of physical ultimates. It also faces the combination problem because it holds that phenomenal experiences are constituted by phenomenal or protophenomenal properties of physical ultimates. Priority cosmopsychism can be construed as a hypothesis designed to

avoid these problems without compromising the promising approach to the problem of strong emergence suggested by panpsychism. Priority cosmopsychism attributes the most fundamental form of consciousness to the cosmos, rather than physical ultimates, and holds that the consciousnesses of ordinary individuals are derivative of it. In this way, priority cosmopsychism avoids not only the problem of strong emergence but also the infinite decomposition problem and the combination problem. Since priority cosmopsychism and panpsychism are structurally parallel, priority cosmopsychism is no more implausible or counterintuitive than panpsychism. Therefore, we can conclude that priority cosmopsychism benefits from a theoretical advantage over panpsychism.

Again, what we have tried to defend in this paper is a blueprint for a new alternative to panpsychism. This blueprint may be used to develop more specific views, such as monistic, dualistic or even pantheistic views based on priority cosmopsychism. We have to wait for another occasion to develop and assess such specific views.<sup>16 17</sup>

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# PAPER 2

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## BEYOND PANPSYCHISM AND COSMOPSYCHISM?

*Panqualityism and Perennialism*

### 1 Introduction

Panpsychism occupies an interesting space when considering the hard problem of consciousness. It sits between the extremes of physicalism and dualism, explaining conscious experience neither as something captured by our current physics nor as something substantially distinct from physical matter. Instead, panpsychism states that consciousness is already present at the start. It is literally *in* everything. An upshot is that everything is also said to be a subject of experience, however, this gives rise to the subject combination problem, which is severe enough that it has driven some who are attracted to the panpsychist project to look for panpsychism-inspired alternatives to the view.

Cosmopsychism is a view that has built a reasonable following in recent years. It claims rather than panpsychism being true because all microphysical ultimates are conscious, it is true because the cosmos as a whole, as the one physical ultimate, is conscious (Nagasawa and Wager (2016), Goff (2017, 2020), Shani (2015)). The hopeful upshot is that the subject combination problem can be averted because subjects, according to cosmopsychism, do not combine. However, it faces an equivalent, perhaps equal in

difficulty, in the subject derivation problem; how are macro-subjects, like you and I, derived from the cosmic subject?

One interesting way forward is to find a way to reject the stipulation that physical ultimates, whether microphysical ultimates, as in the case of panpsychism, or the cosmos itself, as with cosmopsychism, are subjects of experience. Doing so straightforwardly sidesteps the subject combination problem and the subject derivation problem, since, on such accounts, there are no subjects at the purported fundamental level to combine into, or from which to derive, macro-subjects like us. In this paper, I focus on two such alternatives, one maintaining a focus on the microphysical, like panpsychism, and one maintaining the focus on the cosmos, like cosmopsychism. The former is the view known as *panqualityism*, while the latter is *perennialism*. I take a close look at both views to see if they can rescue the fruitful middle ground between physicalism and dualism, that panpsychism and cosmopsychism occupy. However, I conclude that in both cases we see a resurgence of some the same problems existing approaches face, as well as some new ones unique to the alternatives.

The paper proceeds as follows: section 2 introduces panpsychism and its combination problem. Section 3 introduces cosmopsychism and its derivation problem. Noting developments on the blueprint of the view, as well as Albahari's (2020) objection on the grounds of the subject derivation problem. Sections 4 and 5 critically assess the two proposed successors to cosmopsychism and panpsychism that drop the stipulation that subjects are present at the fundamental level of reality. Section 4 focuses on Albahari's (2020) perennialism, a potential successor to cosmopsychism, while section 5 focuses on Coleman's (2012, 2014, 2016) panqualityism, a potential successor to panpsychism. Section 6 concludes.

## 2 Panpsychism

Panpsychism is the view that consciousness is a fundamental and ubiquitous feature of the cosmos. Meaning, consciousness is not explained in terms of anything else and is spread throughout the whole of the cosmos. It holds an interesting position in the philosophy of mind, especially as an approach to the problem of phenomenal consciousness, since it does away with the problematic implications of substance dualism while avoiding the need for consciousness to suddenly 'break-in' to the world in rare and seemingly miraculous circumstances. A rare and miraculous breaking-in-to-the-world is an implication of physicalism, arguably the most popular approach to the problem of phenomenal consciousness. Consequently, it is not hard to see why panpsychism marks a novel departure from orthodoxy.

### 2.1 The Problem of Strong Emergence

The main reason for holding panpsychism is that it avoids the problem of strong emergence. The problem arises from the unexpectedness of consciousness. Consciousness, it seems, is instantiated by entirely physical entities such as aggregates of neurons, but this is unexpected, and a surprise each time it happens, because neurons are ordinarily taken to be fundamentally non-conscious. Any view stating that consciousness arises from matter entirely devoid of consciousness faces the problem of strong emergence.

Emergence, *per se*, is not the problem here. There are numerous examples of emergent phenomena that are unproblematic, for example, the emergence of a solid from a liquid when the temperature of water drops below zero degrees Celsius. Such cases are not concerning, the difficulty is specifically with *strong* emergence. To get a handle on what makes strong emergence *strong* and other kinds of emergence *weak*, it is helpful to refer to

Chalmers's (2006) distinction between strong and weak emergence. Regarding strong emergence, he says:

We can say that a high-level phenomenon is *strongly emergent* with respect to a low-level domain when the high-level phenomenon arises (in some sense) from the low-level domain, but truths concerning that phenomenon are not *deducible* even in principle from truths in the low-level domain. (2006, p. 244)

While, about weak emergence, he says:

We can say that a high-level phenomenon is weakly emergent with respect to a low-level domain when the high-level phenomenon arises from the low-level domain, but truths concerning that phenomenon are *unexpected* given the principles governing the low-level domain. (2006, p. 244)

Chalmers highlights that the two conceptions of emergence are not mutually exclusive since cases of strong emergence will likely imply weak emergence (as defined). However, cases of weak emergence will not imply strong emergence. He says that while the existence of weakly emergent phenomena does not challenge our conception of nature, the existence of strongly emergent phenomena does. Strong emergence is especially concerning because, as he says:

[I]f there are phenomena whose existence is not deducible from the facts about the exact distribution of particles and fields throughout space and time (along with the laws of physics), then this suggests that new fundamental laws of nature are needed to explain these phenomena (2006, p. 245).

It is not hard to get a feel for why strong emergence is such a problematic concept if its existence means we need new fundamental laws to account for its instances. Proponents of theories that rely on, or imply, strong emergence do not, typically speaking, want to invoke

new fundamental laws of nature to explain consciousness, and since it is only by invoking such laws that there can be said to be a connection between the low and high-level domains, without them strong emergence represents a significant problem; the strongly emergent phenomena float free of their submergent bases. Interestingly, in the face of apparent strongly emergent phenomena, if we do what Chalmers suggests we must do, and introduce new fundamental laws to account for it, then we no longer have a case of strong emergence and hence do not face the problem.

Nagel (1979) offered an early, and influential, argument in favour of panpsychism (or panprotopsyichism) which hinges on the notion of emergence. His account of emergence is especially helpful in illustrating the above. He says:

There are no truly emergent properties of complex systems. All properties of a complex system that are not relations between it and something else derive from the properties of its constituents and their effects on each other when so combined. Emergence is an epistemological condition: it means that an observed feature of the system cannot be derived from the properties currently attributed to its constituents. But this is a reason to conclude that either the system has further constituents of which we are not yet aware, or the constituents of which we are aware have further properties that we have not yet discovered. (1979, p. 182)

Nagel picks up on a key distinction that is relevant to the problem of emergence. He notes that emergence is an epistemological condition, meaning it signifies nothing more than a gap in our knowledge, either we are ignorant about the existence of some constituents of a system altogether or about some properties of constituents we already know about. In either case, the suspected emergent properties are only emergent in the weak sense. In contrast, strongly emergent phenomena can be said to imply ontological emergence, where the

emergent phenomena are not just *seemingly* strongly emergent because of epistemic limitations, but rather they emerge in the absence of epistemic limitations. The contention is that this ontological emergence is impossible.

The most notable defence of panpsychism on the grounds of the problem of emergence is offered by Strawson (2006, 2008). According to Strawson, the instantiation of experiential phenomena by wholly non-experiential phenomena is as extraordinary as the instantiation of spatially-extended phenomena by entirely spatially-unextended phenomena.<sup>1819</sup> Strawson states that such strong emergence, or radical emergence, as he calls it, of the spatially-extended from the spatially-unextended, along with its analogue of experiential from non-experiential, is impossible due to the truth of the following apparent law:

For any feature Y of anything that is currently considered to be emergent from X, there must be something about X and X alone in virtue of which Y emerges, and which is sufficient for Y (2008, p. 65).

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<sup>18</sup> To be precise, he says of such an analogy: ‘We need an analogy on a wholly different scale if we are to get any imaginative grip on the supposed move from the non-experiential to the experiential.

What might be an analogy of the right size? Suppose someone—I will call him pseudo-Boscovich, at the risk of offending historians of science—proposes that all ultimates, all real, concrete ultimates, are, in truth, wholly unextended entities: that this is the truth about their being; that there is no sense in which they themselves are extended; that they are real concrete entities, but are nonetheless true-mathematical-point entities. And suppose pseudo-Boscovich goes on to say that when collections of these entities stand in certain (real, concrete, natural) relations, they give rise to or constitute truly, genuinely extended concrete entities; real, concrete extension being in this sense an emergent property of phenomena that are, although by hypothesis real and concrete, wholly unextended.

Well, I think this suggestion should be rejected as absurd. But the suggestion that when non-experiential phenomena stand in certain (real, natural, concrete non-experiential) relations they ipso facto instantiate or constitute experiential phenomena, experience being an emergent property of wholly and utterly non-experiential phenomena, seems exactly on a par. That’s why I offer unextended-to-extended emergence as an analogy, a destructive analogy that proposes something impossible and thereby challenges the possibility of the thing it is offered as an analogy for.’ (2008, p. 63)

<sup>19</sup> For present purposes we can think of experiential phenomena and conscious phenomena as interchangeable.

Strongly emergent phenomena violate such a law and therefore Strawson states that it is “by definition a miracle every time it occurs” (2008, p. 45-46). He concludes:

It is built into the heart of the notion of emergence that emergence cannot be brute in the sense of there being absolutely no reason in the nature of things why the emerging thing is as it is (2008, p. 65).

Panpsychism, at least in the guise that I am most interested in here, avoids the problem of strong emergence by stipulating that the microphysical ultimates are themselves conscious. For panpsychism, it is in-principle deducible that aggregates of neurons are conscious, because according to them, the microphysical constituents of neurons, the microphysical ultimates, are themselves conscious.

## **2.2 Constitutive Panpsychism**

While a simple formulation of panpsychism amounts to the stipulation that phenomenal consciousness is a fundamental and ubiquitous feature of the cosmos, there are numerous ways create more full-bodied views. Arguably, the most promising form of panpsychism is constitutive panpsychism, which holds that macro-consciousness, such as human consciousness, is constituted of a combination of micro-consciousness. According to this view, macro-consciousness is grounded, either fully or partially, in micro-consciousness. For macro-consciousness to be fully grounded in micro-consciousness, the former must obtain in virtue of the latter alone. While for it to be partially grounded, the former must obtain in virtue of the latter plus some further fact (typically some fact about structure and/or dynamics).

Constitutive Panpsychism is contrasted with non-constitutive panpsychism; the thesis that macro-consciousness is not constituted of a combination of micro-consciousness. Again, there are competing versions, but one particularly important one is emergent

panpsychism (Rosenberg (2004), Brüntrup (2016), Mørch (2014), Seager (2010, 2016)). Emergent panpsychism maintains that instances of micro-consciousness are an important part of the story of how macro-consciousness comes about, but not simply because certain combinations of them constitute macro-consciousness. Rather, macro-consciousness *emerges* from micro-consciousness. Some versions claim a synchronous existence of micro and macro-level consciousness, for example, micro-level consciousness of physical ultimates synchronically existing with macro-level human consciousness, where the micro-level gives rise to the macro-level, and indeed maintains its existence (Rosenberg 2004, Brüntrup 2016). While others maintain that micro-consciousness loses its identity upon the emergence of macro-consciousness from it (Seager 2016). An especially interesting emergentist account alleges that micro and macro-level consciousness exist synchronically but that, as a result of the emergence of the macro from the micro-level, micro-level consciousness becomes dependent on macro-consciousness for its existence (Mørch 2014).

While non-constitutive panpsychism (emergent panpsychism, in particular), is very interesting, and marks a potentially fruitful avenue of investigation, it does explicitly endorse the emergence of macro-consciousness from micro-consciousness and thus faces a kind of emergence problem. However, the problem for emergent panpsychism may be less serious since it says only that 'bigger' consciousness emerges from 'smaller' consciousness rather than consciousness emerging from non-consciousness. Though it still represents a significant issue for its proponents. This paper, however, is focused on constitutive panpsychism, so emergentist versions will be largely kept to one side for now.

### **2.3 Constitutive Russellian Panpsychism**

We can get even more fine-grained and give an account of panpsychism which says more about the relation between the physical and phenomenal at the fundamental level of reality.

Constitutive *Russellian* panpsychism supplements what I have said so far about constitutive panpsychism with a view known as Russellian monism.

Russellian Monism is a version of monism (regarding the mind-body problem) inspired by a claim made by Bertrand Russell in 'The Analysis of Matter' (1927). It states that physics describes the world's fundamental constituents - its microphysical ultimates - only in relational, or structural, terms, and remains silent about their categorical nature. Physics may describe what mass, spin, charge, etc. do, but it does not describe what they are. Russellian Monism fills this gap by appealing to inscrutables (Montero 2010) (Alter and Nagasawa 2012, 2015), or quiddities (Chalmers 2016). Quiddities are properties that are not fully captured in relational or structural descriptions of the world (such as current physics) but that ground the relational or structural nature of physics. Russellian Monists claim that at least some quiddities are conscious (or proto-conscious).

Constitutive Russellian Panpsychism, then, is the view according to which micro-conscious properties are quiddities, and quiddities combine to constitute macro-consciousness. This version of panpsychism is often taken to be the most promising of all, for example, Chalmers (2016) says ' I think that constitutive Russellian panpsychism is perhaps the most important form of panpsychism' (p. 27). It is attractive for several reasons, but one significant reason is its ability to pacify a tension between mental causation and adhering to the principle of causal closure of the physical, which under other views seems irreconcilable. On the constitutive Russellian panpsychist view, consciousness (human consciousness, for example) has causal efficacy in virtue of it being grounded in quiddities, themselves conscious. While it can also adhere to causal closure of the physical by virtue of the quiddities grounding the microphysical. Unfortunately, time restricts me from saying

more on this topic here, but let it at least be known that in this respect the constitutive Russellian panpsychist picture has a great advantage.<sup>20</sup>

#### **2.4 The Combination Problem**

This brings us to the central problem for panpsychism. Typically, panpsychists claim that micro-consciousness is instantiated at the level of the fundamental microphysical constituents of matter. Although this avoids the need to explain how consciousness inexplicably emerges from an entirely non-conscious base, it makes way for a significant problem; the combination problem. This problem is, some say, just as problematic for panpsychism as the problem of strong emergence for non-panpsychist views. The combination problem is the problem that arises out of the following panpsychist thinking; if micro-consciousness is instantiated at the fundamental microphysical level, then the kind of macro-consciousness instantiated at the derivative human, or macro, level, must be formed of combinations of these “smaller” instances of consciousness. The problem concerns explaining how it might be that this can happen.

Although stating the problem this way captures the issue in a broad sense, it is now accepted that rather than one single problem, it refers to a family of related problems. I will follow Chalmers (2016) in splitting the combination problem into three sub-problems, pertaining to a quality problem, a structure problem and a subject problem. *The quality combination problem* is the problem of explaining how micro-level phenomenal qualities combine to yield macro-level phenomenal qualities. *The structure combination problem* is the problem of explaining how micro-level experiential structure combines to yield macro-level experiential structure. And *the subject combination problem* is the problem of

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<sup>20</sup> I cover motivations for Russellian monism in more detail in my paper ‘An Account of Cosmopsychism’ (2020) included as one of the papers in my PhD submission.

explaining how micro-level subjects of experience combine to yield macro-level subjects of experience. While a solution to the combination problem will need to answer each of these questions, it is the question about subjects of experience that is generally held to be the most problematic. I do not have space to summarise attempts at tackling it here, but I have provided more detailed accounts elsewhere<sup>21</sup>.

### **3 Cosmopsychism**

Cosmopsychism, in its most simple formulation, says the cosmos is conscious. Such a simple formulation alone does not really help us in our pursuit of a solution to the problem of phenomenal consciousness, but elaborations on the simple formulation, offered recently, have shown some promise.

#### **3.1 The Blueprint for Cosmopsychism**

Nagasawa and Wager (2016) propose a blueprint of a novel approach to the problem of phenomenal consciousness, called cosmopsychism.<sup>22</sup> Their claim is that following such a blueprint allows one to maintain the key advantages of a panpsychist approach whilst overcoming, or circumventing, its most troubling challenges.

The blueprint of cosmopsychism takes inspiration from both the panpsychist approach to the problem of phenomenal consciousness, in the philosophy of mind, and the priority monist approach to mereology. Panpsychism, as I have already noted, is an advantageous approach to the problem of consciousness because it avoids the problem of strong emergence, which it does by positing consciousness at the fundamental

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<sup>21</sup> See my papers ‘The subject Problem for Panpsychism and Cosmopsychism’ (2020) and ‘An Account of Cosmopsychism (2020), included in my PhD submission.

<sup>22</sup> To be precise, they refer to the blueprint as *priority cosmopsychism* to differentiate it from other possible but distinct versions of cosmopsychism.

microphysical level of reality. The principal downside of panpsychism, as highlighted above, is that it faces the combination problem which can be defined as the problem of accounting for consciousness at the macro (e.g. human) level in virtue of combinations of consciousness at the micro-level. The blueprint for cosmopsychism takes inspiration from this approach by also positing consciousness at the fundamental level of reality, only for cosmopsychism this is the cosmic, rather than the microphysical, level. Admitting consciousness to the fundamental level of reality overcomes the problem of strong emergence for cosmopsychism, just as it does for panpsychism. In addition to this, cosmopsychism takes inspiration from priority monism, a promising approach to mereology which says that the cosmos as a whole is the one and only fundamental entity, while all its parts are merely derivative entities. Cosmopsychism exemplifies a parallel structure to priority monism as it maintains that the cosmic-level consciousness is prior to all forms of sub-cosmic consciousness, which are merely derivative. Adopting this parallel structure allows cosmopsychists to avoid the combination problem since macro-level consciousness is not said to be formed of combinations of micro-consciousness, hence there is no *combination* problem to overcome.

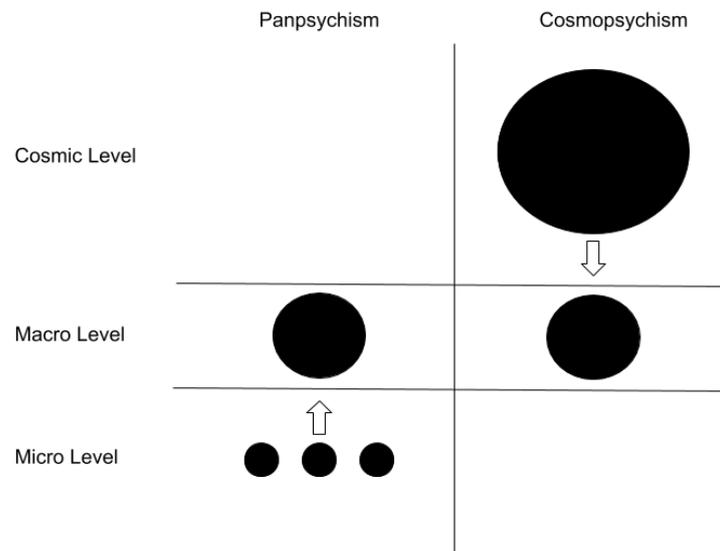
A minimal formulation of cosmopsychism, following Nagasawa and Wager's blueprint, is formed of the conjunction of three stipulations:

1. The cosmos, as a whole, is conscious.
2. The cosmic consciousness grounds all sub-cosmic consciousness.
3. The cosmos is a subject of experience.

The first two stipulations demonstrate the similarities to panpsychism and the parallel structure between cosmopsychism and priority monism. While priority monism is only concerned with concrete entities, cosmopsychism (at the blueprint stage) is only concerned

with phenomenality. However, the blueprint of cosmopsychism prescribes a structural parity between the two because just like priority monism says that the cosmos is the one and only fundamental *concrete* entity, the cosmopsychist blueprint says that the cosmic consciousness is the one and only *phenomenal* entity.

Cosmopsychism is similar to panpsychism insofar as they both say that the macro-level consciousness, like human consciousness, is dependent on a more fundamental form of consciousness not at the macro-level. For panpsychism, macro-consciousness is dependent on consciousness at the fundamental micro-level of reality. While, for cosmopsychism, macro-consciousness is dependent on the consciousness at the fundamental cosmic-level. The diagram below illustrates this:



In the diagram, the arrows show the direction of dependence. We can see that on neither panpsychism nor cosmopsychism are the macro-level fundamental. We can also see how cosmopsychism mirrors the structure of priority monism with the direction of dependence moving from the cosmos downward. It is important to note that although the above diagram

does not depict consciousness at the micro-level for cosmopsychism, it does permit micro-level consciousness. It is not depicted simply because the blueprint of cosmopsychism is silent on the matter of micro-level consciousness, because whether it is posited will be for any given development on the blueprint to stipulate. Similarly, although highly unusual, panpsychists are not logically precluded from positing consciousness at the cosmic level.

The third stipulation can be considered part of a minimal formulation of cosmopsychism, even though it is not strictly speaking an element of Nagasawa and Wager's blueprint. The blueprint is open to developments rejecting the view that the cosmos is a subject of experience. However, the stipulation is included here because it is likely to be a near-unanimous feature of developments on the blueprint, since it is widely held that it is a conceptual truth that phenomenal consciousness involves phenomenal properties instantiated by a subject.

Additionally, the blueprint does not differentiate between potentially distinct aspects, or components, of consciousness. For example, although it is typical to hold, according to panpsychism, that where there is consciousness there are subjects of experience (i.e. that there are subjects of experience on both the micro and macro levels of reality), it is possible that a panpsychist posit only proto-consciousness at the micro-level, that gives rise to macro-consciousness. Proto-consciousness need not be synonymous with the presence of a subject of experience. Likewise, although we might intuitively suppose that the cosmopsychist will hold that the cosmos is itself a subject of experience, it is compatible with theories that posit only proto-consciousness at the fundamental level as opposed to full consciousness. Therefore, it is possible that the cosmos is only proto-conscious, lacking

subjecthood, as a whole.<sup>23</sup> Writing about the issue of the cosmopsychist maintaining that the cosmos is a subject of experience, Nagasawa and Wager write:

Priority cosmopsychism does not make such a claim as it is a minimalist view that is parallel to panpsychism. Insofar as panpsychism does not assume that physical ultimates are subjects of experience exemplifying experiential content, priority cosmopsychism does not assume that the cosmos is a subject of experience exemplifying experiential content (2016, p. 120).

And they add:

We can also speculate about further possibilities. For example, we might think that since the cosmos on the whole is not complex enough in a relevant sense to instantiate phenomenality to the fullest extent there is no such thing as the phenomenal self for the cosmic consciousness. Perhaps the cosmic consciousness is an organic unity of phenomenal and protophenomenal forms of conscious experiences. (2016, p.124)

### **3.2 The Derivation Problem(s)**

Nagasawa and Wager (2016) note that despite the blueprint for cosmopsychism allowing one to avoid the combination problem, while still reaping the benefit of avoiding the problem of strong emergence, it does face an equivalent of the former in *the derivation problem*.<sup>24</sup>

The derivation problem is the problem of how to account for macro-consciousness (e.g. human consciousness) in virtue of the cosmic consciousness. Or, in other words, it

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<sup>23</sup> Strictly speaking, views positing only proto-consciousness at the fundamental level would be known as panprotopsyism and cosmoprotopsyism, depending on which level of reality was taken to be fundamental.

<sup>24</sup> Others refer to this broad problem using different names; Wager (2011), Shani (2015) and Chalmers (2020) call it the 'decomposition problem', Matthews (2011) refers to it as 'the combination problem in reverse', while Albahari (2020) names it the 'decombination problem'. I prefer to refer to it as the derivation problem since it strikes me as the least assumptive way of describing what is purportedly going on.

challenges the cosmopsychist to show, at least, *that* macro-consciousness could be derived from the cosmic consciousness, and at best, to show *how* the derivation happens. The most crucial of these challenges is to show that it could happen, i.e. that it is possible that there is a derivation of macro-level from cosmic-level consciousness, with no apparent contradictions in the suggestion. The challenge of showing exactly how the derivation happens is not such a pressing issue, as strange as it may sound, for several reasons.

First, a challenge of all theories of phenomenal consciousness is providing a detailed account of the origins of macro-consciousness, so if a cosmopsychist is unable to provide precise details of the derivation it would still be no worse off than most other theories. For example, even if we grant for the sake of argument that panpsychism's combination of micro into macro-consciousness is possible, it is an additional challenge to explain exactly how such a combination happens. Proposed panpsychist theories of phenomenal consciousness, in general, have not focused on answering this challenge so much as they have focused on simply defending the coherence of the proposed combination.

Second, there may well be good reasons for suggesting that the exact details cannot be known, either in principle or at present. For example, Nagasawa and Wager (2016) submit that answering the second challenge of the derivation problem may be difficult because we do not know the exact nature of the cosmic consciousness.

A cosmopsychist can plausibly argue either there is potential to overcome such an epistemic limitation (for example, claiming along with future developments in our scientific understanding the epistemic distance will be countenanced), or there is some form of in-principle limitation on us being able to ever understand the details of the derivation. These ideas bear a close relation to mysterianism, a position in the philosophy of mind which says

that it is not possible for human beings to solve the problem of phenomenal consciousness. Mysterianism can be further split into those who claim the problem is in-principle unsolvable, we can call this strong mysterianism, and those who claim only that it is at present unsolvable, we can call this weak mysterianism. While mysterianism, in both its weak and strong varieties, invokes mysterianism when trying to address the overall problem of phenomenal consciousness, it is clear that cosmopsychists need not do so (and nor do panpsychists, for that matter) because their claim is that we may have found a solution to the overall problem but need to invoke mysterianism with respect to some particular sub-problem. In this case, the sub-problem is the aspect of the derivation problem which asks for exact details on *how* the derivation occurs. Thus, we might say that cosmopsychists can invoke a weak version of either weak or strong mysterianism. Invoking weak-weak mysterianism would involve the cosmopsychist claiming there is potential to overcome the epistemic barrier blocking our understanding of the derivation, while invoking weak-strong mysterianism would involve the claim that the epistemic barrier is in-principle insurmountable.

Nagasawa and Wager present the combination problem and the derivation problem as general problems of how to account for derivative macro-consciousness in terms of fundamental consciousness. In the case of cosmopsychism, how to derive macro-consciousness from the cosmic consciousness. This makes sense insofar as they are only presenting an outline of a novel approach to the problem of consciousness, so it makes sense to present the problem as generally as possible, despite the fact that any given development on the blueprint will likely have more fine-grained versions of the derivation problem to answer.

However, it is now widely accepted that the general combination problem for panpsychism can be understood as three relatively distinct (though overlapping) problems, or as a problem with three relatively distinct aspects. Chalmers (2016) distinguishes the three combination problems as; the quality combination problem, the structure combination problem and the subject combination. The quality problem relates to the challenge of explaining how micro-qualities can combine to form macro-qualities, while the structure problem relates to the need to explain how phenomenal structure at the micro-level can combine to form the phenomenal structure at the macro-level. Finally, the subject combination problem is the problem of accounting for macro-subjects in terms of a combination of micro-subjects.

The problems do not affect all versions of panpsychism equally, for example, it is not a necessary condition of panpsychism that it must include subjects at the micro-level. It stands to reason the subject combination problem will not be a problem for such a view, just as it will not be a problem for a version of cosmopsychism that does not posit a cosmic subject. It is also important to note that the problems as presented above are broadly stated problems, but they have numerous aspects. For example, Chalmers (2016) highlights that the structure combination problem has a particularly troubling aspect which he calls the structural mismatch problem, while a challenging aspect of the quality combination problem is the palette problem.

Just as the combination problem for panpsychism can be understood as encompassing three distinct sub-problems, the derivation problem for cosmopsychism can be understood as similarly multifaceted, being composed of quality, structure and subject problems. Only for the cosmopsychist, the challenge is to explain how macro-level qualities,

phenomenal structure, and subjects, are derived from the quality, structure and subjectivity of the cosmos.<sup>25</sup>

### 3.2.1 The Subject Derivation Problem

Nagasawa and Wager (2016) do not specifically address the subject derivation problem because, as mentioned, developments of the blueprint will not necessarily face the problem, especially if they do not state the cosmos is a subject of experience. However, most versions of cosmopsychism *do* assert that the cosmos is a subject of experience.

As already noted, the subject derivation problem, broadly conceived, is the problem of accounting for the derivation of macro-subjects from the cosmic subject. Chalmers cites an especially problematic aspect of panpsychism's subject combination problem as *the subject-summing problem*. The problem arises as it seems that the existence of no group of micro-subjects necessitates the existence of a macro-subject. Cosmopsychism does not face the subject-summing problem because micro-subjects do not combine to form macro-subjects, but rather macro-subjects are derived from the cosmic subject. However, cosmopsychism does face a particularly challenging aspect to its subject derivation problem. I call this *the problem of synchronous subjects*.

The basis of the synchronous subjects problem is the specification that subjects of experience are inherently perspectival. Subjects have, or *are*, a first-person locus of experience. In more metaphorical language we can say that to have a perspective is to have a unique window of experience, or vantage point, on the world. I will not give a defence of my assumption that having a conscious perspective is a mark of a subject of experience, so

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<sup>25</sup> For a more detailed treatment, I have covered the subject problems in more detail in my paper 'The Subject Problem for Panpsychism and Cosmopsychism' (2020) and all three derivation problems for cosmopsychism in my paper 'An Account of Cosmopsychism' (2020).

as a result, some of what I have to say will be conditional on that assumption. However, it is an assumption that is virtually unopposed and in fact typically taken to be a conceptual truth.

The reason that this stipulation lies at the heart of the problem of synchronous subjects is that once specified, the problem can be rephrased as the problem of synchronous perspectives. It appears we have an issue if we posit conscious perspectives on different levels of reality, synchronously, e.g. macro-perspectives as partial aspects of the cosmic perspective. It seems that such synchronous perspectives scenarios throw up incompatibilities. For example, to repurpose an example by Coleman (2014), imagine two macro-subjects, Red and Blue, Red's perspective is characterised by the experience of redness to the exclusion of all else, while Blue's perspective is characterised by the experience of blueness to the exclusion of all else. Now consider the cosmic perspective of which Red and Blue are partial aspects. It would seem that what cosmopsychism dictates is that if we are to preserve the defining character of the macro-perspectives, Red and Blue, then the cosmic perspective must be the perspective - the point-of-view - characterised by the experience of redness-to-the-exclusion-of-all-else *and* blueness-to-the-exclusion-of-all-else, simultaneously. However, the two taken together seem to represent an incoherent set. One perspective, namely the cosmic perspective, cannot be both exhausted by the experience of redness (and redness alone) and exhausted by the experience of blueness (and blueness alone). Any serious development on the blueprint of cosmopsychism must address this apparent incoherence.

### **3.3 Developments on the Blueprint**

There have been numerous developments on the cosmopsychist blueprint. Below I outline the most prominent accounts.

### 3.3.1 Nagasawa and Wager

Although Nagasawa and Wager (2016) only set out to provide a plan for cosmopsychism, they do hint at one possible development being a kind of dual-aspect view, according to which the cosmos has both a physical and a phenomenal aspect, with the physical aspect of the cosmos being the fundamental physical entity and the phenomenal aspect being the fundamental form of phenomenality. They say:

one possible development on the blueprint we offer here is a *dual-aspect* version of priority cosmopsychism, according to which the phenomenal and the physical are co-extensive, with the respective properties at the level of the cosmos being basic. (2016, p. 127)

Interestingly, they mention that on such a view, the phenomenal and physical can be taken as co-extensive. Thus, they anticipate a version of cosmopsychism which incorporates both Russellian monism and priority monism. Indeed, this is a view I have suggested previously (2011) and develop further in the paper 'An Account of Cosmopsychism' (2020). However, since I do this at length elsewhere, I will not focus on my own developments on the blueprint here.

### 3.3.2 Goff

Goff endorses a version of cosmopsychism formed of a combination of priority monism and panpsychism, where the result is a fundamental cosmos which is a subject of experience. According to this view, all sub-cosmic subjects are partial aspects of the cosmic subject. In other words, sub-cosmic subjects are fully grounded in the cosmic subject in virtue of their existing fully formed as a part thereof. Goff acknowledges that the most pressing problem for his version of cosmopsychism, and any other versions of cosmopsychism positing a cosmic subject, for that matter, is the subject derivation problem (or, 'the subject

decombination problem', as he calls it). Furthermore, he remarks that its most urgent aspect is the problem of synchronous subjects, which he refers to as the problem of subject-subsuming subjects:

Cosmopsychism entails the possibility of *subject-subsuming subjects*, i.e. conscious subjects that are aspects of other conscious subjects. Such a thing can seem hard to make sense of. Certainly we cannot imagine such a thing by using our perceptual and/or introspective faculties. But nor can we imagine in this way a four-dimensional object, and we nonetheless take four-dimensional objects to be coherent...The cosmopsychist can plausibly attribute our difficulty positively conceiving of a subject-subsuming subject to the fact that we don't fully grasp the nature of conscious subjects. (2020, p. 151)

He says, moreover, that his cosmopsychism can be conceived of as a form of constitutive Russellian monism, leading to *constitutive cosmopsychism*. He, like Nagasawa and Wager, proposes we do not fully grasp the nature of consciousness, but goes further, suggesting what we fail to understand is (or might be) a more expansive property termed consciousness+, which 'enfolds experiential and non-experiential aspects in a single unified property.' (Goff 2017, p. 230). He describes his view as follows:

For the constitutive cosmopsychist, the cosmos is a material entity...While physical science describes the causal structure of the cosmos, its deep nature is constituted of consciousness+. Neuroscience describes the causal structure of the brain, but in its deep nature it is a bearer of consciousness+, and that bearer of consciousness+ is an irreducible aspect of the consciousness+-bearing universe (Goff 2017, p. 235).

The problem of synchronous subjects is addressed by appeal to a degree of epistemic ignorance. Goff's reasoning might be understood as making the point that strangeness does not entail impossibility. As already stated, the most crucial issue when responding to the

subject derivation problem is to avoid any evident metaphysical incoherence. Goff suggests not being able to conceive of synchronous subjects scenarios does not rule them out. If there is no apparent metaphysical incoherence, then we do not necessarily have a problem on our hands. Furthermore, Goff provides a positive reason for why we cannot conceive of synchronous subjects; because we do not fully grasp the nature of consciousness.

### 3.3.3 Shani

Another important development in line with the blueprint is Shani's cosmopsychism (2015). Shani offers a rich and well-developed (arguably the richest and most well-developed) version of cosmopsychism. It bears some resemblance to proposals by others (Wager (2011), Nagasawa and Wager (2016), Goff (2017, 2020), and especially Matthews (2011)) but is significantly more nuanced.

He offers a version on which the cosmos, referred to as *the absolute*, is a vast, internally dynamic, entity that operates on what he calls a 'lateral duality principle', according to which it has a co-extensive revealed and concealed nature. Its revealed nature is the world as revealed in our current physics, while its concealed nature is what he calls an *endo-phenomenological expanse* - a sentient ocean of consciousness. All sub-cosmic entities are referred to as *relatives*, with *simple relatives* being sub-cosmic entities existing on the microphysical level. All simple relatives are subjects of experience, but only some complex relatives form subjects. Complex relatives that are also subjects of experience are called *created subjects*, while complex relatives that are not subjects, are referred to as *pure objects*. Both pure objects and created subjects are associated with the revealed nature of the cosmos, and subjectivity, but only created subjects exemplify a unified subjectivity of their own. The sense in which pure objects are associated with subjectivity is that they are formed of complexes of simple relatives each themselves a subject of experience. A key

question for Shani's position is, therefore; why is it that some complexes of simple relatives form a unified subjectivity and become created subjects, while others remain only pure objects? In response to this question, he offers an interesting proposal, distinguishing between two kinds of binding that occur in complexes of simple relatives; *exonectic binding* and *esonectic binding*. About esonectic systems, he states:

An esonectic system is a compound whole whose micro-constituents are interrelated in such a manner that the system is not only cohesive in respect of its outward revealed form but is also unified in respect of its concealed experiential domain...esonectic systems are internally interwoven: the endo-phenomenological reservoirs of their micro-components join together in a coherent fashion, giving rise to a unified experiential domain. (p. 419)

Whereas, about exonectic systems, he says:

an exonectic system is a compound whole whose micro-constituents are interrelated in such a manner that the system is woven together only on the outside: it has a cohesive exterior, but it lacks a macro-level inner dimension to match with its macro-level revealed form—the endophenomenological reservoirs of its micro-components remain secluded from each other and do not bind together. (pp. 419-420)

Pure objects, he says, are exonectic systems, while created subjects are esonectic systems. The reason some complexes of simple relatives are subjects of experience while others are not, has to do with how the constituent simple relatives are interrelated.

Understandably, Shani is not able to explain the exact conditions under which esonectic binding occurs, however, he has some insights regarding where to start looking for answers. He agrees with most people that if ever there were clear locales of esonectic binding, it would be in brains. Meanwhile, if there were sure-fire locales of exonectic

binding, it would be in minerals. With that in mind, Shani's strategy is to show that there are good reasons to think the interrelations between constituents of brains and minerals are different in significant ways, which would support his hypothesis. He points out that there are indeed significant differences in the material organisation between brains and minerals. In the case of minerals, structural bonds are very strong with next to no communication between spatially distant constituent parts, whereas brains exhibit weak structural bonds and permit massive amounts of communication between all constituent parts. Thus, says Shani, if we take it that all simple relatives are subjects of experience then we have reasons to expect them to scale up in brains but not in minerals.<sup>26</sup>

Like Goff, Shani acknowledges that the most challenging problem for cosmopsychism is the subject derivation problem, and more specifically, the problem of synchronous subjects. While Goff addresses this problem by suggesting that the existence of synchronous subjects scenarios is only an apparent problem because the idea is strange, but that strangeness does not entail metaphysical impossibility, Shani *does* illustrate an apparent metaphysical incoherence, before demonstrating why his view does not entail synchronous subjects scenarios and thus does not fall foul of the problem.

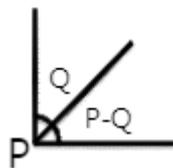
Shani illustrates the apparent metaphysical impossibility of synchronous subjects scenarios by referring to the inherently perspectival nature of subjects of experience. Earlier

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<sup>26</sup> More precisely, Shani says, 'These fundamental differences suggest that there are principled reasons why we should expect consciousness to scale up in humans and animals but to fail to do so in minerals. For suppose, as we have just done, that both types of systems are composed of tiny conscious components. Given the material organization of minerals there is reason to expect that such components will remain largely isolated from each other: each confined to a local, rigidly configured 'cell', unable to communicate, or to resonate, with topographically remote locations. In contrast, the dynamical regime of brain-bound organisms gives reasons to expect the contrary: the permeability of organic boundaries, and the intense interconnectedness, synchronous resonance, mutual sensitivity through information transfer, and reciprocal modulation of sub-systems, states, and processes suggest a plethora of possible channels for binding the experiential reservoirs of individual micro-components into an integral whole.' (2015, p. 421)

in the paper, I illustrated a worry about scenarios involving synchronous subjects, or subject-subsuming subjects, whereby two perspectives Red and Blue were both partial aspects of a further perspective. Simply stated, the worry is that it seems incoherent to suggest an overarching perspective includes two mutually exclusive macro-subjects. The question is; how can one single cosmic perspective be characterised by two mutually exclusive macro-perspectives (for example, the experience of redness to the exclusion of all else *and* the experience of blueness to the exclusion of all else)?

Goff faces the problem of synchronous subjects because his view asserts that macro-subjects are fully grounded in the cosmic subject, namely, that the cosmic subject includes, as partial aspects, fully-formed macro-subjects. His response is that although such scenarios are strange, strangeness alone does not entail impossibility. Shani, however, demonstrates there does appear to be a metaphysical preclusion of synchronous subjects scenarios. He asks us to consider the following figure, in which P and Q are perspectives:



(Figure 1, Shani 2015, p. 425)

Considering the above figure, we can formulate Shani's argument in the following way:

1. Q is a partial (perspectival) aspect of P.
2. In viewing things from viewpoint P one also views things from viewpoint Q.
3. P includes the complement P-Q.
4. Q excludes the complement P-Q.
5. Therefore, P both affirms and denies P-Q.

6. Therefore, the scenario contains a contradiction.

Clearly, formally speaking, Shani has shown a logical incoherence in scenarios involving synchronous subjects (or, subject-subsuming subjects). It is significant since Goff's approach of dismissing the problem in virtue of it being merely strange, rather than incoherent, will not stand if Shani's contradiction holds. What I have to say from here will be premised on Shani's contradiction holding, because the present paper's central concern is whether there are promising alternatives to panpsychism and cosmopsychism.<sup>27</sup>

With our assumption that the contradiction holds in place, we can turn to how Shani proposes to overcome the problem of synchronous subjects. He explains that the problem comes about due to a reliance on fully grounding macro-subjects within the cosmic subject, because the only way for full grounding to work is for macro-subjects to be present, fully-formed, in the cosmic perspective, as its partial aspects. Shani suggests that a different version of cosmopsychism evades the problem by replacing full grounding with partial grounding. Following Rosen (2010) and Fine (2012), Shani contrasts full grounding with partial grounding:

Partial grounding (partial strict grounding, strictly speaking) is contrasted with full grounding. If B holds in virtue of A, such that A, considered in isolation, is sufficient for B, then A is said to be a full ground for B. In many cases, however, A, although relevant for the grounding of B, is not itself sufficient for a full grounding of B. If A is but one among various facts which, individually, do not suffice to ground B but which do so collectively then it is said to be a partial ground for B. (p. 404)

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<sup>27</sup> My view is that Shani certainly presents a logical contradiction, insofar as both affirming and denying P-Q highlights a contraction purely in logic, at least. However, I think that there is more to be said about whether or not this implies a metaphysical impossibility. I explore this in more detail in my paper 'The Subject Problem for Panpsychism and Cosmopsychism' (2020) included as a paper in my PhD submission.

Applying the concept of partial grounding to the problem of synchronous subjects (where AP refers to the absolute perspective, or cosmic perspective, while RP refers to a relative perspective, or macro-perspective), he writes:

To say that [AP] is a partial ground for [RP] implies that while [RP] depends on [AP] it also amounts to something more and is not exhausted by this particular dependency relationship. Such a state of affairs is expected if there is a certain aspect under which the perspectives of relative subjects are anchored in the perspective of the absolute, and another aspect under which they assert their independence. (pp. 422-423)

Shani's proposal cleverly avoids the problem of synchronous subjects by claiming that macro-subjects, and their macro-perspectives, are only partially dependent on the cosmic subject and its cosmic perspective. This allows him to reject the claim that macro-perspectives are present, fully-formed, in the cosmic perspective as its partial aspects. To fulfil the requirements of partial grounding, Shani must offer a sense in which the relative perspectives of created subjects (macro-perspectives) are grounded in the absolute perspective (cosmic perspective) as well as a sense in which they are independent of it.

His response is that perspectives have both a *generic character* and a *specific character*. Created subjects (and their relative perspectives) are dependent on the absolute for their generic character, but independent of it with respect to their specific character. At the risk of oversimplifying, the generic character of a perspective is its being a conscious point-of-view<sup>28</sup>, while the specific character is the unique character of the experience from that point-of-view.<sup>29</sup> It is still an open question as to whether the distinction between the

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<sup>28</sup> For Shani the generic character of sub-cosmic subject is inherited from the cosmic subject, where the generic character is said to be the combination of what he calls 'core subjectivity' and sentience.

<sup>29</sup> Shani summarises as follows: 'Each concrete perspective of each relative subject has what I call a specific character, namely, a unique individual profile which cannot be derived from any other perspective (or

generic and specific character of perspectives, in the way presented, is ultimately defensible, but it certainly goes a long way to towards overcoming the most difficult challenge cosmopsychism faces.

### **3.4 Albahari's Objections to Cosmopsychism**

Albahari (2020) is critical of the approaches of Goff and Shani, providing objections to each. I briefly touch on her objections before moving on to investigating perennialism, her proposed successor to cosmopsychism.

#### **3.4.1 Objections to Goff (The Incoherent Contents Objection)**

Albahari objects to Goff's cosmopsychism on account of two problems, anticipated by William James (1909), *the epistemic problem* and *the perspective problem*, which can be collectively termed *the incoherent contents objection to cosmopsychism*.

The epistemic problem arises from the incompatibility between an epistemically all-encompassing cosmic-perspective and the content of the relatively ignorant macro-perspectives that share their content with it. The incompatibility arises, Albahari contends, when we consider that macro-perspectives will be characterised by content simply not applicable to the cosmic-perspective because, for example, it is not finite in the same way that macro-perspectives are, but which, owing to it being an all-encompassing perspective, it shares. The example Albahari gives is the fear of mortality; she says that such mental content can only be coherently ascribed to finite subjects. She offers the following thought experiment to demonstrate this:

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combination thereof); but, at the same time, all of these perspectives share a generic character, or a basic template, which is, in turn, derived from the subjective, perspectival nature of the absolute. Thus, in respect of its generic character, each conscious perspective of each relative subject is grounded in the fact that the absolute is itself a subject and, as such, the owner of a first-person point of view, but in respect of its specific character it is an independent entity which neither grounds any other perspective, nor being grounded by any.' (2015, p. 423)

Consider Fiona's intense and pervasive fear that she will be annihilated upon death, a fear whose first-personal character is partly owed to its mind-dominating nature. Goff's cosmic subject must directly experience not only Fiona's intense fear of dying but also Fred's overwhelming excitement at his impending reincarnation. Yet qualifying just a fraction of the cosmic mind, it's hard to envisage how each emotion could, from the personal cosmic perspective, retain their defining first-personal characters *as* intense and dominating, and hence as those particular emotions. It is also difficult to conceive of how the cosmic subject could first-personally harbour what would, to its singular conscious perspective, be the mass of everyone's contradicting beliefs and identities, e.g. 'there is only one life', 'there is more than one life', 'I am Fiona', 'I am Fred'. (Albahari 2020, p. 122)

The perspective problem is essentially what we have been calling the problem of synchronous subjects, or what Goff calls the problem of subject-subsuming subjects. The previous problem focuses on the incompatibility between contents of macro-perspectives that imply a degree of epistemic ignorance, together with the fact they are purportedly shared with an epistemically unlimited cosmic-perspective. The perspective problem, on the other hand, focuses on the raw incompatibility of a perspective (the cosmic perspective) subsuming further perspectives (sub-cosmic perspectives). Albahari states that the problem stems from the fact, according to cosmopsychism, 'our seemingly unique perspectives also exist as mental objects for the conscious cosmos' (2020, p. 122). A simplistic way to understand Albahari's worry is to imagine three levels of reality, the micro, macro and cosmic. Now consider that we are committed to the view that there are subjects, and so perspectives, on each level of reality, such that the perspectives from any level are partial aspects of (present in) perspectives at all higher levels. For example, a micro-perspective is a partial aspect of a macro-perspective, which itself is a partial aspect of the cosmic perspective. Albahari says that such a picture is incoherent because the very existence of a

perspective at one level precludes it being a partial aspect of any perspectives at higher levels. Her reasoning is informed by Coleman's Argument (2012), that I have already referred to, against the possibility of subject-combination for panpsychism. She quotes Shani's summary of Coleman's argument:

He asks to imagine two micro-subjects, Red and Blue, such that Red only sees red and Blue only sees blue. Red and Blue combine in turn to form a macro subject, Mac, which integrates the phenomenal worlds into a single perspective. The problem, says Coleman, is that Red's and Blue's perspectives do not survive as points-of-view within Mac's unified perspective. For example, Red's take on the world is that of seeing red, to the exclusion of all else, but Mac's perspective defies this condition: it may contain seeing blue, in addition to seeing red, or it may simply consist of seeing purple...the original perspectives have disappeared from sight (Shani 2015, p.401)

However, Albahari could instead call upon Shani's presentation of a metaphysical incoherence in the idea of synchronous subjects to make her case for the perspective problem, since it refers specifically to cosmopsychism's difficulties.

### **3.4.2 Objection to Shani**

Additionally, Albahari contends that Shani's cosmopsychism is also problematic, as it faces a dilemma centred on his stipulation that 'part of what it means to *be* a conscious subject is for any contents within its field of consciousness to be disclosed to its first-personal perspective' (Albahari 2020, p. 123). In addition to this, Albahari points out, he also wants to maintain that 'the contents of our conscious fields, while embedded within the absolute's field of consciousness, are hidden to the absolute's perspective' (Albahari 2020, p.123). Albahari says that these two stipulations are mutually exclusive. She claims, if what it means to be a subject is to have any contents within its field of consciousness disclosed to its

perspective, and the cosmos is a perspective-bearing subject of experience (the absolute) that embeds sub-cosmic perspectives (relative perspectives and created subjects, in Shani's system), then, by definition, the contents of sub-cosmic perspectives must be disclosed to the cosmic perspective. But such disclosure would go against the claim that sub-cosmic perspectives are hidden from the cosmic perspective. The result, according to Albahari, is that Shani must either drop the claim that the contents of sub-cosmic perspectives are hidden from the cosmic perspective (the absolute) or drop the claim that the cosmos (the absolute) is a subject of experience.

I am not convinced that Albahari's dilemma stands up to scrutiny. It appears to be built on a misunderstanding of Shani's nuanced position. I believe this can be understood best with reference to the following passage:

If our conscious perspectives and their contents are to be embedded within – and illuminated by the sentience of – the absolute's conscious field, then, given that the absolute is a subject, our contents (and perhaps perspectives) must also, by definition, be first-personally revealed to the absolute's perspective. (Albahari 2020, p. 123)

The above excerpt seems to imply that for sub-cosmic perspectives to be embedded in the cosmic perspective, they must thereby be disclosed to it. Such an implication is clearly the case for Goff's cosmopsychism, but Shani seems to have a straight-forward answer as to why this is not case on his view. According to Shani, sub-cosmic perspectives are not, by definition, disclosed to the cosmic perspective, because they are only embedded within the cosmic perspective insofar as they inherit its *generic* character. They do not inherit its *specific* character, and as such, the specific characters, or contents, of sub-cosmic perspectives are not embedded in the cosmic perspective and thus are not disclosed to it.

In this paper, I am interested in the viability of alternatives to panpsychism and cosmopsychism, that maintain their motivations but overcome their persistent problems. Albahari's claim is that cosmopsychism, as presented by both Goff and Shani, is doomed to failure, and considering which we should contemplate her proposal, perennialism, which she sees as the natural successor to cosmopsychism. The remainder of this paper aims to investigate the viability of key alternatives, before weighing up the options.

#### **4 Perennialism**

Miri Albahari (2020) aims to situate perennialism as the successor to contemporary cosmopsychism. It is ostensibly a view maintaining the key advantages that cosmopsychism enjoys over other approaches to the problem of phenomenal consciousness, while steering clear of its greatest challenge; the subject derivation problem. Perennialism is the view that there is a universal non-dual consciousness. Unlike cosmopsychism, the universal consciousness is not a subject of experience since it lacks a conscious perspective, but it is nonetheless the ground of sub-universal subjects and their perspectives. Moreover, the universal consciousness also grounds all non-perspectival objects. Consider the apparent similarities with cosmopsychism; it agrees with cosmopsychism insofar as:

- There is a universal (cosmic) consciousness.
- The universal (cosmic) consciousness grounds all sub-universal consciousness.

But it differs in that:

- The cosmos is not a subject of experience.

Dropping the universe-as-a-subject premise is supposed to be instrumental in avoiding the subject derivation problem, and it is obvious why, but I suggest it is not so simple. To get perennialism off the ground, and to pitch it as a viable alternative to cosmopsychism, Albahari needs to motivate the notion of non-dual consciousness, and explain how *universal* non-dual consciousness can ground all being (subjects of experience as well as mind-independent objects), while maintaining that it is not a subject of experience. My contention, however, is that perennialism faces a set of serious problems. Including an equivalent to the problem of strong emergence, an equivalent to the subject combination problem, and a subject derivation problem. Overall, this makes perennialism ill-placed to fulfill the promise of being cosmopsychism's successor.

Let us summarise Albahari's motivations. She agrees with cosmopsychism that the problem of strong emergence should motivate a panpsychist approach to the problem of consciousness, but also recognises panpsychism faces the intractable combination problem. Cosmopsychism, she admits, benefits from avoiding the issue of strong emergence (because it inherits from panpsychism the claim that consciousness is fundamental) as well as the combination problem (because it does not need micro instances of phenomenal consciousness to combine to constitute macro instances). However, she follows others (Nagasawa & Wager 2016, Goff 2017, Shani 2015, Matthews 2011) in suggesting it faces the derivation problem; a challenge equivalent in extent to the combination problem.

Albahari purports perennialism is a fruitful alternative to cosmopsychism since it, too, avoids denying fundamental physical reality of consciousness, and as such does not face the problem of strong emergence. As she points out, physicalism and dualism, while opposing views, share the view that the fundamental level of physical reality is devoid of consciousness, and this means that they must either subscribe to an account of strong

emergence or explain consciousness by way of a distinct fundamental substance. Moreover, like cosmopsychism, perennialism avoids the combination problem for panpsychism, because it posits fundamental consciousness at the cosmic rather than micro level of reality. Most importantly, perennialism reportedly overcomes the subject derivation problem, the most troubling problem facing cosmopsychism, because it does not place subjects at the fundamental level. It is clear why perennialism is pitched as cosmopsychism's natural successor.

However, on closer examination, the perennialist position faces an especially worrying conjunction of problems. There is a sense in which the problems it faces are versions of the central problems for physicalism, panpsychism and cosmopsychism. Consider the approaches from which it wants to distance itself: physicalism, panpsychism and cosmopsychism. Physicalism faces the problem of strong emergence but does not face the combination problem or the derivation problem. Panpsychism faces the combination problem but does not face the problem of strong emergence or the derivation problem. Cosmopsychism faces the derivation problem but does not face the problem of strong emergence or the combination problem. What I show in the rest of this section is that perennialism faces an equivalent of all three problems; a problem of strong emergence, a subject combination problem and a subject derivation problem. Additionally, there are two further problems it faces, though it shares them with several other approaches: the general plausibility of the ground and the aggregates problem.

In this section, I cover the basics of a perennialist reality, then I explore the general plausibility of non-dual consciousness, before highlighting perennialism's versions of the emergence, combination and derivation problems. I conclude that the view should not be

considered a successor to cosmopsychism on the grounds that it faces a uniquely challenging set of problems.

#### **4.1 The Basics of Perennialist Reality**

Let us first outline the basics of perennialist reality. According to perennialism, the ultimate ground of all reality is a universal non-dual consciousness. The universe of multiplicity<sup>30</sup> is a dream-like emanation from this ultimate backdrop. The contents of the emanation are manifest as subject-object poles, called finite-centres. There are both micro and macro level finite-centres. For argument's sake, we can take it that atoms equate to micro-level finite centres and human brains equate to macro-level ones. Macro-finite-centres are aggregations of micro-finite-centres, but not all aggregations of micro-finite-centres give rise to a macro-finite-centre. Some form only mere aggregates. While the ultimate ground - universal non-dual consciousness - is not a subject of experience, the finite-centres it grounds are subjects of experience.

Non-dual consciousness is an unconditioned consciousness that is beyond subject-object structuring and spatiotemporally unbound. Meaning, it is atemporal, non-spatial, and neither a subject nor an object. On the perennialist picture, there is a *universal* non-dual consciousness which grounds micro and macro subjects of experience, as well as all other objects. I suggest this outline poses several urgent questions for perennialism:

- The Problem of the Plausibility of the Ground: What motivates the plausibility of non-dual consciousness?

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<sup>30</sup> By this, I mean, roughly, the world of things we experience in our everyday lives and the world as described by physics.

- The Fundamental Problem: How is the emanation grounded in the ground of universal non-dual consciousness?
- The Perspective Problem(s) for Perennialism:
  - a. The Incoherent Perspectives Problem: How does perennialism account for synchronous subjects (perspectives) scenarios?
  - b. The Strong Emergence of Perspectives Problem; How are perspectives derived from an aperspectival ground?
- The Aggregates Problem: Why do some combinations of micro-finite-centres give rise to macro-finite-centres, while other combinations give rise to mere aggregates?

Other approaches also face questions about the plausibility of the proposed ultimate ground, so the first problem is not unique to perennialism. I will argue it is particularly hard to motivate the notion of non-dual consciousness, however. I will suggest the fundamental problem represents a strong emergence problem for perennialism, while the perspective problems represent a subject combination problem as well as a kind of subject derivation problem.

## **4.2 Plausibility of the Ground**

The first concern is the general plausibility of non-dual consciousness. Both panpsychism and cosmopsychism also face questions about the plausibility of the ground. They both claim the fundamental level of reality (the micro level for panpsychism and cosmic level for cosmopsychism) is in some sense both physical and phenomenal. Arguably, the most popular versions of both approaches justify this claim by alluding to some version of

Russellian monism.<sup>31</sup> Perennialism, however, cannot similarly rely on a commitment to Russellian monism to support the plausibility of non-dual consciousness. Due to its counter-intuitiveness, the notion of non-dual consciousness needs to be motivated before we even consider whether a *universal* non-dual consciousness could be the ground of all things. It is a task Albahari spends a significant amount of time addressing.

As stated, non-dual consciousness is beyond the subject-object distinction. It can be described as pure subjectless awareness, or pure awareness. The idea of subjectless awareness seems contradictory because it is commonly accepted that awareness must necessarily be awareness-by-a-subject. Yet, Albahari suggests we can reasonably easily grasp the idea of subjectless consciousness. Albahari's tactic is to drive a wedge between two supposed components of consciousness, to show that we can get ahold of the idea of non-dual consciousness. She suggests phenomenological structure has two components; witness consciousness and a focal perspective<sup>32</sup>:

**Witness-consciousness:** The aspect of consciousness which exemplifies a sense of present moment being, luminous, knowing, intransitive and reflexive.

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<sup>31</sup> See my paper 'An Account of Cosmopsychism' (2020), included in my PhD submission, for more details of a version of cosmopsychism that is committed to Russellian monism.

<sup>32</sup> Albahari identifies the proposed components of consciousness as follows: 'The conscious subject, I suggest, has two discernible components: (a) 'witness-consciousness' (b) from a focal perspective. Witness-consciousness denotes that aspect of consciousness which exemplifies a sense of present-moment being, and is sentiently luminous, knowing, intransitive and reflexive. When directed at objects, witness-consciousness does not take a view from nowhere but appears from a focal, localised perspective whose circumscribed field, whether waking or dreaming, presents for humans as structured by psycho-physical and spatio-temporal parameters. Objects are witnessed attentively or inattentively, as they come and go from the field. An 'object', for these purposes, is broadly anything discrete that such a subject could pointedly attend to: physical objects, people, perceptions, thoughts, etc. While a subject's witness-consciousness can be intransitively aware of its own presence, it can never pointedly attend to itself as something discrete; it is not an object' (2020, pp. 124-125).

**Focal perspective:** Witness-consciousness being aware of an object.

Witness-consciousness is the aspect of subjective experience which exemplifies a sense of present moment being, luminous, knowing, intransitive and reflexive; this equates to pure awareness. While, the focal perspective is witness-consciousness being aware of an object. It is typically taken as a conceptual truth that to be conscious is to be a subject of experience, and to be a subject of experience is to be a perspective that is aware of phenomenal qualities. But if Albahari can motivate the separation of these two components it will motivate the idea of non-dual consciousness, and thus form the basis of her approach. Albahari seeks to achieve this in two ways, first by way of a thought experiment and second by demonstrating that such a separation is uniquely placed to resolve a tension between two commonly held intuitions.

#### **4.2.1 The Cognisensory Deprivation Tank**

Albahari presents a thought experiment to highlight the conceivability of witness-consciousness as separable from a focal perspective. If we can conceive of the two components as separate, with witness-consciousness existing independently of a perspective, then one could claim an independent existence is metaphysically possible (given that conceivability equals possibility). She calls the thought experiment the Cognisensory Deprivation tank. The experiment goes like this:

Now imagine entering what I will call the ‘Cognisensory Deprivation Tank’. Each conscious perceptual input – sight, sound, proprioception etc. – snuffs out one by one. Next, all conscious cognitive input, attentive or inattentive, goes too, eventually leaving no perceptions, thoughts, memories, imaginings, or emotions. (2020, p. 125)

She contends it is conceivable that with every departing input, witness-consciousness (pure awareness/non-dual consciousness) remains. And remains persistently sharp. It does not “fade” with each departing input. She suggests that even when the last input has vanished, it is conceivable that we are left not in a 'coma-like vacuum' but rather with pure and unstructured awareness. She continues:

In the absence of any cues to create inner (self) or outer (world) boundaries, or to mark the passage of time, such objectless awareness, if actively present, could well be experienced as boundless, non-dual, unbound by spatial or psychological parameters, and temporally unbounded, not coming or going (2020, p. 125)

The aim of the cognisensory deprivation tank is to illustrate the conceivability of pure awareness existing independent of conscious perceptual inputs. In the tank, individual inputs dropping out does not affect the existence of the backdrop of witness-consciousness and more importantly, the backdrop still exists when the last input vanishes.

While I would not want to deny the conceivability of pure awareness outright, I find it hard to pinpoint the difference between imagining being in a ‘coma-like vacuum’ and experiencing non-dual consciousness. I think the crucial part of the experiment is the move from the final remaining perceptual input, to when there are no perceptual inputs at all, because it marks a move, according to Albahari, from the existence of a perspective (with one perceptual input) to the absence of a perspective entirely. What Albahari would like us to take away from the experiment is that, without perceptual input, rather than a coma-like vacuum what we have is the persisting backdrop of aperspectival witness-consciousness. However, there is another option available. At the point of zero perceptual inputs, one could hold that there is still a perspective, only one that is not *illuminated* by the presence of

percepts to it. It is a subtle difference, but an important one. We can accept that we can conceive that with every parting input some sense of consciousness remains, while rejecting that what remains is aperspectival pure awareness. Instead, we can maintain that what we are left with, after the last input vanishes, is an ‘empty’ perspective; a locus of experience presently free of perceptive inputs. I suspect this is what we are conceiving of when we consider the cognisensory deprivation tank experiment.

On the alternative view I suggest, perspectives do not come in and out of existence, as on Albahari’s view. In her view, the presence of objects in witness-consciousness gives rise to perspectives. She explicitly rejects the empty perspective idea, claiming ‘[t]he subject is not an empty perspective, but must always co-arise with objects that lend to it a structured spatio-temporal viewpoint’ (2020, pp. 127-128). It is clear why she cannot accept that what we are left with is an empty perspective, because in her view perspectives arise out of the co-presence of objects to witness consciousness, and in this thought experiment we are asked to conceive of the absence of objects of perception.

#### **4.2.2 Accounting for Inconsistent Intuitions**

Albahari provides further motivation for the separation of witness-consciousness from focal perspectives, by offering what she believes are two commonly held intuitions, the holding of which can only make sense if there is such a separation. Both intuitions centre around our intuitive understanding of the ‘now’:

**Intuition 1:** First is the intuition that it is, in some sense, always ‘now’, that the present moment has a timeless aspect. Our experience of the ‘now’ is unmoving in a sense not owing to the objects coming and going within it.

Intuitively, she says, this timeless aspect belongs to the perspectival component of our subjective experience.

However, we also hold a second intuition, seemingly inconsistent with the first.

**Intuition 2:** Second, we have the intuition that the ‘now’ is not confined to our individual perspectives. We intuitively understand that were we to vanish in an instant the present would continue to be. Albahari maintains it is straightforward to conceive of a flow of objects, the features of the ‘now’, as continuing to exist without individual perspectives.

How do we account for the timeless aspect of ‘now’ that appears intimately tied to perspectivality, if the ‘now’ is not confined to individual perspectives? Albahari contends that the only way we can do this is if witness-consciousness is not intrinsically confined to perspectives. In this picture, witness-consciousness, conceived of as non-dual consciousness, is what holds the two intuitions in place. By severing the conceptual link, one can maintain that witness-consciousness is the timeless aspect of our sense of ‘now’, that is not owing to objects within it, without being problematically perspectival such that it contravenes the first intuition.

However, I do not think there is anything additional to account for. The intuition that ‘now’ is not confined to our individual perspectives is simply the intuition that there is more to the ‘now’ than our perspectives (this ‘more’ is what we ordinarily conceive of as mind-independent objects). It is not the intuition that there is nothing more to the ‘now’ than them, as Albahari seems to suggest. Thus, again, there is an alternative account on offer; Intuition (1) is maintained by claiming that the timeless sense of ‘now’ is perspectival, while intuition (2) is maintained due to the continued existence of mind-independent objects beyond any

token perspective. This alternative does not require the separation of witness-consciousness from perspectives and understood in this way there is no tension between the two intuitions, either.

Are the cognisensory deprivation tank and the motivation from the two intuitions enough to support the breaking-apart of the concept of consciousness into two separable components; witness-consciousness and a focal perspective? I do not think so. It seems likely that what the reader is conceiving of in the case of the deprivation tank is simply an empty perspective. While, regarding the inconsistent intuitions, I believe once one considers the likelihood that the first intuition is about the existence of mind-independent objects, there is no longer an inconsistent set of intuitions.

What we are left with, I suggest, is, at best, weak motivation for the possibility of non-dual consciousness. Since the plausibility of non-dual consciousness underpins Albahari's more extreme claim, that *universal* non-dual consciousness is the ultimate ground of everything, her view strikes me as underpowered from the get-go.

### **4.3 The Fundamental Problem: From the Ground to the Emanation**

Setting aside the plausibility of non-dual consciousness, and indeed the existence of *universal* non-dual consciousness, we turn to the next problem. For argument's sake, suppose we have good reasons to support the existence of universal non-dual consciousness. The perennialist still faces the challenge of how to move from the ultimate ground to the emanation. Recall that the multiplicity of the universe is the manifest content of a dream-like emanation from the ground of universal non-dual consciousness.

Even given the above concessions, if perennialism is to be taken seriously, it needs to provide an account of how the emanation is anchored in pure awareness. Without such

an account, the connection between the two is at best deeply mysterious and at worst unintelligible. So why are we to believe the emanation is grounded in non-dual consciousness? We must have reason for insisting there is an asymmetric relation of dependence holding between the ground and the grounded, since that is what a minimal account of any grounding relation must include. However, on my reading, Albahari does not give a reason. Without a good reason to think that the two realms are related, we have a kind of emergence problem, whereby there appears to be the inexplicable emergence of the emanation from the backdrop of non-dual consciousness. Moreover, it would appear to be a version of strong emergence. As far as we have been informed, there is nothing about pure awareness, and pure awareness alone, in virtue of which the emanation intelligibly emerges. Conversely, we are given no reason to think that the emanation exclusively implies the existence of a ground of non-dual consciousness.

#### **4.3.1 The Emergence of Emanation from Ground**

As mentioned earlier in the paper, there are two conceptions of emergence, which Chalmers (2006) calls 'weak' and 'strong' emergence. Recall weak emergence.<sup>33</sup> This is the kind of emergence most often alluded to by non-reductive physicalists. The important thing with weak emergence is that the unexpectedness seems to be the result of an epistemic limit. The emergent properties are deducible in-principle from the basal properties. The reason that we say the properties are emergent is that they are unexpected given what we know about the principles governing the low-level domain. However, should we know all the relevant details of the principles governing the low-level domain, we would be expecting the

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<sup>33</sup> In case it is helpful, here is a copy of the quotation from earlier: '[w]e can say that a high-level phenomenon is weakly emergent with respect to a low-level domain when the high-level phenomenon arises from the low-level domain, but truths concerning that phenomenon are unexpected given the principles governing the low-level domain.' (pp. 245-246)

supposedly emergent properties. Examples of weak emergence include life or living organisms (Chalmers 2006), evolution (Chalmers 2006), liquidity (Strawson 2006), the gas-liquid-solid transformation (Popper 1977).

Albahari could claim that the emanation is weakly emergent from non-dual consciousness, but this would imply the issue in deducing how the emergence happens is merely epistemic, and if we fully knew all the relevant facts about universal non-dual consciousness, then we would be able to deduce the emergence of the emanation. However, given that the non-dual ground is supposed to be unconditioned, non-spatial and atemporal, it is hard to see how a complete epistemic picture would help with the deducibility.

Considering that in such a case, the emergent fact (the emanation) is only epistemically emergent, it should still be ontologically reducible to its ground in much the same way as other epistemically emergent facts. We know other epistemically emergent facts turn out to be deducible from the grounding facts once the epistemic veil has been lifted, whereupon they are revealed to be the result of arrangement and interactions at the level of the ground.

Take Lewis's (1986, p. 14) example of a dot matrix image of a house, to illustrate a paradigmatic case of weak emergence; imagine a picture of a house made up entirely of dots and the space surrounding the dots. There is nothing about the dots and space between the dots that is house-like itself, yet when put together in a certain way a house-image emerges. The house-image is dependent on the dots and spaces because any change in the dots and spaces will parallel a change in the house-image. We can see in this example that a dependency relation holds, and we can also see why we might say the house image emerges from the arrangement of dots and spaces. However, in this case, it is also clear that the

picture does not emerge in any ontological sense; since once we know all the relevant facts about the dots and the spaces, and how they combine and interact with one another, the house-image, although it may still be unexpected, is deducible from the facts about the dots and spaces that ground it. Ontologically speaking, we can reductively explain the house-image in terms of the dots and spaces. Thus, although a grounding relation holds in the case of weakly emergent properties, it does so only epistemically.

Weak emergence will not do for perennialism, though. The emanation is not merely the result of the rearrangement of facts at the ground. As already mentioned, the ground is unconditioned, beyond the subject-object distinction, atemporal and non-spatial. The emergence of the universe of multiplicity represents the emergence of a substantially different kind of existence. I suggest this is a case of strong emergence.<sup>34</sup>

This is the kind of emergence usually alluded to by the British emergentists (or classic emergentists, e.g. Broad, Morgan, Alexander, Popper). The important thing with strong emergence is that the emergent facts are not necessitated by the grounding facts, or configurations of, or relations among, them. The British emergentists (and classic emergentists) claim emergent facts are brute, meaning they cannot be explained with reference to facts at the ground and those grounding facts alone. Moreover, they maintain there is no explanation for them. Crucially, this is not owing to an epistemic limitation. Given knowledge of all the relevant facts regarding the principles governing the low-level domain - the ground - we would still not be able to deduce the emergent facts. The reason is that there is said to be no fact of the matter as to how the emergent facts emerge from the

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<sup>34</sup> Recall how Chalmers defines strong emergence: ‘We can say that a high-level phenomenon is strongly emergent with respect to a low-level domain when the high-level phenomenon arises from the low-level domain, but truths concerning that phenomenon are not deducible even in principle from truths in the low-level domain’ (2006, p. 245).

grounding facts. Regarding examples of strong emergence, it is tough to think of any at all; the emergentists who allude to this kind of emergence usually give examples that turn out to be cases of weak emergence, for example, the examples of liquidity and the gas-liquid-solid transformation have both been offered by British emergentists as cases of strong emergence.

It is clear that (given that the universe of multiplicity is accepted as real) the emergence of perennialism's emanation, from the ground of universal non-dual consciousness, is a case of strong emergence. Strawson (2006) highlighted a paradigm case of strong emergence being the emergence of something with spatial extension from something with no spatial extension. That is precisely the case with the emergence of the emanation, with its spatially extended manifestations, from the non-spatial ground of pure awareness. The emanation is supposed to be something genuinely novel and must therefore be strongly emergent.

There is a particularly serious problem with strong emergentism, and this will be a problem for perennialism too. The problem concerns the fact emergent facts are taken to be brute. They are such that it is not possible to explain them or predict them; they are *in-principle* not deducible from the grounding facts. The British emergentists, as I have said, claim there is no fact of the matter as to how the emergent facts emerge from the base. Hence, theories involving strong emergence posit an ontological emergence as opposed to the epistemic emergence associated with weak emergence. The problem, in this case, is that the grounding relation fails. A grounding relation is necessary to keep the relation between the basal facts and the emergent facts meaningful. By meaningful, I mean it is the grounding relation that predictably links the two states of affairs. In the case of strong emergence, the grounding relation fails because the emergent facts are said to be brute with no fact of the

matter as to which state-of-affairs they emerge from. Since it is not an epistemic limitation which prevents us from understanding the relation between the basal facts and the emergent ones, there is no way in which we can say a grounding relation holds.

A minimal conception of grounding holds if A-facts ground B-facts, and there can be no change in the B-facts without some change in the A-facts. Without, first, establishing the B-facts and the A-facts, and second, establishing an asymmetrical dependency relation among them, it makes no sense at all to say a grounding relation holds between A-facts and B-facts. In the case of perennialism, there is no way to establish a dependency relation reliably. There seems to be nothing identifiable about universal non-dual consciousness, and universal non-dual consciousness alone, in virtue of which the emanation obtains.

Perennialism tells us there exist two radically different realms of existence, the backdrop of pure awareness, which is unconditioned and outside of space and time, and the emanation, the content of which is the universe of multiplicity. Furthermore, it tells us that pure awareness grounds the emanation, but we are not given an account of how this is supposed to work, or even why we should suppose that it does. I have suggested perennialism is committed to the emanation being a strongly emergent fact and therefore the view faces its own problem of strong emergence. Remember, it is the avoidance of strong emergence that is the most powerful motivation for panpsychism and cosmopsychism, so facing a problem of strong emergence puts perennialism, at least in this respect, back in the same position as physicalism.

There is a way for perennialism to avoid this emergence problem. They can maintain that while the ultimate ground of universal non-dual consciousness is real, the emanation is not. They could maintain that the emanation is only an illusion. It may appear spatially

extended, for example, but it is so only insofar as an object in a dream is spatially extended. On such an account, one can maintain there is no ontological emergence. However, I think this would be a difficult position to defend. It seems counter-intuitive, but more importantly, perennialism is supposed to be the successor to cosmopsychism, if it ends up being committed to a radical version of anti-realism, then it loses much of the appeal of panpsychism and cosmopsychism insofar as they (purport to) closely align to current science. Perennialism is far more revisionary and would likely come at a great metaphysical cost. Bear in mind that the central proposal is that perennialism is to be favoured over cosmopsychism because it can avoid the subject derivation problem. Would such a metaphysical expense be proportionate to the advantage of avoiding the subject derivation problem? I suspect not.

#### **4.4 The Perspective Problems for Perennialism**

Recall the perennialist picture; the universe of multiplicity is a dream-like emanation from a ground of universal unconditioned pure awareness. The emanation manifests as an array of finite centres. Each finite-centre is a subject-object pole, disposed to appear as an object to other subjects, while also being disposed to be a subject when confronted by an object. To say all finite centres are subjectival is to say they are all perspectival, or in other words, that they all have a perspective:

The content of the projective emanation will manifest as numerous, inter-connecting subject-object poles: each a finite and unified conscious perspective that is furnished with structured intentional imagistic content, however simple or complex (e.g. atom or human). Following F.H. Bradley, I refer to these subjects as ‘finite centres’ (2020, p. 127).

This definition is explicit in that every finite centre is a conscious perspective. However, Albahari also says the following:

On the proposed Advaitic variant, the substratum, if we can call it that, is not space-time, but non-dual awareness, and each ‘arising’ is not a property, but a finite centre. Each centre, no matter how simple or complex, has a dispositional and subjective – as opposed to just qualitative – nature, the subjective nature being the appearance of objects to the perspective of a subject. The subject is not an empty perspective, but must always co-arise with objects that lend to it a structured spatio-temporal viewpoint. (2020, pp. 127-128).

The point here seems to be that finite centres are *disposed* to be perspectival, in the presence of objects. Additionally, subjects, being disposed to be objects for other subjects, become objects in the presence of subjects. Finite centres, then, are not necessarily perspectival, because a finite centre unstructured by the co-presence of an object will not be perspectival.

It is not clear if all finite centres are perspectival, as the first quote suggests, or disposed to be perspectival, as the second quote suggests. Perhaps all finite centres manifest their disposition *to be perspectival under conditions where an object is present to witness-consciousness* because an object is always present. However, there must be something that has the disposition to be perspectival under certain conditions, though it’s not clear what that could be. The obvious option is to say that witness-consciousness has the disposition in question. But its hard to work out how one could explain its having the disposition without implying that it is already perspective-involving. The empty perspective option appears to make more sense. It says something like; each finite centre is a perspective, the existence of which is illuminated when objects are present to it.

A closer examination of perspectives in the perennialist picture reveals two further problems for the view. The first, the problem of incoherent perspectives, represents a version

of the subject combination problem for panpsychism. The second, the problem of the strong emergence of perspectives, is a kind of subject derivation problem.

#### **4.4.1 The Problem of Incoherent Perspectives**

Perennialism appears to face precisely the same subject combination problem as panpsychism, in the form of the incoherent contents of perspectives problem. One primary motivation to move away from panpsychism is that it must account for the existence of incoherent perspectives. In positing perspectives at both the fundamental and macro-levels of reality, both panpsychism and cosmopsychism are vulnerable to incoherent sets of perspectives instantiated in synchronous subjects scenarios, where a perspective on one level is part of a perspective at another level. For panpsychism, macro-perspectives are formed of micro-perspectives, while in the case of cosmopsychism, macro-perspectives are part of the cosmic perspective.

For perennialism, the problem is equivalent to the way it arises for panpsychism. On perennialism's picture, there are both micro-finite-centres (atoms or sub-atomic particles) and macro-finite-centres (humans), with centres at the macro level being aggregates (though not *mere* aggregates) of those at the micro level. Given that all finite centres are perspectival, there will be an incoherence of perspectives at the micro and macro levels in just the same way there is for panpsychism. This is a grave problem for perennialism since its overall motivation is to avoid the problem of synchronous subjects (for cosmopsychism), which can also be characterised as an argument from incoherent perspectives.

To explain, let us consider the subject combination problem for panpsychism, as Coleman (2014) presents it (I have already alluded to Coleman's argument). Coleman offers a scenario purportedly highlighting an incoherence in the notion of subjects of experience

combining, because *perspectives* do not combine. I contend that the scenario he offers applies equally to perennialism. His scenario is as follows:

Consider the original duo's points of view. One—Blue's—is pervaded by a unitary blueness, the other—Red's—by redness, and that is all they experience, respectively. To say these points of view were present as components in the experiential perspective of the uber-subject ('Ub') would therefore be to say that Ub experienced a unitary phenomenal blueness and a unitary phenomenal redness, i.e. had synchronous experiences as of each of these qualities alone, to the exclusion of all others. For it is these qualities each on their own that characterise, respectively, the perspectives of the original duo. Experience excludes, as well as includes. Yet nowhere does Ub have any such experiences: he precisely combines his predecessors' qualitative experiential contents. Ub doesn't experience red-to-the-exclusion-of-(blue-and)-all-else, nor blue-to-the-exclusion-of-(red-and)-all-else, let alone—impossibly—both together. Thus the original points of view are not ingredients in Ub's subjectivity. Only their contents—the redness and blueness— are. (2014, p. 33)

We see the purported impossibility of two micro-subjects, Red and Blue, combining to form a singular macro-subject, Ub, in virtue of their inherent perspectival natures. It is not possible, says Coleman, for Ub's perspective to contain the perspective of either Red or Blue (or indeed both) as a partial aspect, because, for example, Ub's perspective extends beyond its partial aspect that is Red's perspective, while Red's perspective excludes anything beyond its own. Ub, as a singular perspective, cannot both include and exclude that which is part of its perspective minus Red. This is the same argument that Shani makes, as referred to earlier, but Shani's explication is perhaps more clearly illustrated.

The problem arises for perennialism due to two of its stipulations: first, that all finite centres are perspectival, and second, that micro-finite-centres combine to form macro-finite-

centres. Putting these two together, we arrive at Coleman's scenario; micro-perspectives (of micro-finite-centres) combine to form macro-perspectives (of macro-finite-centres). Therefore, the same purported incoherence surfaces for perennialism and panpsychism. A proposed macro-perspective of a macro-finite-centre cannot be both a unitary, overarching, perspective *and* contain within its point-of-view the point-of-views of micro-finite-centres.

#### **4.4.2 The Problem of the Strong Emergence of Perspectives**

I have shown how perennialism appears to face a version of the subject combination problem for panpsychism, but it also faces a kind of subject derivation problem. Remember that cosmopsychism facing a subject derivation problem is a key motivation behind a move to perennialism in the first place. Recall that the subject derivation problem for cosmopsychism is the challenge of accounting for the existence of sub-cosmic subjects in virtue of the cosmic subject. Clearly, perennialism does not face the same subject derivation problem because it does not posit a cosmic subject. However, it does still face the problem of how to derive sub-cosmic subjects from the universal non-dual consciousness. This problem is very closely related to the problem mentioned in section 4.3. I suggested that the only way for the universe of multiplicity to be derived from the non-dual ground was via strong emergence, hence giving rise to a problem of strong emergence for perennialism. While that argument focused very generally on how to derive the whole universe from the non-dual ground, the subject derivation problem I want to highlight here is one specific aspect of the general problem.

We can put the problem like this; how are we to derive sub-cosmic subjects, and thus sub-cosmic perspectives, from a ground entirely devoid of subjecthood, and thus devoid of perspective(s)? When stated like this, it is clear to see that a problem of emergence surfaces again. We can call this *the problem of the strong emergence of perspectives*.

The problem, as I have just stated, is one aspect of the general problem of the strong emergence of the emanation. However, there is an additional worry aside from the general problem. Let us accept, for the sake of argument, that we have a good explanation for the emergence of the emanation in general. Such an explanation does not necessarily explain the perspective problem. Perspectives, we are informed, are not present in the ground of universal non-dual consciousness, but appear in the emanation in cases of a co-presence of objects and witness-consciousness. Before such co-presences, there are no perspectives (and presumably this includes the perspectives of micro-finite-centres which also come to be perspectival as a result of such a co-presence). So, the question would remain; how can we intelligibly derive conscious perspectives in virtue of the co-presence of witness-consciousness and objects, the nature of both being entirely aperspectival? It seems Albahari's account will rely on the disposition of witness-consciousness to be perspectival under conditions of a co-presence with objects, but, as mentioned, I suspect it will be challenging to give an account of what that amounts to without implying that witness-consciousness is already the bearer of a perspective.

#### **4.5 The Aggregates Problem**

It is one thing to show that subjects *can* combine, but another to say on what grounds such a combination happens. The aggregates problem is the latter problem (whereas the perspectives problem relates to the former). The aggregates problem is one that Albahari herself recognises, she says:

I have been supposing that atoms and animals are finite centres, while tables and toasters are not, and it will be a challenge to arbitrate the principles that sort finite centres from mere aggregates (2020, p. 128).

The problem resides in explaining the principles that govern why some aggregates of micro-finite-centres give rise to macro-finite centres, while others do not. As Albahari notes, she takes atoms and animals to be macro centres but not many other ordinary objects. Macro-finite-centres form from combinations of micro-finite-centres that result in subjective unities, whereas those combinations not resulting in such unities are mere aggregates. But what is it that is special about subjective unities that allow their subjective characters to combine to become a single macro-level finite centre? The question remains unanswered.

I must be clear, this is not a problem unique to perennialism, because panpsychism, cosmopsychism and even physicalism face exactly the same problem; why do only some combinations (or derivations) of the (psycho)physical ultimates give rise to macro-consciousness? I think along with panpsychism, it is perfectly respectable for the perennialist to reply that while a complete perennialist theory would need to arbitrate the mechanisms distinguishing subjective unities from mere aggregates, for now, there is an epistemic distance between us and the uncovering of such mechanisms.<sup>35</sup> For now, if we have principled reasons to think combination occurs, then this will suffice. The pertinent issue is whether or not there are principled reasons to reject the combination of micro-consciousness into macro-consciousness *tout court*.

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<sup>35</sup> Chalmers makes this point in reference to type-f monism in general; ‘. This is a point that Chalmers makes when talking about panpsychism (to be clear, he is actually talking about type-f monism): ‘It is not easy to see how a distribution of a large number of individual microphysical systems, each with their own protophenomenal properties, could somehow add up to this rich and specific structure. Should one not expect something more like a disunified, jagged collection of phenomenal spikes?...This is a version of what James called the combination problem for panpsychism, or what Stoljar (2001) calls the structural mismatch problem for the Russellian view (see also Foster 1991, pp. 119-30). To answer it, it seems that we need a much better understanding of the compositional principles of phenomenology: that is, the principles by which phenomenal properties can be composed or constituted from underlying phenomenal properties, or protophenomenal properties. We have a good understanding of the principles of physical composition, but no real understanding of the principles of phenomenal composition. This is an area that deserves much close attention: I think it is easily the most serious problem for the type-F monist view. At this point, it is an open question whether or not the problem can be solved’ (2010, p.136)

The point of including this here is not to suggest an answer to the question is required to take perennialism seriously. Rather the point is that, in addition to its own problems, perennialism still faces the same old problems as other views.

#### **4.6 Perennialism vs Cosmopsychism and Panpsychism**

Let us refresh what has been said about perennialism, comparing it to cosmopsychism (the view which it aims to succeed) and panpsychism (the view which cosmopsychism is purported to succeed). For perennialism to stand as the successor to cosmopsychism, it must overcome at least some of its problems without introducing more of its own. Moreover, it must maintain cosmopsychism's advantages over panpsychism. Let us highlight the main advantages and disadvantages of the respective views again. Panpsychism's most powerful motivation is that it avoids the problem of strong emergence (a persistent problem for physicalism). Panpsychism, however, faces the combination problem, with a particularly difficult aspect being the subject combination problem. Cosmopsychism maintains panpsychism's advantage of avoiding the problem of strong emergence, by also positing consciousness at the fundamental level, but, moreover, overcomes the combination problem (and its subject combination aspect) by claiming that fundamental consciousness is on the cosmic rather than micro level of reality. Thus, macro-consciousness is not formed of a *combination* of micro-consciousnesses. However, it does face an equivalent problem in the derivation problem (and subject derivation aspect), because macro-consciousness (and macro-subjects) must somehow derive from the cosmic consciousness (and cosmic-subject). At this point, perennialism enters the picture. Perennialism is touted as the natural successor to cosmopsychism as it purports to overcome the subject derivation problem. Albahari correctly identifies that the subject derivation problem is dependent on the existence of a cosmic subject that grounds sub-cosmic subjects. The perennialist approach is to remove

the subject derivation problem by removing the problematic commitment to a cosmic subject. In doing so, perennialism indeed avoids the subject derivation problem for *cosmopsychism*. However, as I have shown, it faces a version of its own. More worryingly, as I have shown throughout this section of the paper, perennialism succumbs to the foremost problems for each of the main approaches to the problem of phenomenal consciousness. Like physicalism, it faces a version of the problem of strong emergence (of the emanation from the non-dual ground). Like panpsychism it faces a subject combination problem (the problem of incoherent contents of perspectives) and, finally, like cosmopsychism, it faces a subject derivation problem (the problem of the strong emergence of perspectives).

Additionally, perennialism arguably has more difficulty defending the plausibility of the ultimate ground than panpsychism and cosmopsychism. Both panpsychism and cosmopsychism, although they are admittedly strange ideas at first, posit consciousness relatively comparable to our human consciousness, at the fundamental level. I do not mean the consciousness of an electron, or the cosmos, are the same as human consciousness, but they are at least theorised to be, like us, a subject instantiating phenomenal properties. The fundamental consciousness, according to perennialism, on the other hand, breaks significantly from strongly held intuitions, or apparent conceptual truths, about consciousness. For example, that consciousness necessarily involves a subject instantiating phenomenal properties. It does so, I have argued, without strong enough reasons.

Taken together, perennialism appears far from a natural successor to cosmopsychism, and what is more, it looks to be behind panpsychism and physicalism in terms of how many serious problems it must overcome.

The final section of the paper takes us back to where perennialism entered the picture. To overcome the derivation problem, perennialism drops the stipulation that the cosmos is a subject of experience. That avenue, as demonstrated, leads us to somewhat of a dead-end, but there is another option at that junction. Like perennialism, panqualityism drops the stipulation that the fundamental level of reality is subject-involving, only for panqualityism, like panpsychism, the fundamental level of reality is the micro rather than the cosmic.

## **5 Panqualityism**

Panqualityism is a natural alternative to panpsychism, we might say its potential successor. It states that phenomenal ultimates are only phenomenally qualified rather than being phenomenal properties instantiated by a subject of experience, as is the case with panpsychism. The properties we are aware of in experience, according to panqualityism, are perceived phenomenal qualities. For any given phenomenal quality, there is a phenomenal property consisting of the awareness of it. But phenomenal qualities exist unexperienced too.

If one explains how macro-experience can be constituted of the awareness of phenomenal qualities, rather than the combination of phenomenal properties, then there is no subject combination problem to address, because while phenomenal properties presuppose a subject of experience, phenomenal qualities do not. On such an account, in combining phenomenal qualities we are not combining subjects of experience. Coleman (2012, 2014, 2016) offers a panqualityist account involving micro-qualities in conjunction with a reductionist account of awareness. On his view, phenomenal consciousness is

phenomenal quality plus awareness, where the mechanism for generating awareness is a higher-order thought (HOT). He explains the view like this:

On panqualityism the universe is fundamentally constituted of qualities akin to those we experience, e.g. sensory qualities such as blue and red, but in their natural state these exist non-consciously. Panqualityism is, if you will, panpsychism minus awareness. Though the panqualityist's universe, like the panpsychist's, is bedecked with qualities, awareness of those qualities is restricted, for all we know, to living brains. The qualities constituting all else are 'unfelt qualia'...what they lack is the light of awareness. (2016, p. 92)

He elaborates:

I adopt Feigl's suggestion that in awareness one cerebral area 'scans' qualities in another area, elaborating it via a higher-order theory of consciousness...on panqualityism a brain is a system of qualities, some portion of which is conscious at a time thanks to the posited special relational property. A group of brain-qualities is within the spotlight of awareness, we may say. The rest are unconscious. (2016, p. 93)

The 'spotlight of awareness' is a higher order thought. Since the view utilises HOT theory's approach to generating awareness, it will help to summarise the view and briefly highlight the notable ways the two positions differ.

### **5.1 Higher Order Thought Theory of Consciousness**

For the higher order thought theory (HOT theory)<sup>36</sup>, the problem of consciousness is a general problem relating to why and/or how some mental states are conscious. Therefore, its focus is explaining state-consciousness. The *raison d'être* of the HOT theory is to make sense of the apparent truth that there are both conscious and unconscious mental states. It

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<sup>36</sup> The most notable proponent of HOT theory is Rosenthal (1993, 2005).

makes sense of this by providing an account of the difference between conscious and unconscious states.

The basic idea is that a mental state is a conscious state if it is the object of a higher order thought (HOT). States that are unconscious are those not represented in any HOT. A thought about a mental state is always a higher order thought, while a thought about something that is not a mental state is always a first-order thought. We can therefore say that HOTs are consciousness-makers, so it is natural to wonder what it means to be the object of a HOT. The simplest way to understand HOTs is to consider them awareness-generators. Take a first-order mental state such as <there is a dog barking>. As a first-order mental state alone it is unconscious, but now suppose that first-order state becomes the object of a HOT (i.e. there is a thought *about* the first-order state), the resulting mental state represents the first-order thought as the object of the higher order thought <I am thinking about a dog barking>. The HOT generates awareness of the first-order mental state that the dog is barking, making the resulting state a conscious state. Thus, on the HOT view, consciousness and awareness are extremely closely related.

Whether or not a given *state* is conscious depends on a HOT generating awareness of that state. *Awareness of* seems to bring about state-consciousness. This gets to an important point. For HOT theorists, state-consciousness is explained in terms of transitive consciousness. Transitive consciousness being consciousness *of* something. Therefore, a mental state is conscious if and only if there is consciousness of that mental state. This sounds circular, but what it is really saying is that state-consciousness is explained in virtue of transitive consciousness, which is not circular. For HOT theorists, then, HOTs are consciousness-makers in the sense that they make mental states conscious, and they do so

because they are awareness-generators (remembering that transitive consciousness amounts to *awareness of*).

## **5.2 HOT Theory and Panqualityism**

In general, HOT theorists are not concerned with questions about the generation of creature consciousness, or the problem of phenomenal consciousness. For example, it appears that, according to HOT theory, every conscious state involves a subject's awareness of that state, but the theory is not concerned with the nature of the subject, it is only concerned about the generation of state-consciousness.

Like HOT theory, Coleman's panqualityism takes higher order thoughts to be instrumental in generating consciousness. However, while HOT theory is not generally concerned with the generation of phenomenal consciousness, panqualityism is specifically concerned with such generation. The two are thus only comparable in that they both invoke HOTs to generate awareness. Panqualityism's aim is to give an account of phenomenal consciousness that does not posit subjects of experience at the microphysical level, in order that it avoids the combination problem. For Coleman, unlike HOT theorists, by generating awareness HOTs generate subjects.<sup>37</sup>

Coleman's panqualityism takes HOT theory's method of generating awareness of mental states via HOTs, but applies it to brains as a whole. We can perhaps see Coleman's view as entailing a massively complex HOT generating awareness of the phenomenal qualities of many states synchronously. It is supposed to work something like this; there is an input to the visual sense which is attached to a visual phenomenal screen. The visual

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<sup>37</sup> It might be that that is an implication of HOT theory too, but it is not important because, unlike Coleman, their aim is merely to account for state-consciousness.

phenomenal screen is the collection of phenomenal qualities linked to the visual sense. As a result, the contents of the visual screen change depending on what is presented to the visual sense. This does not yet give us awareness, only a collection, possibly a unity, of qualities. To get *awareness of* the visual phenomenal screen, a process of phenomenal representation is undergone by means of a second phenomenal screen - a central experiential screen - fed into by all suburban screens (auditory, olfactory, emotional, etc.). This central experiential screen equates to a higher order thought which integrates the signals from each of the suburban screens into a unified phenomenal representation of the whole organism. Awareness is explained, without remainder, Coleman states, by this representation of qualities in the central experiential screen. And this also explains, without remainder, the existence of macro-subjects, like you and I. Coleman puts it like this:

This phenomenal representation of phenomenality...a standalone locus of executive representational phenomenality, in contradistinction from other such systems populating the landscape, is our subject, I propose. (2012, p. 160).

For the panqualityist, there are no subjects at the fundamental level, so the subject combination problem never arises. Subjects are reduced to awareness and awareness is generated by HOTs. Awareness does the work of the subject. One broad challenge of the view is to ask how awareness can effectively do such work, this includes the problem of explaining how to generate awareness out of non-awareness.

For Coleman (2016, p. 260), subjects are taken to be simple entities that are aware. According to this definition, once you have awareness of phenomenal quality, you have a subject. Therefore, the main problem, according to Coleman at least, is how to account for awareness arising from a base entirely lacking awareness. For him, awareness is explained

reductively as merely the result of a higher order thought about a mental state. It seems to me that understanding subjects as simply aware entities, and awareness as reductively explainable via HOTs, opens the door to deeper problems, however.

I will sketch the main problems for panqualityism, as I see it. The first challenge is to break apart the concept of a subject of experience. Much like the perennialist, Coleman needs to prise apart the intuitive notion of subjective experience being the result of a subject instantiating phenomenal properties. The intuitive idea is that phenomenal consciousness just *is* subjects being aware of phenomenal qualities (or subjects instantiating phenomenal properties), and most take this as a conceptual truth. For Coleman, a prising-apart of the concept is needed to bolster the claim that phenomenality is ubiquitous only as phenomenal qualities (unexperienced phenomenality) and not phenomenal properties (experienced phenomenality). The second problem is the panqualityist zombie problem. Once the concept of subjective experience is suitably prised apart, panqualityism is threatened by the possibility of zombies. Panqualityist zombies are exact phenomenal quality (and microphysical) replicas of us, but entirely lacking awareness. Coleman's reply is that the conceivability of panqualityist zombies would only threaten the view if there were a phenomenology to awareness, but there is no such phenomenology. If there is no phenomenal feel to awareness, then zombies leave nothing out of the picture. Moreover, for Coleman, the awareness from non-awareness problem is not difficult to address once this is understood either because the HOT mechanism that generates awareness is not said to be generating anything novel, phenomenologically, so is suited to a simple reductive explanation.

### 5.3 Separating Subjects and Qualities

The panqualityist project hinges on being able to metaphysically break apart the concept of subjective experience, leaving a subject, or at least awareness, distinct from phenomenal qualities. Chalmers's (2016) panqualityist zombie argument is intended as an argument against the breaking apart of the concept of subjective experience. The thinking is that if we accept that phenomenal qualities can exist apart from subjects, then we can conceive of panqualityist zombies; entities that are exact microphysical and micro-quality replicas of us but who lack awareness. If this is the case, panqualityism would appear to leave something out of the picture, and must, therefore, be false. We can formulate the following argument:

1. It is conceivable that there is a conjunction of micro-qualities without any awareness of such qualities.
2. If it is conceivable that there is a conjunction of micro-qualities without any awareness of such qualities, then it is metaphysically possible.
3. If it is metaphysically possible that there is a conjunction of micro-qualities without any awareness of such qualities, then panqualityism is false.
4. Therefore, panqualityism is false.

Coleman's response is that there is nothing lacking in the zombies, thinking otherwise is to imply that there is a phenomenology to awareness itself:

It's true that if awareness had phenomenology, then this, like sensory quality in general, would be hard to functionalize. But I deny that mere awareness has phenomenology. (Coleman 2016, p. 270)

He maintains that while it is true that *if* there were a phenomenology to awareness, *then* it would be hard to give a functional account of it, there is, in fact, no such phenomenology present, and so the problem never arises. Recall that Coleman wants to do away with

subjects instantiating phenomenal properties and replace them with the awareness of phenomenal qualities (where awareness is achieved via HOTs). The problem is that when subjects of experience are replaced by HOTs, which are a distinctly functional affair, there is no room for awareness to have a phenomenology, because any such phenomenology would be hard to functionalise. Coleman's strategy, as I understand it, is multifaceted. He aims to offer intuitive reasons for the positive claim that phenomenal qualities exist independent of subjects, together with presenting a dilemma for awareness of awareness proponents (i.e. phenomenology of awareness proponents). I argue there is a way of circumventing the dilemma, and moreover, this gives rise to a quandary for panqualityism, in the form of a trilemma.

#### **5.1.1 Standalone Qualities as Intuitive**

The positive, intuitive, motivation for standalone qualities is that we can, in practice, perfectly well conceive of qualities as existing independently of subjects:

We have, on the commonsense way of thinking, no difficulty with the notion of qualities which exist with no-one there to experience them. I suggest we use this commonsense model to think now about unexperienced instances of phenomenal quality. We can, to take a next step, attempt to imagine a patch of phenomenal red, now as experienced by one of us, now as experienced by nobody, but still 'radiating' redness, much as we take the lonesome red London bus to do. Next, consider that this phenomenal redness permeates the spherical volume of a particle, a panpsychic ultimate. We have not yet been forced to think of this ultimate as itself a subject (Coleman 2012, p. 155).

Next up, Coleman argues, there are intuitive reasons for thinking that awareness does not have a phenomenology, insofar as it seems very difficult to put one's finger on exactly what it is that awareness-of-awareness (since this is precisely what a phenomenology to

awareness would amount to) is supposed to add to experience. As such, Coleman argues that the very suggestion there is a phenomenology to awareness is unmotivated. He claims it is strange to think the mechanism through which qualities are presented to us should add to the sensory qualities, as it would be akin to the lens of a camera appearing in the periphery of a television show.

### 5.1.2 The AoA Dilemma for Panpsychism

To add weight to the, supposedly, intuitive idea that there is no phenomenology to awareness, Coleman presents a dilemma which proponents of awareness-of-awareness (AoA) must face. I call this the AoA Dilemma. The dilemma is: either (1) the supposed ‘feel’ of awareness-of-awareness is an isolated feel; a ‘feel’ it has independently of first-order qualities, or (2) it is interpenetrated by the first-order qualities of which we are aware. To make this clear, I think we can characterise the first horn of this dilemma, as a commitment to the following:

**Option 1:** The phenomenology of the awareness of qualities exists independently of any particular token quality, and indeed persists in the absence of any token quality *tout court*.

AoA proponents opting for this route of the dilemma have the difficulty of explaining how the phenomenology of awareness of a given token quality could be apprehended as distinct from the feeling of awareness of other first-order qualities. A satisfactory account needs to offer an identifiable ‘feel’ that exists in the absence of first-order qualities. Again, the phenomenology to awareness is supposed to be the feeling associated with being aware of some quality or other, and if that feeling were detached from some quality or other then it would seem a challenge to characterise exactly what it is.

The issue for AoA proponents that opt for the second horn of the dilemma, Coleman contends, is if the feel of awareness of qualities is interpenetrated with the awareness of first-order qualities, we should get each quality twice in our consciousness. We should experience the qualities once in virtue of our first-order awareness of them and then again in virtue of our second-order awareness (of our awareness) of them. Coleman states:

This duplication is unavoidable, since the sensory quality of awareness is posited as an item additional to the first-order qualities, while containing, in its feel (where else?), reference to them (Coleman 2016, pp. 272-273).

Since we clearly do not get a doubling-up of qualities in our experience, this option is a no-go.

He concludes, given we cannot put our finger on the phenomenology of awareness, and considering the fact that awareness-of-awareness proponents face this dilemma, we should reject that subjects have an awareness of awareness and surmise that there is nothing qualitatively that the HOT mechanism needs to contribute to consciousness, and as such there is nothing that HOT leaves unanalysed. However, I am not convinced that we should expect to see such a doubling-up in our experience, if we were to choose the second horn of the dilemma. It will help if I present the option in an alternative way. I think we can characterise the second horn of the dilemma as a commitment to the following:

**Option 2:** The second-order phenomenology consisting of the awareness of awareness of qualities is apparent only in the presence of first-order phenomenal qualities. The phenomenology of awareness is dependent on, but distinct from, the existence of first-order phenomenal qualities.

Stated this way, it is not clear to me that we must expect to see a doubling-up of qualities in experience. There seems to be a perfectly coherent story to be told that does not imply

doubling-up; the phenomenal feel of awareness is such that it is only perceptible in experience when present in conjunction with first-order qualities. This in no way entails that the panpsychist's subjects must be presented with each token quality twice.

### **5.1.3 Circumventing The AoA Dilemma**

Related to this alternative story, I believe there is a way to circumvent the above dilemma, and indeed to add intuitive appeal to the notion that there is a phenomenology to awareness. To do this, I refer back to Coleman's insistence that it is strange to think that the mechanism through which qualities are presented to us should add to the sensory qualities, as this would be akin to the lens of a camera appearing in the periphery of a television show. I propose that the feel of awareness can be grasped by considering the juxtaposition between the goings-on on a television set (actors reading their lines, moving in this way and then in that way) and that same goings-on as captured by a video camera. Or, we could say, *presented*, or *disclosed* to a video camera. The video camera adds a feel of its own. It adds a particular (more or less) unique angle from which the goings-on on the set are viewed. It adds a boundedness not present on the set itself and the feeling that accompanies that boundedness. It, perhaps, also adds the feeling of there being more 'to the sides' or 'behind' the scene than that presented from the viewpoint of the camera - perhaps this is the 'feel' of limitation or the 'feel' of exclusion rather than inclusion. We can illustrate this further, and perhaps even more simply, by thinking about our own subjective points-of-view. There is a distinctive feel to being aware that what we are presented with, in our visual field, is bounded, discreet, limited due to the particular point-of-view we have. Again, there is a distinctive feel to anticipating that there is more to the scene, just outside of its purview.

I anticipate that Coleman will respond that the boundedness that I speak of can be accounted for by taking the 'subject' to be identical to the central experiential screen, in his

view, which integrates (represents) the inputs from suburban phenomenal screens. We, as macro subjects, he might say, are identical to a central experiential screen. Our everchanging, bounded phenomenology equal to the ever-changing, bounded (by being limited to particular brain) representation of ever-changing suburban phenomenal screens, by our central experiential screen. However, my point remains. If subjects are central experiential screens, my point is that it feels like something to be a central experiential screen, that boundedness feels like something, just like it feels like something to be a unified and persisting point-of-view in the face of continual change with respect to all other phenomenal content. I am not saying it is easy to put one's finger on precisely what the feel in question is, as I alluded to already, I do not think we should expect it to be easy if the way it feels is only apparent in the presence of awareness of first order qualities.

What I am proposing is that there is a phenomenology to the awareness of first-order qualities owing to subjects of experience being inherently perspectival, or more simply, to *being* phenomenal perspectives. Subjects having, or being, phenomenal perspectives is highly intuitive. It is a claim that could not possibly tally any better with our subjective experience. I think there is a distinctive feeling to the bounded, discreet, persisting for-meness of awareness of qualities that is not accounted for by the first-order awareness of qualities alone.

How does taking the phenomenology of awareness to be synonymous with the feel of a phenomenal perspective reframe the AoA dilemma? The answer is it offers the panpsychist a clear way to dissolve the dilemma. My claims about perspectives accepted, the panpsychist would find a clear path through either the first or second horn of the dilemma. I suspect that taking the second option is the better of the two. In this case, they can maintain that the phenomenal feel of awareness is only apparent in the presence of first-

order qualities, while still being clear that the phenomenology is distinct from the first-order awareness of those qualities alone. If there is a phenomenology to perspectives, as I claim, it would not be surprising that such phenomenology is only apparent in the presence of first-order awareness of qualities, because what perspectives do is frame experience (and there can be no doubt that a framed experience is qualitatively different to an unframed one!). They add a unique vantage point. Intuitively, we can think of perspectives as the view of the stage, and the awareness of phenomenal qualities as the show. Alternatively, we can think of them as unique windows onto the world, framing, and in doing so adding to the experience of, the world.

#### **5.1.4 Implicit Self-Consciousness as Phenomenology of Awareness**

What I have said seems to have some interesting parallels with the literature on self-consciousness. A brief look at the literature may help motivate the idea that awareness has a phenomenal feel.

Some have argued (Sartre 1937, Kriegel 2003) that a pre-reflective (or implicit) self-awareness is a necessary condition of consciousness. On such accounts, consciousness always involves the awareness of oneself as a subject of experience, although oneself-as-a-subject-of-experience does not explicitly show up as an object of awareness. It is such self-awareness that affords the subject continual awareness of its stream of consciousness *as its own*.

Implicit self-awareness has been construed as either owing to the content of experience (Kriegel 2003) or the mode of experience (Smith 1986, O'Brien 2007). Construing implicit self-awareness as included in the content of one's experience can be done by distinguishing between primary and secondary content, where the primary content

of experience is sensory qualia and the secondary content is implicit self-awareness of the experience for oneself. Alternatively, construing it as the mode does not involve self-awareness as an object (even implicitly) of the experience.

Kriegel is interested in the question of whether consciousness is distinct from sensory qualities. He draws attention to the plausibility of intellectual qualia, that is, non-sensory qualia (like beliefs), as demonstrative of conscious states lacking sensory quality. He reasons:

Arguably, at every moment of our waking life, there is something it is like for us to be conscious. But not at every moment of our waking life do we have a conscious sensory experience. Therefore, when the conscious state we are in is an abstract thought, there is a non-sensory way it is like for us to have that thought. (2003, p. 11)

He then argues that intellectual qualia can be construed in terms of implicit self-awareness. Of course, if consciousness were distinct from sensory qualities that would only tell us, regarding our present concerns, that there are non-sensory qualities that the panqualityist must situate in the web of first-order phenomenal qualities. It has not yet given us reason to suppose that non-sensory qualities cannot be so situated. However, what Kriegel is really highlighting is that there is a what-it-is-like-ness to having a conscious thought, *qua* a conscious thought. If the claim is that there is something a thought is like, then it sounds identical to the claim that there is a phenomenology to awareness. So, what, according to Kriegel, does the *feel* of a conscious thought amount to? He says:

there is a sense of self-presence or self-manifestation of the self inherent in the thought. There is some sort of dim self-awareness that always accompanies conscious thinking or reasoning...My suggestion is that this sort

of self-awareness is what the what-it-is-like-ness of conscious intellectual states comes down to.

My suggestion, then, is that intellectual qualia consist in an awareness of oneself which accompanies every conscious thought. When one is having a conscious thought, one is always aware not only of whatever state of affairs one is thinking about, but also, to some degree, of oneself as the thought owner, that is, as the thinking subject. This type of permanent self-awareness is not reflective or introspective. We do not explicitly entertain a thought about ourselves whenever we are conscious. Rather, the self-awareness of which I speak remains implicit in the conscious episode (2003, p. 13)

Drawing attention to Sartre's way of making the same distinction he says:

Non-reflective self-awareness is, by contrast, a much subtler form of self-awareness. It is permanently humming in the background of our stream of consciousness, but never shows up at the focal center of our overall awareness. It is an unintrusive, unimposing accompaniment to all the inner goings on in our consciousness. (Kriegel 2003, p. 14)

The upshot of Kriegel's insights is that any theory of consciousness will need to account for the phenomenon of implicit self-awareness. This goes for panqualityism as well as panpsychism and indeed all theories of consciousness. Given what I have said about the what-it-is-like-ness of conscious perspectives, perhaps the panpsychist approach can both be bolstered by the phenomenon of implicit self-awareness, while also offering the required account of it at the same time. Taking inspiration from all of this, they could perhaps say that the proposed feel of awareness is precisely the kind of phenomenology that is described in self-consciousness literature as *implicit self-awareness*, moreover, they might say that implicit self-awareness is owing to the *mode of experience* rather than the content of experience, and that such a mode can be adequately accounted for in terms of conscious perspectives. When I say that conscious perspectives 'frame' experience, and in so doing

add to the ‘feel’ of experience, I could as well be saying implicit self-awareness, as the mode of experience, is what is doing the framing and its distinctive feel is what characterises the ‘feel’ of conscious perspectives, in contradistinction to the feel of their phenomenal content.

I should note that nothing about what I am saying presupposes, as Coleman may have it, that in order to be phenomenologically active, perspectives must be present on the stage directly, so to speak. Panpsychists need not expect, contra Coleman’s claim, the presence of a camera visible at the periphery in television shows. Rather, the framing of experience itself adds to phenomenology in more nuanced ways.

#### **5.4 Panqualityism’s Quandary**

Considering what I have said, I suggest we can summarise the quandary for panqualityists with reference to four of its likely commitments:

1. Macro-perspectives exist.
2. Micro-perspectives do not exist.
3. Macro-perspectives are nothing more than the awareness of qualities.
4. The awareness of qualities is suitably accounted for by HOTs.

My contention is that it seems to me hard to maintain all four commitments without facing a serious trilemma. That is, if I am right that it feels like something to be a perspective. Taking one commitment at a time, I will say why the panqualityist should maintain it, before showing why it is hard for them to do so. I believe the panqualityist will want to maintain (1) because its truth is so immediately and pervasively apparent in our first-person experience. While (2) must be accepted because of the rejection of subjects at the micro-level. Subjects and perspectives can be considered synonymous for present purposes, so if subjects are absent from the micro-level then so are perspectives. It seems macro-perspectives, according to the panqualityist, are nothing over and above the awareness of

qualities (since subjects are nothing over and above the awareness of qualities), as stated in (3). The implication of this commitment is that awareness does not add any phenomenology over and above that of the first-order qualities. The reason being, if awareness added to the phenomenology, it would give rise to the panqualityist zombie objection because it would be difficult to reductively explain the added phenomenology in virtue of a HOT generating awareness. Instead, the panqualityist is likely to maintain (4), that HOTs adequately account for the generation of awareness.

The problem is that if perspectives *do* turn out to add to phenomenology, then (3) and (4) are false. If (3) and (4) are false then panqualityism needs another way to account for macro-perspectives in the absence of micro-perspectives. However, the only way to do this seems to involve the strong emergence of perspectives, given that perspectives carry with them novel phenomenology, as I have argued. It cannot be claimed that the emergence is of the weak variety because that would entail that perspectives were present from the start, at the micro-level, which returns us to a distinctly panpsychist position.

I have argued that (3) is false because perspectives do indeed add something to phenomenology over and above that of the first-order qualities alone. If (3) is false then (4) must also be false, because (4) is a straightforward adoption of the HOT theory's approach to generating awareness, but that approach cannot work if it must also generate phenomenology (by Coleman's own lights). Once (3) and (4) are out of the way the panqualityist is left with the ill-at-ease conjunction of (1) and (2); the absence of micro-perspectives and the presence of macro-perspectives.

It seems a trilemma emerges; either they reject (1) by rejecting macro-perspectives, or they reject (2) by accepting micro and macro perspectives, or they maintain both (1) and

(2). The first option seems like a non-starter, but if it was the preferred choice then the panqualityist would need to give an account of why our apparent macro-perspectives are only merely apparent. However, this is very difficult to do if perspectives add to phenomenology. The second option is also a non-starter for the panqualityist because it takes us to a distinctly panpsychist position. The third option seems like the most likely, however it seems to entail the strong emergence of perspectives. Bear in mind that perspectives (if I am right) bring with them a novel phenomenology over and above that of the first-order phenomenal qualities, so the emergence of novel phenomenology from the awareness of first-order qualities seems to be of the strong variety of emergence. Claiming only a weak emergence would not help because that would likewise amount to a distinctly panpsychist view. The moral of the story is that if there is a phenomenology to awareness, then panqualityism seems committed to the strong emergence of perspectives from an entirely aperspectival base.

### **5.5 The Unhappy Compromise Objection to Panqualityism**

In response to what I have said, the panqualityist will likely be steadfast in their view that there is nothing awareness adds, phenomenologically, to experience, and as such, there is nothing that cannot be functionalised by HOTs. Perhaps what we have, at heart, is a battle of intuitions, where surely what counts is that either the intuitions in question are already accepted or they are forceful enough to convince.

Consider HOT theorists that suggest phenomenal consciousness can be given a purely functional explanation, on one hand, and panpsychists who suggest that it is a fundamental feature of reality, and so evades functional explanation, on the other. Panqualityism is supposed to be a happy compromise between the two, evading the repercussions of locating phenomenal consciousness at the fundamental level, while

resisting the counterintuitive claim that it is nothing over and above a mere functional state. A possible objection to the panqualityist project says that this is an unhappy compromise because it is not clear who it is supposed to convince (or, indeed, who it has the power to convince). Panpsychists are unlikely to be convinced because it arguably amounts to giving up a central intuition underpinning their panpsychist thinking; that phenomenal consciousness necessarily involves phenomenal properties instantiated by a subject. Meanwhile, HOT theorists are likewise unlikely to be convinced because it arguably amounts to giving up a central intuition that consciousness, in its entirety, can be functionalised. HOT theorists will likely be unhappy to admit a component of phenomenal consciousness fundamental status, while panpsychists will likely be unhappy to revoke the fundamental status of a component of phenomenal consciousness.

When we consider that this may turn out to be a battle of intuitions, where what counts is if your intuitions are either already accepted or forceful enough to convince, it seems Coleman's panqualityism is in a bind. I think there is little doubt that the panpsychist intuition that phenomenal consciousness consists in a subject instantiating phenomenal properties, is more widely accepted than Coleman's unexperienced phenomenal quality intuition. Moreover, given the unhappy compromise, I see little chance of panqualityism convincing either HOT theorists or panpsychists of the forcefulness of his intuition.

## **5.6 Panqualityism vs Panpsychism, Cosmopsychism and Perennialism**

How fruitful is panqualityism, as an approach to the problem of phenomenal consciousness, in comparison to panpsychism, cosmopsychism and perennialism? As we said at the start of this section, panqualityism seems hopeful initially because it avoids the subject combination and derivation problems associated with panpsychism and cosmopsychism, respectively. Like perennialism, it correctly pinpoints the origin of those problems as their stipulation that

phenomenality on the fundamental level of reality is subject-involving. And, again like perennialism, panqualityism evades these problems by doing away with subjects on the fundamental level. Although, for panqualityism, this amounts to doing away with subjects of experience at the microphysical level rather than the cosmic level. Both panqualityism and perennialism are built on the rejection of the intuitive idea, and touted conceptual truth, that consciousness necessarily involves a subject instantiating phenomenal properties. Motivating the rejection of this apparent conceptual truth is thus key to panqualityism's success, in much the same way that motivating the plausibility of the non-dual ground is key for perennialism, but I hope to have shown that the motivation on offer is weak. Moreover, it seems to me that panqualityists are in a quandary over what position to take on the existence of conscious perspectives. We can say with confidence that panqualityists deny conscious perspectives at the fundamental (micro) level because they explicitly deny subjects are fundamental. They must, however, decide whether to endorse the view that macro-subjects, like you and I, have perspectives. If they decide to endorse them, they must then explain the apparent strong emergence of perspectives from an entirely aperspectival base. If they decide not to, they must justify the implausible claim entailed therein, that macro-subjects, like you and I, are aperspectival. It seems the former is the most likely choice, in which case panqualityism seems to face a problem of strong emergence, similar to that of physicalism. Everything considered, panqualityism does not seem to be a more fruitful or plausible approach to the problem of phenomenal consciousness.

## **6 Conclusion**

The aim of this paper was to explore the viability of two interesting approaches to the problem of phenomenal consciousness, that share a similar starting point. Both perennialism and panqualityism seek to overcome the subject problems of cosmopsychism and

panpsychism, respectively, by rejecting the problematic stipulation that phenomenality at the fundamental level is subject-involving. Although this move does indeed evade the target problems, I have shown that in both cases, doing so gives rise to additional problems. Furthermore, the additional problems are arguably equal to the very problem(s) (in kind and scale) that motivate the move to panpsychism (and by transition, to cosmopsychism) in the first place. I therefore conclude that, as it stands, neither perennialism nor panqualityism should be considered successors to cosmopsychism and panpsychism. Focus should instead be retrained on the subject problems for panpsychism and cosmopsychism for the best chances of making progress.

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# PAPER 3

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## THE SUBJECT PROBLEM FOR PANPSYCHISM AND COSMOPSYCHISM

### 1 Introduction

Lately, there has been a notable groundswell of interest in novel approaches to the problem of phenomenal consciousness. One such approach is panpsychism, a view which takes phenomenal consciousness to be a fundamental and ubiquitous feature of the universe. Panpsychism, however, has an Achilles' heel, in the form of the combination problem. A typical formulation of panpsychism, called constitutive panpsychism, takes it that the microphysical ultimates of the universe are themselves conscious and human consciousness is formed of combinations of consciousness at the microphysical level. Hence, the combination problem arises due to the need to explain how micro-level consciousness combines to constitute human-level consciousness. Cosmopsychism is an alternative view, which avoids the combination problem by turning panpsychism on its head. Like panpsychism, cosmopsychism says that human consciousness is dependent on a more fundamental form of consciousness, but while panpsychism claims this is found at the micro-level, cosmopsychism claims it is to be found at the level of the cosmos. Rather than maintaining that human consciousness is formed of combinations of micro-level consciousness, cosmopsychism claims they are, instead, derived from a larger cosmic

consciousness. This does, however, give rise to an alternative problem, the derivation problem. Arguably the most promising version of cosmopsychism is constitutive cosmopsychism which, like constitutive panpsychism, states that derivative macro-consciousness is constituted of fundamental consciousness (in this case, though, it is the cosmic consciousness).

The combination problem for constitutive panpsychism can be understood as having three relatively distinct, though overlapping, aspects, relating to the combination of qualities, structure and subjects. It is generally accepted that the most challenging aspect is the subject combination problem. Likewise, the derivation problem can be understood as having the same three aspects, and similarly, its subject derivation problem is considered the most troubling.

Constitutive cosmopsychism is considered a promising alternative to constitutive panpsychism because it does not face the combination problem, so it stands to reason that if it is to be a genuine alternative it must deal with its subject derivation problem better than panpsychism can deal with its subject combination problem (or at least end up no worse-off). In this paper, I argue that the two problems are almost identical because they both hinge on inconsistencies in what I call synchronous perspectives scenarios. The most troubling inconsistencies highlighted in the literature, for both constitutive panpsychism and cosmopsychism, are the purported metaphysical impossibility of synchronous perspective scenarios. I situate these inconsistencies in *metaphysical impossibility arguments* against the views, before offering alternative *epistemic implausibility arguments* which highlight an inconsistency between synchronous perspectives scenarios and our everyday first-person experience. I then propose a model for understanding synchronous perspectives scenarios

which is unproblematic for both constitutive panpsychism and constitutive cosmopsychism. In addition, I consider some alternative responses. I conclude that if there is to be a clear advantage for either view over the other, then it is not to be found in a comparison of their subject problems. However, far from leaving the views where we found them, this paper has the effect of motivating both, simultaneously, by offering a way for them to address the most troubling arguments against them, in the form of their subject problems.

## **2 Preliminaries**

Before moving onto the main body of the paper, it will first be beneficial to cover some preliminaries that will be relevant throughout the paper.

### **2.1 Panpsychism and Cosmopsychism**

A simple formulation of panpsychism says that consciousness is a fundamental and ubiquitous feature of the universe. Arguably the most promising version of panpsychism adds that consciousness is fundamental and ubiquitous because the physical ultimates of reality are themselves conscious (or at least proto-conscious). In most cases the physical ultimates are said to be the microphysical constituents of matter, and in fact, panpsychism is usually taken as synonymous with such cases. Micro-conscious elements are then said to combine to constitute macro-consciousness like our own.

Conversely, a simple formulation of cosmopsychism, called priority cosmopsychism, proposed by Nagasawa & Wager (2016) states that the cosmos as a whole instantiates fundamental consciousness. Arguably the most promising version of cosmopsychism is one that adds to this simple blueprint the claim that the cosmos, as a whole, is the one and only fundamental physical entity, as well as the one and only fundamental form of consciousness (Wager 2011, Nagasawa & Wager 2016, Shani 2015,

Goff 2017, 2020). According to cosmopsychism, macro-consciousness like our own is derived from the consciousness of the cosmos. The cosmopsychist equivalent to constitutive panpsychism is constitutive cosmopsychism which says that sub-cosmic consciousness is constituted of the cosmic consciousness.

To summarise, according to constitutive panpsychism, ‘little’ instances of consciousness combine to constitute ‘bigger’ consciousnesses, while according to constitutive cosmopsychism the ‘biggest’ consciousness comes first (the cosmic consciousness) and ‘smaller’ instances of consciousness are constituted of it (as its partial aspects). Explaining such constitution relationships equate to the combination problem for panpsychism and the derivation problem for cosmopsychism. As mentioned in the introduction, both problems are broad problems formed of numerous aspects or sub-problems. Unless otherwise specified, when I refer to panpsychism or cosmopsychism, I refer to their constitutive variants.

## **2.2 Combination and Derivation Problems**

This paper revolves around just one aspect of the combination and derivation problems, the subject aspect, so it will be useful to distinguish the different combination problems and their derivation equivalents.

### **2.2.1 Combination Problems**

It is now widely accepted that the combination problem for panpsychism is a catch-all term for a family of closely related (and possibly overlapping) problems. Following Chalmers (2016) we can say there are three key aspects, or sub-problems: the quality combination problem, the structure combination problem, and the subject combination problem.

*The quality combination problem* is the problem of explaining how micro-qualities can combine to form macro-qualities. The qualities being referred to are phenomenal qualities such as the quality of redness, which is the quality that characterises what it feels like to see red, or the quality of pain, which is the quality that characterises what it feels like to be in pain. The question in need of an answer is; how is it that small instances of qualities, or proto-qualities, combine into full-blown redness or even a complex of full-blown qualities? Chalmers notes that a particularly difficult aspect of this problem is *the palette problem*, which is the problem of accounting for the vast array of macro-qualities (that we are acquainted with in our experience) in terms of a presumably very small number of micro-qualities. There are a limited number of fundamental particles so we should presumably expect an equally limited number of micro-qualities to match.

Another of the problems is *the structure combination problem*. The problem is that panpsychists must account for how micro-experiential structure (together with micro-physical structure) can combine to form macro-experiential structure. Experience at the micro-level just does not seem to be capable of being structured in the same way that our macro-experience is; our macro-experience is rich, including complex visual and auditory structure, and it is not clear how this can be the result of micro-experience combining. A particularly challenging aspect of this problem is what Chalmers calls *the structural mismatch problem*. The problem of addressing the apparent mismatch between macro-physical structure (the physical structure of brains and the accompanying macro-experiential structure) and micro-experiential structure; how is it that such macro-experiential structure is formed of the combination of micro-experiential structure of the microphysical?

*The subject combination problem* is the problem of explaining how micro-subjects combine to constitute macro-subjects. The most challenging aspect here is *the subject summing problem*. This is the problem of accounting for the apparent lack of metaphysical dependence from micro-subjects to macro-subjects. It doesn't seem like any combination of the micro-subjects necessitates a further macro-subject.<sup>38</sup>

### **2.2.2 Derivation Problems**

For each of the above combination problems for panpsychism, there are similar derivation problems for cosmopsychism. *The quality derivation problem* is the challenge of deriving macro-qualities from quality at the cosmic level. *The structure derivation problem* is the challenge of deriving macro-structure from structure at the cosmic level. And, finally, *the subject derivation problem* is the problem of how to derive macro-subjects from the cosmic subject. This paper focuses on the subject derivation problem, and an aspect of it that I call *the synchronous perspectives problem*. The problem emerges when perspectives are said to exist on different levels of reality synchronously, with perspectives on one level of reality subsuming those at lower levels. As we will see, positing perspective-subsuming perspectives in this way can motivate claims of metaphysical impossibility and epistemic implausibility.

### **2.3 Subjects and Perspectives**

A crucial postulate underpinning much of the material covered in this paper is that subjects of experience are inherently perspectival. That is to say, subjects are integrally the bearers of a unique conscious point-of-view. It is typically accepted as a conceptual truth that to be a subject of experience at all is to have a subjective perspective. In fact, it is so commonly

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<sup>38</sup>Additionally, there are problems that relate to, but that perhaps do not fit neatly in to, the above; for example the grain, unity and boundary problems. However, the focus of this paper is the subject combination problem.

taken to be a conceptual truth that those who reject it face a significant hurdle in overcoming the sheer strength of the intuition.

The notion that subjects of experience are inherently perspective-bearing is endorsed by, for example, by Chalmers (2016), Coleman (2014), Goff (2017, 2020), Shani (2015), Albahari (2020) and Matthews (2011). We can get a good feel for what is being referred to when we talk of perspectives, by considering the following passage from Coleman:

Consider a cluster of experiences, proprioceptive, emotional, cognitive-phenomenal and perceptual, that are together associated in a single phenomenal perspective. What it means to say that these experiences together constitute this one phenomenal perspective, and not any other, can be captured by thinking about an act of introspection performed from within that phenomenal perspective. Such an act of introspection will disclose just the aforementioned experiences and no others, it will not disclose the set of experiences that belongs to any other conscious mind. Intuitively, phenomenal perspectives - minds, subjects - include at a time a discrete set of phenomenally conscious elements, to which an introspective act on the part of one such phenomenal perspective has access. These spheres of experience, each one bound up by the reach of its particular potential introspective access, are by their fundamental nature closed off from one another. For if there is a question over whether a certain experiential element is part of your mind or part of mine, the question is to be settled by which of our minds has (or could have) introspective access to that element. Whichever way the matter falls, we will have two distinct phenomenal perspectives here and not one (2012, p. 145).

Meanwhile, Shani (2015) describes phenomenal perspectives like this:

Each perspective can be thought of as an opening to the world from a given point of origin and, as shown above, it is the form, or shape, of that opening—the dynamic configuration giving it structure—which defines how

things are viewed from this particular point of origin. Thus, we can think of a perspective as an angle whose conscious point of origin is its vertex and whose form is limited by the rays emanating from that vertex. (p. 424)

Mathews (2011) also highlights this unified, bounded, and introspectively accessible aspect of subjects (though she does not explicitly contemplate perspectives):

[A] subject, understood as a centre of subjectivity, is necessarily an indivisible unity: there are no scattered subjects, and the boundaries between subjects are not nominal. The individuation of subjects, or centres of subjectivity, is objectively determined: a thought objectively belongs to you or me; it is not up to a third person, qua knower, to decide where the boundaries of our respective subjectivities will be drawn. (p. 144)

Overall, a simple definition of a conscious perspective is that it is a bounded, limited, loci of experience, expressing a singular point-of-view on the world, being as such only accessible by introspection on the part of the perspective's holder. In what I have to say in this paper, I am taking it that it is uncontroversial that subjects of experience are inherently perspectival. It may turn out that there are good arguments against this, but there are not any that are apparent at present.

## **2.4 Terminology**

Finally, before moving on, it is important to make a brief note on terminology which I use throughout the paper (and which I have already been using). *Panpsychism* refers to constitutive panpsychism unless otherwise stated. *Cosmopsychism* refers to constitutive cosmopsychism unless otherwise stated. Moreover, I take cosmopsychism to affirm the existence of a subject of experience at the cosmic level. Throughout the paper, I frequently refer to entities at three 'levels' of reality: micro-level entities, macro-level entities and a

cosmic-level entity. In addition, I also refer to entities at all level except the cosmic level as sub-cosmic entities.

*Micro-Level:* When I refer to the micro-level I am talking about the level of the microphysical, for example, the sub-atomic level. I mention not only microphysical entities but also micro-subjects, micro-perspectives and micro-qualities. Each of these relates to the same microphysical level of sub-atomic particles. For example, for panpsychists, the microphysical level is the ultimate level of reality and each microphysical ultimate instantiates consciousness (or proto-consciousness), therefore each one is also a micro-subject and instantiates micro-qualities. Whenever I refer to the ‘micro’ level, I refer to the ‘smallest’ level of reality, the microphysical and/or its respective micro-conscious aspects.

*Macro-level:* The macro-level is anything in-between the microphysical and the cosmic. For panpsychists, the microphysical level is fundamental, so we can talk of the microphysical *ultimates* from which all else is formed. In this case, anything formed of a combination of micro-level entities is a macro-level entity (until you get to the level of the cosmos as a whole).

*Cosmic-level:* The cosmic-level entity is the cosmos as a whole. Sub-cosmic entities are any entity that sits below the level of the cosmos, this includes both micro and macro-level entities. For cosmopsychists, the cosmos is the fundamental level of reality, so all micro and macro-level entities are derived from the cosmic-level.

### **3 The Subject Combination Problem for Panpsychism**

In this section I summarise some existing literature on the combination problem, before doing the same for the derivation problem in the next section. I will outline perhaps the first

anticipation of the combination problem, which appears in William James's (1895) 'Principles for Psychology', before covering three contemporary portrayals of the problem, given by Goff (2006), Coleman (2012) and Seager (2010). It will then show one response to the problem offered by Goff (2016).

### **3.1 James: Private Minds Remain Private**

One of the earliest anticipations of the subject combination problem comes from William James in his 'Principles of Psychology' (1895). He writes:

Where the elemental units are supposed to be feelings, the case is in no wise altered. Take a hundred of them, shuffle them and pack them as close together as you can (whatever that may mean); still each remains the same feeling it always was, shut in its own skin, windowless, ignorant of what the other feelings are and mean. There would be a hundred-and-first feeling there, if, when a group or series of such feelings were set up, a consciousness belonging to the group as such should emerge. And this 101st feeling would be a totally new fact; the 100 original feelings might, by a curious physical law, be a signal for its creation, when they came together; but they would have no substantial identity with it, nor it with them, and one could never deduce the one from the others, or (in any intelligible sense) say that they evolved it.

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...The private minds do not agglomerate into a higher compound mind. (1895, p. 15-16)

The first passage illustrates James's contention that 'feelings', or minds, do not combine, he urges us to consider the fact that a group of minds grouped together always remain sealed-off from one another, with no additional mind emerging as a result of any such grouping.

The second paragraph illustrates the same sentiment by way of considering a grouping of people each thinking of a different constituent-word of a sentence, and the apparent lack of an emergent subject that has in its thoughts an entire sentence formed of the combination of each the constituent word-thoughts. The take-away message is that separate minds, in whatever manner they are arranged in relation to each other, always remain separate. Moreover, a compound mind cannot emerge from the combination of separate minds, since the compound mind would be irreducible from the separate minds from which it emerged.

### **3.2 Goff: Experiences Do Not Aggregate**

James's thinking has been turned into a convincing argument against constitutive panpsychism by Goff (2006), he says:

Imagine that each of the ultimates in my brain feels slightly pained. It is unintelligible why the arrangement of these ultimates in my brain should give rise to some new subject of experience, over and above the billion slightly pained subjects of experience we already have. The emergence of novel macroexperiential properties from the coming together of microexperiential properties is as brute and miraculous as the emergence of experiential properties from non-experiential properties (p. 54).

The basic idea is that for constitutive panpsychism to be true, the experiences of macro-subjects must be formed entirely of the experiences of micro-subjects, meaning a macro-subject's experience must include the experiences of micro-subjects. However, it is not clear that we can give an account of combination that satisfies this, and without one, the emergence of macro-experience from micro-experience remains unintelligible.

To illustrate, Goff asks us to consider a composite macro-subject constituted of numerous micro-subjects. The experience of each of the constituent micro-subjects is that

of being ‘slightly pained’, while the experience of the composite macro-subject is that of being ‘severely pained’.<sup>39</sup> The core argument is as follows:

1. For a macro-subject to be *intelligibly* constituted out of a number of micro-subjects, the macro-subject’s experience must include, as parts, the experience of the micro-subjects (or else it is unintelligible how the macro-subject’s experience is constituted out of a set of micro-subjects’ experiences).
2. The micro-subjects’ experience is all and only that of being slightly pained.
3. The macro-subject’s experience is all and only that of being severely pained.
4. Therefore, the experience of micro-subjects is not present in the macro-subject’s experience.
5. Therefore, the macro-subject cannot *intelligibly* be constituted of micro-subjects.

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<sup>39</sup>In case it is helpful, here is the section from which I extract Goff’s argument: ‘Consider a physical ultimate that feels slightly pained, call it LITTLE PAIN 1. Consider ten such slightly pained ultimates, LITTLE PAIN 1, LITTLE PAIN 2, etc., coming together to constitute a severely pained macroscopic thing, call it BIG PAIN. The pained-ness of each of the ultimates comes together to constitute the pained-ness of BIG PAIN: an entity that feels ten times the pain of each LITTLE PAIN. The severe pained-ness of BIG PAIN is wholly constituted by the slight pained-ness of all the LITTLE PAINS. Assuming the coherence of this, the experiential being of each LITTLE PAIN is part of the experiential being of BIG PAIN; the experiential being of the BIG PAIN is a whole which contains nothing other than the experiential being of all the LITTLE PAINS... It follows that for LITTLE PAIN 1 to be part of BIG PAIN is for what it feels like to be LITTLE PAIN 1 to be part of what it feels like to be BIG PAIN. But what it feels like to be LITTLE PAIN 1 is not part of what it feels like to be BIG PAIN. LITTLE PAIN 1 feels slightly pained, BIG PAIN does not. The phenomenal character of LITTLE PAIN 1’s experience, i.e. feeling slightly pained, is no part of the phenomenal character of BIG PAIN’s experience, i.e. feeling severely pained. In the same way, the experiential being of BIG PAIN is supposed to be wholly constituted by the experiential being of all the LITTLE PAINS. But to suppose that what it feels like to be BIG PAIN is wholly constituted by what it feels like to be all the LITTLE PAINS (if this comes to anything at all) must be to suppose that BIG PAIN feels how all the LITTLE PAINS feel and feels nothing else. But, by stipulation, this is not right. BIG PAIN feels a certain way that all the LITTLE PAINS do not: that is, severely pained.’ (2006, p. 57-58)

6. Therefore, constitutive panpsychism cannot account for macro-experience.

The argument above is essentially an argument against the intelligibility of macro-experience constituted of a combination of micro-experiences, on account of the experiences of micro-subjects being seemingly absent from the experience of the macro-subject. It does not go so far as to argue the metaphysical impossibility of subjects summing, it says only that the notion of macro-subjects being constituted of micro-subjects remains unintelligible, but not impossible. Underpinning Goff's argument, it seems, is the assumption that the only viable way for  $x$  and  $y$  to constitute  $z$ , is for  $z$  to be a mere aggregate of  $x$  and  $y$ . In other words, that aggregation is the only viable form of constitution.

It seems that the perspectival nature of subjects is (implicitly) crucial in understanding the motivation behind the first premise. If constitution means aggregation, then the idea that the numerous experiences of slight pain, instantiated by micro-subjects, can combine to constitute the singular instance of severe pain, instantiated by the macro-subject, is untenable when subjects are considered under their perspectival aspect. By taking the inherently perspectival nature of subjects into account we can see more clearly why relying on 'summing', or mere aggregation, will not be an appropriate understanding of combination in order to allow the scenario Goff presents to work (that is, a scenario where instances of small pain accumulate into an instance of big pain).

What is missing is that the pained-ness of the subjects should not be understood as pained-ness simpliciter. Rather, pain is a phenomenal property instantiated by a subject. We might, in fact, be able to conceive of an aggregation of pain considered simply as a phenomenal quality, but this does not take into account the fact that the summing of instances of slight pained-ness, such as in Goff's scenario, is at the same time the summing

of perspectives. It is subjects being the bearers of a perspective that gives them their marked boundedness, and it is this boundedness that gives rise to the core problem with Goff's scenario. It is not just that there are lots of little bits of pain that add up to a bigger pain, it is that there are lots of 'little' subjects experiencing mild pain that are supposed to add up to one 'big' subject experiencing severe pain. When we consider the perspectival aspect of subjects, we can see that, as Goff illustrates, their combination cannot be simply a case of aggregation, because a mere aggregation of perspectives is nothing more than a grouping of individually bounded perspectives.

Goff's claim is that it is not clear that there is any intelligible way in which micro-subjects can combine to constitute macro-subjects, since the only intelligible form of constitution, he tells us, is aggregation. But again, this argument is not a strong argument against constitutive panpsychism, it concludes only that it is not easy to see how the constitution could happen. As we will see shortly, Coleman (2014) uses the inherently perspectival nature of subjects to highlight a metaphysical incoherence in the idea of combining subjects, but first, we look at Seager's (2010) claim, in line with Goff's, that combination is not aggregation.

### **3.3 Seager: Combination is Not Aggregation**

Constitutive panpsychists might hold that macro-consciousness is formed of aggregations of micro-consciousness, where the aggregation works like the aggregative property of mass. In the case of the mass of a rock, for example, its total mass is straightforwardly an emergent property of the sum of the masses of all its massive parts. While I believe there are other problems with holding consciousness to be aggregative in this way, Seager (2010) draws attention to one problem, which is not dissimilar to Goff's objection. The problem with

holding that consciousness is aggregative in the same way as mass, he says, is that it is not able to account for the apparent fact that complex parts, or sub-whole aggregations, will themselves be conscious while at the same time contributing their consciousness to the overall state of the macro-consciousness.

He notes two problems that motivate this worry; *the intelligibility problem* and *the problem of the irrelevance of the totality*. The Intelligibility Problem is the general concern that the notion of conscious states aggregating seems to be unintelligible, Seager says:

consciousness cannot aggregate merely by the co-occurrence of some set of conscious states nominally taken to be ‘parts’ of a putative total and more complex conscious state. And while aggregation is not in general a function of mere co-occurrence (not even in the case of mass), it is not unfair to ask how precisely the aggregation of conscious states is supposed to occur (2010, p. 177).

The problem of the irrelevance of the whole is the concern that aggregative wholes do not offer an opportunity for the whole to be novel, in any important sense. Yet, it seems like macro-subjects are indeed novel in many respects. For example, macro-subjects, even if formed of aggregations of micro-subjects, must be singular subjects of experience. However, they are also said to be constituted of numerous micro-subjects each maintaining their own singular subjective experience. The subjective experience of the whole is not supposed to be a mere collection of micro-subjects’ experiences, it is supposed to be a singular subjective experience of its own. It does not seem that subjects can aggregate in such a way as to allow the whole its own novel subjective experience. Seager explains the point like so:

If we suppose that some massive body is an aggregate of massive parts, then if we know the positions and masses of the parts we know all there is to know about the mass of the totality. There is nothing novel, with respect to mass and its effects, possessed by the total system...The mass of the totality and all of its effects are completely and fully determined, and exhausted by the masses of the parts and their joint effects. In general, with aggregative properties, the property of the whole is nothing but a reflection of the property as distributed through all the parts of the whole. The 'totality' is thus in a sense irrelevant. (2010, p. 177)

Neither Goff nor Seager explicitly argues that the idea of subjects combining is metaphysically impossible, rather, they suggest it seems unintelligible. For Seager, the unintelligibility of the aggregative model means that combination must be something other than aggregation. For Goff, if combination is not mere aggregation (and he agrees it is not) then the constitution of macro-subjects of micro-subjects is doomed to unintelligibility.

### **3.4 Coleman: Perspectives Cannot Combine**

While both Goff and Seager illustrate why combination for panpsychists cannot be mere aggregation and conclude that it is hard to see how subjects *can* combine, Coleman thinks it is easy to see that they *cannot* combine. He holds that the combination of subjects is 'precluded by the metaphysical logic of points of view' (2014, p. 34). Coleman's claim, therefore, is much stronger than the others as he suggests a metaphysical incoherence in the notion of combining subjects. Coleman's target, like the others, is constitutive panpsychism, which, by definition, states that macro-subjects are constituted of the combination of the micro-subjects of physical ultimates.

His argument is based on the idea that subjects are inherently perspectival. As stated previously, to possess a perspective is to possess a discrete, unified, point-of-view. Each

individual subject has a unique view of the world stage, isolated from the stage-views of all other subjects, '[a] subject, then, can be thought of as a point of view annexed to a private qualitative field' (Coleman 2014, p.30). The incoherence in the notion of combining subjects resides in the incoherence of perspectives combining, Coleman purports to show that it is 'a demonstrably incoherent notion' (p. 29), thus ruling out constitutive panpsychism.

We have already seen Seager's concerns with aggregation as the mode of combination for panpsychism. Similarly, Coleman makes an important distinction between *mere aggregates* and *combinations* of entities. Mere aggregates of entities are assemblages without the necessary implication of any sort of unity. A paradigm example is a heap of sand, there is no unity implied by numerous grains of sand being in close proximity to one another. Whereas, we can understand combinations to be unions of entities such that the union implies a new whole, including, as constitutive parts, the combined entities. In combinations, the combined entities survive in the new whole, for they must do so in order for the whole to be constituted of them. An intuitive example of a combination is ingredients combining into a cake. Combinations, in contrast to mere aggregates, have properties that are owing to their parts but which their parts do not themselves instantiate. For example, none of the ingredients of the cake has the property of cake-ness, but the combination of them does. Cake-ness is not a problematically emergent property, however, since we can intelligibly trace its origin to a mixture of the properties of the ingredients together with interactions among them. Moreover, each of the initial ingredients survives the combination into the finished cake.

We now know that Coleman intends to demonstrate an implication of metaphysical impossibility when (1) subjects are considered inherently perspectival (2) macro-perspectives are constituted of combinations of micro-perspectives (as per constitutive panpsychism) and (3) the combination is understood in a non-aggregative way that unites the constituent perspectives in such a way as to intelligibly give rise to a novel perspective.

Coleman's contention, then, is that it is impossible that perspectives combine. He states that since constitutive panpsychists require that micro-perspectives survive the combination into a macro-subject, it cannot be the case that, say, two micro-perspectives integrate into a single macro-perspective, as we would then have one perspective where we previously had two, and it is not possible for one macro-perspective to have two micro-perspectives as constituent parts if the two constituting perspectives no longer exist. Bear in mind that the constitutive relationship between micro-perspectives and macro-perspectives is a synchronous one, at any given moment the macro-perspective is constituted of micro-perspectives.

Not only does this reasoning rule out the case of two micro-perspectives somehow integrating into a single macro-perspective, but it also rules out the case in which the macro-perspective inherits only one of the micro-perspectives of the two constituents, even if it inherited the phenomenal *contents* of both. This is because we would be left with one perspective purportedly constituted of two, and hence one has disappeared and cannot partake in the constitution.

Additionally, Coleman says that we can also rule out the possibility of both micro-perspectives surviving the combination into the new macro-perspective. Recall that what we want is a combination of perspectives, as opposed to a mere aggregation, so it will not

do to simply maintain that the macro-perspective is the aggregate of the two micro-perspectives side-by-side, so to speak, as such an aggregation would lack the required unity of a combination and so would lack the generation of a new perspective subsuming the constituting perspectives.

Consider the possibility that the two micro-perspectives survive a combination into a macro-perspective that contains each of them as partial aspects of its new overall purview. This is the only option, given the above, that would genuinely see micro-perspectives constituting macro-perspectives. However, Coleman says this is not a possibility either. To understand why, he asks us to imagine two hypothetical micro-perspectives, Blue and Red. Blue's perspective is exhausted by the experience of blue to the exclusion of all else. Red's is exhausted by the experience of red to the exclusion of all else. For a macro-subject to be constituted of the combination of Red and Blue, and for Red and Blue to survive as unitary perspectives, the composite macro-subject must contain as partial aspects, both the experience of blue to the exclusion of all else *and* the experience of red to the exclusion of all else, at the same time, but this represents an inconsistent set.

We can summarise Coleman's reasoning by isolating three possible post-combination scenarios and showing why each is problematic:

**Scenario 1:** Micro-perspectives exist, but a macro-perspective does not exist.

**Scenario 2:** A macro-perspective exists, but no micro-perspectives exist.

**2a:** Both micro-perspectives cease to exist.

**2b:** One of the micro-perspectives becomes the macro-perspective.

**Scenario 3:** Both micro-perspectives and a new macro-perspective exist.

Scenario 1 is problematic since the result is a mere aggregate. Scenario 2 will not do either, because the constitution relation fails to be the synchronous relation it is meant to be. This is the case in both sub-scenarios 2a and 2b. Finally, scenario 3 results in an inconsistent set of perspectives, so is no use. Coleman's claim is that the instantiation of scenario 3 is the only scenario that would involve a genuine constitutive combination, but since it involves a metaphysically impossible conjunction of perspectives, we can say that it is impossible and therefore that constitutive panpsychism is false.

For what it is worth, I am not convinced that scenario 3 is *metaphysically* impossible, but we will return to this later in the paper.

### **3.5 The Phenomenal Bonding Solution**

Goff (2016) proposes a solution to the subject combination problem called the phenomenal bonding solution. The basic idea is that subject-combination happens from micro to macro-subjects in virtue of a specific kind of relation - the phenomenal bonding relation - that can hold between micro-subjects. When thinking in terms of aggregation we are really only thinking in terms of spatio-temporal relations holding between micro-subjects, i.e. that a given group of micro-subjects are bunched closely together. As noted previously, this does not seem to leave space for the kind of combination of subjects required. However, the significance of this solution is that it tells us something is going on in addition to mere aggregation.

The idea is that bonding relations hold between micro-subjects and their mental states and under at least some conditions come to hold between those and other micro-subjects and/or their mental states, giving rise to macro-subjects. There are some important

questions we could use answers to; first, is the simple question of whether we can make sense of distinctly phenomenal relations and how we might do that? And, second, how do these relations play a vital role in allowing the micro-subjects to constitute a macro-subject?

Regarding the first question, Chalmers (2016) suggests the possibility of thinking of phenomenal bonding relations as the categorical bases of relational properties, just as Russellian monists hold that phenomenal properties underpin physical properties. Goff (2016) says it is not surprising that we do not have a grasp of exactly what the phenomenal bonding relation is, precisely because our physics deals with the relational nature of the world (by this I mean the ways in which physical entities behave in response to one another) and not the categorical nature of those properties:

[I]t is not surprising that we lack a transparent grasp of the phenomenal bonding relation – if such a thing there be – given the nature of our epistemic situation. Our most basic empirical science, physics, yields understanding only of the world’s mathematico-causal structure, and the phenomenal bonding relation is not a mathematico-causal relation: conceiving of subjects standing in mathematico-causal relations does not remove their conceptual isolation, and hence does not remove their metaphysical isolation. Apart from its mathematico-causal structure, arguably the only feature of the world we transparently understand is consciousness. And consciousness is a monadic property. Our unfortunate epistemic situation does not afford us a transparent understanding of the (non-mathematico-causal) relations which conscious things bear to each other. (pp. 292-293)

If consciousness, as per Russellian monism, is the intrinsic, or categorical, nature of the physical world, and our observations in terms of current physics leave out this categorical nature, then phenomenal bonding relations would be included as part of what is ‘hidden’ from our current science. In addition to this, he says the only access we have to this

categorical nature is through introspection, so we cannot experience subjects as related because we only have introspective access to the subject that we are.

In response to the second question, regarding how phenomenal relations help us to get from numerous micro-subjects to a new macro-subject, Chalmers proposes the co-consciousness relation may be an option:

A natural candidate here is the co-consciousness relation: a relation such that whenever it relates two phenomenal states, they are experienced jointly. When this relation holds among the states of distinct microsubjects, those states will be experienced jointly by a new subject (2016, p. 200).

However, he says it is hard to find a microphysical relation with this kind of character, and given the idea is that the phenomenal bonding relation will be the intrinsic nature of a microphysical relation, it seems we cannot find a home for the proposed phenomenal bonding relations. Goff addresses this worry, he writes:

None of the relations that appear in perception or in physics are conceived of as phenomenal bonding relations. In the same way, the brain does not appear from the outside as a subject of experience, and the properties of physics or neuroscience are not conceived of in those sciences as phenomenal qualities. But just as the panpsychist might identify charge with a form of consciousness, so the proponent of phenomenal bonding might identify some empirically known relation as the phenomenal bonding relation. (2016, p. 293)

Chalmers notes an outstanding problem with the proposal. It might go some way to explaining how combination is more than just an aggregation, but it still needs to give an account of under what circumstances the bonding relation holds between micro-subjects such that it gives rise to a macro-subject, and in what cases it does not, for presumably there

will be both cases where groupings of micro-subjects do, and do not, constitute a new macro-subject. For example, intuitively, we might think that micro-subjects associated with brains are cases where we do see the phenomenal bonding relations at play, whereas in the cases of chairs and tables we do not. As Chalmers says:

To yield human consciousness, we presumably want phenomenal bonding to bond a limited multiplicity of microsubjects associated with the human organism, without bonding these to microsubjects elsewhere (2016, p. 201).

Goff calls the above problem *the special phenomenal composition question*, he claims that the constitutive panpsychist has the following options: (1) maintain that all combinations of micro-subjects give rise to further macro-subjects (unrestricted phenomenal composition), (2) maintain that there is combination where there is an organism, or (3) maintain that subjects never combine (nihilism).

Nihilism (3) is obviously a non-starter for the constitutive panpsychist, and Goff argues that (2) is vulnerable to issues when trying to give a semantic account of vagueness, so (1) is the natural candidate. Yet, it seems counterintuitive to think there are, for example, macro-subjects of experience, almost identical to us, just, say, with one sub-atomic particle out of place. Additionally, it seems like we, as subjects of experience, have causal efficacy, but if that is the case why is the control of our whole body, for example, uniquely under the control of us as subjects rather than the almost identical subjects that are also supposed to exist? Additionally, the phenomenal bonding solution still falls foul when it comes to accounting for the combining of perspectives. It is not clear that the phenomenal bonding solution helps resolve Coleman's incoherence of combined *perspectives*.

What we have seen throughout this section is that the combination problem for panpsychism is very much a going concern. Since cosmopsychism is touted as a fruitful alternative to panpsychism, specifically in light of its ability to circumvent the combination problem, I now turn my attention to exploring how it deals with its equivalent subject problem.

#### **4 The Subject Derivation Problem for Cosmopsychism**

Nagasawa and Wager's (2016) blueprint for cosmopsychism highlights an alternative approach to the problem of phenomenal consciousness that turns panpsychism on its head. Instead of fundamental consciousness being exhibited at the micro-level, with macro-consciousness derivative on consciousness at the micro-level, the cosmopsychist blueprint proposes that fundamental consciousness is instantiated at the cosmic-level, with macro-consciousness derivative of the cosmic consciousness. We have seen some examples of how proponents and opponents of constitutive panpsychism address the subject aspect of the combination problem. Now we will take a closer look at how proponents and opponents of constitutive cosmopsychism address the cosmopsychist equivalent to the subject combination problem, which I call the subject derivation problem.

Recall that the broad derivation problem for cosmopsychism is the problem of explaining the derivation of macro-consciousness from the fundamental cosmic consciousness. The subject derivation problem is the aspect of the overall problem that pertains to the derivation of macro-subjects from the cosmic-subject. For constitutive cosmopsychism, the derivation involves constitution. Nagasawa and Wager do not address the subject derivation problem, specifically, in their work on the blueprint of cosmopsychism, since not all possible formulations of the view posit a cosmic subject, but

as far as this paper is concerned, I consider only versions of cosmopsychism that posit a cosmic subject, and therefore when I refer to cosmopsychism it implies a cosmic subject.<sup>40</sup>

This section of the paper will take a closer look at three cosmopsychist proposals. Each is broadly consistent with Nagasawa and Wager's (2016) blueprint and can be considered possible developments on it. Crucially, they have each addressed the subject derivation problem. I will give a very brief outline of each version of cosmopsychism followed by a cursory examination of how they approach the subject derivation problem. They should be taken as summaries rather than a detailed examination of the views. My aim is not to provide an in-depth analysis of proposed, or possible, arguments against subject derivation, at this point, but rather to outline existing work on the problem that will frame the discussion to come.

#### **4.1 Goffian Cosmopsychism**

Goff (2017, 2020) is a notable proponent of Cosmopsychism. He proposes a version of cosmopsychism according to which the cosmos as a whole is the one and only fundamental entity and a subject of experience. We can see this as a view formed of the combination of panpsychism (in its simplest form) and priority monism. On this view, macro-subjects of experience are derived from the cosmic subject in virtue of being its partial aspects. Thus, the subject derivation problem is plain to see; how is it that macro-subjects of experience are subsumed in the cosmic subject as its partial aspects? This aspect of the derivation

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<sup>40</sup> The derivation problem for cosmopsychism has been noted by others under various names; I have previously called it 'the decomposition problem' (Wager, 2011), as does Chalmers (2016), Mathews (2011) calls it 'the combination problem in reverse', while Albahari (2020), Goff (2017) and Shani (2015) call it the 'decombination problem'. Here, I follow Nagasawa and Wager (2016) in calling it 'the derivation problem' since it is the most general way to refer to the problem in question.

problem I call *the problem of synchronous subjects*, but Goff refers to it as the problem of subject-subsuming subjects.

The problem of synchronous subjects - or the problem of subject-subsuming subjects - is tackled head-on. Goff says that while it is difficult to make sense of the idea of subjects which are themselves parts of further subjects, and while it is indeed unimaginable to us, this is not to say that it is impossible. He highlights existing cases where things are unimaginable to us, yet we take them to be coherent:

Certainly we cannot imagine such a thing by using our perceptual and/or introspective faculties. But nor can we imagine in this way a four-dimensional object, and we nonetheless take four-dimensional objects to be coherent (2020, p. 151)

The central message is that weirdness does not entail metaphysical impossibility. Furthermore, Goff suggests that our inability to positively conceive of synchronous subjects might be attributed to our lack of a full understanding of subjects of experience, thus he appeals to a degree of epistemic ignorance to plug the gap between the kinds of synchronous subject scenarios that exist according to cosmopsychism, and our inability to conceive of them. Interestingly, Nagasawa and Wager (2016) suggest appealing to epistemic ignorance to resolve similar gaps, only their suggestion is to appeal to ignorance about the cosmic consciousness rather than consciousness in general (though perhaps this amounts to the same suggestion). As we will see in upcoming sections of the paper, there *is* purportedly a metaphysical incoherence in the notion of synchronous subjects, which, if it stands up to scrutiny, undercuts Goff's response.

## 4.2 Cosmological Panpsychism

Mathews (2011) offers a version of cosmopsychism, or, as she refers to it, a cosmological version of panpsychism, with the aim of rivalling materialism. I will not focus, for the purposes of this paper, on her arguments against materialism, but will instead draw attention to her cosmopsychist proposal, her preemption of the derivation problem, and her proposed solution.

On Mathews's proposal, 'the universe as a whole is the locus of mind' (2011, p. 141). For her, this means that the cosmos is the bearer of fundamental consciousness, carrying the added implication that the cosmos is a subject of experience. All matter in the universe, she says, is endowed with an exteriority, a physical dimension, and an interiority, which is a subjective dimension. Subjects are understood as necessarily indivisible, bounded, centres of this subjectivity. In her own words:

Subjective experience is, after all, the province of a subject. However, a subject, understood as a centre of subjectivity, is necessarily an indivisible unity: there are no scattered subjects, and the boundaries between subjects are not nominal. The individuation of subjects, or centres of subjectivity, is objectively determined: a thought objectively belongs to you or me; it is not up to a third person, qua knower, to decide where the boundaries of our respective subjectivities will be drawn. (2011, p. 144)

Mathews suggests there is a need to reconcile the apparent fact of internally unified subjects with the observation that physical reality seems to exhibit, at best, only nominal unity. The best way to do this, she tells us, is to adopt a holistic, or cosmological, version of panpsychism. The core motivation for Mathews's cosmopsychism is that, taken at face value, there appears to be a jarring contrast between the unity of subjective experience and the disunity of the physical world, and as such, it is not easy to see where consciousness fits

into the physical world. Since we do not really want to offload either the physical world or the unity of subjectivity, Mathews's project is to find a way to reconcile the two, and she believes cosmopsychism is the answer:

If physical reality as a whole, under both its material and non-material or field-like aspects, is seen as constituting a genuine, indivisible unity, then it could itself perhaps be regarded as a subject, or field of subjectivity, to which the entire differentiated physical manifold is subjectively present. (2011, p. 145)

The thinking is that if the cosmos as a whole is a unified subject, then we can say that the entire physical dimension is subjectively present to it at once, thereby reconciling the apparent disunity of the physical world with the unity of our subjective experience. However, this gives rise to the derivation problem. Or, as Mathews calls it, 'the individuation problem'. The picture she proposes is one where the cosmos is a subject of experience to which the entire physical world is subjectively present, when we add to the existence of sub-cosmic subjects of experience, we appear in need of an answer to the question; how are unified sub-cosmic subjects differentiated from the overarching unity of the cosmic subject? Mathews explains the problem like so:

we face a *combination problem in reverse*: how are the entities, objects or beings we normally regard as distinct subjects to be individuated within such an all-encompassing holism? The problem is not, as it is for process philosophers, how are compound consciousnesses to be built up out of simple ones, but rather how can local, individual subjects come to differentiate themselves within the matrix of a global mind. (2011, p. 145)

Here, she makes the distinction between the combination problem for panpsychism, which is the problem of accounting for the combination of micro-subjects into macro-subjects, and

the derivation problem for cosmopsychism, which is the problem of accounting for the derivation of sub-cosmic subjects from the cosmic subject. To answer the individuation problem, Mathews offers a more detailed sketch of her cosmological panpsychism. Her view posits a universe with an exterior physical aspect as well as an interior subjective aspect, its physical aspect forms an unbounded, indivisible, and substantial plenum. About this plenum, she writes:

the universe may be compared with a vast ocean coursed continually by currents and waves, some of which interfere to become vortices which hold their structure for long enough to give the appearance of independent or enduring existents. (2011, p. 146)

The seemingly disunified objects of the physical world are, according to this view, enduring interference patterns in the vast indivisible 'ocean' that is the physical world. The way the plenum is structured very strongly echoes the structure of priority monism (Schaffer 2010), although Mathews herself does not make any reference to it. The plenum is not structured in an aggregative manner, but rather holistically, so we can perhaps infer that, just as is the case with priority monism, the cosmos is not formed of a combination of parts but instead the parts are derivative of the cosmos as a whole.

So far, we can see how Mathews proposes that objects derive from the universe as a whole (the plenum), but she must, crucially, provide an account of the derivation of sub-cosmic subjects from the cosmic subject. Mathews refers to sub-cosmic subjects as *selves*. Selves, we are informed, are self-actualising systems, 'defined, in systems-theoretic terms, as systems with a very special kind of goal, namely their own self-maintenance and self-perpetuation.' (p. 146). We can say, therefore, that all objects in the physical world are individuated within the whole as enduring interference patterns, and additionally, in cases

where such interference patterns constitute self-actualising systems, they are also selves (sub-cosmic subjects). Selves are individuated within, yet embedded in, the indivisible whole. It may be worth pointing out that on Mathews's view, objects that are not selves are not considered truly things in their own right but rather just 'knotty bits of the matrix or plenum' (p. 147).

This tells us how we are to differentiate between objects that are subjects of experience and those that are not, when considering the universe from its external, physical, aspect. But, considering the universe from its internal, subjectival, aspect, there is also a crucial question of how macro-subjects are to be differentiated from the cosmic-subject. The universe, considered from its subjectival aspect is:

a field of subjectivity, a great, internally differentiated field of impulse, of intrinsic activity, of felt expansions, swellings, dwindlings, contractions, surges, urges and so forth. (p. 147)

This gives rise to a version of the synchronous subjects problem, since we have an overarching, subsuming, cosmic subject, with sub-cosmic subjects subsumed within it. It seems Mathews preempts the kind of perspectival issues highlighted by Coleman and Shani (more on Shani to follow); How can macro-perspectives be embedded within the cosmic perspective but also assert their relative independence? Or, to put it another way, how is it possible for macro-perspectives to avoid being absorbed into the cosmic perspective while remaining rooted in it? This is how Mathews presents the problem:

If this is how the global field of subjectivity may be imagined from within, from the viewpoint of the One as Subject, the question of how finite selves embedded in this larger Subject may be imagined from within remains to be considered. How can relatively distinct subjectivities, the subjectivities

belonging to the differentia we have identified externally as self-realizing systems in the geometrodynamical matrix, form within the field of a larger consciousness? How do such subjects manage not to be absorbed, experientially, into the larger field, and how does the larger Subject, of which they are a part yet from which they also differentiate themselves, experience them? (p. 148)

Her solution is to call upon ideas from the psychoanalytic tradition. She proposes that just as the mental life of human beings is said to contain both conscious and unconscious aspects, so too does the mental life of the universe. She invokes Jung's (1960) notion of *autonomous complexes* to provide a model of how macro-subjects can be embedded in the cosmic subject. Autonomous complexes are parts of a person's psyche that have become annexed off from the rest and lead a life of their own, unaware of the fact that they are but parts of a greater psyche. In the human case, this is said to happen, to give just one example, due to trauma. Mathews suggests this model is a good way to understand how we can come to have relatively distinct centres of subjectivity (macro-subjects) exist unproblematically within the cosmic subject. According to Jung, an autonomous complex-involving psyche is not aware of the existence of the autonomous complex, despite its presence being felt, moreover, the autonomous complex is not aware of its relation to the psyche which harbours it. Explained by Mathews, as follows:

One as Subject may feel the effects of finite centres of subjectivity in the field of its own larger subjectivity, even though it may not be able actually to experience the way such finite selves feel to themselves. (2011, p. 149)

The autonomous complex model that Mathews proposes provides a way for macro-subjects to exist within the cosmic-subject while being invisible to it, thus avoiding being absorbed experientially into it.

A key problem with the view, though, is that it does not seem to be able to satisfy the free lunch constraint on derivative entities. The constraint says that any non-fundamental entities should come at no additional ontological cost once the fundamental entities have been accounted for. We should be able to intelligibly explain all derivative entities in virtue of the fundamental entities, however, in the case of cosmological panpsychism, it is not obvious that derivative selves can be intelligibly explained in virtue of the cosmic subject. It may be that Mathews can elaborate on her view to demonstrate the intelligibility (and she makes it clear that her view is not fully worked-out), but as it stands it does appear to face a difficulty here.

### **4.3 Shanian Cosmopsychism**

Shani's view is in many respects like Mathews's cosmological panpsychism, with the key differences relating to how the view is presented and the finer details of the response to the subject derivation problem. Shani demonstrates a rich and systematic approach to presenting his view and addressing its challenges. According to his account of cosmopsychism, the cosmos as a whole is the one and only fundamental entity (he calls this the *absolute*). The absolute operates according to what is called a *lateral duality principle*; having a dual nature with both a revealed and a concealed form. The revealed form equates to the world as revealed by physics, while its concealed form is a cosmic field of consciousness; what he calls an *endo-phenomenological expanse*. Macro-subjects (called *created subjects* in Shani's system) are derivative of the absolute's fundamental subjectivity, and thus the subject derivation problem presents itself. Shani provides what I take to be the most powerful argument against cosmopsychism, together with the most nuanced way of averting it. I will first present his argument against cosmopsychism and then very briefly summarise his response (I say 'very briefly' because I will return to it in more detail later in the paper).

The stipulation that subjects of experience are inherently perspectival is central to Shani's argument against cosmopsychism. Recall how he describes perspectives:

Each perspective can be thought of as an opening to the world from a given point of origin and, as shown above, it is the form, or shape, of that opening—the dynamic configuration giving it structure—which defines how things are viewed from this particular point of origin. Thus, we can think of a perspective as an angle whose conscious point of origin is its vertex and whose form is limited by the rays emanating from that vertex (2015, p. 424)

Once perspectives are thought of in this way, he claims a contradiction is plain to see, at least for panpsychism, which says combinations of micro-perspectives constitute macro-perspectives. Consider the view from a macro-perspective, P, with micro-perspective parts, Q and R. P transcends the boundaries of the views of either Q or R considered alone. That P's perspective transcends Q's, he suggests, presupposes the elimination of Q's limitations, i.e. the elimination of the very perspective that is Q. The contradiction comes about because Q must exist in order to partially constitute P but must also not exist in order that its existence does not preclude the possibility of an overarching perspective. This argument cuts against constitutive panpsychism and is just Coleman's (2014) argument against synchronous perspectives reframed.

Shani stretches the reach of the above reasoning even further. The problem is not just that micro-perspectives cannot by way of combination constitute macro-perspectives, but moreover, that there can be no sense in which perspectives can stand in compositional relations with other perspectives, *simpliciter*. This, if correct, would not only cut against constitutive panpsychism but also against any picture on which there are synchronous

perspectives (perspectives that contain, as partial aspects, other perspectives). Continuing his comparison of perspectives to angles, he says:

Now, if the perspective is to have parts each proper part must correspond to a division of the original angle brought about by the introduction of a ray on the interior of that angle (there is no other way to dissect an angle). Let us, then, think of P as our original perspective and of Q as a division within P...But now we are facing the problem just mentioned, for it follows from the simultaneous existence of P and Q that in viewing things from viewpoint P, which opens up the entire original angle, one also views things from viewpoint Q, which excludes the complement P-Q from sight. The result, as before, is a contradiction. (2015, pp. 424-425)

The result, according to Shani, is not just that the contradiction precludes the combination of subjects, but, moreover, '[i]f this analysis is sound, it precludes the existence of strict compositional relations between non-identical perspectives' (p. 425). Thus, the problem stretches its reach to cosmopsychism just as much as panpsychism. This goes to say that wherever there are synchronous perspectives - perspectives within perspectives – we have entered the realm of metaphysical impossibility. According to cosmopsychism, macro-perspectives are partial aspects of a larger cosmic perspective, so the metaphysical impossibility of compositional relations among perspectives will rule out cosmopsychism as fast as it rules out panpsychism.

Let us unpack the difficulty for cosmopsychism a little. Cosmopsychism says the cosmos itself is a subject of experience and given that inherent to being a subject of experience is having a perspective, a point-of-view, the cosmos must also have a perspective. Moreover, the cosmic perspective is the most fundamental perspective from which all sub-cosmic perspectives are derived. Sub-cosmic perspectives are derived from

the cosmic perspective as its partial aspects. The view from the cosmic perspective will be a view containing, as partial aspects, a multitude of sub-cosmic perspectives; a variegated perspective fragmented by partitions corresponding to the boundaries of sub-conscious perspectives. It is now clear to see why the apparent incoherence of synchronous perspectives will equally apply to cosmopsychism and panpsychism. For panpsychism, macro-perspectives are constituted of micro-perspectives, so the point-of-view of the macro-perspectives will contain, as partial aspects, the views of various bounded micro-perspectives. For cosmopsychism, the cosmic perspective grounds sub-cosmic (e.g. macro) perspectives as its partial aspects, so will also contain the views of various bounded micro-perspectives.

In both cases, it is the boundedness of the smaller perspectives existing as partial aspects of the bigger perspective that is causing concern. But just as I was unconvinced by Coleman's argument against panpsychism, on the same basis, I am unconvinced that what is demonstrated is *metaphysical impossibility*. Clearly, there is a logical incoherence of the form P&-P, but this shows only an incoherence strictly as a matter of logic, it does not entail metaphysical impossibility. By *strictly as a matter of logic* I mean that a given state of affairs, when formalised, can be presented as contradiction-involving but the apparent contradiction is merely the result of either a poor translation of the phenomena into logic or a poor understanding of the phenomena being translated. To take an example for illustration, consider quantum superposition, an electron in superposition is in both a spin up and spin down state prior to its state being measured. It is possible to present this formally as contradiction-involving if partnered with the common-sense idea that it is not possible for one thing to be in two places at the same time. In reality, superposition does not represent a contradiction, instead, any apparent contradiction is owing to the fact that our common-

sense idea that one thing cannot be in two places at the same time, is wrong (at least in some specified circumstances). Thus, we might say that, in conjunction with some commonsense ideas, superposition presents us with an incoherence purely as a matter of logic, but of course it is generally accepted that quantum superposition is not metaphysically impossible.

Whether or not the contradiction holds will be the subject of the second half of the paper, and I will also look closer at Shani's response in sections to come, so here I will give only a basic outline of his response. Shani correctly highlights that the contradiction arises as constitutive cosmopsychism posits macro-perspectives as partial aspects of the cosmic perspective. He suggests that there is an alternative way to think about the grounding of sub-cosmic perspectives by the cosmic perspective that does not posit them as its partial aspects. The idea is that they are partially grounded, and not fully grounded, in the cosmic perspective. Full grounding dictates that the grounded be fully accounted for in terms of the ground, partial grounding dictates only that the grounded be partially accounted for in terms of the ground. It appears accurate that to fully-ground sub-cosmic perspectives in the cosmic perspective involves having them exist as its partial aspects, which is where the contradiction arises, but relying only on partial grounding adds other options. The partial grounding route involves the cosmic perspective being in some sense instrumental in the existence of sub-cosmic perspectives, while the derivative perspectives also exert their independence from it. Thus, Shani's suggestion that cosmopsychists endorse the partial grounding route does seem to avoid the problem of synchronous perspectives. I will cover Shani's approach in more detail in the later sections of the paper.

Let us summarise what we have covered so far with respect to cosmopsychism. Goff's view supposes that sub-cosmic subjects are derived from the cosmic subject by being

fully grounded in it as its partial aspects. Such a view entails problematic synchronous subjects scenarios (more on these to come) to which Goff responds that although it is strange to posit subjects are parts of other subjects, strangeness does not entail metaphysical impossibility. Mathews's cosmological panpsychism anticipates synchronous subject scenarios, avoiding them by understanding sub-cosmic subjects according to a psychoanalytic autonomous complex model, which says that sub-cosmic subjects are to the cosmic subject what an autonomous complex is to the mind that harbours it. Shani homes-in on the perspectival aspect of subjects and restates Coleman's argument against panpsychism as also an argument against cosmopsychism, whereby synchronous subject scenarios (when subjects are considered as inherently perspectival) are shown to be metaphysically impossible. He proposes a solution based on the notion of partial grounding.

## **5 Synchronous Perspectives Scenarios and The Subject-Constitution Principle**

Putting together what can be learned from the brief survey, we can see that that the subject combination problem and subject derivation problem are essentially the same. The core of the problems is that they both entail scenarios in which subjects are parts of further subjects. For constitutive panpsychism, these arise because micro-subjects constitute macro-subjects, and for constitutive cosmopsychism, because sub-cosmic subjects are constituted of the cosmic subject (as its partial aspects). I mentioned at the beginning of the paper that I will mainly be considering subjects from there perspectival aspect because subjects are taken to be inherently perspectival and it is the perspectival aspect that gives rise to the most pressing objections. With this in mind, I suggest that the core of both subject problems is the presence of troubling synchronous perspectives scenarios:

**Synchronous Perspectives Scenarios:** Any scenario in which subjects on one level of reality constitute a subject on another level of reality.

The above definition relies on an understanding of what is meant by ‘constitution’. For  $x$  to constitute  $y$ ,  $y$  must be grounded in  $x$ . There is no universally accepted notion of grounding but for our purposes we need only a minimal understanding of it as a relation of dependence, but we could equally cache it out in terms of an ‘in virtue of’ relation. What I have to say is general and will work with most common accounts of the grounding relation, if I equivocate on the notion I refer to, I do not do so to make a distinction. To say “ $x$  constitutes  $y$ , if and only if  $y$  is grounded in  $x$ ” still does not tell us what constitution means when we are talking about the constitution of subjects. Indeed, there are some particular conditions that we must take note of when considering the constitution of subjects, from subjects. In order to say that a subject (or a group of subjects) is constituted out of a further subject (or groups of subjects), the constituting subjects must survive in the constituted subject, or else there is no basis on which to say that new subject is constituted of them (or, in other words, there is no basis on which to say  $y$  is grounded in  $x$ ). Furthermore, the constituted subject must be a genuinely novel subject and not just the mere aggregation of constituting subjects, nor can the constituted subject be just an arbitrary region of the constituting subject, or else the constituted subject would not really be a subject in its own right. Moreover, the constituted subject(s) cannot be strongly emergent from the constituting subjects since in cases of strong emergence it is not possible to deduce the emergent from the submergent. I propose we put this together into the following principle:

**The Subject-Constitution Principle:** For a subject(s) to constitute a further subject(s) the constituting subject(s) must survive in the constituted subject(s) and the constituted subject(s) must be a genuine subject(s) not mere a aggregation, or arbitrary region, of the constituting subject(s).

Moreover, the constituted subject(s) must not be strongly emergent from the constituting subject(s).

We can see the presence of synchronous perspectives scenarios in both Coleman's and Shani's explication of metaphysical incoherence for constitutive panpsychism and cosmopsychism, respectively. The problematic scenario for Coleman is the synchronous presence of micro-perspectives and macro-perspectives (macro-perspectives that are formed of the combination of micro-perspectives), while for Shani it is the synchronous presence of the cosmic subject and macro-subjects (macro-perspectives that are derived from the cosmic perspective as its partial aspects). We can also see the subject-constitution principle at work. The synchronous perspectives scenarios are, in a sense, enforced by the subject-constitution principle, because the principle guarantees the presence of subjects on multiple levels of reality related to each other by constitution relations. In Coleman's example, the principle guarantees (or purportedly guarantees) that the two mutually exclusive constituting macro-perspectives must constitute a macro-perspective comprising of conflicting micro-perspectives (because other options are ruled-out, such as the option of the micro-perspectives losing their individual identities in the combination). In Shani's example, the principle guarantees (or purportedly guarantees) the simultaneous existence of the cosmic perspective and a macro-perspective as its partial aspect, which considered together reveal a contradiction (for the cosmic perspective must both affirm and deny the existence of whatever of its perspective sits outside of that of the macro-perspective constituent).

Coleman's case against constitutive panpsychism is arguably the strongest case, and similarly Shani's case against constitutive cosmopsychism (when the view is as typically understood) is arguably the strongest. Both purport to show that the respective views entail

a metaphysical impossibility, on the grounds of their reliance of subjects combining (for panpsychism), or deriving (for cosmopsychism). Both Coleman and Shani focus on the perspectival aspect of subjects to demonstrate the impossibility. As I have shown, the problems are very similar, and at their core centre around the implication of synchronous perspectives scenarios. It might be the case that one view or other has greater prospects of solving the problem due to stating a particular direction of dependence (recall that panpsychism is a bottom-up view, with derivative macro-subjects dependent on the fundamental micro-subjects, while cosmopsychism is a top-down view, with derivative macro-subjects dependent on the fundamental cosmic subject), however, I contend that the core of the problem is the same for both. This might be seen as disappointing to cosmopsychism, because the view is often motivated by its ability to avoid the combination problem. What I will show later is that understanding the two problems as the same allows us to address both at the same time, with the intriguing result of jointly motivating panpsychism and cosmopsychism (at least when considering the combination and derivation problems under their subject-aspects).

Now that I have argued that panpsychism and cosmopsychism (in their constitutive guises) both face the same problem. I want to situate the purported contradictions, highlighted by Coleman and Shani, within broader arguments from metaphysical impossibility against constitutive panpsychism and constitutive cosmopsychism (by ‘broader’ I just mean arguments that include situating the contradictions in the context of other commitments of the respective views). I then propose alternative arguments from epistemic implausibility, which, instead of focusing on how synchronous perspectives

scenarios are precluded by the metaphysics of perspectives, hinge on an inconsistency between what we should expect our experience to be like, given the postulates of the view, and what our experience is actually like.

## **6 Arguments from Synchronous Perspectives Scenarios**

We have seen that there are arguments that hinge on the entailment from panpsychism and cosmopsychism to synchronous perspectives scenarios, with the presence of synchronous perspectives scenarios being enforced by the subject-constitution principle. In this section of the paper I will attempt to formulate broad arguments from metaphysical impossibility against constitutive panpsychism and constitutive cosmopsychism. These are based on those offered by Coleman and Shani, but they situate the purported contradictions in the broader context of the views. As I have already stated, it is not immediately obvious to me that the supposed synchronous perspectives scenarios entail metaphysical impossibility (though of course I could be missing something, so I will take them seriously nonetheless), instead I think they are epistemically implausible. By epistemically implausible, I mean that rather than metaphysical impossibility such scenarios highlight an apparent mismatch between what we would expect our own macro-perspectives to be like and what they are actually like in reality. First, I will attempt to formulate arguments from metaphysical impossibility, before attempting to offer variations from epistemic implausibility.

### **6.1 Arguments from the Metaphysical Impossibility of Synchronous Subjects**

Both Coleman and Shani purport to show a contradiction in synchronous perspectives scenarios. Coleman's target is constitutive panpsychism and his conclusion is that this form of panpsychism is false because points-of-view do not combine. Shani builds on Coleman, by claiming that the metaphysics of points-of-view does not only rule out the *combination*

of subjects, but it also rules out constitutive cosmopsychism. I will formulate broad arguments against both views, in line with Coleman's and Shani's objections, respectively.

### **6.1.1 A Metaphysical Impossibility Argument Against Combining Subjects**

We will first consider the case for an argument, in line with Coleman's project, against constitutive panpsychism. As mentioned, the argument is formed on the basis of the failure of points-of-view to combine. The argument against constitutive panpsychism from metaphysical impossibility can be presented as follows:

1. Constitutive panpsychism requires that physical ultimates are themselves subjects of experience.
2. Subjects of experience are inherently perspectival.
3. Therefore, constitutive panpsychism requires that physical ultimates are perspectival.
4. Macro-perspectives of humans are constituted out of the combination of micro-perspectives of physical ultimates.
5. However, micro-perspectives must survive any combination into a macro-perspective.
6. A mere aggregate of perspectives does not count as a combination.
7. A combination equaling the strong emergence of a macro-perspective does not count as constitution.
8. Therefore, a successful account of combination must include the survival of any constituting perspectives (to satisfy 5) plus an additional novel perspective (to satisfy 6), formed of their combination, but not strongly emergent (to satisfy 7).
9. However, (8) results in synchronous perspectives scenarios.

10. If synchronous perspectives scenarios are metaphysically impossible, then perspectives do not combine.
11. Synchronous perspectives scenarios are metaphysically impossible.
12. Therefore, perspectives do not combine.
13. Therefore, constitutive panpsychism is false.

Remember that this argument is supposed to situate the purportedly contradictory synchronous perspectives scenarios in the context of a broader argument against cosmopsychism. It is not providing any motivation for the metaphysical impossibility, *per se*, rather it is conditional on the truth of the contradiction.

With this in mind, we can take a closer look at the argument. Many of the above premises are obviously true, by the constitutive panpsychist's lights. Premise (1) is generally uncontroversial, as it is the standard panpsychist claim that microphysical ultimates are subjects of experience. Premise (2) is also widely accepted, but most importantly both the proponents of, and objectors to, constitutive panpsychism agree on the point. The conjunction of (1) and (2) straightforwardly entails (3), while (4) is true, by definition, for constitutive panpsychists. Premises (5), (6) and (7) state the minimal requirements of any proposed constitution, and so are also uncontroversial (to the constitutive panpsychist). They amount to what I have called the subject-constitution principle. Premise (8) is a restatement of (5)-(7). Premise (9) shows that as a result of (8) any viable account of combination includes synchronous perspective scenarios (here we can see the subject-constitution principle enforcing the presence of synchronous perspective scenarios). Premise (10) is a simple conditional premise stating that if synchronous perspective scenarios are metaphysically impossible then perspectives do not combine, this is followed

by (11) which affirms that synchronous perspectives scenarios are metaphysically impossible. The conclusion in (12) follows straightforwardly from (9)-(11), and (13), the conclusion that constitutive panpsychism is false, follows from (12).

The vital premise is (11), the premise that synchronous perspectives scenarios are metaphysically impossible. To restate, I am not, at this point, interested in providing a counterexample to premise (11), my interest lies in exploring where the contradiction, if it holds, sits in an argument against the view. I will, however, say a few words on my immediate reaction to it. As stated, Coleman highlights the contradiction by drawing attention to one possible scenario involving two micro-perspectives and their proposed combination into a new macro-perspective. The scenario posits two micro-perspectives, Red and Blue. Red's perspective, its point-of-view, is characterised by the experience of redness to the exclusion of all else, while Blue's point-of-view is characterised by the experience of blueness to the exclusion of all else. I think it is easy for us to conceive of such perspectives, but bear in mind that it is not simply supposed to be that Red's perspective is filled with the quality of redness, e.g. that the content of Red's perspective is redness and nothing else, instead it is that there is a phenomenology to Red's experience being utterly exhausted by redness. In other words, there is a way it feels for one's point-of-view to be exhaustively red. And the same can be said of Blue's perspective.

Coleman's example, then, proposes the combination of Red and Blue to constitute a "bigger" perspective, Ub. We already know that Ub must be its own overarching perspective containing within its purview the perspectives of Red and Blue, since that is the only scenario in which the subject-constitution principle is maintained. The contradiction arises, Coleman argues, because there is no possibility that the perspective of Ub can

simultaneously include the contradictory perspectives of Blue and Red within its purview; it is impossible for Ub's perspective to be characterised by the experience of redness to the exclusion of all else *and* the experience of blue to the exclusion of all else, at the same time. But this is precisely what must happen, according to constitutive panpsychism. It is not immediately obvious to me that this is metaphysically impossible. It is certainly hard to imagine a single overarching perspective that is constituted of seemingly mutually exclusive parts, but that does not tell us that it is impossible.

My reticence to join the calls of metaphysical impossibility is perhaps influenced by the existence of well-known accounts of a single consciousness instantiating seemingly mutually exclusive states of affairs. For example, it is very common for people to hold many contradictory beliefs and emotions, but that does not make their simultaneous instantiation, by one consciousness, impossible. Moreover, there are examples of states of affairs that are inconceivable yet nonetheless accepted as true; as I referred to previously, take quantum superposition, according to which a particle can be in two places at once. It is very counterintuitive but that does not make it false.

### **6.1.2 A Metaphysical Impossibility Argument Against Subject Derivation**

I now want to formulate a broad argument against constitutive cosmopsychism, which situates Shani's stated contradiction in the context of a complete argument against the view (at least the view as typically understood). As with the previous argument, this one turns on synchronous perspectives scenarios being metaphysically impossible. We can formulate an overall argument against cosmopsychism as follows:

1. Constitutive cosmopsychism states that the cosmos is itself a subject of experience.

2. Moreover, the cosmic subject of experience is the fundamental subject.
3. Subjects of experience are inherently perspectival.
4. Therefore, cosmopsychism entails that the cosmos is perspectival.
5. Derivative sub-cosmic perspectives are constituted of (derived from) the cosmic perspective.
6. However, the only possible way for the cosmic perspective to constitute sub-cosmic perspectives is if they are its partial aspects.
7. (6) implies that the cosmic point-of-view has within it the points-of-views of a multiplicity of sub-cosmic perspectives, synchronously (the implication of synchronous perspectives scenarios).
8. If synchronous perspectives scenarios are metaphysically impossible, then perspectives do not derive.
9. Synchronous perspective scenarios are metaphysically impossible.
10. Therefore, perspectives do not derive.
11. Therefore, constitutive cosmopsychism is false.

I think premises (1)-(3) are uncontroversial to the constitutive cosmopsychist. It is possible to maintain some version of cosmopsychism and reject each of (1)-(3) but the typical constitutive cosmopsychist will want to maintain all of them (we will look at some alternatives that reject these premises, later in the paper). Premise (4) follows from (1)-(3). Premise (5) is also uncontroversial, it just states that the direction of dependence moves from the cosmic level to the sub-cosmic level(s). Premise (6) is an important premise and it is based on the idea that cosmopsychism implies the only way for sub-cosmic perspectives to be constituted out of the cosmic perspective is for them to appear fully formed in the cosmic perspective. We will see later that this premise is controversial as there are ways to

maintain constitutive cosmopsychism while rejecting premise (6) and/or premise (7). Premise (7) is simply a clarification of (6), stating that cosmopsychism implies synchronous perspectives scenarios. Premise (8) says that if such scenarios give rise to contradiction then sub-cosmic perspectives do not derive from the cosmic perspective. Premise (9) is the key premise that affirms (8). Conclusions (10) and (11) follow straight-forwardly.

Shani believes constitutive cosmopsychism can be rescued from the argument by denying premise (6), the claim that the only possible derivation of macro-perspectives from the cosmic perspective is for them to appear within the purview of the cosmic perspective as its partial aspects. Like Coleman, he argues that constitutive cosmopsychism appears to be ruled out due to its reliance on synchronous perspectives scenarios, but according to Shani, these only arise if micro-perspectives are fully grounded in the cosmic perspective. The view, he says, can be rescued by replacing the requirement for sub-cosmic subjects to be fully grounded in the cosmic subject, with partial grounding instead. This is an astute work-around and it will be covered in more detail later in the paper.

As with the previous argument, the most important premise is the one where the contradiction resides (9). Again, as just noted, the contradiction surrounds the entailment of synchronous perspectives scenarios. As I have said, the strongest arguments against panpsychism (from Coleman) and cosmopsychism (from Shani) are more or less the same for this reason. I will consider Shani's contradiction, which, like Coleman's, I am not convinced demonstrates a metaphysical impossibility, but rather impossibility purely as a matter of logic. After summarising Shani's objection, I will address another anticipated contradiction that can be illustrated with reference the scenario Shani uses to demonstrate his proposed incoherence. I will, however, quickly dispel any worry regarding an additional

contradiction. Back to Shani's declaration of metaphysical impossibility; recall the following except from earlier, as this is where the demonstration of the contradiction occurs:

That each subjective perspective is individuated in terms of a characteristic form is, in turn, instrumental in explaining why perspectives do not combine. To see why this is so, recall first how the combination problem arises in the context of perspectives. Suppose that a given perspective P is a compound made of other, more limited perspectives, say Q and R. As seen earlier, this seems to imply that viewing reality from viewpoint P consists, in part, in viewing reality from viewpoint Q. The trouble, however, is that the vista which P opens up transcends the limitations (or boundaries) of viewpoint Q, and therefore that it presupposes the elimination of such limitations. Thus, on the assumption that Q is a compositional component of P, it follows that Q must be both present and absent—a contradiction. In essence, this is the problem pointed out by Coleman but we are now in a position to say a little more about the nature of the problem.

Each perspective can be thought of as an opening to the world from a given point of origin and, as shown above, it is the form, or shape, of that opening—the dynamic configuration giving it structure—which defines how things are viewed from this particular point of origin. Thus, we can think of a perspective as an angle whose conscious point of origin is its vertex and whose form is limited by the rays emanating from that vertex. Now, if the perspective is to have parts each proper part must correspond to a division of the original angle brought about by the introduction of a ray on the interior of that angle (there is no other way to dissect an angle). Let us, then, think of P as our original perspective and of Q as a division within P (see figure 1). But now we are facing the problem just mentioned, for it follows from the simultaneous existence of P and Q that in viewing things from viewpoint P, which opens up the entire original angle, one also views things from viewpoint Q, which excludes the complement P-Q from sight. The result, as before, is a contradiction. The moral, then, is that subjective perspectives are

gestalts, namely, structural totalities which cannot be explained in terms of the combination of parts, because, when it comes to perspectives, the very existence of parts excludes the existence of the whole. (Shani 2015, pp. 424-425)

And for reference let us also consider the ‘figure 1’ that Shani refers to:

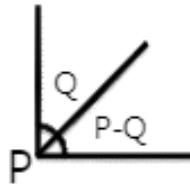


Figure 1

In the first paragraph of the quotation, Shani restates the problem as presented by Coleman. Namely, that a scenario involving a macro-perspective, P, composed of micro-perspectives, Q and R, entails that P transcends the boundaries of Q’s perspective, thus eliminating the perspective that Q contributes to the constitution of P while simultaneously affirming the existence of Q’s perspective. This is Coleman’s contradiction re-stated. The second paragraph of the above quotation is where Shani applies Coleman’s line of thinking to cosmopsychism.

#### 6.1.2.1 Shani’s Contradiction

Shani starts by comparing perspectives to angles, with the point of origin of a perspective likened to the vertex on an angle (the point at which the two sides of an angle meet), with perspectives’ boundedness, or limitations, represented by the sides of the angle. This allows Shani to very simply illustrate his contradiction using figure 1. The figure shows us angle P which includes, as a part, sub-angle Q. In this illustration, P represents the fundamental cosmic perspective and Q represents a derivative sub-cosmic perspective, thus it is

illustrative of the kind of synchronous perspectives scenarios that cosmopsychism entails. Shani then points out that this illustration shows us that the synchronous existence of perspectives P and Q entails that when the cosmic subject, in viewing things from its perspective, also views from Q, but Q excludes the complement P-Q, therefore P must both include and exclude P-Q, thus we have the contradiction.

This contradiction is essentially the same as the one Coleman highlights against panpsychism. However, there is a subtle difference. In the case of Coleman's scenario, the contradiction arises as a result of the apparent impossibility of two mutually exclusive fundamental micro-perspectives constituting an additional derivative macro-perspective. Whereas in the case of Shani's scenario, the contradiction arises as a result of the apparent impossibility of a sub-cosmic perspective deriving from the fundamental cosmic perspective, of which it is only a partial aspect. The similarity, though, is such that we can object to the claim that the contradiction entails metaphysical impossibility in the same way we do in Coleman's case. As with the previous argument, I am not focused specifically on arguing against the metaphysical impossibility, here, I am just situating the contradiction in the context of a broader argument against the view. However, on the face of it, it is not clear there is a genuine metaphysical rather than a purely logical, incoherence in the scenario. Just as we said in Coleman's case, it is certainly difficult to conceive of a cosmic perspective that contains, within its overarching purview, a more limited perspective, which is characterised partly by it excluding the entire cosmic perspective minus its own parthood. However, we already know that certain cases of apparently inconceivable scenarios are metaphysically possible (quantum superposition/wave-particle duality, four-dimensional objects, contradictory beliefs and emotions).

### 6.1.2.2 The Non-Existent Perspective Contradiction

Using Shani's 'figure 1', we can highlight another potential contradiction. I will call this the non-existent perspective contradiction, because it arises as a result of the synchronous perspectives scenario affirming the existence of a non-existent perspective. If it is effective, it is potentially the more interesting of the two, since the same old responses will not work. If it holds, it affects cosmopsychism but not panpsychism.

Considering the same scenario depicted by Shani in 'figure 1', the reason for the additional contradiction is that the existence of sub-cosmic perspective, Q, derived from cosmic-perspective, P, by being its partial aspect, seems to both affirm and deny the existence of a further sub-cosmic perspective, P-Q, and thus, leaves us with a logical incoherence. Recall that in Shani's scenario there are only supposed to be two perspectives, the overarching perspective P and the subsumed perspective Q, which is a partial aspect of P. However, one could argue that a third perspective creeps in. Consider again the comparison between perspectives and angles. Angles make a good analogy with perspectives as we have already seen. We know that, by Shani's lights, for a perspective to have parts each part must correspond to a division of the original angle. Therefore, one division of the original angle creates two parts, one either side of each division, and parts equate to perspectives. In Shani's 'figure 1', it seems reasonable to argue that the division that created perspective Q, also created a second part, Q-P, and thus an additional perspective. Now, consider that perspective Q is a part of perspective P, so Q is present from viewpoint P but viewpoint P extends beyond the limitations of Q. However, it cannot do so in a way which eradicates viewpoint Q (or else Q would not be constituted from P). This means that Q exists as a partitioned perspective within P's overall perspective, which seems to entail that P-Q exists as a perspective too, as the complement partition to Q. Our scenario,

it seems must deny perspective P-Q because we are told the scenario only contains the 2 perspectives, but the scenario also affirms P-Q because just as P's view includes viewing the partitioned perspective Q it also must view things from the compliment P-Q.

However, it is not clear to me that the above affirms the existence of a perspective pertaining to P-Q. P is a perspective of which one partial aspect is Q. Q is a perspective, that much we are told, P-Q should not be, so we are told, but it seems to follow that it is, giving rise to our purported contradiction. But there is no reason why P-Q must be considered itself an independent perspective in the way that Q is, since P-Q is just the remainder of P once Q is taken out of the picture. Whereas Q is a bounded perspective, P-Q, although perhaps seemingly bounded is not an independent perspective, its apparent boundedness is only due to the effects of independent perspectives.

I should make a distinction clear, P and Q are *genuine perspectives*, whereas P-Q is an *apparent perspective*. Genuine perspectives are independent bounded points-of-view that are incorrigible, whereas apparent perspectives are simply remainders of larger perspectives leftover once any genuinely perspectival partial aspects are subtracted. We can illustrate the difference between the two by comparing the following figures:

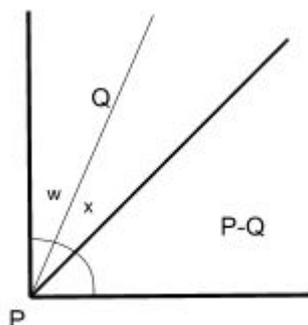


Figure 2.

In figure 2, Q is a genuine perspective, as in Shani's scenario (represented in figure 1). Only, in figure 2, Q subsumes two additional perspectives w and x. Q still exists as it is an incorrigible point-of-view. In this scenario, we have the overall perspective, P, which subsumes Q, which subsumes w and x. Compare this with the following diagram:

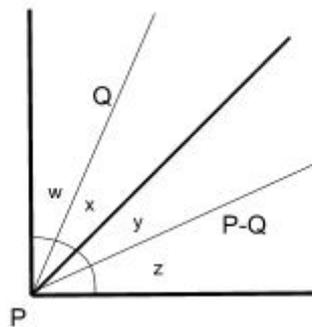


Figure 3.

In figure 3, P-Q, the complement to Q, has been separated into y and z. Given that P-Q is not a genuine perspective but only an apparent perspective, once we posit y and z jointly taking up the space of P-Q, it is clear that P-Q is no longer a meaningful portion of P, instead, within the purview of P, we have macro-perspective Q, along with 4 micro-perspectives, w, x, y, and z. What I am saying is that the boundedness of P-Q is circumstantial. Thinking back to Shani's figure 1, the left-hand boundary (or leg, in geometric terms) of P-Q was really just the presence of Q's right-hand boundary, while P-Q's right-hand boundary is just the presence of P's right-hand boundary. P-Q may appear like a sub-cosmic perspective for P, but it is only apparent and not genuine.

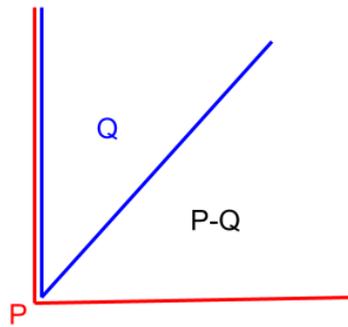


Figure 4.

The above figure, a re-worked version of Shani's figure 1, makes clearer what I mean by genuine perspectives. Each genuine perspective (a bounded, subjective point-of-view) is illustrated in a different colour. The cosmic perspective, P, is illustrated in red and the sub-cosmic perspective, Q, is illustrated in blue. You'll notice that P-Q is not assigned a coloured vertex of its own because it is not a bounded genuine perspective in its own right. We can see that P and Q share their left-hand boundaries, and as such the left leg of our overall angle displays both red and blue, but they do not share their right boundaries, as such their respective-coloured right legs are in different locations. We can also see that P-Q's apparent boundaries are merely the result of the space between the right-hand boundaries of P and Q. The above scenario does not demonstrate a contradiction of the sort suggested by the non-existent perspective contradiction. P-Q is not both affirmed and denied, it is affirmed as a remainder of P's perspective once Q is subtracted, but it is denied as a genuine bounded perspective in its own right.

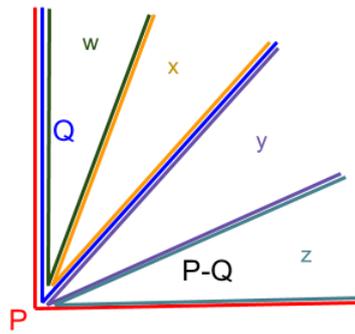


Figure 5.

We can go a little deeper, too. In the above figure (figure 5), we can illustrate the effect of P-Q not being a genuine perspective. In this scenario, there are three levels of synchronous perspectives, as usual I will call these cosmic (the biggest), macro (medium) and micro (the smallest) levels. P is a cosmic perspective that grounds macro-perspective Q, as a partial aspect of its own perspective (note that we deny that P-Q is a genuine perspective). Macro-perspective Q grounds micro-perspectives w and x as partial aspects of its perspective. P also grounds two other sub-cosmic perspectives, y and z. Micro-perspectives y and z occupy the space of P-Q, but they are not grounded in P-Q. In fact, the existence of y and z makes obvious the purely apparent nature of macro-perspective P-Q, as P-Q no longer exists in any meaningful sense now it is the region of P occupied by y and z. P-Q, in this scenario, could be satisfactorily characterised as a mere aggregate of y and z (though of course in this cosmopsychist scenario no perspective, genuine or apparent, is truly formed by an aggregation, because perspectives derive from the top-down). Contrast this to Q, Q could not be accurately characterised as a mere aggregate of w and x, because Q, as a genuine bounded perspective of its own, still exists despite w and x existing within its purview.

Shani's contradiction, like Coleman's before it, is compelling, with Shani's version, in particular, providing a powerfully clear demonstration of where the purported contradiction lies. For the reasons stated, however, I am not convinced it highlights the impossibility of synchronous perspectives scenarios (though it certainly demonstrates a contradiction, though possibly this is purely in terms of logic) and as such I do not think we have grounds to reject constitutive cosmopsychism on this basis alone. At the very least, Shani frames a serious worry for cosmopsychism with striking clarity.

My aim so far has been to show how purported contradictions fit in to overall arguments against panpsychism and cosmopsychism (of the constitutive variety). Although I have not yet presented any arguments against the presence of such contradictions, I have said in both cases that I have not yet been convinced of their impossibility.

## **6.2 Epistemic Implausibility Arguments Against Synchronous Subjects**

While I am not convinced by the metaphysical impossibility arguments, I do think there are challenging arguments from epistemic implausibility. In this section, I make the case that the above arguments, although all purported to be metaphysical in nature, are motivated by epistemic considerations and given this we can reimagine the arguments against the views. When I say epistemically implausible, I mean that the arguments pivot on introspection showing synchronous perspectives scenarios to be implausible.

### **6.2.1 An Epistemic Implausibility Argument Against Constitutive Panpsychism**

Consider the following argument against constitutive panpsychism:

1. Subjects of experience are inherently perspectival.
2. If constitutive panpsychism is true, macro-perspectives are constituted from the combination of numerous micro-perspectives.

3. Our macro-perspective is not constituted from the combination of micro-perspectives.
4. Therefore, constitutive panpsychism is false.

The first premise simply relies on the constitutive panpsychist conceding that subjects of experience are inherently perspectival, and I believe all accept this, so it is an uncontroversial premise (for our purposes we can say the argument is conditional on accepting this premise). The second premise is just a description of the standard constitutive position that macro-subjects are constituted from a combination of micro-subjects, only focused specifically on the perspectival aspect of subjects; this premise is also uncontroversial. The third premise, then, is the most important one. It states that, as the instantiators of macro-perspectives, our own human point-of-view should be formed of numerous “smaller”, bounded, micro-perspectives, but it does not appear to be partitioned in any such way. My sense perceptions, visual and auditory, for example, are not variegated but rather unified. Given that the truth of constitutive panpsychism would result in our perspectives being formed of numerous discrete micro-perspectives, and the evident fact that our perspectives are not composed in such a way, constitutive panpsychism must be false.

This argument, unlike Coleman’s and Shani’s, does not purport to show metaphysical impossibility as it does not show synchronous perspectives scenarios to be impossible. Instead, it provides an argument that hinges on introspective observation of our own perspectives, highlighting an inconsistency between our experience and the way we should expect our experience to be if constitutive panpsychism were true. I suspect that our having a unified, unseparated, perspective, may be at the heart of Coleman’s argument,

perhaps subliminally, but we should be clear that this does not constitute metaphysical impossibility, but rather a weaker epistemic implausibility.

### **6.2.2 An Epistemic Implausibility Argument Against Cosmopsychism**

I believe my argument above is valid and makes a reasonable case against constitutive panpsychism, but we are yet to see if we can make a similar argument against cosmopsychism. Perhaps we could offer an argument like this:

1. Subjects of experience are inherently perspectival.
2. If constitutive cosmopsychism is true, we humans are sub-cosmic macro-perspectives constituted of the cosmic perspective in virtue of being its partial aspects.
3. Our macro-perspective in turn constitutes micro-perspectives in virtue of their being its partial aspects.
4. If our macro-perspectives constitute micro perspectives in virtue of their being its partial aspects, then our perspectives should include numerous discrete micro-perspectives.
5. Our perspectives do not include numerous discrete micro-perspectives.
6. Therefore, constitutive cosmopsychism is false.

The above argument is more nuanced and controversial than the previous one, but I do not expect paradigm constitutive cosmopsychists to reject any of the premises. I will say a little about why. The first premise is uncontroversial for reasons already stated. The second premise follows from the assumption that cosmopsychists typically seek to derive sub-cosmic perspectives from the cosmic perspective by claiming they are its partial aspects. It is this premise that Shani rejects as part of his cosmopsychist solution to the subject

derivation problem (more on this later). The third premise is an important one and one I will speak at some length about in what is to come, but essentially it reflects a commitment to the ubiquity of consciousness (i.e. that both panpsychism and cosmopsychism agree that all matter is conscious, but differ in respect to which is the fundamental level of reality, the biggest thing or the smallest things). The fourth follows directly from the third premise, and the fifth is confirmed by our own subjective experience, as was the case with the identical premise in the previous argument.

Both the metaphysical impossibility and epistemic implausibility arguments centre on inconsistencies arising in synchronous perspectives scenarios, but while the former focus on how the metaphysics of perspectives preclude such scenarios, the latter focus on why the scenarios are at odds with our experience. I am not convinced that metaphysical impossibility arguments do what they should do, namely, demonstrating the impossibility of synchronous perspectives scenarios, but I think the epistemic implausibility arguments are more convincing, though modest. In the next section, I propose a model of how to think about synchronous perspectives scenarios that does not face either problem.

## **7 The Binocular Model of Synchronous Perspectives**

To address the inconsistencies, I suggest we need a model of how to think about synchronous perspectives scenarios that does not violate the subject-constitution principle and that also dissolves the apparent inconsistency. This amounts to needing a model according to which our perspectives are not partitioned in accordance with the micro-perspectives they contain, while still affirming that they contain further perspectives as parts. I believe there is a model fitting the criteria. I propose *the binocular model of synchronous perspectives*. The idea of the model is to base our thinking about perspectives

on the workings of visual fields within binocular vision. To enable us to see how the model works when applied to perspectives, we first need to delve into the basics of binocular vision.

### **7.1 Binocular Vision**

Simply put, binocular vision is a visual field formed of the combination of two separate monocular visual fields. All animals that have two eyes have binocular vision and in almost all cases there is some degree of overlap between the two constituent fields (often there is a large degree of overlap). The combined visual field allows for depth perception that the monocular fields, considered alone, do not allow for. The depth perception, known as ‘stereopsis’ arises due to what is known as ‘binocular disparity’ which is the difference in the images from the two eyes when appearing as a single combined visual field.

The question of how the two monocular fields come to constitute the binocular field is an interesting one. Physiologically, the process starts with inputs onto the retina of each eye. From there, messages are sent along the optic nerve, to the thalamus, then through the optic radiation, to the primary visual cortex. It is in the visual cortex that the monocular visual fields come together. In the thalamus, the views of the right eye and left eye are kept apart. By the time the messages reach the primary visual cortex, the right and left messages come together in the same layer of the neocortex (layer IV) but are partitioned from each other within that layer. They fully come together in layers I, II, III, V, and VI of the neocortex, in binocular cells. Binocular cells ‘record’ from both right and left monocular cells at layer IV, producing the combined visual field.

What it means for monocular fields to ‘combine’ is not simply for them to be placed side by side, or one on top of the other, but something much more nuanced (and mysterious).

We can explore what goes on in the combination by looking at how different images are combined in different ways. Imagine two scenarios, in one the images from each eye are similar, while in the other they are very different.

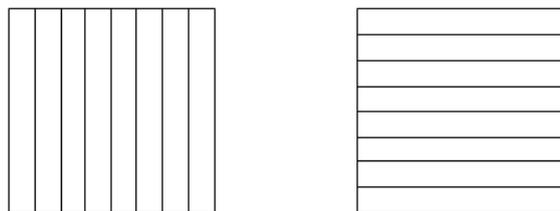
In the scenario where the images are similar, they gain access to the visual system simultaneously and form a fused visual field. It is not known exactly what happens in this ‘fusion’, but what we do know is that the images are not simply aggregated (summed) and nor is the identity of each individual field lost. We know that the combination in question is not simply a case of the two monocular fields summing, because if it were then the combined visual field would be twice that of the unitary fields. We can do an easy experiment to prove this is not the case; close one eye and notice that the brightness of the field from the other remains the same as the combined field. Furthermore, we know that the identities of each monocular fields survive the combination because if they did not, we would not be able to distinguish crossed from uncrossed disparity.

To understand the last sentence, we need to say a little about crossed and uncrossed disparity. A binocular disparity is simply the difference of an object’s location in each single visual field. Whether a disparity is crossed or uncrossed has to do with its location relative to the horopter, which is the point in space that the eyes are fixating on plus an imaginary arc including all points at corresponding locations in the retinae. Crossed disparity occurs when an object is closer to the eyes than the horopter. It is so called because the eyes must cross further to focus on it. In crossed disparity, the object appears further to the left from the right eye’s view than the left eye’s view. An uncrossed disparity is when the object is further away from the eyes than the horopter. It is so called because the eyes must uncross to view it. In uncrossed disparity, the object appears further to the right from the right eye’s

view than the left eye's view. Now we understand this, we can say that the identities of each individual monocular field survive the combination because we are able to differentiate objects with crossed and uncrossed disparities and the ability to differentiate relies on the existence of the two independent visual fields.

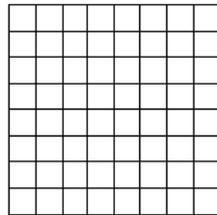
What I have said so far is only about the first scenario, according to which the images from each monocular field are similar. To recap, in such cases the two individual fields fuse, where the fusion is such that the individual images are not simply aggregated, and where their individual identities are also maintained.

Now I will consider the second scenario, according to which the images from each singular field are very different (spatially or temporally). Scenarios like this give rise to binocular rivalry, where the two radically different images undergo alternating periods of dominance and suppression. In such a scenario, at any given moment, at any given point in the binocular visual field, only one image is being displayed. But what is displayed at any given moment, at any given point in the combined field, is constantly changing due to alternating periods of dominance and suppression among the individual visual fields. The most common illustration of binocular rivalry supposes two monocular visual fields each displaying one of the following images:

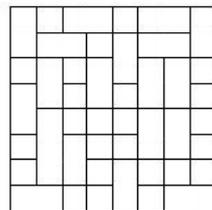


The pair of images above are very different. On the left side we have only vertical lines and on the right side only horizontal lines. If the images were fused in the same manner as sets

of similar images we would expect the resultant binocular view to look something like this (we would expect this intuitively, as well):



However, this is not what happens when the individual images are very different, as I have just noted. Instead, we see binocular rivalry resulting in something like this (albeit the image would be dynamic, constantly changing in accordance with alternating periods of dominance and suppression between the horizontal and vertical lines):



At any one point in the binocular image, only one of the two monocular images are dominant, while the other is suppressed. We can see that when a disparity between the individual visual fields is too great, the combined binocular visual field is formed of a dynamic 'mosaic' of the two monocular visual fields. In the example above, the combined binocular view would include (constantly changing) areas of horizontal line dominance and vertical line dominance. I should note that in cases of binocular rivalry both images are

processed initially, and even fused very briefly, but when the differences are too great the images are separated out and processed sequentially.<sup>41</sup>

## **7.2 The Binocular Model for Panpsychism and Cosmopsychism**

I propose that panpsychism and cosmopsychism can harness the basics of binocular vision to present a coherent model of synchronous perspectives scenarios. Recall that what they need is a model that allows for synchronous perspectives scenarios, while maintaining the subject-constitution principle, and dissolving the apparent inconsistency between the expectation that our own perspectives be partitioned and the reality that they are not so partitioned.

### **7.2.1 The Binocular Model for Panpsychism**

I will present the model for panpsychism first, and then for cosmopsychism, although there is minimal difference between them. Imagine Coleman's synchronous perspectives scenario, involving two micro-perspectives, Red and Blue, combining to constitute a macro-perspective, Ub. What I propose is that we think of the micro-perspectives as equivalent to the two monocular perspectives of a binocular vision, where the combined binocular vision is equivalent to the macro-perspective. Coleman says his scenario is metaphysically impossible because it entails that the combined perspective must be formed of two mutually exclusive micro-perspectives. Remember that Red is a perspective characterised exhaustively by the experience of redness and Blue is a perspective characterised exhaustively by the experience of blueness.

Reframing Coleman's scenario according to the binocular model, we can say that Red and Blue are equivalent to two individual monocular fields, and that they combine to

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<sup>41</sup> For more details on binocular vision and the processes I describe see Howard and Rogers (1996) 'Binocular Vision and Stereopsis'.

form Ub, the equivalent of a unified binocular visual field. Moreover, because Red and Blue represent mutually exclusive points-of-view, we can also say that their combining in a binocular visual field gives rise to a case of binocular rivalry. As we have just seen, in cases of rivalry the combined image is not a fusion of the two individual images but rather a dynamic mosaic of alternating dominance and suppression among the two constituent images.

Recall what combination must amount to for the constitutive panpsychist; it must be more than mere aggregation but must allow the continued existence of the constituting entities (as per the subject-constitution principle). Accounts of combination that will not do include; one on which the combined perspective is just the two micro-perspectives side-by-side (as this would amount to mere aggregation), one on which only one of the micro-perspectives survives, and one where neither of the micro-perspectives survive (as these last two would amount to violations of the subject-constitution principle). The only viable option for the constitutive panpsychist appears to entail a synchronous perspectives scenario whereby the combined macro-perspective has as its partial aspects the two micro-perspectives. But this, according to Coleman, is metaphysically impossible because it amounts to the claim that a macro-perspective contains within its purview two mutually exclusive perspectives (it is impossible, for example, for Ub to share both Red's perspective of an experience exhausted by redness and Blue's perspective of an experience exhausted by blueness).

I have already said that I am not entirely convinced by the charge of metaphysical impossibility, but I will nonetheless address it. As I have said, I do, however, think there is an apparent epistemic implausibility in the notion. It arises as a result of the disparity

between the expectation that our own perspectives will be perspectively partitioned and the lack of such partitioning in our experience.

So, how does the binocular model help the constitutive panpsychist? It helps by offering a model of combination according to which we would not expect perspectival partitioning in our experience even though our perspectives subsume further perspectives. Let us think again about Ub, constituted of a combination of Red and Blue, according to the binocular model. As mentioned, we would expect their combination to result in binocular rivalry, leading to a dynamic mosaic of alternating dominance and suppression of Red's point-of-view (redness) and Blue's point-of-view (blueness). We would not expect to see an overall point-of-view split in two, formed half of Red's perspective and half of Blue's perspective. Rather we would expect to see an overall point-of-view which is a dynamic pulsating matrix of red regions and blue regions. Coleman's purported contradiction does not arise because Ub's point-of-view is not formed of contradictory perspectives and moreover the epistemic implausibility does not arise because, given the model, we do not expect to see the partitioning (and it is its absence in our experience that gives rise to the implausibility).

There is still a remaining question; does this model avoid violating the subject-constitution principle? The question concerns the need to ensure that the constitutive part of constitutive panpsychism can be maintained. The constitution relation states that for  $x$  to constitute  $y$ ,  $y$  must be grounded in (or obtain in virtue of)  $x$ . Chalmers (2016) notes it can be understood intuitively as the claim that  $x$  somehow adds up to yield  $y$ . Remember that for constitutive panpsychism, the subject-constitution principle means that both the constituting perspectives ( $x$  in the above) must survive the combination and in addition we

must have a new constituted perspective post-combination ( $y$  in the above), or else we cannot say that  $x$  grounds  $y$ . The answer to the question is that the subject-constitution principle can be maintained because, according to the binocular model of synchronous perspectives, the constituted macro-perspective is formed of a combination of the two micro-perspectives, in such a way that their individual identities survive. In binocular vision, at no point are either monocular field snuffed out of existence in cases of binocular rivalry, or else the dynamic mosaic of alternating dominance and suppression of the individual fields would not exist, and since we take this as our model we can say the same of the individual perspectives in the panpsychist combination.

To summarise, according to the model I propose, constitutive panpsychism can avert both types of problems, because it can offer an account of the combination of micro-perspectives into macro-perspectives according to which the micro-perspectives' survival does not preclude the simultaneous existence of the macro-perspective they constitute. Consider Coleman's metaphysical objection. In his argument, the two micro-perspective constituents are radically different (Blue and Red) which he claims makes it impossible for them to jointly constitute a further perspective. However, as I have shown, on the binocular model when two radically different perspectives constitute a macro-perspective, the macro-perspective exhibits rivalry (equivalent to binocular rivalry), which neither involves a contradictory perspective (*per impossible*) or the elimination of the micro-perspective constituents.

Consider also the epistemic implausibility problem, which arises as a result of the discrepancy between what we would expect our own perspectives to be like, given the postulates of constitutive panpsychism, and what our perspectives are actually like when we

introspect. The epistemic argument says that we should expect to see that our human perspectives are fragmented in accordance with the micro-perspectives which constitute them (i.e. micro-perspectives should appear fully formed as part of our perspectives), but since we do not see that in our experience constitutive panpsychism must be false. The binocular model addresses this problem because, according to the model, it is not the case that we would expect the individual constituting perspectives to appear fully formed within the purview of the macro-perspective. What we would expect, in most cases is fusion (in the vein of binocular fusion), while in rare cases we would expect rivalry (in the vein of binocular rivalry).

Given the model, some macro-perspectives will be constituted of fused micro-perspectives (those where the constituent perspectives are similar) and some will be constituted of rivaling perspectives (those where the constituent perspectives are very dissimilar). In neither case does either of the problems arise.

### **7.2.2 The Binocular Model for Cosmopsychism**

Let us now consider the binocular model for constitutive cosmopsychism. In this case, we will need to be a little more imaginative. In the panpsychist case, we benefit from the fact that binocular vision involves the combination of more limited visual fields into a composite field, which is like panpsychism insofar as it posits the combination of more limited perspective into a composite one. The direction of dependence is the same, small entities combine to constitute larger entities, where the larger entities depend on the smaller entities. For cosmopsychism, the smaller entities derive from the larger entities and depend on it for their existence. So we see a reversal in the direction of dependence. But it does not mean we cannot apply the binocular model to address the subject derivation problem.

Recall that I said the subject combination and derivation problems are almost the same problem. Essentially, the metaphysical impossibility and epistemic implausibility problems centre around the entailment of synchronous perspective scenarios, from both the panpsychist and cosmopsychist position. To repeat, these are scenarios involving perspectives as parts of a further perspective(s). Panpsychism entails such scenarios because micro-perspectives are the fundamental parts of derivative macro-perspectives, while Cosmopsychism similarly entails synchronous perspective scenarios because the fundamental cosmic perspective contains, as parts, derivative macro-perspectives. What the binocular model offers cosmopsychism is an unproblematic account of synchronous perspectives. It does not matter that there is not structural parity between cosmopsychism and binocular vision, in the sense that in binocular vision the resultant combined visual field is formed of a combination of the more limited views, whereas in cosmopsychism the overall perspective is prior to the more limited perspectives. What we are interested in, as far as cosmopsychism is concerned, is an account of synchronous perspectives that does not violate the subject-constitution principle.

Let us now run the model. Consider that the cosmic perspective is equivalent to the binocular visual field in the sense that it is an overall perspective containing further perspectives as parts. Now consider that two sub-cosmic perspectives, Red and Blue (we will stick to the same characters from Coleman's argument), are parts of the cosmic perspective, similar to how the individual monocular fields are parts of the binocular visual field. Now recall Shani's demonstration of metaphysical impossibility for constitutive cosmopsychism, which amounts to the claim that the cosmic perspective must both affirm and deny both Red and Blue. It must affirm Red because its perspective contains Red as a part, but it must also deny Red because its perspective contains Blue as a part and Blue

excludes Red, and vice versa. The purported contradiction does not arise on the binocular model because the cosmic perspective can be an unproblematic mixture of Red and Blue while still having Red and Blue as derivative parts. Consider that the cosmic perspective includes the two sub-cosmic perspectives, Red and Blue, as derivative parts. In-line with the model, we can say that the cosmic perspective instantiates binocular rivalry, because its parts are extremely different, its perspective is therefore characterised by a dynamic mosaic of alternating dominance and suppression of its derivative perspectives. This is the same scenario that occurs for panpsychism, except that in this case the direction of dependence goes from top down, rather than from bottom-up. The metaphysical worry does not arise because Red and Blue are not present fully formed in the cosmic perspective (due to suppression).

It is tempting to ask how the cosmopsychist can avoid violating the subject-constitution principle, perhaps also questioning how sub-cosmic perspectives could be derived from the cosmic perspective if they are not present fully formed within it. The cosmopsychist can answer that the sub-cosmic perspectives are present in the cosmic perspective in the same sense that the micro-perspectives are present in the macro-perspective for panpsychism. We saw that the identities of the monocular fields are not lost in cases of binocular rivalry, moreover, the fact that binocular rivalry is present proves the continued existence of the individual monocular fields. The same goes for the continued existence of micro-perspectives in the panpsychist case, and the existence of sub-cosmic perspectives in the cosmopsychist case. The subject-constitution principle is thus maintained.

Now let us tackle the epistemic implausibility problem. It arises as a result of the discrepancy between what we would expect our own perspectives to be like, given the postulates of constitutive cosmopsychism, and what our perspectives are actually like in our everyday experience. The epistemic implausibility argument says that we should expect to see that our human perspectives are fragmented in accordance with the micro-perspectives which derive from them, but since we do not see that in our experience constitutive cosmopsychism must be false. The epistemic worry for cosmopsychism hinges on its commitment to panpsychism, it says that micro-perspectives should appear fully formed as part of our perspectives because, by transition, our macro-perspectives ground the micro perspectives that are parts of them. The binocular model addresses this problem because, according to the model, it is not the case that we would expect the individual derivative micro perspectives to appear fully formed within the purview of our macro-perspective. What we would expect, in most cases is defusion (in the vein of binocular fusion but in reverse – to account for the reversed direction of dependence posited by cosmopsychism) and in rare cases rivalry (in the vein of binocular rivalry).

I should make a brief note on the ‘defusion’ I have just referred to. In the case of binocular vision, as I have mentioned already, when the images from the individual eyes are similar they undergo binocular fusion, whereby the two images are combined, in such a way that the identities of the individual images are preserved, but where they are not simply aggregated. In the panpsychist case, using the binocular model, we can say that the combination of micro-perspectives into a macro-perspective, when the micro-perspectives are similar to each other, is analogous to the case of binocular fusion, we can call this *perspectival fusion*. Additionally, in rare cases where the constituting perspectives are very dissimilar, the combination is analogous to binocular rivalry, we can call this *perspectival*

*rivalry*. However, for cosmopsychism the direction of dependence is reversed, meaning sub-cosmic perspectives are dependent on the cosmic perspective, so it would not be appropriate for the cosmopsychist to say that in cases where sub-cosmic perspectives are similar what we have is perspectival fusion, because that would imply a bottom-up direction of dependence among perspectives. Instead, they can say we have *perspectival defusion*, which is an exact reverse of fusion; perspectival defusion is a defusion of the cosmic perspective into sub-cosmic perspectives, such that the identity of the cosmic perspective is maintained.

One might complain that, at most, the model shows that synchronous perspectives scenarios are possible, but it does not show how the combination or derivation occurs. That is true, but what is interesting is that the binocular model can be seen as endorsing a kind of mysterianism about combination (and derivation) in the sense that even in the case of something as seemingly uncontroversial as the combination of two monocular fields into a binocular visual field, there remains a deep mystery regarding how the combination actually occurs. In the case of binocular vision, there is a well understood *physiological* account of combination, by which I mean that combination occurs in certain instances and in particular cells in the brain, for example we know that binocular fusion occurs in binocular cells in layers I, II, III, V and VI of the occipital lobe of the neocortex (which contains the primary visual cortex), but it is a mystery as to how the two fields are actually combined in the way we know they are combined. It would be strange, therefore, to object to the model of combination and derivation that I present on account that it does not explain exactly how the combination and derivation occur. Given that something as simple as the combination in binocular vision is still deeply mysterious, we should perhaps not be surprised that the combination and derivation of perspectives (and so subjects) remains mysterious. It seems

to me that providing a model of synchronous perspectives on which the reported problems do not arise should mark welcome progress, even if it is not a complete solution.

## **8 Alternative Responses to the Metaphysical Impossibility and Epistemic Implausibility Arguments**

While my view is that the model I have provided is likely the best way to envisage combination and derivation, there are some notable alternatives which may be preferable to others. By alternatives, I mean different responses to the two kinds of arguments I have outlined. All of the alternative responses I state maintain the constitutive aspect of constitutive panpsychism and constitutive cosmopsychism, and in most cases there is a panpsychist and a cosmopsychist version of the response. I will cover three kinds of responses; those that reject the full grounding of derivative perspectives in favour of partial grounding, those that reject the panpsychism stipulation and those that maintain the panpsychism stipulation but reject subjects at the microphysical level. To restate my aim, I am interested in how panpsychism and cosmopsychism can handle their subject problems and if their ability, or inability, to handle them strengthens either view in comparison to the other.

### **8.1 The Partial Grounding Response**

The first kind of alternative response involves uncovering an assumption in the arguments that derivative perspectives must exist fully-formed as partial aspects of fundamental perspectives, since that is the only option open for grounding one perspective in another in accordance with the subject-constitution principle.

#### **8.1.1 Shani's Partial-Grounding Response for Cosmopsychism**

The first, and arguably the most important, alternative response to the problems for constitutive cosmopsychism is offered by Shani (2015). I will spend a significant amount of

time detailing his approach to the problem because it is, to my mind, the best worked-out version of the view in the literature. His approach is to reject the premise that the only way to derive sub-cosmic perspectives from the cosmic perspective is by them being its partial aspects. He does not argue against the claim that this must be the case if sub-cosmic perspectives are to be *fully* grounded in the cosmic perspective, but rather argues, because of the metaphysical impossibility he illustrates, we should instead offer an account according to which the grounding relation is merely one of *partial* grounding. To say that sub-cosmic perspectives are partially grounded in the cosmic perspective is to say that while a given sub-cosmic perspective is dependent on the cosmic perspective, it is not exhausted by that dependency. For Shani, sub-cosmic perspectives are in some respect anchored in the cosmic perspective, while, in another respect, being independent from it. Both aforementioned arguments are averted because the derivative perspectives are not partial aspects of the cosmic perspective.

To explore this option a little deeper it will help us to know more about Shani's position. Shani proposes a rich and nuanced view according to which the cosmos as a whole is the one and only fundamental entity. In addition, the cosmos is a conscious subject of experience. He refers to this conscious cosmos as *the absolute*. The absolute operates on a *lateral duality principle*, according to which it has both a revealed and concealed nature. The revealed nature equates to the world as revealed by our current physics, while its concealed nature is an intrinsic ocean of consciousness, he calls this an *endo-phenomenological expanse*. The two dimensions are described as follows:

[The] revealed side...appears as a spatially extended medium, evolving in time, and differentially structured into various phases and configurations. In short, it appears as what, in common parlance, we identify as physical nature.

The concealed side, however, is presumed, on the present account, to be an intrinsically sentient medium, a vast ocean of consciousness. Needless to say, the phenomenal contents of this medium, the ebbs and flows of experience coursing it, are private and inscrutable (Shani 2015, p. 411).

It is important to note that Shani's picture is a thoroughly monistic one, and not, as it appears at first glance, dualistic. There is no ontological distinction between the revealed and the concealed, they are merely dimensions of the same ontological ultimate, the absolute.

The absolute, with its revealed and concealed dimensions, is an intensely dynamical medium, from which arises derivative entities on both a microscopic and macroscopic level. While all microscopic entities are subjects of experience, this cannot be said for all macroscopic entities. Consider what Shani has to say about microscopic entities and why they are all subjects of experience:

[The] simplest of relatives...are dynamically differentiated, and therefore demarcated, from their oceanic ambience...as a result of such demarcation, the sentient medium inside the 'vortex' becomes uniquely regimented. Moreover, this regimentation of the internal experiential milieu is reciprocally connected to the revealed structure...Hence, as the 'vortex' becomes differentiated from its surroundings its experiential dynamics separates too...creating a knot, or bulge of consciousness with an appearance of self-containment, which serves to separate the system's inner reality from the inner reality of the ocean surrounding it... The result is an individual self (however primitive) engulfed in its own experiences and concerns while being ignorant of the deeper layers which bind it to the ground of all things. (2015, p. 418)

While all microscopic entities are subjects of experience, we can say this for only some macroscopic entities. Shani refers to all non-absolute entities as *relatives*, and those relatives that are not subjects, he calls *pure objects*. Pure objects are not subjects, but owing to the

lateral duality principle, are ‘abodes of consciousness’. The difference between pure objects and objects with macro-subjecthood comes down to whether or not the micro-subjects that constitute them are unified in the right kind of way.

To recap, a relative is any entity that is not the absolute itself (every sub-cosmic entity is a relative). Some, but not all, relatives are subjects. Subjecthood requires that a condition be met regarding the unity of consciousness. Pure objects are a subset of relatives that lack subjectivity, though they are not entirely independent of consciousness. All relatives - subjects and pure objects - are abodes of consciousness; all relatives are loci of experience, but some are not distinct subjects of experience. All relatives are the abodes of consciousness in the sense that all microscopic entities are subjects of experience, but, although all macroscopic entities are formed of microscopic entities, they do not all demonstrate the requisite unity to become macro-subjects. Shani explains the relevant unity in terms of a distinction between what he calls *esonectic binding* and *exonectic binding*; the difference in binding marking the difference between the cases where the fragments of consciousness associated with micro-relatives do and do not unite into new macro-subjects. Shani explains an esonectic system as follows:

An esonectic system is a compound whole whose micro-constituents are interrelated in such a manner that the system is not only cohesive in respect of its outward revealed form but is also unified in respect of its concealed experiential domain...esonectic systems are internally interwoven: the endo-phenomenological reservoirs of their micro-components join together in a coherent fashion, giving rise to a unified experiential domain. (p. 419)

Whereas an exonectic system, he explains as follows:

‘an exonectic system is a compound whole whose micro-constituents are interrelated in such a manner that the system is woven together only on the outside: it has a cohesive exterior, but it lacks a macro-level inner dimension to match with its macro-level revealed form—the endophenomenological reservoirs of its micro-components remain secluded from each other and do not bind together. (pp. 419-420)

Pure objects, he says, are exonectic systems, whereas macro-subjects are esonectic systems. Shani concedes that the distinction between an esonectic and exonectic systems is speculative and that we do not currently have a model explaining how, and in virtue of what, some systems achieve the required unity while others do not. Though he does offer a place to start looking for answers. He refers to some structural differences between minerals and brains, whereby the structural bonds holding minerals together are strong with minimal communication between spatially separated parts, whereas the exact opposite is true of brains. He suggests this may give us a pointer as to why we should expect consciousness to scale up in humans and other animals, but not in rocks and chairs. If the micro-level represents tiny fragments of consciousness, which are then organised into rigid structures lacking in internal communication, as we see in minerals, we would expect no unification of the disparate parts, yet we might expect such unification in brains as they lack rigid structures and allow communication between spatially separated parts.

This still does not tell us, most importantly, how macro perspectives are grounded in the cosmic perspective. Moreover, how does Shani deploy the notion of partial grounding to avoid the problem of synchronous perspectives scenarios? In other words, using Shani’s terminology: how does the absolute partially-ground creature consciousness in such a way as to avoid synchronous perspectives scenarios? To summarise his answer, consider his

outline of the partial grounding in question (where AP denotes the absolute's perspective and RP denotes a relative's perspective):

To say that [AP] is a partial ground for [RP] implies that while [RP] depends on [AP] it also amounts to something more and is not exhausted by this particular dependency relationship. Such a state of affairs is expected if there is a certain aspect under which the perspectives of relative subjects are anchored in the perspective of the absolute, and another aspect under which they assert their independence (p. 423).

This leaves two questions: 1. How are we to understand the anchoring of relative perspectives in the absolute perspective? And, 2. In what sense do relative subjects assert their independence? To answer these two questions Shani makes another distinction, between two types of character that each relative perspective has, a *specific character* and a *generic character*. The first question, regarding anchoring, is addressed with reference to a perspective's generic character, while the second question is answered with reference to its specific character:

The *specific character* of a perspective is its unique outlook. A localised, unique, bounded centre of, as Shani says 'perceiving, feeling, categorizing, synthesizing, anticipating, evaluating, selecting, preparing for action, and so on' (p. 423). He says:

such unique way of relating to things intentionally is manifested dynamically as a coordinated network of interrelated dispositions, or attitudes, which maintains its structural integrity over time (p. 423).

It is this specific character of a subject's perspective that lies behind our intuitive ideas about the existence of perspectives. But it is also this character which gives rise to the derivation problem that Shani and others highlight.

The *generic character* is what does the work anchoring the relative perspectives in the absolute perspective. The idea is that each relative perspective inherits its perspectival nature from the absolute perspective. Shani states that there are two general features of perspectives that are inherited from the absolute in virtue of the fact that the absolute itself exemplifies the features. The two features are *sentience* and *core-subjectivity*. First, each individual relative perspective clearly involves sentience, we are told, since perspectives are experience-involving. The relatives are experiential, on Shani's model, owing to their being grounded in the sentient absolute. That interference patterns are sentient mediums at all is due to the fact that the absolute in which they are formed is a sentient medium. Second, core-subjectivity can be captured by considering that each perspective has a point of origin from which its purview onto the world is cast. This is the implicit sense of self that Shani describes as 'that to whom things are given, or disclosed, from a perspective' (p. 426). Shani's cosmopsychism claims that relative perspectives exemplify core-subjectivity in virtue of the absolute exemplifying core-subjectivity.

In summary, relative perspectives are grounded in the absolute perspective due to the fact they inherit sentience (in a general sense) and the generic sense of self, core-subjectivity, from the absolute. But they are also independent, owing to their unique, specific, character. Thus, sub-cosmic perspectives do not show up in the cosmic perspective, so the metaphysical impossibility and epistemic implausibility arguments are neatly undercut.

A potential problem with Shani's picture is that it may be more complicated than both constitutive panpsychism and other versions of constitutive cosmopsychism. It requires that the sentience of the absolute be imparted to the micro-subjective-relatives, which then

combine into macro-subjective-relatives. The standard versions of constitutive cosmopsychism and constitutive panpsychism, on the other hand, only require one step each to get from the fundamental subjective level to macro subjects. In the case of panpsychism, it is one step from the micro to the macro-level, and in the case of other accounts of cosmopsychism, it is one step from the cosmic to the macro-level. Related to the first problem, a second problem is that Shani's thinking seems to motivate an arguably more plausible alternative to cosmopsychism that I call *Shanian panpsychism*. Shanian panpsychism arises because, if the partial grounding solution were to be pursued, it is not clear that the best way to do this would not be via a panpsychist approach rather than a cosmopsychist one. The reason being, that Shanian panpsychism may be simpler than Shanian cosmopsychism for exactly the reasons just mentioned.

### **8.1.2 Shanian Panpsychism**

Let us sketch a version of panpsychism inspired by Shani's model and consider if it might be a viable alternative response (to the two arguments) for the constitutive panpsychist.<sup>42</sup>

We can say Shanian panpsychism is committed to the following tenets:

1. Physical ultimates have a revealed and concealed nature, such that their revealed nature is their nature as revealed by current physics and their concealed nature is their subjective consciousness.
2. Physical ultimates are micro-subjects that combine to form macro-subjects.

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<sup>42</sup> To be clear, Shani does not make the claim that his insights can be used in the way I suggest, to form a version of constitutive panpsychism. He may well have good reasons for rejecting what I say here. I merely offer it as a possible version of panpsychism inspired by his rich insights.

3. Combinations of physical ultimates form macro-subjects only under conditions where combinations result in esonectic systems, but do not form macro-subjects when their combinations result in exonectic systems.
4. Physical ultimates, as subjects of experience, are perspectival and it is owing to such perspectival that macro-subjects are perspectival.
5. Macro-perspectives are partially grounded in micro-perspectives of physical ultimates in the sense that they inherit generic sentience and core-subjectivity from micro-perspectives but maintain independence insofar as they exhibit a specific character not shared with any micro-perspective.

Essentially what I am proposing is to take Shani's position minus the holism. Panpsychism is atomistic rather than holistic, so we can say reality, in this case, is a plurality of entities, each operating on a lateral duality principle whereby all fundamental entities (i.e. physical ultimates) have a revealed as well as a concealed nature. We can also borrow Shani's distinction between esonectic and exonectic systems to demarcate where combinations of ultimates are likely to give rise to new created subjects. In esonectic systems we would expect the emergence of created subjects but not in exonectic ones. Moreover, this version of panpsychism gets to avoid the problem of synchronous perspectives scenarios by appealing to partial grounding, explained in terms of a distinction between the generic and specific character of fundamental subjects (just as is the case for Shanian cosmopsychism). One could claim that derivative subjects inherit sentience and core-subjectivity from the concealed side of the physical ultimates but remain independent in the sense of having a specific character not shared with the fundamental subjects.

It is not immediately obvious that there are any additional problems for Shanian panpsychism over and above the proposed cosmopsychism, but it is conceivably easier to defend on account of it being simpler. As mentioned already, the cosmopsychist picture seems to require an absolute sentience imparted to micro-sentience which combines into macro-sentience, whereas the panpsychist picture requires only micro-sentience combining into (or imparting to) macro-sentience. The panpsychist version can do away with the absolute entirely. This version of panpsychism would not be undercut by the metaphysical impossibility argument or the epistemic implausibility argument against panpsychism, detailed earlier in the paper, because it does not posit synchronous perspectives scenarios.

The option of rejecting the full grounding of derivative subjects in fundamental subjectivity, in favour of partial grounding, is a promising one. However, it would appear more promising for constitutive panpsychism than constitutive cosmopsychism, on account of the panpsychist variant being simpler without any obvious additional costs. There are some additional worries regarding the status of constituting subjects post-combination; does resonetic binding preserve the identities of the bound micro-subjects or not? It is not clear to me either way, but if it turns out that it does not, then both the panpsychist and cosmopsychist variants of the Shanian approach would seem to contravene the subject-constitution principle.

## **8.2 The Reject Panpsychism Response**

The second response worthy of note only applies to cosmopsychism and only addresses the epistemic implausibility problem. It involves rejecting the stipulation of a modest version of panpsychism, which says that all microphysical entities are conscious. On the face of it, it might seem strange that constitutive cosmopsychists typically endorse a modest version

of panpsychism, but they do. However, for constitutive cosmopsychism it is precisely this stipulation that gives rise to the epistemic implausibility in the first place, because without it the cosmopsychist picture does not include macro-perspectives with micro-perspectives as derivative partial aspects.

What does cosmopsychism without panpsychism look like? Cosmopsychism without panpsychism involves the claim that there is a cosmic consciousness which is the ultimate form of consciousness. The ultimate cosmic consciousness constitutes all sub-cosmic consciousness by virtue of the fact that sub-cosmic consciousnesses are partial aspects of the cosmic consciousness. In this case, however, the only sub-cosmic consciousnesses are those on the macro-level. The micro-level of reality is not consciousness-involving. Essentially, the resulting view combines the following two theses: (1) the cosmos as a whole is conscious, but (2) not every part of the cosmos is conscious. It entails that there are parts of the cosmos that are entirely devoid of consciousness, except that they are a part of a whole which is conscious.

I do not immediately see any incoherence in the idea. It is perfectly acceptable for specific parts of systems to lack properties that other parts, and indeed the system as a whole, instantiate. Consider the body of a human person, and the associated mind of that same human person. Next let us accept that the mind of that human person is associated with the brain-part of the body, and not the body as a whole (this is the intuitive idea, which is generally accepted, that the brain is the seat of consciousness in a human person). Though, we do intuitively say that the mind is the locus of experience for the body as a whole. So, intuitively, we have a physical body, part of which is a brain, and we have a mind that (whatever it is) is associated with the brain of the human body but acts as a locus of

experience for the body as a whole. To put this even more intuitively, its typical to suppose that my mind is in my head, but is the centre of experience for my whole body, this might be why even if we were unfortunate enough to lose a finger we would still think our consciousness was intact.

The potential cosmopsychist response I am proposing here is one that takes the cosmos to be analogous to a human body. As a whole, it is conscious, in just the same way that a human body is conscious as a whole, and just as we intuitively take only a part (or some parts) to be conscious in the human body (the brain part(s)), the cosmopsychist takes only some parts of the cosmos to be conscious (this may well tally with the brain-parts of brained creatures). Moreover, just like we intuitively take it that just the conscious parts(s) of our human body are the locus of experience for the whole body, the present cosmopsychist account says that the conscious parts of the cosmos are the locus of experience for the whole cosmos.

So far, so good. But this response may bring with it its own problems. For example, on this view, consciousness is a rare feature of the cosmos (insofar as the vast majority of its parts must lack consciousness), which leaves consciousness, arguably, unable to play a crucial role that many cosmopsychists will want it to play. Namely, that consciousness is the categorical ground of the nomic spatiotemporal cosmos revealed by physics. I do not have space to get into this in a any significant detail here, but a promising version of constitutive cosmopsychism accepts a Russellian monist stipulation that the cosmos as revealed by physics gives only a structural-relational picture of the cosmos, but does not tell us what grounds that structure. The Russellian monist stipulation says that consciousness, or phenomenality in some sense, is uniquely placed to fill this role. The problem, as far as

the present cosmopsychist response is concerned, is that it is hard to maintain a Russellian view if consciousness is very rare, because it would be difficult to explain how the vast spatiotemporal structure of the cosmos is grounded in an extremely small number of conscious parts.

Additionally, those convinced by the metaphysical impossibility of synchronous perspectives will still object that the problem has not been addressed. However, in response the cosmopsychist could use the binocular model, outlined earlier, to formulate a response, or alternatively (or perhaps conjunctively), they can stand their ground and claim that the metaphysical impossibility argument stops short of demonstrating the impossibility of synchronous perspectives scenarios.

### **8.3 The Reject Micro-Level Subjects Response**

The final response that I want to mention is the option of rejecting that there are subjects of experience at the micro-level. There is a response of this kind available for both panpsychists and cosmopsychists. For panpsychists, a response of this kind can address both arguments, while for cosmopsychists it can address only the epistemic implausibility problem. To be clear, this is distinct from the previous response which rejects consciousness at the micro-level. This option maintains that phenomenality, in some sense, is present at the micro-level without subjects being present.

#### **8.3.1 Panpsychism Without Micro-Subjects**

For the panpsychist, rejecting micro-subjects allows both the arguments from metaphysical impossibility and from epistemic implausibility to be evaded. The impossibility problem is avoided because without micro-subjects there are no micro-perspectives and without micro-perspectives the problematic synchronous perspectives scenarios do not materialise.

Meanwhile, the implausibility problem is avoided because without micro-subjects we would not expect our own macro-perspectives to be fragmented in accordance with their micro-perspective parts, and it is the expectation of such fragmentation that gives rise to the implausibility.

I do not need to propose a hypothetical response here, because there already exists a view which follows this path. Panqualityism, defended most notably by Coleman, drops the stipulation that the microphysical ultimates are subjects of experience, in favour of the view that they are rather phenomenally qualified. Phenomenal qualities are the qualities that characterise phenomenal experience, such as colour qualities like redness and blueness. It is usually taken to be a conceptual truth that phenomenal consciousness involves a subject of experience instantiating phenomenal properties. Panqualityism is arguably a counterintuitive view from the start because it rejects this apparent conceptual truth, stating that phenomenal qualities can exist apart from subjects, unexperienced.

I have covered this view at length elsewhere<sup>43</sup> so will not go into detail here, however according to panqualityism subjects are nothing more than the awareness of phenomenal qualities, and while the qualities exist ubiquitously in all microphysical ultimates, awareness of them is attained in only rare cases involving a system's higher-order thoughts about first-order qualities. Micro-subjects do not exist so there are no micro-perspectives in the picture to play the problematic role in synchronous perspectives scenarios.

### **8.3.2 Cosmopsychism Without Micro-Subjects**

For the cosmopsychist, rejecting micro-subjects addresses the epistemic implausibility argument but not the metaphysical impossibility argument. The impossibility problem

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<sup>43</sup> Please see my paper 'Beyond Panpsychism and Cosmopsychism?' (2020) for a more detailed discussion.

remains because synchronous perspectives scenarios are still implicated due to both cosmic-level and macro-level perspectives existing. The implausibility problem is avoided because there are no micro-subjects to lead to the expectation that we should (though do not) see our own macro-perspectives fragmented in accordance with their micro-perspective parts.

Unlike the panpsychist case, I do not know of any examples of existing views fitting this picture. However, a possible response for the cosmopsychist is to say that although there are no micro-subjects, the micro-level is still consciousness-involving. What I propose here is not a cosmopsychist equivalent of panqualityism<sup>44</sup>, whereby the cosmos is phenomenally qualified but not a subject, rather it is a little more nuanced. The possible response involves maintaining the following, seemingly inconsistent, set of tenets:

1. There are no unexperienced phenomenal qualities.
2. The microphysical level is phenomenally qualified.
3. The microphysical level is free from subjects.

The tenets seem to form an inconsistent set because the truth of the conjunction of (1) and (2) apparently precludes the truth of (3). However, I think there is a possible way for cosmopsychism to maintain the set consistently. First, consider the all-encompassing cosmic subject (with its cosmic perspective), which subsumes all sub-cosmic subjects (in this case all sub-cosmic subjects are macro-subjects). The cosmic subject instantiates all the phenomenal properties there are, including those phenomenal properties associated with macro-subjects on the macro-level, and those associated with all entities on the micro-level. On such a picture, although there are no subjects at the microphysical level, the micro-level

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<sup>44</sup> Although I have highlighted such a view elsewhere as cosmoqualityism. See the synopsis of my PhD submission (2020) for more details.

is consciousness-involving in so far as it involves phenomenal properties instantiated by the cosmic subject. This view does not entail untethering phenomenal qualities from subjects, as with Panqualityism, because ubiquitous phenomenal qualities at the microphysical level are all experienced, or instantiated, by the cosmic subject.

## **9 Conclusion**

The combination problem for panpsychism, especially its subject aspect, has inflicted constitutive panpsychism over the course of its relatively recent resurgence. Constitutive cosmopsychism seems to offer the possibility of maintaining the core motivations behind panpsychism while avoiding the combination problem. Though it does give rise to its own version in the derivation problem. I have suggested that for cosmopsychism to be a genuine alternative to panpsychism it must be better able to respond to the associated problems without incurring additional ones of its own. In this paper, I compared the two views with respect to their respective subject problems, which are generally considered their most challenging problems. Far from either one coming out better than the other, I have suggested that they both face the same problem. However, I have shown that rather than this undercutting both views at once, it has meant I am able to defend both views from their respective problems, at once. Despite both views being left in a better place than they were found, I must conclude that if there is to be a way to choose which to prefer, panpsychism or cosmopsychism, that choice is not to be made on the basis of how they handle their subject problems alone.

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# PAPER 4

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## AN ACCOUNT OF COSMOPSYCHISM

### 1 Introduction

In this paper, I provide an account of, and motivation for, a version of cosmopsychism I call CRP cosmopsychism (standing for ‘constitutive Russellian priority cosmopsychism’). I start by outlining its core commitments; simple panpsychism, Russellian monism and priority monism, before motivating each independently and then as a set. Once the view is clearly outlined, I show how it can address the most pressing problem for cosmopsychism; the derivation problem. The derivation problem is formed of three sub-problems, relating to phenomenal structure, phenomenal quality and subjects of experience. I show how CRP cosmopsychism can address all of these. My main interest is motivating cosmopsychism as a promising alternative to panpsychism, so after addressing the derivation problems, I consider arguments for cosmopsychism, and against panpsychism, from internal relations. In the penultimate section of the paper I consider some possible objections to the view I propose, and in the final section I conclude.

## **2 Core Commitments**

The account of cosmopsychism I present in this paper is based on three core commitments; simple panpsychism, priority monism, and Russellian monism. I will outline each before summarising motivations for them.

### **2.1 Simple Panpsychism**

A simple formulation of panpsychism states that phenomenal consciousness is a fundamental and ubiquitous feature of the cosmos. Fundamental in the sense that its existence is not dependent, or is not grounded in, anything else, and ubiquitous in the sense that it is everywhere in the cosmos, not just existing where there is a brain. Arguably the most popular version of panpsychism is constitutive panpsychism which adds to the above formulation that the fundamental form of consciousness is found at the level of the micro-physical ultimates, the sub-atomic level and that macro-consciousness, such as human consciousness, is constituted out of a combination of instances of micro-consciousness. The first core commitment of the cosmopsychism I propose (I will call this CRP cosmopsychism) is simple panpsychism, by which I mean the claim that phenomenal consciousness is a fundamental and ubiquitous feature of the cosmos. However, it is not committed to constitutive panpsychism. So, we have the first tenet of the view:

1. Consciousness is a fundamental and ubiquitous feature of the cosmos.

### **2.2 Priority Cosmopsychism Blueprint**

The second core commitment of CRP cosmopsychism is, unsurprisingly, the blueprint of priority cosmopsychism. The blueprint, outlined by Nagasawa & Wager (2016), offers an alternative to popular versions of panpsychism and makes for a more promising approach to the problem of phenomenal consciousness:

According to priority cosmopsychism, an alternative to panpsychism that we propose..., phenomenality is prevalent because the whole cosmos instantiates phenomenal or protophenomenal properties. It says, moreover, that the consciousness of the cosmos is ontologically prior to the consciousness of ordinary individuals like us...We offer instead a blueprint for a new alternative to panpsychism and explain how such a view avoids some of the most persistent problems for panpsychism while maintaining several of its strengths (p. 113).

The blueprint proposes turning panpsychism on its head. While panpsychism says that phenomenality is prevalent because microphysical ultimates instantiate phenomenal properties, the priority cosmopsychism blueprint states that it is prevalent because the cosmos, as a whole, instantiates phenomenal properties. On the cosmopsychist picture, macro-consciousness (e.g. human consciousness) is derived from the cosmic consciousness, rather than being formed of combinations of micro-consciousness, as panpsychism maintains. Thus, the blueprint exemplifies a structural parity with priority monism, the view that the concrete cosmos is prior to its sub-cosmic concrete parts. The blueprint is structurally parallel, with respect to phenomenality, because the cosmic consciousness is prior to its sub-cosmic conscious parts. Following the blueprint allows one to maintain the (well known) strongest motivation for panpsychism, by avoiding the problem of strong emergence, while at the same time avoiding the combination problem. Thus, the commitment to the blueprint gives us our next two tenets:

2. Phenomenality is prevalent because the whole cosmos instantiates phenomenality.
3. The consciousness of the cosmos is prior to sub-cosmic consciousnesses like us.

The commitment to the blueprint of priority cosmopsychism provides a structural parity with priority monism, but CRP cosmopsychism goes a step further and is committed to priority monism and not just a structural parity with it.

### **2.3 Priority Monism**

Priority monism (Schaffer, 2010) states that the cosmos is the one and only fundamental concrete object in existence. This contrasts with priority pluralism which states that there are numerous fundamental concrete objects in existence. It is important to distinguish priority monism from existence monism (Horgan & Potrč 2000, 2008)<sup>45</sup>, which states that only one concrete object exists. In opposition to this, priority monism allows for a plurality of concrete objects to exist, providing they are derivative on the existence of the cosmos. Existence monism, on the other hand, does not allow for a plurality of concrete objects to exist (at least not in any conventional way).

CRP cosmopsychism is committed to priority monism in addition to the prior commitments to simple panpsychism and the priority cosmopsychism blueprint. Here we get the following tenets:

4. The cosmos is the one and only fundamental concrete object.
5. There is a plurality of sub-cosmic concrete objects, but these are derivative on the cosmos.

The cosmopsychism blueprint brought the view closer to priority monism in the sense that it adopts a structural parity; but while priority cosmopsychism is only structurally parallel to priority monism, CRP cosmopsychism adopts it. Structural parity alone means only that

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<sup>45</sup> Existence monism is referred to as 'bobjectivism' by Horgan & Potrč.

it is proposed that the phenomenal domain in cosmopsychism is structured similarly to how the physical domain is structured according to priority monism. While the latter quantifies over only concrete reality, the former does so over only phenomenal reality. Building on the blueprint by combining it with a commitment to priority monism leaves us with both the physical and phenomenal domains with the same structure, existing in a top-down manner, with the cosmos as a whole being the fundamental level in each domain. In the physical domain, the concrete cosmos is the one and only fundamental object, while in the phenomenal domain fundamental consciousness is instantiated by the cosmos as a whole. Each domain permits sub-cosmic entities (or parts), but they are only derivative on the cosmos as a whole. It is still an open question as to how the two domains, the physical and the phenomenal, relate to each other.

#### **2.4 Russellian Monism**

To make some headway on this, we turn to the final core commitment of CRP cosmopsychism; Russellian monism. A very simple formulation of Russellian monism says that physics describes reality only in terms of its structure, relations and dynamics, but it remains silent about the properties that ground such structure and relations (and/or the question about whether such properties exist at all). At least some of those properties (called 'inscrutables' by Montero (2010) or 'quiddities' by Chalmers (2016)) are phenomenal properties, according to Russellian monism. So overall, on this picture, the world that physics describes only in terms of structure/relations is imbued with a categorical nature that grounds it. That categorical nature, according to all versions of Russellian monism, is at least partially phenomenal (or proto-phenomenal).

There are many versions of Russellian monism and I do not want to suggest that CRP cosmopsychism endorses, or is compatible with, all of them. However, Alter and

Nagasawa (2015) provide a general formulation of Russellian Monism that captures the three central claims shared by all versions of the view. These are:

*Structuralism about physics*: the basic properties physics describes are structural/relational properties.

*Realism about inscrutables*: there are inscrutables, the natures of which are not wholly structural/relational.

*(Proto) phenomenal foundationalism*: at least some inscrutables are either phenomenal or protophenomenal properties. (p. 425)

Arguably, the most promising versions of panpsychism adopt some form of Russellian monism. For example, Russellian constitutive panpsychism says that phenomenal consciousness is fundamental and ubiquitous; fundamental because it is not grounded in anything non-phenomenal, and ubiquitous because everything instantiates it. Constitutive panpsychism says that macro-(phenomenal)consciousness, such as human consciousness, is constituted out of the combination of micro-consciousness. Micro-consciousness is instantiated by micro-physical ultimates. It is obvious that Russellian monism is a natural complement here. Microphysical ultimates, as described by physics, in terms of structure/relations, are physical, but they also have a categorical nature which grounds it, and such a nature is phenomenal. We can say that matter has both an external (physical) and an internal (phenomenal) nature. When microphysical ultimates combine to form brains, for instance, their phenomenal natures also combine to form macro-consciousness. With this, we have a final tenet of the view:

6. The cosmos has both an external and internal nature. Its external nature equates to the world as described by current physics, while its internal nature equates to phenomenal consciousness.

Putting everything together gives us the six key tenets of CRP cosmopsychism:

1. Consciousness is a fundamental and ubiquitous feature of the cosmos.
2. Phenomenality is prevalent because the whole cosmos instantiates phenomenality.
3. The consciousness of the cosmos is prior to sub-cosmic consciousnesses like us.
4. The cosmos is the one and only fundamental concrete object.
5. There exist a plurality of sub-cosmic concrete objects, but these are derivative from the cosmos.
6. The cosmos has both an external and internal nature. Its external nature equates to the world as described by current physics, while its internal nature equates to phenomenal consciousness.

### **3 Motivations for Core Commitments**

In this section, I will provide motivation for the core commitments of CRP cosmopsychism. These motivations will either come in the form of a positive argument, or more commonly, in the form of avoiding a persistent problem. I will by no means be providing an in-depth analysis of the arguments or problems that comprise these motivations, much of what I say in the section will be to some extent contentious, I offer them merely to motivate the commitments. I should also note that CRP cosmopsychism does not necessarily depend on the success of the motivations I offer.

#### **3.1 Motivating Simple Panpsychism**

By far and away the greatest motivation for simple panpsychism is the avoidance of the problem of strong emergence, so this is what I take to be the primary motivation for its inclusion here. However, there are many other historical motivations for the view too. I will

very briefly summarise three arguments that seem to stand the test of time, which motivate panpsychism, but that I do not take to be primary, before turning to the problem of strong emergence.

### **3.1.1 The Epistemic Argument for Panpsychism**

The epistemic argument for panpsychism is, as the name suggests, only an epistemic argument. Meaning it moves from our epistemic position to the truth of panpsychism. In my opinion, it should not be taken to prove panpsychism true, but instead, its function is to provide the initial trigger to drive the overall panpsychist approach forward. Similar arguments have undoubtedly been made throughout history by numerous people, including Plato (see Skribina 2005), however, I take this argument from the following passage by Skrbina (2005):

Mind is real. I know this because I experience it first hand, and I hold it as an indubitable feature of reality (against eliminativism). Body is real. Rationally, intuitively, and empirically I have reason to believe that my body is a physical, material thing, situated in a physical universe (against pure idealism). There is thus both a material and a mental aspect to my existence; at my deepest, most fundamental level of being, I am a ‘thinking thing.’ Some aspects of my physical being are clearly not widely spread in this world—aspects such as ‘male’, ‘homo sapiens’, or ‘alive’. But my material nature seems to be universal. Similarly, some aspects of my mental being are unique to me, or to others of my kind. But this does not preclude the possibility that something like a mental nature is universal. For both rational and empirical reasons I am convinced that I am not ontologically unique. Since my mentality is fundamentally connected to, or related to, my material body, I have good reason to believe that mentality, in some form, is connected to all material beings. Therefore panpsychism must be true. QED. (p. 254)

For Skrbina, this passage constitutes the core argument for panpsychism. In teasing-out premises and a conclusion from the passage, it seems the argument, as presented, is invalid because its epistemic premises are said to lead to a metaphysical conclusion, which they cannot do. The argument can be reformulated in this way, however:

1. My consciousness is real because I experience it as such.
2. My body is a real and a physical entity, situated in a physical world, because I experience it as such.
3. Therefore, there is both a physical and a conscious aspect to my being.
4. Moreover, my physical nature seems to be universal (in the general sense that I am but a part of a world filled with other physical parts)
5. Given that my physical nature seems to be universal and there is both a physical and a conscious aspect to my being, it is reasonable to suppose that my conscious nature is likewise universal.
6. If conscious nature is universal then panpsychism is true
7. Therefore, I have reason to suppose that panpsychism is true.

This above argument is epistemic in the sense that it is founded on our everyday experience and extrapolates from there to panpsychism. The conclusion is not the truth of panpsychism but the reasonableness of belief in panpsychism being true. I take this argument much like a proof of concept, whereby it justifies that we have good *prima facie* reason to take panpsychism seriously. There is, of course, plenty to question here but it is not imperative to my discussion that I defend this argument.

### **3.1.2 The Argument from Continuity**

The argument from continuity says that unlike other approaches to the problem of consciousness, panpsychism does not need to impose an arbitrary distinction between those things that are conscious and those that are not. This implies that other views arbitrarily distinguish between conscious and non-conscious entities, although they will likely reject this charge. Arguments of this general structure have been made in numerous ways, with differing views about what the relevant continuity is. Like the previous argument, I do not think that this is a key motivation for panpsychism, but I do think it carries some weight so I will include it briefly here.

One possible version of the argument from continuity says that all forms of life, including some which are intuitively non-conscious, have come about through the same overall process of evolution, making the demarcation between conscious living things and non-conscious living things seem arbitrary. The vast majority of people accept that human beings are conscious, many will also accept the consciousness of some animals (great apes, elephants, dolphins, etc.), though many will reject consciousness of a fruit fly, many more still will reject that a sea squirt is conscious. While almost all will reject that non-living things are conscious. While extreme comparisons may stoke a sense of discontinuity, say, if we compare an elephant to a pebble, the more interesting comparisons are the harder-to-call cases. Why is it that a bottlenose dolphin is conscious but a sea squirt is not? One might reply that it is because bottlenose dolphins have brains and sea squirts do not. However, sea squirts do have very rudimentary brains, containing a little over 200 neurons (compared to the, just under, 13 billion neurons making up the bottlenose dolphin's brain).

How about comparing the sea squirt with a sponge (*Tethya wilhelma*)? The sponge does not have a brain. But is it uncontroversial to suppose that the sea squirt, with its ~200 neurons, is conscious and the sponge is not? Even this case is controversial. Interestingly, sponges appear to be able to control their bodies in simple ways. For example, they have been shown to contract both rhythmically and arrhythmically in response to their surroundings. One way they have been observed to contract arrhythmically is as a form of self-defence, effectively toughening their outer layer to protect themselves from damage. Most interesting is that, although the exact mechanism for such action is unknown, neurotransmitter-like chemicals are hypothesised to be involved in its co-ordination:

The existence of subcontractions, significantly weaker than regular contractions, again indicates that the sponge is able to control this behaviour by means of integrating various internal (physiological) and external (environmental) information. Preliminary results of our ongoing research indicate that several neuroactive substances are involved in the coordination of contraction in *T. wilhelma*' (Nickel 2004 pp. 4522-4523).

My point here is not to argue that sponges are conscious even though they have no brains, and therefore that brains cannot be the exclusive harbours of consciousness. As that would involve a commitment to knowing a lot more about consciousness than I do (or anybody else does). But rather, it is to show that the argument from continuity may still carry some weight because even if one takes such a black-and-white criterion as 'consciousness exists where brains exist', there are still grey-area cases. The example just offered highlights that even without the presence of a brain it is thought that neuroactive substances are still involved in the moderation of the animals' behaviour.

This can also be taken as a top-up argument to the argument from strong emergence (to be covered shortly). Adding the top-up could motivate an extension of the argument from strong emergence, taking the conclusion from the truth of the disjunction 'panpsychism or panprotopsychism or micropsychism or microprotopsychism' to the truth of the disjunction 'panpsychism or panprotopsychism'.

### **3.1.3 The Naturalised Mind Argument**

The next argument that I want very briefly note is the naturalised mind argument, Skrbina (who coined the argument's name) says of it:

Panpsychism “truly naturalizes mind,” because it deeply integrates mind into the natural order of the world. Furthermore it does so in a way that no other theory does. (2005, p. 252)

As with the continuity argument this is more of a general type of argument than one specific one. The general argument goes something like; we want consciousness to integrate neatly into the natural world, but according to dominant approaches to the problem, consciousness sticks out awkwardly from the natural world. Physicalism, for example, either has to do away with the reality of consciousness or else have it emerging inexplicably from it (more on this to come). Dualism, to take another example, has consciousness sitting entirely distinct from the natural world. In panpsychism, however, we find a place for consciousness to fit neatly into the natural world, no longer does it need to exist entirely separate from the physical, or emerge inexplicably from it.

In actual fact, there are numerous views that are to some extent related to panpsychism that can also claim to neatly naturalise consciousness, furthermore there are some such views that can be combined with panpsychism. One example is Russellian

monism which is another core commitment of the CRP cosmopsychism I propose in this paper.

### **3.1.4 The Last Man Standing Argument**

Another argument highlighted by Skrbina (2005) is the last man standing argument. He summarises the argument as follows:

In light of “the ‘terminal’ failure of the approaches built on the Cartesian intuition about matter,” panpsychism stands as the most viable alternative. This is an important point, and one that has been neglected in the past. If intensive critical inquiry of dualism and materialism over the past, say, few hundred years has failed to produce a consensus theory of mind, then it stands to reason that a third alternative like panpsychism, in some positive formulation, should gain in viability. (p. 252)

The argument is obvious from the above quotation. Neither physicalism nor dualism, despite huge expenditure on resources, have come up with a generally accepted solution to the problem of consciousness, so perhaps, offered the same resources, the panpsychist approach may prove fruitful. Again, I do not consider this to be an argument for panpsychism as much as an initial motivation for the approach.

### **3.1.5 The Problem of Strong Emergence**

The arguments I have presented are best thought of, I suggest, as providing initial motivation for further exploration of panpsychism, but they stop short of counting as strong reasons for supposing it may be true (at least as I have presented them). The avoidance of this next problem, however, forms the basis of the single most significant argument for panpsychism.

The problem of strong emergence is a problem for physicalism. A key motivation for panpsychism is avoiding this problem. Put very simply, the problem for physicalism is; if consciousness is real and dualism is false, then either consciousness is present at the

fundamental level of reality or its emergence from fundamental entities entirely devoid of consciousness. The physicalist must opt for the latter or else be a panpsychist, but the kind of emergence entailed is ontological, or strong, emergence, which is purportedly impossible. Our first step will be to formulate an overall argument, for panpsychism, before bolstering up the crucial premises. There are a few important postulates of this argument: (1) realism about physics, (2) realism about consciousness and (3) the rejection of substance dualism. With this in mind, we can formulate the following argument:

1. Consciousness is real *and* the world as described by current physics is real *and* substance dualism is false.
2. A complete physical description of the world, according to our current physics, does not integrate consciousness.
3. If consciousness is to be integrated into a physical description of the world then either it must already be a feature of fundamental physical entities or it emerges from certain combinations of fundamental physical entities (and relations among them).
4. If consciousness emerges, it strongly emerges.
5. Strong emergence is impossible.
6. Therefore, consciousness does not emerge.
7. Therefore, consciousness is a feature of fundamental physical matter.
8. Therefore, panpsychism (or panprotopsychism or micropsychism or microprotopsychism) is true.

Let us take a closer look. Premises (4) and (5) are the most significant for us. Premise (1), for our purposes, is a stipulation to help us on our way to the issue at hand, it is the

conjunction of realism about physics, realism about consciousness and the rejection of substance dualism. This is an argument against physicalism and in favour of panpsychism (or panprotopsychism), so it is uncontroversial to postulate the rejection of substance dualism and the acceptance of realism about physics. Stipulating that consciousness is real, as far as premise (1) is concerned, amounts to the rejection of eliminativism and views that maintain there is nothing to be explained regarding consciousness. Premise (2) builds on the consciousness-is-real stipulation in premise (1) and is driven by common arguments against physicalism like the knowledge argument (Jackson 1982), the conceivability argument (Chalmers 1996), and the explanatory gap argument (Levine 1983). Premise (3) follows from (1)-(2).

Premise (4) states that if consciousness emerges then it strongly emerges. Strong emergence is distinguished from weak emergence (Chalmers 2008). Weak emergence is an epistemic form of emergence, meaning that the appearance of a new property is due to an epistemic limitation on our part. In weak cases, the emergence of the property is surprising given the base conditions from which it emerges. With weak emergence, even if the emergent property is surprising, it is in-principle deducible from the base, i.e. if we were epistemically unlimited we be able to deduce the property from the conditions from which it emerges (by conditions I mean both the entities at the base together with any relations among them). Strong emergence, on the other hand, is an ontological kind of emergence whereby the emergent property emerges not just as a result of some epistemic limitation. In strong cases, the emergence of the property is not just surprising given the base conditions, but it is not, even in-principle, deducible from the base. Even from God's omniscient perspective, the emergence of strongly emergent properties is not deducible from the base. The reason Premise (4) is supposed to hold is because if consciousness were to only weakly

emerge then panpsychism (or panprotopsychism) would be true as it would entail that the emergence of consciousness as an epistemic phenomenon rather than an ontological one. Consciousness, if it were to emerge, must do so ontologically if panpsychism (or panprotopsychism) is to be avoided.

Following (4), premise (5) is the second crucial premise, it states that strong emergence is impossible. Weak emergence is unproblematic as we know of many cases of it, for example, the emergence of liquidity from base entities themselves entirely lacking liquidity (Strawson 2006) and the gas-solid-liquid transformation (Popper 1978). Strong emergence, on the other hand, is much trickier to get a handle on. There have not been any widely accepted cases of strong emergence, with those having been given tending to turn out to be cases of weak emergence on further reflection. More importantly, according to Strawson, cases of strong emergence violate the following apparent principle:

For any feature Y of anything that is currently considered to be emergent from X, there must be something about X and X alone in virtue of which Y emerges, and which is sufficient for Y (2008, p. 65).

Cases of strong emergence violate the above principle because they are not even-in-principle deducible from the base, there is no basis on which to say that the emergent property emerges from the proposed base rather than some other state of affairs. By definition, it is not possible to say there is anything at all about the base and the base alone, in virtue of which the emergent property emerges, because it is in-principle not-deducible.

From here it is straightforward, premise (6) follows from (4)-(5), Premise (7) follows from (3)-(6), and the ultimate conclusion follows from (7). Overall, I think it is fair to say that avoiding the problem of strong emergence is by far the strongest motivation for

panpsychism. Presented as the argument above it prompts a move from physicalism to panpsychism (or more fairly, to panpsychism, panprotopsychism, micropsychism or microprotopsychism).

### **3.2 Motivating Russellian Monism**

As I have already mentioned, Russellian monism is an umbrella term for a variety of closely related views that share some common core commitments. Given my other core commitments, as far as forming my account of cosmopsychism is concerned, my focus is on the panpsychist Russellian Monism (the version which says the inscrutables, or quiddities, are phenomenal properties, rather than merely proto-phenomenal properties). I will briefly summarise four motivations for Russellian monism.

#### **3.2.1 The Grounding Physics Argument**

The most significant motivation for Russellian monism is inspired by its namesake Bertrand Russell's views on physics. I call this *the grounding physics argument*. It moves from the premise that physics reveals only the structural nature of the world but remains silent on what it is that instantiates such structure, to the suggestion that Russellian monism is the best candidate approach to offer an explanation as to what the instantiator is. The core of the argument is contained in the following passage by Russell (1959):

It is not always realized how exceedingly abstract is the information that theoretical physics has to give. It lays down certain fundamental equations which enable it to deal with the logical structure of events, while leaving it completely unknown what is the intrinsic character of the events that have the structure. We only know the intrinsic character of events when they happen to us. Nothing whatever in theoretical physics enables us to say anything about the intrinsic character of events elsewhere. They may be just like the events that happen to us, or they may be totally different in strictly unimaginable ways. All that physics gives us is certain equations giving

abstract properties of their changes. But as to what it is that changes, and what it changes from and to—as to this, physics is silent. (p. 13)

We can formulate an argument from the starting point that consciousness seems at odds with physical descriptions of the world (highlighted by arguments such as the conceivability argument (Chalmers 1995, 1996, 1997, 2003) and the knowledge argument (Jackson 1982, 1986)), and on the understanding that consciousness fitting neatly into the physical nature of the world is desirable:

1. Consciousness seems at odds with physical descriptions of the world.
2. Physics reveals only the structural nature of the world.
3. There is more to the world than structure alone.
4. Physics does not reveal the complete nature of the world.
5. Physics does not reveal quiddities.
6. Quiddities ground the structure of the natural world that physics reveals
7. Quiddities are part of the natural world.
8. Some quiddities are phenomenal (or proto-phenomenal) properties.
9. All phenomenal properties are quiddities.
10. Phenomenal properties are part of the natural world.
11. Physics does not reveal phenomenal properties.
12. Physics does not reveal phenomenal properties even though they are part of the physical world, because it does not reveal the quiddities that ground the structure it does reveal, and at least some quiddities are phenomenal properties.

Let us take a closer look at the premises. Premise (1) is the observation that consciousness is at odds with the physical description of the world. This is an observation backed up by the knowledge argument and the conceivability argument. The take-away is that physicalism, as we know it, faces a challenge to find a place for consciousness in the physical world. Premise (2) is a description of what physics does, uncovering the nomic spatio-temporal structure of the world. Premise (3) is pivotal. It amounts to a rejection of the view that structure is all that exists (some take (2) as evidence that structure is all that exists (Ladyman and Ross 2007)). From (1)-(3) we conclude (4). Premise (5) follows Chalmers (2016) in referring to what physics does not reveal, as what the structure it does reveal actually *is*, as ‘quiddities’. Premise (6) just states what quiddities are. Premise (7) states that there is nothing supernatural about quiddities, they are part of the natural world. Premise (8) is the proposition that phenomenal properties make good candidates for quiddities, so at least some quiddities are phenomenal properties, while premise (9) is the sensible stipulation that there are no phenomenal properties that are not quiddities. It is a sensible stipulation because the alternative would be quite metaphysically expensive in terms of simplicity; for example, having some quiddities as phenomenal properties and some, but not all, phenomenal properties as quiddities seems very strange. Premise (10) follows from (7), and premise (11) follows from (5). The ultimate conclusion (12) follows from (4), (9) and (11).

### **3.2.2 The Conceivability Problem**

The conceivability problem arises due to the conceivability of phenomenal zombies, which are complete physical copies of us but lacking consciousness. Accepting that conceivability equals possibility, the argument continues that such zombies are metaphysically possible. If

they are metaphysically possible then the physical description of the world clearly leaves something out.

The conceivability problem as presented above is a problem for physicalism (though versions of it have been charged against other views, too), so it is the avoidance of such a problem that motivates Russellian monism. While there are versions of physicalism that reject the conceivability of zombies (classified by Chalmers as 'type-A materialism', 2003), as well as versions that accept the conceivability of zombies but reject that they are metaphysically possible (type-B materialism), and versions that claim they are conceivable for us now but they would not be conceivable under ideal conditions in which we are not epistemically limited (type-C materialism), each faces their own unique problems in the face of the conceivability problem (see Chalmers 2003 for a detailed discussion).

An argument for Russellian monism from the conceivability of zombies goes something like this; physicalism is an attractive solution to the problem of phenomenal consciousness because it maintains that physics accurately describes the world. However, it must respond to the conceivability problem, but in each of its varieties, it faces challenges in doing so. Russellian monism is well-placed to both respond to the conceivability problem *and* maintain that physics accurately describes the world. Russellian monism responds to the problem by saying that zombies are conceivable, but they are not metaphysically possible. They are conceivable because when we conceive of zombies we are conceiving of merely structural replicas of ourselves, when in fact structural copies, according to Russellian monism would entail also copies of the categorical ground of that structure, which amounts to consciousness. Russellian monism, as discussed already, also finds a neat place for consciousness without disturbing the claim that physics accurately describes the

world. Physics accurately describes the world according to its structure (but remains silent on the categorical base of such structure).

### **3.2.3 The Happy-Compromise Argument**

Alter and Nagasawa (2015) present two new arguments for Russellian monism. I will include both here. The first is the happy-compromise argument which compels Russellian monism on the basis that it is uniquely placed to sit in between physicalism on one hand and dualism on the other, keeping the advantages of each while overcoming some of their disadvantages. Centrally, it maintains the ontological elegance of physicalism, by holding that there is no fundamental difference of substance between the physical world and consciousness, while also maintaining a kind of uniqueness to consciousness kindred in spirit to dualism:

Monist versions of Russellian monism share the ontological elegance of physicalism. And like traditional dualism, all versions of Russellian monism succeed in affirming the uniqueness of consciousness. Yet Russellian monism allows consciousness to be integrated into nature in a much more substantial way than does traditional dualism. (Alter and Nagasawa 2015, p. 443)

A notable caveat here is that there are numerous versions of physicalism and dualism, with some flexing more than others to accommodate their respective worries. Chalmers (2003) classifies physicalism (referred to as materialism) into three categories; type-A materialism, type-B materialism and type-C materialism. Type-A materialism rejects that there is a hard problem of consciousness, contending that there is no explanatory gap between the physical and the phenomenal, or at most a very minor epistemic gap that is easily closed. Type-B materialism maintains that there is an epistemic gap between the physical and phenomenal, but no ontological gap, so the hard problem is taken to be epistemic rather than ontological

in nature. Finally, according to type-C materialism, the gap between the physical and phenomenal is taken to be a deep one, though ultimately still an epistemic one. On this view, the hard problem, although epistemic in nature, may not seem solvable in physical terms but is in principle solvable. Perhaps both type-B and type-C materialism can claim to affirm a certain level of uniqueness to consciousness, both views can claim to respect deeply held intuitions that consciousness is unique while giving an account as to why such intuitions turn out to pick out something only epistemically, rather than ontologically, novel. However, both views have additional serious problems too (see Chalmers 2003 for a detailed account).

While I do not think the argument from a happy-compromise is a strong or conclusive one, it does motivate Russellian monism somewhat, similar to how some of the arguments for panpsychism nudge us toward the view without providing conclusive arguments (we might even see this argument as related to the naturalised mind argument for panpsychism).

### **3.2.4 The "Two-Birds with One Stone" Argument**

The second of the new arguments that Alter and Nagasawa offer is what I call the two birds with one stone argument. This argument is powered by a perceived ability of Russellian monism to solve two seemingly unrelated problems at the same time. On one hand, some in the philosophy of science believe that there must be properties grounding the nomic spatio-temporal structure, that physics describes, that are not themselves structural (though others contend that there is nothing but structure). In the philosophy of mind, many want to find a neat way of integrating consciousness into nature, with traditional views leaving it awkwardly sticking-out in one way or another. Alter and Nagasawa connects these two seemingly unrelated problems by pairing what they describe as a 'help-wanted' problem in

the philosophy of science with a 'job-wanted' problem in the philosophy of mind (pp. 444-445).

Philosophy of science is looking for outside help to ground the nomic spatio-temporal structure that physics describes so completely, while the philosophy of mind is looking for a job for consciousness as it seems at odds to find a place for it in the physical world, that satisfies strongly held intuitions about its causal importance. Russellian monism, the argument goes, is able to solve both problems at once. It solves the problem in the philosophy of science by offering consciousness to play the role of grounding the structure described by physics, while simultaneously solving the problem in the philosophy of mind by giving it a role in the causal scheme of the natural world.

I take this argument to be most effective when considered to be a top-up argument that can be added to the grounding physics argument and the happy-compromise argument.

### **3.3 Motivating Priority Monism**

The final core commitment of CRP cosmopsychism is priority monism. Schaffer (2010b) offers a variety of motivations for priority monism, but I will focus on two of them here. The first is the avoidance of the problem of infinite decomposability and the second is the argument from quantum entanglement. In addition to the two I provide here; I will return to another argument for priority monism in a later section of the paper.

#### **3.3.1 The Problem of Infinite Decomposability**

Priority monism can be motivated by the argument from the possibility of infinite decomposability (or the argument from the possibility of *gunk*). Infinitely decomposable matter (or gunk) is matter every part of which has further proper parts. The argument is an argument for priority monism by way of some modal considerations, and runs as follows:

1. Either the ultimate cosmos or its ultimate parts must be basic at all possible worlds.
2. There are possible worlds which are infinitely decomposable.
3. Therefore, the cosmos must be basic at all worlds.

The argument moves from the premise that what is basic must be basic at all possible worlds, through the premise that there are in fact worlds whose parts are infinitely decomposable, to the conclusion that the cosmos must be basic at all worlds.

The truth of premise (1) is argued for on the basis that the direction of priority must be a necessary truth, or else there could be two worlds which were indiscernible in every sense except that in one the cosmos was basic while in the other its parts were basic. This doesn't seem like the sort of thing that will be generally supported.

Schaffer argues convincingly for the truth of premise (2). All that is needed to satisfy the truth of the premise is to show how a world could possibly be infinitely decomposable. Schaffer highlights three counts on which it is possible. Each pertains to a different level of severity with respect to the strength of the possibility, however, all that the argument requires is one sense in which it holds.

At the least threatening level, it is *logically possible* that there is matter every part of which has further parts. This possibility amounts to the fact that there is no logical contradiction in the idea. Next, and more threatening, is that it is *metaphysically possible*; we can conceive of a world in which this is the case. If conceivability is taken to be a guide to metaphysical possibility, then a world in which there is matter every part of which has further parts is metaphysically possible. Most damaging of all, however, is that it is *actually*

*possible*. By that, I mean that it is possible that the actual world itself contains matter every part of which has further parts.

Reasons for thinking that the actual world is infinitely decomposable, as I see it, are threefold. Firstly, and most weakly, is that from an intuitive point of view it seems plausible that the matter we are acquainted with in the actual world could be such that it is infinitely decomposable. More convincingly is the lesson from the history of science. We have at many times believed we have discovered the ultimate constituents of matter only to find, along with advances in technology in our scientific endeavours, that we were wrong and that there was, in fact, a lower level to physical reality. Take the atom for example; it was considered the smallest building block for a long period of time until, in 1897, J.J. Thompson discovered that electrons were components of all atoms. We now know not only that atoms are made up of electrons, protons and neutrons, but that these are made up of much smaller sub-atomic particles. I follow Schaffer (2010) in noting Brian Greene (1999) as summing up the lesson from the history of science when he says:

History has surely taught us that every time our understanding of the universe deepens, we find yet smaller microconstituents constituting a finer level of matter. (p. 141)

A third and final sense - and the most serious sense - in which the problem of infinite decomposability might be a problem is that it is postulated in serious scientific theories. For example, Dehmelt (1989) posits an infinite regression of sub-electron structure. Additionally, Montero (2006) highlights that physicists Weinberg (1992) and Bohm (1957), have both taken seriously the possibility of infinite decomposability.

### 3.3.1.1 Infinite Decomposability and Consciousness

In addition to the argument for priority monism from infinite decomposability, there is also another related argument, that is relevant to the formulation of CRP cosmopsychism. Nagasawa (2012) argues that infinite decomposability cuts across *all* of the major approaches to the mind-body problem; physicalism, dualism, idealism, and neutral monism, because they are all versions of fundamentalism. Fundamentalism, as Nagasawa (p. 358) outlines it, is the conjunction of these three theses:

1. The hierarchy thesis: the universe is stratified into levels
2. The fundamentality thesis: there is a bottom level, which is fundamental.
3. The primacy thesis: entities on the fundamental level are primarily real and the rest are at best derivative, if they are real at all.

I think the most important thesis to elaborate on is (2) because in much of my work I talk of the fundamental level as being the top level not the bottom, so it is worth noting that in this section of the paper when I talk about the fundamental level I refer to the bottom level of reality, unless otherwise specified.

The thought is that all of the major approaches to the mind-body problem imply fundamentalism and given that infinite decomposability is inconsistent with fundamentalism, if the world is infinitely decomposable then fundamentalism is false, and, therefore, so are all of the major approaches to the mind-body problem. Nagasawa presents his argument as follows:

- (1) If physicalism, dualism, idealism, or neutral monism is true, then fundamentalism is true.
- (2) If fundamentalism is true, then there is a bottom, fundamental level of reality.

(3) There is no bottom, fundamental level of reality.

Therefore,

(4) Fundamentalism is false (from [2] and [3]).

Therefore,

(5) Physicalism, dualism, idealism, and neutral monism are all false ([1] and [4]). (p. 360)

It is important to point out that the conclusion is based on specific construals of the broad approaches cited. I think that premise (1) is, broadly speaking, clearly false because there are versions (at least possible versions) of all of the approaches that do not entail fundamentalism. Premise (3), as I have spoken about above, is not a given, but it is certainly a possibility. Therefore, the argument is more limited in scope than the premises would have you believe. What the reasoning does well is show that versions of physicalism, dualism, idealism, and neutral monism that *do* affirm fundamentalism, are vulnerable to the possibility of infinite decomposability. I think a more accurate formulation of the argument is as follows:

1. If fundamentalism is false then fundamentalist versions of physicalism, dualism, idealism, neutral monism and panpsychism are false.
2. If infinitely decomposable matter is possible then fundamentalism is false.
3. Infinitely decomposable matter is possible.
4. Therefore, fundamentalism is false.
5. Therefore, fundamentalist versions of physicalism, dualism, idealism, neutral monism and panpsychism are false.

Notice the difference between the third premise in each argument. My reformulation states only that infinitely decomposable matter is possible, but does not imply that it is actual, as

with the original argument. This is because all we need to reach our conclusion is for infinite decomposability to hold in some possible world. We can then follow Schaffer in maintaining that what is fundamental must be fundamental in all possible worlds (otherwise we have two identical worlds save for one being fundamentalist and the other not).

The real reason I am interested in this argument is that it purports to rule-out all of the most common approaches to the mind-body problem, with the exception, as I have highlighted, of non-fundamentalist versions. The cosmopsychism proposal I offer in this paper, however, is a non-fundamentalist approach to the problem of consciousness and as such it evades the problem of infinite decomposability. It does this owing to its commitment to priority monism. In this respect, cosmopsychism enjoys a significant advantage of avoiding a problem that potentially rules out most competing views, including, most importantly, constitutive panpsychism (arguably, cosmopsychism's biggest rival).

While Nagasawa is skeptical of the prospects for priority monist solution to his problem, at the time of his formulating the argument cited here, he does later point out (with Wager, 2016), in their proposal of a blueprint for cosmopsychism, that the adopting of at least the structure of priority monism affords approaches to the problem of consciousness a way of avoiding the problem of infinite decomposability.

### **3.3.2 The Argument from Quantum Entanglement**

The argument from quantum emergence is an argument in favour of priority monism, again, offered by Schaffer (2010b). It runs as follows:

1. The cosmos, as a whole, possesses emergent properties (due to quantum entanglement).

2. If the cosmos, as a whole, possesses emergent properties, then the cosmos, as a whole, is prior to its parts.
3. Therefore, the cosmos, as a whole, is prior to its parts.

The thinking here is that if the priority monist can show that the cosmos as a whole has emergent properties (note: the emergent properties in question are *weakly* emergent properties, not the problematic *strong* kind) they could claim that the cosmos as a whole is prior to its parts.

The notion of emergence that Schaffer has in mind is a case of mereological supervenience failing. Supervenience is an asymmetrical dependency relation holding between a set of basal properties and a supervenient property (or properties). It is asymmetrical in the sense that the supervenient property is dependent on the basal properties but the basal properties are not likewise dependent on the emergent property. If we call the basal properties A-properties and the supervening properties B-properties, the notion would go to say that there can be no change in the B-properties without some change in the A-properties (but not vice versa). With this in mind, we can say that mereological supervenience is when the whole supervenes on the parts, where the parts form the supervenience base for the supervening whole. Since we are interested in emergence as the failure of mereological supervenience, we are looking for cases where the whole fails to supervene on the parts, and more precisely, where the cosmos fails to supervene on its parts.

The support for the first premise, that the cosmos is entangled and thus possesses emergent properties, comes from the claim that emergent properties of the aforementioned sort are found in entangled quantum systems, together with the claim that the cosmos is one such quantum system. As Schaffer says ‘[a]n entangled system is one whose state vector is

not factorizable into tensor products of the state vectors of its components' (Schaffer 2010b, p. 51). This goes to say that the information contained in the components of an entangled system does not account for all the information contained in the system as a whole. The key question is whether or not the cosmos is one such quantum system. Schaffer, following Gribbin (1984) and Zeh (2003) states there is reason to believe that the cosmos does indeed form one such entangled system since everything so closely interacted in the big bang.

Regarding the second premise, a conditional premise stating that should the cosmos indeed be an entangled whole it would entail that it be prior to its parts, it is a simple move from the fact that if the cosmos contains emergent properties (e.g. the correlation coefficients of the wave functions of the parts) due to quantum entanglement, then it is more than the sum of its parts and therefore the parts cannot be prior.

### **3.4 The Combined Motivation for Cosmopsychism**

So far, I have laid out some motivations for the core commitments considered in isolation, only occasionally alluding to their interplay, however, the conjunction of all the commitments makes for a unique set of advantages for CRP cosmopsychism. Some of the motivating factors for individual commitments are powerful on their own, but the most striking observation is that they form a consistent set. I am even tempted to go so far as to say a *symbiotic* set.

I am mainly interested in CRP cosmopsychism as an alternative to constitutive panpsychism, but I am also undoubtedly interested more broadly in a comparison between physicalism and cosmopsychism. Consider first the comparison with panpsychism. Both views benefit from avoiding the problem of strong emergence by positing consciousness at the fundamental level of reality (although, of course, the fundamental level is different for

each view). Both can also benefit from the additional commitment to Russellian monism (this would make the resulting view *constitutive Russellian panpsychism*), and its motivating factors of the grounding physics argument, avoiding the conceivability problem, and offering a place for consciousness to fit neatly into the natural world. Where it starts to get more interesting is when we consider CRP cosmopsychism's additional commitment to priority monism, because advantages that come from this move cannot be carried over to panpsychism. CRP cosmopsychism benefits from the argument from quantum entanglement and avoids the problem of infinite decomposability, but panpsychism is not consistent with quantum entanglement and, moreover, as a version of what Nagasawa calls 'fundamentalism', panpsychism is vulnerable to the possibility of infinite decomposability. Now consider the comparison with a typical version of physicalism, physicalism is vulnerable to the problem of strong emergence, leaves consciousness (given that it is accepted as real) jarring with the physical world, moreover, it is vulnerable to the possibility of infinite decomposability.

We can see that CRP cosmopsychism demonstrates a unique set of advantages, but the most touted single advantage, in comparison to panpsychism, is its avoidance of the combination problem. However, it faces its own equivalent in the derivation problem. The next section of the paper is dedicated to exploring how the view can deal with its derivation problems.

#### **4 Combination and Derivation Problems**

Where there is a combination problem for panpsychism, there is a derivation problem for cosmopsychism. I will summarise the combination problems as outlined by Chalmers (2016) and others, before restating the problems as they arise for cosmopsychism.

There are three central strands to the combination problem, or should I say, three main combination problems. Each likely has a variety of aspects. As Chalmers states:

The combination problem can be broken down into at least three subproblems, reflecting three different aspects of phenomenal states: their subjective character (they are always had by a subject), their qualitative character (they involve distinctive qualities), and their structural character (they have a certain complex structure). These three aspects yield what we might call *the subject combination problem*, the *quality combination problem*, and the *structure combination problem*. (p. 182)

I'll summarise each of these here.

#### **4.1 Subjects**

Subjects are the possessors of experience. As Chalmers says in the above quotation, phenomenal states have a subjective character in that they are always had by a subject. In fact, it is often taken to be a conceptual truth that phenomenal properties must be instantiated by a subject. It is not hard to see why accounting for macro-subjects presents significant problems for panpsychism and cosmopsychism. The subject combination problem for panpsychism, conceived as a broad problem regarding the need to account for the existence of macro-subjects, is the problem of explaining how it is that micro-subjects can combine to form macro-subjects. Chalmers summarises the broad problem like so:

The subject combination problem is roughly: how do microsubjects combine to yield macrosubjects? Here microsubjects are microphysical subjects of experience, and macrosubjects are macroscopic subjects of experience such as ourselves. (p. 182)

As with all the combination problems, there are different aspects to the subject problem but the most significant is *the subject-summing problem*. The subject-summing problem is the

problem of accounting for the summing of subjects in the face of an apparent lack of any necessity from one (or some) subject(s) to another:

An especially pressing aspect of the subject combination problem is the *subject-summing* problem. One can pose this problem by an extension of James's reasoning in the passage quoted earlier. Given 101 subjects, it seems that the existence of the first 100 does not necessitate the existence of the 101st. More generally, given any group of subjects and any further subject, it seems possible in principle for the first group of subjects to exist without the further subject. If so, then no group of microsubjects necessitates the existence of a macrosubject. (pp. 182-183)

The subject-summing problem is typically taken to be the most challenging aspect of the subject combination problem. Some philosophers, most notably Goff (2006), Seager (2010, 2016) and Coleman (2013) have argued against panpsychism on the grounds of this problem, with Coleman, I believe, providing the most difficult challenge of all by claiming that the notion of subjects summing is metaphysically impossible because subjective perspectives cannot combine. I do not have space to cover the details of the arguments here, but I have done so elsewhere.<sup>46</sup>

As I have already stated, for every combination problem for panpsychism there is an equivalent derivation problem for cosmopsychism. The equivalent to the broad subject combination problem is the subject derivation problem. While panpsychism maintains that macro-subjects are formed of combinations of micro-subjects, cosmopsychism says that macro-subjects are derived from the cosmic subject. Thus, the broad problem can be construed in the following way; how are macro-subjects, like ourselves, derived from the

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<sup>46</sup> Please see my paper 'The Subject Problem for Panpsychism and Cosmopsychism' (2020), which is a component paper of my PhD submission.

cosmic subject? For cosmopsychists, an especially pressing aspect of the subject problem is what I call *the synchronous subjects problem*, this is similar to what Goff calls the subject-subsuming subjects problem (2017, 2020). Deriving subjects from the cosmic subject seems to entail problems relating to scenarios involving parthood relations among subjects, such that there are subjects on one level of reality that are parts of subjects on another level.

## 4.2 Qualities

Phenomenal qualities are the felt qualities, or to put it another way, the what-it-is-like-ness, we are acquainted with in subjective experience. They are the *qualities* that characterise phenomenal properties. Examples of qualities are the what-it-is-like-ness of colour experiences, smells, sounds, pain, etc. The quality combination problem, broadly conceived, arises, for panpsychism, because it holds that the phenomenal qualities we are acquainted with in our everyday macro-experience are the result of combinations of micro-qualities at the fundamental level. So, the general problem is how to account for such a combination. Chalmers explains the problem like this:

The quality combination problem is roughly: How do microqualities combine to yield macroqualities? Here macroqualities are specific phenomenal qualities such as phenomenal redness (what it is like to see red), phenomenal greenness, and so on. It is natural to suppose that microexperience involves microqualities, which might be primitive analogs of macroqualities. How do these combine? (2016, p. 183)

Two aspects of this general, broad, problem concerning the combination of qualities, are noted as *the palette problem* and *the grain problem*. The palette problem arises because panpsychism holds that the fundamental phenomenal qualities are those associated with the microphysical ultimates of matter, and therefore the qualities we are acquainted with in our

macro-experience, our macro-qualities, are formed of a combination of such micro-qualities. As Chalmers puts it:

An especially pressing aspect of the quality combination problem is what we might call the palette problem. There is a vast array of macroqualities, including many different phenomenal colors, shapes, sounds, smells, and tastes. There is presumably only a limited palette of microqualities. Especially if Russellian panpsychism is true, we can expect only a handful of microqualities, corresponding to the handful of fundamental microphysical properties. How can this limited palette of microqualities combine to yield the vast array of macroqualities? (2016, p. 183)

On the other hand, the grain problem is a problem which appears due to an apparent mismatch between the smoothness, the homogeneity, of our everyday experience and the purported fact that it is formed of a plenitude of individual fragments of quality. How is it that such disparate fragments of qualities combine to form such a smooth-qualified macro-experience? As Chalmers says:

How do microexperiences come together to yield homogeneous macroexperiences, such as a homogeneous experience of red, instead of an enormous jagged array of distinct qualities? (Chalmers 2016, p. 183)

So, in relation to qualities, we have on our hands one problem relating to the formation of complex macro-qualities from a base of a limit number of micro-qualities, and another which relates to the formation of smooth complex macro-qualities in macro-experience from copious fragments of individual micro-qualities.

What I have done so far is only to summarise the quality combination problem for panpsychism. Given that my aim in this paper is to offer a promising conception of cosmopsychism, I want to turn the focus to parallels for cosmopsychism. If the broad,

general, quality problem for panpsychism is the problem of how macro-qualities are formed of combinations of micro-qualities, there is a parallel for cosmopsychism. *The quality derivation problem* for cosmopsychism is the problem of how to account for the macro-qualities that we are acquainted with in our everyday macro-experience, in virtue of the phenomenal quality associated with the cosmos as a whole. In other words, how are macro-qualities derived from micro-qualities? I unpack the quality derivation problem for cosmopsychism at a later point in the paper.

### **4.3 Structure**

Another problem, or category of related problems, relate to structure. When contemplating structure problems, physical structure is taken to be the quasi-mathematical structure described by current physics, and phenomenal structure is the structure manifest in our phenomenology (for example, consider the spatial structure of our visual field, some things are nearer or further away than others, and things take up space in a specific way in a specific place etc.). To say that our phenomenology is structured is just to echo what Mendelovici says in the following excerpt:

Our mental states do not form an undifferentiated mass, or a set of totally isolated distinct mental states, but are instead related and structured in various ways. For example, a visual experience of a red apple on a brown table does not only involve an experience of redness, an experience of a somewhat spherical shape, an experience of brownness, and an experience of a table-like shape. It also involves these experiences related in a certain way: The redness and the spherical shape are experienced as pertaining to the same represented object, the brownness and the table-like shape are experienced as pertaining to a distinct represented object, and the two represented objects are experienced as spatially related to each other. (2017, p. 12)

Structure problems relate to difficulties in bridging an apparent difference between the phenomenal structure at the fundamental level to that of derivative levels, and also in bridging a difference in the physical structure at the macro level with phenomenal structure at the macro level. The first of these I call *intra-level structure bridging problems*, i.e. problems involving a structural disparity between the physical and phenomenal on one level, micro, macro, or any other possible level. The second sort of problems I call *inter-level structural bridging problems*, where the disparity in phenomenal structure occurs between levels. This would be a structural disparity between the phenomenal structure across levels, say between the micro-level and the macro-level. The most pressing intra-level problem is that of accounting for the disparity between macro-phenomenal and macro-physical structure, this is the structural mismatch problem highlighted, and elaborated on, below. The most pressing inter-level problem is that of accounting for the structure disparity between the micro-phenomenal and macro-phenomenal, this is closely related to a version of the quality problem called the grain problem. Chalmers describes the broad structure combination problem for panpsychism like this:

The structure combination problem is roughly: How does microexperiential structure (and microphysical structure) combine to yield macroexperiential structure? Our macroexperience has a rich structure, involving the complex spatial structure of visual and auditory fields, a division into many different modalities, and so on. How can the structure in microexperience and microstructure yield this rich structure? (2016, p 183)

We can see from Chalmers's summary of the problem that, broadly conceived, the structure combination problem clearly has both the intra and inter aspects just mentioned. It is an inter-level problem in a sense because it asks how microexperiential structure can combine to form macroexperiential structure, and it is also an intra-level problem in the sense that

there is a purported parity between the microphenomenal and the microphysical structure, at the fundamental level, yet we do not see a structural parity between macro-physical and macro-phenomenal structure at the derivative level.

#### **4.3.1 The structural mismatch problem**

Chalmers notes that the most pressing aspect of this problem, for panpsychism, is the structural mismatch problem, which he describes as:

Macrophysical structure (in the brain, say) seems entirely different from the macrophenomenal structure we experience. Microexperiences presumably have structure closely corresponding to microphysical structure (this is especially clear on a Russellian view), and we might expect a combination of them to yield something akin to macrophysical structure. How do these combine to yield macrophenomenal structure instead? (2016, p 183)

Levine presents a, perhaps clearer, version of the structural mismatch problem:

If macro-phenomenal properties are realized in micro-phenomenal properties, and micro-phenomenal properties are instantiated in micro-physical properties (indeed, on the Russellian version, they constitute the categorical bases of the micro-physical properties), then one would expect an isomorphism between the structure of the relevant macro-physical properties and the quality spaces of the relevant macro-phenomenal properties. But what reason is there to think such an isomorphism exists? It certainly doesn't seem that there is. (2017)

The structural mismatch problem stems from the proposed intricate connection between the micro-phenomenal and the macro-phenomenal, together with the proposed relationship between the micro-phenomenal and microphysical. According to panpsychism (at least the most popular versions), the microphysical is isomorphic with the micro-phenomenal, and the macro-phenomenal is formed of a combination of microphysical entities and their micro-

phenomenal natures. The problem, though, is that macro-phenomenal structure does not seem to be isomorphic with macrophysical structure, in the way we should presumably expect it to be. This goes to say that the physical structure of the brain, say, is very different from the structure of our conscious experience. Take, for example, the complexity of our conscious experience, typically a smooth, continuous, multimodal experience involving a complex of sights, sounds and smells (to name a few), all appearing to us in a highly structured quality-space. The physical structure of my brain, on the other hand, does not seem at all isomorphic with the complexity of my conscious experience. We can see the aforementioned grain problem as a mismatch problem between the homogenous, or continuous, macro-experience and the heterogeneous, or discontinuous, micro-experience that constitutes it. The structural-mismatch, we have here, is a similar problem, only this time the mismatch is between the homogenous and continuous structure of macro-experience and the heterogeneous structure of the physical brain. Nagasawa and Wager (2016) formulate the combination problem in structural terms, stating:

The combination problem arises from the apparent discrepancy between a highly complex, structured aggregate of atoms and brain cells, on the one hand; and a smooth, uniform phenomenal experience such as a visual experience, on the other. The problem can be formulated as an objection to panpsychism as follows: Ordinary phenomenal experiences present themselves as smooth, continuous, and unified. They do have distinct aspects, but they have an underlying homogeneity. According to panpsychism, however, all physical ultimates instantiate phenomenal or protophenomenal properties and our ordinary phenomenal experiences result from combinations of these properties. It is hard to see, however, how phenomenal or protophenomenal properties of microphysical entities could add up to the homogeneous character of phenomenal experiences that we have. (p 120).

The important question for the present purposes is; is there a parallel problem for cosmopsychism? We can state the broad structure derivation problem, for cosmopsychism, as the problem of how to account for the macro-phenomenal structure in terms of a derivation from cosmic level phenomenal structure. We can also restate the structural mismatch problem, for cosmopsychism. In this instance, the problem equates to the challenge of how to account for a mismatch between macrophysical and macro-phenomenal structure, the same as it presents for panpsychism. However, as will become clear later in the paper, on closer inspection the two problems are not identical.

Now I have highlighted the combination and derivation problems, I will concentrate on how CRP cosmopsychism can address each aspect of the derivation problem.

## **5 The Subject Derivation Problem**

As already stated, the subject derivation problem, broadly construed, is the problem of accounting for the derivation of macro-subjects, like us, in virtue of the cosmic subject. Just as the subject combination problem is arguably the most challenging of the combination problems, for panpsychism, so too the subject derivation problem is arguably the most challenging problem for cosmopsychism.

It is important for cosmopsychism to at least avoid the subject derivation problem being as problematic for it as the subject combination problem is for panpsychism, because cosmopsychism is offered as a worthwhile approach to the problem of consciousness on the basis that it maintains the central advantages of panpsychism, while avoiding the combination problem. It simply would not do if proponents of cosmopsychism face a view as problematic, or more problematic, than that which panpsychism faces.

## 5.1 The Synchronous Subjects Problem

I said in an earlier section that the subject-summing problem is the most challenging aspect of the subject combination problem. Cosmopsychists do not face the same problem insofar as they reject that macro-subjects are formed of a combination of micro-subjects. However, they do face their own equivalent, which I call *the synchronous subjects problem*. This problem, I suggest, arises as a result of two tenets that the cosmopsychist commonly holds:

1. Subjects are inherently perspectival.
2. There are synchronous perspectives scenarios.

The first tenet, that subjects are inherently perspectival is a very commonly held view, while the second is the affirmation of the following scenarios:

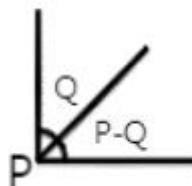
**Synchronous Subjects Scenario:** Any scenario in which a subject(s) on one level of reality constitute a subject(s) on another level of reality, either by combination or as a partial aspect(s).

For cosmopsychism, the synchronous subjects scenarios in question are those in which subjects on one level of reality are partial aspects of a subject (or subjects) on another level of reality. The reason why the combination of these tenets causes a problem for cosmopsychism is that when subjects are understood as inherently perspectival, synchronous subjects scenarios can be reformulated as synchronous perspectives scenarios:

**Synchronous Perspectives Scenario:** Any scenario in which a perspective(s) on one level of reality constitute a perspective(s) on another level of reality, either by combination or as a partial aspect(s).

The problem is that the scenarios reimagined in this way are purportedly metaphysically impossible. Thus, cosmopsychism must be false. The clearest illustration of their metaphysical impossibility is presented by Shani (2015). I will provide a quotation in which he highlights a contradiction, together with his accompanying figure (figure 1), and then I will explain why the impossibility appears to arise:

Each perspective can be thought of as an opening to the world from a given point of origin and, as shown above, it is the form, or shape, of that opening—the dynamic configuration giving it structure—which defines how things are viewed from this particular point of origin. Thus, we can think of a perspective as an angle whose conscious point of origin is its vertex and whose form is limited by the rays emanating from that vertex. Now, if the perspective is to have parts each proper part must correspond to a division of the original angle brought about by the introduction of a ray on the interior of that angle (there is no other way to dissect an angle). Let us, then, think of P as our original perspective and of Q as a division within P (see figure 1). But now we are facing the problem just mentioned, for it follows from the simultaneous existence of P and Q that in viewing things from viewpoint P, which opens up the entire original angle, one also views things from viewpoint Q, which excludes the complement P-Q from sight. The result, as before, is a contradiction. The moral, then, is that subjective perspectives are gestalts, namely, structural totalities which cannot be explained in terms of the combination of parts, because, when it comes to perspectives, the very existence of parts excludes the existence of the whole. (Shani 2015, pp. 424-425)



## Figure 1

It is clear to see that Shani's illustration involves the two tenets highlighted above and is thus based on a synchronous perspectives scenario. Taking figure 1, we can equate P with the cosmic consciousness (as it is an overarching consciousness that contains another perspective(s) as a partial aspect) and Q as a macro-perspective, like a human perspective. The proposed incoherence comes about as a result of P, or the cosmic perspective, simultaneously affirming and denying the existence of P-Q. On one hand, P must affirm the existence of P-Q simply because it exists within its point-of-view (as a partial aspect), but on the other hand it must also deny P-Q because it contains Q within its point-of-view (as a partial aspect), which denies P-Q (Q denies P-Q because it is outside of its perspective). Thus, it does seem that cosmopsychism, in virtue of the entailment of synchronous perspectives scenarios, has serious questions to answer. However, cosmopsychism is not down and out. I will note two ways a cosmopsychist can respond.

The first way is to reject that the cosmic perspective contains macro-perspectives as partial aspects. This amounts to the claim that P does not include Q as a partial aspect, in figure 1. Of course, for the cosmopsychist, this amounts to the claim that macro-perspectives are not parts of the cosmic perspective, though maintaining that macro-perspectives do still exist and are dependent on the cosmic subject. This raises the question; why is it that macro-perspectives must be a partial aspect of the cosmic perspective? The answer is that the scenario highlighted by Shani implies that macro-subjects are fully grounded in the cosmic subject (meaning, they are fully explained in terms of the cosmic subject and the cosmic

subject alone), but the cosmopsychist need not rely on full grounding, as they have the option of partial grounding too.<sup>47</sup>

Shani proposes a way of doing exactly this. Partial grounding is like full grounding in the sense that the grounded facts are explained in terms of the grounding facts, but unlike it insofar as some grounded fact  $x$  is only partially explained in terms of the grounding fact  $y$  ( $x$  is grounded partially in  $y$  and partially in  $z$ ). This goes to say that the grounded facts depend on the grounding facts in some sense but in another sense exercise their independence from the ground. As regards cosmopsychism, Shani explains partial grounding as follows (where [AP] refers to the cosmic perspective, while [RP] refers to a sub-cosmic perspective):

To say that [AP] is a partial ground for [RP] implies that while [RP] depends on [AP] it also amounts to something more and is not exhausted by this particular dependency relationship. Such a state of affairs is expected if there is a certain aspect under which the perspectives of relative subjects are anchored in the perspective of the absolute, and another aspect under which they assert their independence (p. 423).

Shani gives a detailed account of how partial grounding could work for cosmopsychism, suggesting that conscious perspectives have both a generic and a specific character. The generic character, according to Shani, has two features, core subjectivity and sentience, which can together be considered a kind of template for a conscious perspective. While the specific character is any given perspective's unique outlook. On his view, Shani satisfies the partial-grounding picture by arguing that sub-cosmic perspectives inherit their generic

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<sup>47</sup> There may be good reasons for maintaining that sub-cosmic subjects are fully grounded in the cosmic subject, but we don't have space to explore this here. For a thorough exploration of the subject derivation problem for cosmopsychism please see my paper 'The Subject Problem for Panpsychism and Cosmopsychism' (2020) included as part of my PhD submission.

character from the cosmic consciousness, but not their specific character. In so doing, sub-cosmic perspectives are dependent on the cosmic perspective in the sense that they rely on it for their generic character, but they also exercise independence from it in respect to their specific characters. Crucially, this move allows Shani's view to avoid synchronous perspectives scenarios, because sub-cosmic perspectives are not partial aspects of the cosmic perspective; the specific characters that give perspectives their unique outlooks are not grounded in the cosmic perspective.<sup>48</sup>

The second option for the cosmopsychist, in the face of synchronous perspectives scenarios, is to reject that such scenarios are impossible, and stand their ground. And it does seem difficult to put one's finger on why the purported contradiction entails metaphysical impossibility. Recall, the proposal is that Q's perspective involves being limited such that P-Q is excluded from its purview, but P's perspective must at one and the same time include Q's perspective and be a perspective not excluding P-Q from its purview. Such a picture, to me, does not seem to be demonstrably impossible (though it clearly appears contradictory purely as a matter of logic). The notion of one 'larger' perspective including, as a partial aspect, a 'smaller' more limited perspective does not seem to me to imply metaphysical impossibility, even if said perspectives are wildly contrasting. It is certainly strange to imagine perspectives arranged in such a way, but strangeness alone does not entail falsity.

There are two *prima facie* reasons I have for doubting the impossibility of synchronous perspectives scenarios. The first is that there are analogous scenarios which are demonstrably possible. The second is that there are similarly inconceivable posits of

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<sup>48</sup> Shani offers a rich and well-developed account of cosmopsychism with many more thoughtful nuances than I can do justice to in this paper. I strongly recommend his paper 'Cosmopsychism: A Holistic Approach to the Metaphysics of Experience' (2015). I also discuss his view in much greater detail in my paper 'The Subject Problem for Panpsychism Cosmopsychism' (2020) included in my PhD submission.

science that we nonetheless accept as possible. First, it is patently possible for a person to hold contradictory beliefs, opinions and emotions. Granted perspectives are very different to beliefs, opinions and emotions, but consider some relevant structural parity; in such scenarios we can say an overall mind contains contradictory parts (incoherent sets of beliefs, opinions or emotions), but the sense in which there is a contradiction does not make the instantiation of such a scenario impossible. Second, echoing Goff (2017, 2020), there are things which are inconceivable to us but which we still accept as possible, and more importantly, *actual*. Goff gives the example of a four-dimensional object; we readily accept entities as existing four dimensionally even though we cannot conceive of such a thing. Finally, I think the cosmopsychist has a model of how to conceive of synchronous perspectives scenarios unproblematically available to them. Space constraints do not allow me to cover this in any detail here, but the basic idea is that binocular vision can be seen as closely analogous to synchronous perspectives scenarios and since binocular vision is clearly possible, cosmopsychism (and indeed panpsychism) can use the binocular model as a way to understand derivation (or combination) unproblematically.

Arguments against synchronous perspective scenarios typically use visual examples when representing rudimentary perspectives, so following this lead I will show that we readily accept analogous cases as unproblematic, and not only conceivable, or possible, but actual. The case in point is binocular vision. We can take the overall binocular vision of some being to be analogous to the cosmic perspective (because it is an overarching visual field containing within its purview numerous more limited visual fields). We can then take the right and the left monocular visual fields to be analogous to sub-cosmic perspectives (as more limited visual fields that are parts of a bigger overall field). In the case of binocular vision, we know that the overarching visual field contains within its purview two more

limited visual fields, but most importantly does so unproblematically and garners no cries of contradiction. The fact that the right visual field is limited, in the sense that it excludes the left visual field, causes no problems for us accepting that the overall binocular field can co-exist with the right's visual field as its part. It seems to me that synchronous perspective scenarios could be considered analogous to binocular vision, in which case it is not possible but demonstrably *actual*.

It is important to note that both responses I have noted for the subject derivation problem can plausibly also be used as responses for panpsychism. I have looked into this in much more detail elsewhere so I will not repeat it here, but my feeling is that as far as the subject problems are concerned, panpsychism and cosmopsychism are in a similar position. I argue elsewhere, however, that the situation they are both in with regards to the subject problems is much better than commonly believed.<sup>49</sup>

## **6 The Quality Derivation Problem**

The quality derivation problem for cosmopsychism is the problem of how to account for macro-qualities in terms of the phenomenal quality associated with the cosmos as a whole. Cosmopsychists hold that the fundamental bearer of phenomenal quality is the cosmos as a whole and that the macro-qualities we are familiar with in our experience derive from the cosmic quality. The parallel challenge for panpsychism concerns the need to explain macro-qualities in terms of a combination of micro-qualities, and this involves two more fine-grained problems; the palette problem and the grain problem. But is cosmopsychism similarly challenged by these two problems?

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<sup>49</sup> To get a more complete picture of the binocular model that I propose, I suggest reading my paper 'The Subject Problem for Panpsychism and Cosmopsychism' (2020) submitted as a component of my PhD submission.

## 6.1 The Palette Problem

Recall the palette problem for panpsychism; the problem concerning how rich macro-subjects can be constituted out of a limited number of micro-qualities. If macro-qualities are formed of combinations of micro-qualities, and micro-qualities are the phenomenal qualities associated with microphysical ultimates of matter, then given that there are only a very limited range of micro-physical ultimates, we have to somehow form these rich macro-qualities, like the complex colour qualities of van Gogh's 'Starry Night', the smell of coffee, the taste of olives, or the sound of Steve Reich's 'Music for 18 Musicians', all from this limited range of micro-qualities. How is it that a limited range of micro-qualities can yield rich macro-quality?

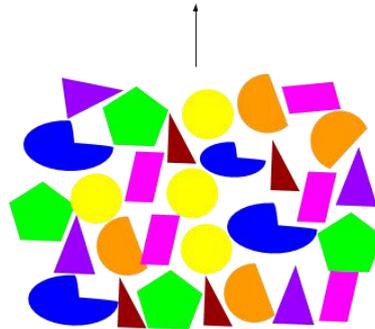
If we consider this problem in light of cosmopsychism, we can formulate its equivalent palette problem. In this case, the issue is that the rich phenomenal qualities in macro-experience are derived from an even more limited base of qualities at the fundamental level. For panpsychism, the issue was that there are only as many micro-qualities as there are different types of micro-physical ultimate - a handful. On the face of it, for cosmopsychism it is even worse because there is only one physical ultimate, one fundamental entity; the cosmos, and therefore the rich phenomenal qualities of macro-experience must be derived from just the phenomenal quality of one entity (much fewer than the handful panpsychism has to work with).

However, on closer inspection, the palette problem dissolves when considered from the perspective of cosmopsychism. The problem for panpsychism arises because the micro-qualities associated with micro-physical ultimates are presumably primitive in comparison to the macro-qualities that they jointly constitute. Given that micro-qualities are said to be

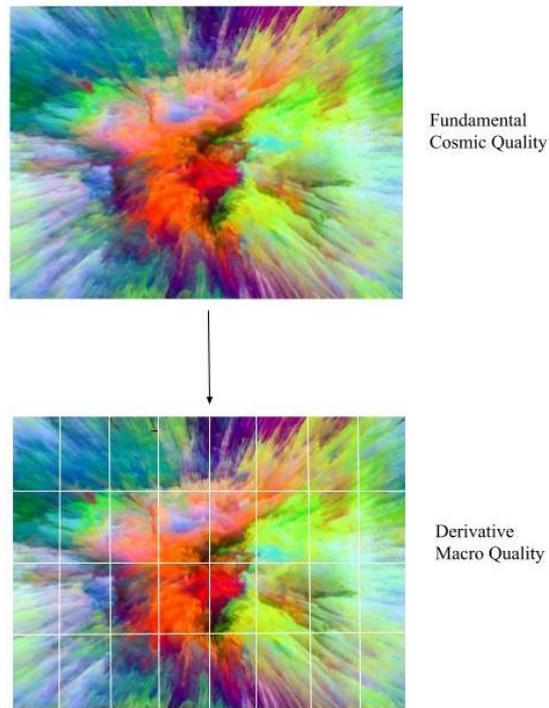
primitive, it seems a push to then form rich macro-qualities out of a very small number of different kinds of micro-qualities (again, there is a limited number of kinds because there is a very small number of types of micro-physical ultimates). Cosmopsychism does not suffer from the palette problem because it does not have to form rich macro-qualities from poor micro-qualities, and nor does it have to derive rich macro-qualities from a poor cosmic quality. Rather, the cosmic quality is itself a rich quality, arguably much richer than the qualities we are associated with in our macro-experience. The palette problem arises for panpsychism, essentially, because the base qualities are poor and are said to combine into something richer. Cosmopsychism does not face this problem because rich macro-qualities are derived from an even richer cosmic quality.

## **6.2 The Grain Problem**

Now let us turn to the grain problem. For panpsychism, this appears due to an apparent mismatch between the fragmented nature of phenomenal qualities at the micro-level and the smooth nature of qualities at the macro-level. The basic idea is illustrated by the contrast below, between a fragmented collection of micro-phenomenal colour qualities and a smooth macro-experience of colour. There appears to be a mismatch between the derivative macro-quality (at the top) and the fundamental micro-quality (at the bottom):



The important question is; is there a similar apparent mismatch for cosmopsychism? For cosmopsychism, there would be an equivalent problem if there were a mismatch between the homogeneity of the derivative macro-level and the cosmic level. However, there need not be any such mismatch. Macro-experience, that we have, is clearly a smooth and homogenous affair, but unlike in the case of panpsychism, macro-qualities, on the cosmopsychist view, are not taken to be complexes of smaller fragments of quality. Rather, they are derivative partial aspects of a larger cosmic quality. So, in the case of cosmopsychism, we have smooth, homogenous, macro-qualities derived from a smooth, homogenous, cosmic quality. Therefore, an equivalent of the grain problem does not arise for cosmopsychism. Take a look at the image below, it illustrates how the grain problem (and indeed the palette problem, too) does not arise. The fundamental cosmic quality is smoother and more homogenous than the derivative macro-qualities (moreover, the quality at the cosmic level is richer than at the macro-level, so the palette problem does not arise, either):



We can, therefore, see that cosmopsychism does not face the two most problematic aspects of the broad quality derivation problem. It does not face the palette problem because the fundamental phenomenal quality is the cosmic quality which is, unlike in panpsychism, a much more complex palette than the derivative qualities. It does not face the grain problem because, unlike in panpsychism, the fundamental quality need be no less homogenous than derivative qualities. One might still contend, however, that cosmopsychism still must explain the derivation of macro-qualities from the cosmic quality, i.e. it must still answer the broad quality problem. By way of an answer to this question, they can simply say that macro-qualities are derived from the cosmic quality in virtue of being partial aspects of it. Macro-qualities are literally parts of the phenomenal quality instantiated by the cosmos.

## **7 The Structure Derivation Problem**

Turning to the structure derivation problem. It is clear that cosmopsychism does not face the same broad structure problem as panpsychism, because the problem for panpsychism

arises, specifically, as a consequence of the claim that macro-experience is the result of a combination of the micro-experiences of microphysical ultimates. For panpsychism, the broad problem is how such rudimentary physical and phenomenal structure combine to create the structure found in macro-experience. The supposed structural parity between the physical and the phenomenal that exists at the micro-level appears to inexplicably disappear at the macro-level.

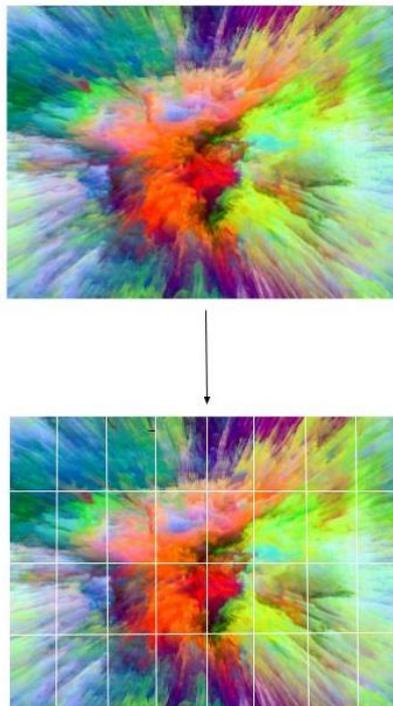
Cosmopsychism denies the claim that macro-phenomenal structure is formed of a combination of the structure of microphysical ultimates and the structure of their phenomenal natures. Instead, it claims that the phenomenal structure we are acquainted with at the macro level is derived from the phenomenal structure of the cosmos. There is no combination of micro-level entities into macro-level entities, but instead a derivation of macro-entities from the cosmic entity. Despite this, we can suggest an equivalent problem for cosmopsychism. We can call this *the structure derivation problem* for cosmopsychism; the problem of how to derive macro-phenomenal structure from the phenomenal structure of the cosmos. This is cosmopsychism's inter-level structure problem.

Addressing this inter-level problem, it is clear that in needing to account only for derivation as opposed to combination (as is the predicament for panpsychism), cosmopsychism does not face anywhere near as severe a problem as panpsychism. Recall that the broad problem for panpsychism arises due to the discontinuity between the fragmented structure at the micro-level (i.e. a vast multitude of individual microphysical ultimates and their bounded phenomenal natures) and the continuous structure at the macro-level (for example, in our macro experience we are acquainted with a homogenous,

continuous, unified quality space). Therefore, there appears to be a striking discrepancy between the structure at the fundamental and derivative levels of reality.

Cosmopsychism does not face such an inconsistency because it does not take the microphysical level to be fundamental, but rather it states that the cosmic level is fundamental. Importantly, the cosmic level need not exhibit the kind of fragmented fundamental phenomenal structure that causes the inter-level structure problem to emerge in the first place. The cosmopsychist can maintain that cosmic phenomenal structure has exactly the smooth and continuous character that is present in macro-experience. It seems there is no structure derivation problem because there is no work to do in deriving the structure of macro-experience from the structure of experience instantiated by the cosmos.

Consider again the image I have already shown in the section on the grain problem (an aspect of the quality derivation problem):



The inter-level structure problem is very similar to the grain problem, for both panpsychism and cosmopsychism. The grain problem for panpsychism is the problem of how to explain homogenous macro-qualities in virtue of a combination of heterogenous micro-qualities. The inter-level structure problem, again, for panpsychism, is the problem of how to explain homogenous macro-phenomenal structure in virtue of a combination of micro-phenomenal structure. The grain problem turns on the fact that there is a disparity between the qualities at the fundamental and derivative levels of reality, with fundamental qualities being heterogenous, fragmented and discontinuous, but derivative qualities displaying a continuous homogeneity. Cosmopsychism does not face the grain problem as there is no such disparity between qualities at the fundamental and derivative levels, because the cosmic level, not the micro level, is fundamental, and there is no reason for the cosmopsychist to hold that cosmic-quality is not appropriately continuous and homogenous.

Just as cosmopsychism can address the grain problem when it comes to qualities, it can also address the inter-level structure derivation problem in exactly the same way. The problem arises, for panpsychism, because there is a vital difference between the phenomenal structure at the fundamental and derivative levels of reality, with the fundamental level of reality, the micro-level, exhibiting fragmented phenomenal structure, while the derivative level, the macro-level, exhibits smooth, continuous, phenomenal structure. The problem, though, does not appear for cosmopsychism because, again, cosmopsychism takes the cosmic level to be fundamental rather than the micro-level, and there is no reason to suppose that there is a vital difference between the phenomenal structure of the cosmic and macro levels. Both levels can be said to exhibit smooth, continuous, phenomenal structure, so there is no problem getting smoothness and continuity from a combination of instances of fragmented phenomenal structure.

## 7.1 The Structural Mismatch Problem for Cosmopsychism

Even if there is no inter-level structure problem, there might still be an intra-level one; is there a structural mismatch problem for cosmopsychism? On the face of it, it looks like the intra-level problem is essentially the challenge of accounting for the structural inconsistency between a macro-level physical entity, the brain, and its respective macro-experience, thus it *prima facie* appears to be a problem restricted to one level of reality - the macro-level - hence why I call it the intra-level problem. If this is right, the problem would appear to be equally problematic for panpsychism and cosmopsychism. In both cases, the challenge at hand is how to explain the difference in structure between derivative physical entities and their associated phenomenality. Both views take the macro-level to be derivative so it is not clear there is any reason why the problem would not trouble both in equal measure.

However, on closer inspection, there appears to be a relevant difference between how the mismatch problem affects the two views. To illustrate this, let us think first about panpsychism. It indeed faces the problem of how to explain a disharmony between macro-physical structure (like, say, brains) and macro-phenomenal structure (such as a visual field). As we saw in relation to the inter-level structure problem, when we talk about differences in structure we are really talking about differences in smoothness and continuity. Brains seem to be formed of a complex of jagged, discontinuous, micro-constituents, while our macro-experience seems to be homogenous with different aspects being integrated and disintegrated in a smooth and continuous manner. The structural mismatch problem arises, for panpsychism, because it maintains that the brain is a complex of micro-constituents, each exhibiting fragments of phenomenal structure, which when combined form the smooth macro-phenomenal structure present in our macro-experience, so there is a mismatch between the physical structure of the brain (a complex aggregation of individual

microphysical ultimates) and the phenomenal structure of our macro experience (which in the case of panpsychism is taken to be formed of a combination of the phenomenal structures of the microphysical ultimates). On the one hand, there is a smooth and continuous macro-experience, while on the other hand, there is an aggregation of individual atoms, the phenomenal structures associated with which are said to make up the macro-experience.

The mismatch between macro-physical entities and macro-phenomenality is not, as it first appears, a problem confined to one level of reality. In fact, it stems from a commitment to bottom-up micropsychism. In-line with such a bottom-up commitment, we imply there is a structural disparity between brains and macro-experience because of the assumption that brains are formed of complexes of fundamental micro-constituents. The problem, then, is not so much about the structural mismatch between the physical and phenomenal at the macro level, but rather at its root it hinges on the assumption that reality, in its physical and phenomenal guises, is bottom-up, such that what is observed and experienced at the macro-level must be formed of a combination of what is observed and (presumed to be) experienced at the micro-level. According to this thinking, brains are complex wholes that are dependent for their existence on their microphysical parts.

Since cosmopsychism maintains that reality functions in a top-down manner, the motivation for the structural mismatch problem is absent. According to cosmopsychism, macro-physical entities, such as brains, are not constituted out of micro-physical entities, but rather microphysical entities are derived from, and dependent on, the macro-physical (and ultimately, fundamentally, the cosmos as a whole). As such, it rejects the view that brains are complex wholes that are dependent on their parts, and since this is from where the structural mismatch problem stems, it does not present for cosmopsychism.

In other words, because cosmopsychism is not a bottom-up view, it is not committed to the problematic assumption that there must be a structural mismatch, because that assumption has its roots in the notion that the brain is a derivative whole formed of a combination of individual, discontinuous, fundamental microphysical ultimates. It is understandable that one foresees a mismatch when the brain, as the bearer of macro-phenomenal structure, is itself taken to be such a fragmented aggregate. But for cosmopsychism, the brain need not be understood that way at all, because it is a top-down view. Instead, the brain is taken to be prior to its parts. Rather than constituting the brain, its microphysical parts are dependent on it for their existence. On this picture, there is no need to think that there is a problematic mismatch in structure between the physical brain and the phenomenal structure of the macro-experience associated with it, because the worry stems from the idea that the brain is formed of a combination of individual fragments of micro-constituents. Cosmopsychism rejects this idea and as such does not face the problem.

I have suggested that, unlike panpsychism and its combination problems, cosmopsychism does not face serious challenges as far as the quality and structure derivation problems are concerned. Moreover, there are reasons to think that the subject problems for both views are less serious than it first appears because perceived logical inconsistencies fail to demonstrate that synchronous perspectives scenarios are impossible. There are of course many ‘how’ questions still to answer, relating to the derivation of subjects, structure and qualities, but as always, showing that they *can* derive is what is most vital at this point (after all, there are many cases where we accept a ‘*that*’ while remaining in the dark about the ‘*how*’).

## **8 Internal Relations and Cosmopsychism**

I next want to explore an additional motivation for cosmopsychism as opposed to panpsychism. This motivation relates to internal relations and several senses in which they can be seen as supporting cosmopsychism, while ruling out panpsychism. I highlight an argument for priority monism, from internal relations, made by Schaffer (2010a). The argument is split into two steps, the first step argues against priority pluralism and the second step argues for priority monism. This argument can be seen as an addition to the section, earlier in the paper, that focused on motivating priority monism as a core commitment of CRP cosmopsychism. I mentioned in that section that I would return to add extra weight to motivation detailed there. Here it is! In the second half of this section, inspired by Schaffer, I formulate a number of arguments in support of cosmopsychism, from internal relations.

### **8.1 Internal Relations, Priority Monism and Priority Pluralism**

Schaffer's aim is to provide an argument for priority monism from the interrelatedness of all things. Taking the starting point that the free recombination of entities is central to the truth of priority pluralism, he offers a new minimal conception of an internal relation such that its existence would preclude the existence of free combination among its relata.

The new minimal conception of an internal relation is the internal<sub>constraining</sub> relation. The idea is that a minimal conception of an internal relation is a modally constraining relation such that it precludes the modal free recombination of its relata (the internal<sub>constraining</sub> relation is taken to be a minimal conception that maintains the common core of other conceptions of internal relations, namely that they preclude the possibility of free recombination). Modal freedom is required by priority pluralism because if, as it maintains, there are numerous independent basic entities they must be distinct entities, and so capable of free recombination. Schaffer's definition of modal freedom says that in order for it to

obtain it requires that there are no necessary connections between two entities. Take any two entities  $x$  and  $y$ , modal freedom is true if:

for any way that  $x$  can be, and for any way that  $y$  can be, there is a metaphysically possible world  $w$  in which  $x$  and  $y$  are each these respective ways' (p. 352).

He illustrates the idea in the following passage:

Modally free entities are like multiple knobs on a stereo. There are no necessary connections between the setting of the one knob and the other. Any way the one knob can be set, and any way the other knob can be set, is a way both knobs can be set. All combinations are possible. (p. 350)

Now we have got a handle on the minimal concept of internal relations that Schaffer employs, as well as modal free recombination, we can move onto his argument.

### **8.1.1 The Argument Against Priority Pluralism from Internal Relations**

The first step of Schaffer's argument is; given that the free recombination of entities is central to priority pluralism, the existence of an internal<sub>constraining</sub> relation would entail its falsity. Moreover, he proposes numerous reasonable candidates for such a relation. Regarding the first step of the overall argument (that is, from internal relations to priority monism), Schaffer presents the following sub-argument (from internal relations to the falsity of priority pluralism):

1. All things are related by relation  $R$
2.  $R$  is an internal <sub>$x$</sub>  relation
3. Thus, all things are internally <sub>$x$</sub>  related

The idea is that if all things are internally related then there are no independent things and thus no two things are freely recombining, and therefore priority pluralism is false.

Schaffer's argument above depends on elucidating a suitable relation to take the place of R in the argument, moreover, the internal<sub>x</sub> relation must equal an internal<sub>constraining</sub> relation. We must have good reasons for thinking that any proposed candidate is pervasive. He proposes three candidate relations; causal connectedness, spatiotemporal relatedness and being worldmates. I'll summarise each very briefly. About *causal connectedness* he states:

One plausible candidate for a pervasive internal relation is causal connectedness, given the understanding of causation found in causal essentialism, and assuming some level of determinism. By causal connectedness, I mean the relation that obtains between any two things when there is a causal path (ignoring the direction of causation, and potentially running through intermediaries) from an event in which the one thing features to an event in which the other thing features. For instance, if two fragments are produced from one explosion, then one can find a causal path as follows: trace back from an event in which the one fragment features to the event of the explosion, and then trace forward from the explosion to an event in which the second fragment features. (2010a, p. 362)

Schaffer claims that we have good reason to think that causal relatedness is pervasive because in Big Bang cosmology everything traces back to a single primordial explosion, so for any two things whatsoever we can causally trace back from the first one to the big bang and then back out again from the big bang to the second one.

Furthermore, Schaffer notes that causal connectedness is a good candidate for the internal<sub>constraining</sub> relation, given causal essentialism, i.e. that entities bear causal powers and liabilities essentially (Shoemaker 1980, Mumford 1998, Ellis 2001, Heil 2003). Such a claim, we are told, can be understood as arising from two essence claims: (1) things fall under certain natural kinds essentially, and (2) natural kinds are endowed with certain causal powers and liabilities essentially (p. 363). Given causal essentialism, causal connectedness

entails modal constraints because it generates necessary connections between entities.

Consider the following example offered by Schaffer:

Recall that it is a necessary condition on modal freedom, that for any way that the one entity can be, and any way that the other entity can be, there is a world that realizes this combination (barring co-location, and leaving the remainder of the world as is). Now let *a* and *b* be two electrons — never mind how distant in space-time these might be. Draw up the list of ways that *a* can be. Perhaps *a* cannot vary its intrinsic nature, but it should be able to vary its location, and at any rate there will be the one way that *a* can fail to be. (Electrons are not necessarily existing beings!) Likewise draw up the parallel list of ways that *b* can be. Now consider combination pairs involving any variation to the location or existence of *b*, such as  $\langle a \text{ is as it actually is, } b \text{ is elsewhere} \rangle$ , or  $\langle a \text{ is as it actually is, } b \text{ does not exist} \rangle$ . What results — leaving the remainder of the world as it actually is — is a causally incoherent scenario. For *b* is enmeshed in chains of cause and effect. Relocating *b* leaves a rip in the causal network, and deleting *b* entirely leaves a hole in the causal network. Either would require there to be different causal powers and liabilities in the world (given determinism). And this is incompatible with the continued existence of either *a* or *b*, as both bear their causal powers and liabilities essentially (2010a, pp. 363-364)

If we take causal connectedness to be the internal relation we are looking for in the above argument, then it seems there cannot be multiple distinct basic entities and thus priority pluralism cannot be true.

The second candidate Schaffer proposes is *spatiotemporal relatedness* (i.e. belonging to a common spatiotemporal system, where spacetime is understood as that found in structuralist supersubstantivalism). As he states, it is obvious that this relation should be

taken as pervasive. Spacetime itself seems to be the quintessential paradigm case of pervasiveness. Regarding its suitability as an internal<sub>constraining</sub> relation, he says:

Given structuralist supersubstantivalism, the spatiotemporal distance relations between any two things will be essential to them, since the things *are* regions, and the distance relations are essential to the regions (p. 365)

Therefore, whether an entity *is* or fails to *be* will necessarily impact on the spatiotemporal distance relations between it and every other entity. And therefore, entities fail to be freely recombinable. This is illustrated by Schaffer, again with reference to two entities, *a* and *b*. We are asked to, again, consider combination pairs that involve one entity remaining as it actually is and the other as failing to exist (such as ‘*a* is as it actually is, *b* does not exist’), we are left with a spatiotemporally incoherent scenario because *b*’s failing to exist is incompatible with *a*’s continued existence, as *a* is what it is in virtue of its place in spacetime, and bears its totality of spatiotemporal relations essentially. Pulling *b* out of the spatiotemporal structure leaves a hole in the spacetime manifold and precludes the continued existence of *a* because *a* cannot bear spatiotemporal relations essentially which necessarily involve *b*’s existing.

The third candidate, offered by Schaffer, is the relation of *being worldmates*. This time, given counterpart theory. The case for the pervasiveness of the relation is straightforward, given counterpart theory it is clear that the relation of being a worldmate at world *W* is pervasive in *W*. Moreover, it appears to be a good candidate for an internal<sub>constraining</sub> relation, too. Schaffer’s thinking is driven by Lewis’s stipulation in counterpart theory that ‘nothing is in two worlds’ (1968, p. 144 in Schaffer 2010a, p. 367). All entities are world-bound. While entities, *a* and *b*, have counterparts in other possible

worlds, *a* and *b* themselves are world-bound to the actual world. Consider Schaffer's elaboration:

So consider any two given actual concrete objects *a* and *b*. Given the worldboundness thesis of counterpart theory, there is only one world at which *a* is found (namely, actuality), and likewise only one world at which *b* is found. So for the ways associated with *a* one only finds  $W_a = \{ a \text{ is as it actually is, } a \text{ does not exist} \}$ , and likewise for the ways associated with *b* one only finds  $W_b = \{ b \text{ is as it actually is, } b \text{ does not exist} \}$ . So now consider the following two combination pairs in  $W_a \times W_b$ :  $\langle a \text{ is as it actually is, } b \text{ does not exist} \rangle$  and  $\langle a \text{ does not exist, } b \text{ is as it actually is} \rangle$ . These combination pairs have no realizing worlds, for they describe modally incoherent scenarios. For if either of these entities is as it actually is, we can only be looking at the actual world, since this is the only world where either of these entities is at all. But if we are looking at the actual world then the other entity exists after all. In other words, deleting either entity from the world must take us to a different world where the other entity is not to be found. The world to which a given entity is bound turns out to be a necessary accompaniment to that entity. (2010a, pp. 367-368)

Because, on counterpart theory, entities are world-bound, *a* and *b* can only exist in the actual world, therefore any combination pair that involves *a* or *b* as it is actually can only be referring to the actual world, as that is the only world in which they exist. However, in the actual world both entities exist, so some combination pairs do not have realising worlds (e.g. '*a* is as it actually is, *b* does not exist'). Therefore, we see, again, a failure of free recombination.

To be clear, Schaffer does not argue for the truth of any particular candidate, he merely justifies their candidature. In doing so, he motivates his minimal concept of an internal relation, the internal<sub>constraining</sub> relation, and the work such a relation can do in

revitalising an argument against priority pluralism. We can summarise the argument against priority pluralism by supplementing Schaffer's argument with a chosen internal<sub>constraining</sub> relation and then adding the extra premise and conclusion as follows:

1. All things are related by relation R
2. R is an internal<sub>x</sub> relation
3. Thus all things are internally<sub>x</sub> related
4. If all things are internally<sub>x</sub> related, then priority pluralism is false.
5. Therefore, priority pluralism is false.

### **8.1.2 The Argument for Priority Monism from the Internal Relatedness of All Things**

The second step of Schaffer's argument moves from the falsity of priority pluralism, on the grounds of the failure of modal free recombination (due to the existence of a suitable internal<sub>constraining</sub> relation), to the truth of priority monism, by way of establishing an entailment from the existence of an internal<sub>constraining</sub> relation to the truth of priority monism.

The argument from the internal relatedness of all things to priority monism is straightforward and more-or-less uncontested. It simply says that once priority pluralism is taken off the table (due to the previous argument, for example), the only remaining options are priority monism or priority nihilism. The nihilist position can then be rejected on the basis of what Schaffer calls the tiling constraint (2018), which leaves priority pluralism and priority monism as mutually exclusive and jointly exhaustive, ruling out priority nihilism. The tiling constraint says that the basic entities tile the cosmos without gaps or overlap:

*No gaps* expresses the requirement that the sum of all the basic entities is the cosmos as a whole. No portion of the cosmos is left uncovered. *No overlaps* expresses the requirement that the basic entities be mereologically disjoint, having no common parts. (Schaffer 2018)

Priority nihilism is ruled out because the no gaps requirement demands that the sum of all the basic entities is the cosmos as a whole, but the cosmos as a whole cannot be the sum of the basic entities if there are no basic entities. Thus, we can display the argument from internal relations to priority monism as follows:

1. Either priority pluralism or priority monism or priority nihilism is true.
2. If all things are internally<sub>constrained</sub> related, then priority pluralism is false.
3. All things are internally<sub>constrained</sub> related.
4. Therefore, priority pluralism is false.
5. Therefore, either priority monism or priority nihilism is true.
6. The no-gaps requirement of the tiling constraint requires that the sum of all the basic entities is the cosmos as a whole.
7. If there are no basic entities, then the no-gaps requirement of the tiling restraint cannot be met.
8. Therefore, priority nihilism does not satisfy the tiling constraint.
9. Therefore, priority nihilism is false.
10. Therefore, priority monism is true.

Premises (1)-(4) are taken care of in the previous section of the paper. Premise (5) tells us that out of the three contenders two remain. Premise (6) is just the statement of the no-gaps requirement, while (7) extrapolates from (6). The ultimate conclusion (10) follows straightforwardly from the conjunction of (5), (8) and (9).

It is clear that the key premises (setting aside those dealt with in the previous section) are (6) and (7), but both of these are uncontroversial if we accept, as Schaffer says, that:

The central question under discussion is the *question of fundamental mereology*, which is the question of what are the basic actual concrete objects. This is the question of what is the ground of the mereological hierarchy of whole and part (2010b, p. 38).

Most crucially, this question presupposes that there is such a thing as fundamental entities, clearly ruling out priority nihilism.

## **8.2 Internal Relations, Panpsychism and Cosmopsychism**

So far we have seen Schaffer's proposed arguments *against* priority pluralism and *for* priority monism. In this section, I suggest that we can borrow Schaffer's reasoning and apply it to panpsychism and cosmopsychism. Moreover, doing so motivates cosmopsychism over panpsychism. First, I will formulate an argument against panpsychism from internal relations, before providing an argument for cosmopsychism from internal relations. The first argument relates to the first step of Schaffer's argument while the latter relates to its second step.

### **8.2.1 The Argument Against Panpsychism from Internal Relations**

Let us first remind ourselves of a few relevant details about constitutive Russellian panpsychism and about internal relations (specifically *internal<sub>constraining</sub>* relations). I mention constitutive Russellian panpsychism as it is arguably the strongest version of panpsychism, and I am especially interested in comparing the prospects of this promising version of panpsychism with CRP cosmopsychism. These are the two most comparable versions of panpsychism and cosmopsychism, with the central difference being CRP cosmopsychism's commitment to priority monism. However, the argument against panpsychism will apply more broadly than to just constitutive Russellian panpsychism, for example, it will apply equally to most versions of panpsychism and micropsychism. Constitutive Russellian

panpsychism (as well as most versions of panpsychism and micropsychism) hold that fundamental phenomenality is instantiated by micro-physical ultimates.

Schaffer's minimal conception of an internal relation, as an internal<sub>constraining</sub> relation, is a relation such that its pervasive existence precludes modal free recombination of basic entities, where modal free recombination ensures that any entity can actually be any way it can possibly be, in any world, i.e. that there is no world in which any basic entity is constrained by the existence of any other basic entity. Schaffer, as we have already seen, offers three candidates for such a relation.

With these details fresh in our mind, we can consider the argument against panpsychism from internal relations, that I propose:

1. Constitutive panpsychism entails priority pluralism.
2. Priority pluralism is true if and only if there are multiple basic entities that are open for free recombination.
3. There are not multiple basic entities that are open for free recombination (because of the existence of relevant internal relations that preclude recombination).
4. Therefore, priority pluralism is false
5. Therefore, constitutive panpsychism is false

We will take a closer look at one premise at a time. Premise (1) claims an entailment from constitutive Russellian panpsychism (and panpsychism and micropsychism, more broadly) to priority pluralism. This is a result of panpsychism's commitment to microphysical ultimates and thus to a multitude of basic entities. Recall that priority pluralism says there are multiple basic entities, so panpsychism's commitment to fundamental phenomenality

being instantiated by microphysical ultimates represents a commitment to priority pluralism, with each micro-physical ultimate considered a basic entity.

Premise (2) is supported by the first step in Schaffer's argument. Its consequent being a conjunction of the definition of priority pluralism (namely, that it stipulates a plurality of basic entities) and an essential feature of basic entities (namely, that there are no necessary relations between them and that they are open to free recombination). Thus, the important part is the stipulation that basic entities must be open to free recombination. As Schaffer states, this is the case because it would be strange if necessary relations held between basic entities, because such a scenario would preclude their being basic entities (remember that the very notion of basicness is such that basic entities do not depend on any other entities for their existence).

Premise (3) is the rejection of the proposition that there exist multiple basic entities open to free recombination. The basis of the rejection is Schaffer's argument against priority pluralism, namely that the existence of pervasive internal<sub>constraining</sub> relations precludes the possibility of the existence of a plurality of basic entities. The conclusion (4) follows from (1)-(3) and then the ultimate conclusion (5) follows from (1)-(4).

The argument certainly appears to be valid and the biggest question of soundness will be about whether an appropriate internal<sub>constraining</sub> relation can be offered. Schaffer offered three potential candidates for the relation, with each one involving the commitment to some metaphysical doctrine or other (for example the candidate 'causal connectedness' involved the commitment to causal essentialism). Ultimately, this argument will likely stand or fall on whether a candidate for the internal<sub>constraining</sub> relation can be offered that the panpsychist is compelled to accept. I will not make a strong case here for which candidate

is best suited as there are numerous and which relation is most appropriate may vary depending on which version of panpsychism, or which panpsychist, is being opposed. It does seem likely to me, however, that the typical panpsychist would endorse causal essentialism and thus the internal<sub>constraining</sub> relation of causal connectedness appears generally well placed to play the role of the relation needed.

The effect that this argument has on working out which, out of panpsychism and cosmopsychism, to favour, is that it motivates cosmopsychism. If the argument is sound then it rules out panpsychism, so cosmopsychism wins as the last approach standing. However, even if the argument is contested, for example on the grounds that no appropriate relation has yet been elucidated, it still cuts against panpsychism that it is vulnerable to the possible existence of such a relation. But more than this, I think the spotlight on internal relations, and Schaffer's argument, can do even more for cosmopsychism; where the argument against panpsychism is a negative argument for cosmopsychism, I believe there may be a positive argument for it in the vicinity too.

### **8.2.2 The Argument for Cosmopsychism from Internal Relations**

So, what sorts of arguments from internal relations can be made for cosmopsychism? I think there are two kinds of argument available. The first sort are still negative arguments in the form of 'last man standing' arguments (I will call this these last *approach* standing arguments to avoid the negative connotations of gendering). I think there are two last approach standing arguments in favour of cosmopsychism. The first is a simple argument that is essentially the same as the one in the previous sub-section, only in this case the argument moves from the truth of priority monism (due to failure of recombination) to the falsity of panpsychism. The second last standing approach argument is more audacious, claiming to uniquely affirm cosmopsychism on the (controversial) basis that

cosmopsychism is the only approach to the problem of consciousness which affirms priority monism. The second sort of argument (and the third argument we will look at) is a positive argument for cosmopsychism, given fundamental consciousness.

#### **8.2.2.1 The Last Approach Standing Argument for Cosmopsychism Over Panpsychism**

The last approach standing argument for cosmopsychism over panpsychism, is an argument for cosmopsychism insofar as we are interested in which, panpsychism or cosmopsychism, to support. It concludes with the falsity of panpsychism, so given a binary choice between it and cosmopsychism, cosmopsychism prevails. It is almost identical to the last argument I offered, except that this one makes explicit that cosmopsychism is not equally affected. This is potentially important because the previous argument against panpsychism motivates cosmopsychism due to panpsychism's failure, but it leaves open the possibility that cosmopsychism is equally affected. The simple argument runs as follows:

1. Failure of modal free recombination entails priority monism.
2. Modal free recombination fails.
3. Therefore, priority monism is true.
4. Panpsychism denies priority monism.
5. Cosmopsychism affirms priority monism.
6. Therefore, panpsychism is false.

Premises (1) and (2) reflect Schaffer's argument, (3) follows (1)-(2), premise (4) follows from panpsychism's commitment to priority pluralism and the incompatibility of priority pluralism with priority monism. The conclusion follows from (1)-(4). As I said, this is essentially the same argument as the argument against panpsychism that I covered earlier, but premise (5) does the job of confirming that cosmopsychism is not vulnerable to the same argument.

### 8.2.2.2 The Last Approach Standing Argument for Cosmopsychism Simpliciter

The following argument purports to uniquely motivate cosmopsychism on the basis that modal free recombination entails priority monism, and cosmopsychism is the only approach to the problem of phenomenal consciousness that affirms priority monism. Consider the argument:

1. The failure of modal free recombination entails the truth of priority monism
2. Modal free recombination fails.
3. Therefore, priority monism is true.
4. Cosmopsychism is the only approach to the problem of consciousness that affirms priority monism.
5. Therefore, cosmopsychism is the only true approach to the problem of consciousness.

This argument is, as it stands, weak, because of the weakness of premise (4). Although it is true (as far as I am aware, at present) that cosmopsychism is the only approach to the problem of phenomenal consciousness that affirms priority monism, it does not rule out the possibility of others. For example, consider Chalmers's type-A materialism. Type-A materialism's approach to the problem of consciousness says that the hard problem of consciousness does not exist, maintaining either that consciousness does not exist at all (eliminativism; Paul Churchland 1981, Patricia Churchland 1986, Dennett 1991) or that it is entirely explained in functional or behavioural terms (functionalism; Harman (1990), or logical behaviouralism, respectively). It is perfectly possible that one could be both a type-A materialist and a priority monist. One's approach to consciousness might be eliminativist, but there is nothing about eliminativism that precludes one from also being a priority monist. Thus, the argument as it stands should perhaps be called the *only approach currently*

*standing argument!* More than ruling out possible approaches to the problem of consciousness, it can be seen as an instruction on how to be successful as an approach to the problem of consciousness (i.e. to affirm priority monism). I should say, though, that it may well be that some approaches, some versions of dualism, for example, are ruled out by the truth of priority monism (or the arguments that affirm priority monism), though I do not have space here to explore such possibilities.

### **8.2.2.3 The Last Approach Standing Argument for Cosmopsychism Given Fundamental Phenomenality**

The first last approach standing argument I presented is a strong one, but is limited to motivating cosmopsychism over only panpsychism, while the second argument presented is relatively weak because it attempts to motivate cosmopsychism over all other approaches to the problem of consciousness. It would be progress to offer an argument that is less limited than the first, but stronger than the second, and I think we can do just that. We can argue from internal relations to cosmopsychism, given fundamental consciousness, meaning, we can argue the truth of cosmopsychism over all other approaches to the problem of consciousness that take consciousness to be fundamental. The argument runs like this:

1. Either cosmopsychism is true or micropsychism is true (given fundamental consciousness).
2. If micropsychism is false, then panpsychism is false.
3. Micropsychism implies priority pluralism.
4. Cosmopsychism implies priority monism.
5. If priority pluralism is false, then micropsychism is false.
6. If micropsychism is false, then cosmopsychism is true.
7. Priority pluralism is false.
8. Therefore, micropsychism is false.

9. (Therefore, panpsychism is false.)
10. Therefore, cosmopsychism is true.

The argument is valid but as always its soundness will depend on the truth of its premises. We will take a look at each premise. Premise (1) states that the disjunction of cosmopsychism and micropsychism is exhaustive given fundamental consciousness. The aim of this argument is to show that cosmopsychism is true to the exclusion of all other approaches that invoke consciousness as fundamental. An approach can be said to invoke fundamental consciousness if they posit consciousness as a fundamental feature of reality. The reason that the disjunction of cosmopsychism and micropsychism is exhaustive, given fundamental consciousness, is that it is entailed by another exhaustive disjunction; either fundamental consciousness is present at the micro-level or it is present at the cosmic level.

It is possible to hold the view that macro-level consciousness (like human consciousness) is fundamental, for example, some versions of emergentist panpsychism claim that micro and macro-level consciousness co-exist with both levels being fundamental (Rosenberg 2004, Brüntrup 2016), while other versions claim that fundamental micro-level consciousness gives rise to macro-level consciousness, but the micro-level consciousness is annihilated in the process, leaving macro-consciousness fundamental (Seager 2010/2016), while yet others (Mørch 2014) maintain that macro-consciousness is formed of a fusion of fundamental micro-consciousness, but while micro-consciousness is not annihilated in the fusion, post-fusion it is macro-consciousness which is fundamental. What all of these views have in common is that they approach the problem diachronically, whereby fundamental macro-consciousness comes about through the process of emergence from fundamental micro-consciousness. Taken synchronically, these views seem to discredit the disjunction

in premise (1) but taken diachronically, considering the process of the emergence of (emergently)fundamental macro-consciousness we can still make the claim that the fundamental consciousness is that of the micro-level as, diachronically, that is what macro-consciousness (whether or not it is fundamental) ultimately depends on (or owes its existence to).

Premise (2) is the conditional premise that if micropsychism is false then panpsychism is false. For the purposes of this argument, micropsychism is understood as the view that *at least some* micro-physical ultimates are conscious. Compare this to panpsychism (in its most typical bottom-up form, obviously<sup>50</sup>) which says that *all* micro-physical ultimates are conscious. It is clear that if it is false that *at least some* micro-physical ultimates are conscious then it must entail the falsity of panpsychism, too, as it is the view that *all* micro-physical ultimates are conscious.

Premise (3) is the premise that micropsychism implies priority pluralism. The defence of this premise is straightforward because micropsychism posits multiple fundamental microphysical ultimates, which are the plurality of basic entities that are posited by priority pluralism (see also the defence of premise (1) from my argument against panpsychism from internal relations, as the same reasoning applies).

Premise (4) is obviously true as cosmopsychism explicitly includes a commitment to priority monism. Premise (5) follows from (3). Premise (6) follows from premise (1), while premise (7) is supported by the argument against priority pluralism from internal relations. From there, (8) follows from (7) and the ultimate conclusion (10) follows from

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<sup>50</sup> I have argued at the start of this paper that cosmopsychism can be considered a version of panpsychism insofar as panpsychism is the view that all fundamental entities are consciousness-involving, panpsychism, as used here, refers to the most typical understanding of panpsychism as a bottom-up view).

(8). Premise (9) is just in the argument above to remind us that panpsychism, as a key feature of this paper, is also false if micropsychism is false.

### **8.3 Conclusions from Internal Relations and Cosmopsychism**

We have seen how Schaffer argues against priority pluralism and for priority monism. This alone can be seen as an addition to the early section of the paper motivating priority monism, for if priority monism is a key commitment of cosmopsychism and we wish to motivate our key commitments, then an argument showing that it must be true is plainly a great motivation. Inspired by Schaffer's argument, I provided an argument against panpsychism, because the debate that I am focused on (and which cosmopsychists generally are focused on) is the debate about which out of panpsychism and cosmopsychism to prefer. This argument suggests that we should clearly prefer cosmopsychism as the other option in the binary debate is false (due to its commitment to priority pluralism and priority pluralism's falsity). This same motivation was then expressed in another argument, a kind of last approach standing argument for cosmopsychism. This is a strong argument but limited in scope. It differs from the first argument against panpsychism by making explicit that cosmopsychism is not equally as vulnerable as panpsychism (but other than that it is essentially the same argument). I then offered an alternative argument that is weak but greater in its scope. It states that, given the failure of modal recombination, cosmopsychism is the only true approach to the problem of consciousness because it is the only one that affirms priority monism. The final argument offers a balance between strength and scope, and in my mind is the most useful. It pitches cosmopsychism against all other approaches that posit fundamental consciousness, and concludes that, due to the failure of modal recombination (given an internal<sub>constraining</sub> relation), cosmopsychism is true. I think these

arguments, either taken individually or collectively, offer a strong motivation for cosmopsychism and not only as an alternative to panpsychism but perhaps beyond that, too.

## **9 Possible Objections**

In one final attempt to sure-up the account of cosmopsychism I offer in this paper, I provide responses to some possible objections. Some objections are objections made against panpsychism which can plausibly be transferred to, and charged against, cosmopsychism, while others are possible objections specifically against cosmopsychism.

### **9.1 The Objection from Implausibility**

The objection from general implausibility states that cosmopsychism is just too implausible to be true. I can see two closely related objections contained in the overall general one. The first is what Goff calls *the incredulous stare objection* to panpsychism and the other is what I will call *the three-wrongs-do-not-make-a-right objection*.

#### **9.1.1 The Incredulous Stare Objection**

The incredulous stare is an objection often met by panpsychism, it amounts to the charge of sheer *prima facie* ridiculousness. As Brüntrup and Jaskolla (2016) note, it is perhaps the most common objection against panpsychism:

The most common response to panpsychism is an incredulous stare. This is perhaps caused by the idea that panpsychism entails the belief that mountains and rocks, molecules and elementary particles enjoy an anthropomorphically conceived conscious life (p. 2).

There are echoes of the incredulous stare in Nagel's (1986) statement that panpsychism has the 'faintly sickening odour of something put together in the metaphysical laboratory' (p. 49). The cosmopsychist, perhaps even more so than the panpsychist, faces the incredulous stare. But what is an apt response to the charge of raw counterintuitiveness? I follow Goff

(2017) in responding that history is replete with examples of once highly counterintuitive proposals becoming generally accepted, so counterintuitiveness alone should not be cause to reject a view off-hand. After all, we see this in the classic sciences as well as in the social sciences, and even further afield. Goff offers some scientific examples:

Consider the thesis that we have a common ancestor with apes, or that time flows slower when travelling at high speeds, or that a particle can exist in a superposition between distinct locations; all of these theses are highly counter-intuitive, but this gives us little or no reason to think them false.  
(2017)

It is the same general attitude that Schopenhauer alludes to in the preface of the first edition of his *The World as Will and Idea* (1818), when he writes:

the weightiest knowledge of the truth, to which only a brief triumph is allotted between the two long periods in which it is condemned as paradoxical or disparaged as trivial. (1818, p. xvii)

My response to the incredulous stare, then, is simply to insist that counterintuitiveness alone does not make a proposition false, and, moreover, there is a proven track record of propositions that come to be taken as true having arrived as such after starting out as seemingly counterintuitive.

### **9.1.2 The ‘Three Wrongs Do Not Make A Right’ Objection?**

Another possible objection based on implausibility, this time against CRP cosmopsychism specifically, is what I am calling *the ‘three wrongs do not make a right’ objection*. This is the objection which says that CRP cosmopsychism is especially implausible because it is formed of a combination of three individually implausible theses. Simple panpsychism,

Russellian monism, and priority monism are all implausible in their own right, so surely, the objection goes, considered together as a set they must be even more implausible?

My response is to highlight some of the content already covered in prior sections of this paper. First, considered separately, although counter-intuitive, there are good reasons for the core commitments of cosmopsychism. For example, avoiding the problem of strong emergence is a powerful motivation for simple panpsychism. It is especially powerful if we consider the choice the problem of strong emergence leaves in its wake; if the problem of emergence is convincing (and I think it should at least be taken seriously) and given that we have already rejected dualism (for the sake of argument) due to well-known problems, then the choice for those wanting to take a stance on the problem of consciousness looks like being between type-A materialism, which says either that consciousness does not exist or that it can be completely described in functional or behaviourist terms, on the one hand, and simple panpsychism on the other hand. Though I do not have the space to go into detail, a case can be made that the problem of strong emergence takes out the middle-ground between those two options, and given those two options, simple panpsychism for many, will not sound such a ridiculous choice.

Next, take Russellian Monism, on the face of it, it too may seem implausible, for it posits features of reality not revealed by our current physics ('inscrutables' or 'quiddities'), and for many it may seem spooky to posit something that by definition is not revealed by our best physics. However, as we saw earlier in the paper, there are good reasons to accept Russellian monism. To take one example, there are reasons to think that the world as revealed by physics must be grounded in something that it does not itself reveal, and there

are advantages to holding that consciousness plays the grounding role. Moreover, it slots consciousness, a hitherto awkward-to-place feature of the world, neatly into nature.

Likewise, there are good reasons to support priority monism. I will not go into details again here, but consider Shaffer's arguments from quantum entanglement, internal relations and the argument from infinite decomposability. Together these make a strong accumulative case for the *prima facie* counterintuitive view.

Moreover, it is my view that taken as a set we benefit even more, contrary to the objection. As we have seen throughout this paper, the combination of the views allows for an approach to the problem of consciousness that seems to uniquely overcome a range of challenges.

## **9.2 The Objection from the Vulnerability to a Conceivability Argument**

It could be objected that cosmopsychism is vulnerable to a version of a conceivability argument, that says that it is conceivable that there is an exact phenomenal copy of the cosmic consciousness in the absence of an exact copy of the physical world. According to cosmopsychism, the cosmic consciousness is supposed to be the consciousness of the physical cosmos, so a possible separation (given that conceivability equals possibility) from the physical cosmos is troubling.

However, the cosmopsychism I propose in this paper is committed to Russellian monism, as a result, it can respond to this worry in the same way that Russellian monists can respond to the standard conceivability problem. The response to the problem goes something like this; zombies are conceivable but they are not possible. They are conceivable because when we conceive of exact physical copies of us we are really only conceiving of exact structural physical copies. According to Russellian monism, physics accurately

describes the world according to its spatiotemporal structure, but such structure is grounded by inscrutables/quiddities, at least some of which are phenomenal properties. While we can conceive of exact physical copies, structurally considered, we cannot (or could not) conceive of exact physical copies when also taking into account the relevant quiddities. Thus, Russellian monism, and transitively, cosmopsychism, has a response to the conceivability objection.

### **9.3 The No Signs Objection**

The no-signs objection to panpsychism objects to the view on the basis that there are no signs that things like rocks and chairs are conscious. Cosmopsychism can also be charged with the same objection on the basis that there are no signs that the cosmos is conscious. The panpsychist can respond by referring to the problem of other minds, which is, to put simply, the problem of determining if other humans have minds like our own. They can even refer to the problem of animal minds, which is the problem of determining if other animals have minds like our own. The very existence of these problems highlights that we find it difficult to confirm that other humans and animals are conscious, so we should not be surprised that we find it hard to confirm that rocks, chairs or the cosmos, are conscious. Furthermore, because we do not know the exact nature of human consciousness, we cannot reasonably expect to know the exact nature of either micro-consciousness or the cosmic consciousness.

The no signs objection implies that the signs that would be satisfactory would be direct signs, but perhaps we should also think about indirect signs. For example, we can look to science to see if we find examples where the existence of some entity is proposed on the basis that there appears to need to be an entity of character  $x$  in order to fit the role  $y$  which gives us a complete explanation of some state of affairs. And, indeed, we can find

examples. To take just one, the existence of the Higgs boson was first proposed in 1964, to explain why particles have mass (via the Higgs mechanism), but it was not until 2012 that its existence was confirmed.

My point is not that the cosmic consciousness is like the Higgs boson, insofar as the existence of the Higgs boson was eventually confirmed, and thus the existence of the cosmic consciousness may eventually be confirmed, rather, it is that it is not unusual to propose the existence of something because of, what we could call, indirect evidence.

#### **9.4 The Objection from the Estrangement from Current Science**

There are numerous possible objections that come from the worry that cosmopsychism is estranged from current science. I will briefly cover two such possible objections here; the objection from the violation of causal closure and the objection from the preclusion of evolution.

##### **9.4.1 The Causal Closure Violation Objection**

Another possible objection comes from the violation of causal closure, it says that cosmopsychism must be false because the cosmic consciousness, presumably not merely epiphenomenal, would violate the widely held principle of the causal closure of the physical. Which says, roughly, that all the causal powers of the universe are accounted for in terms of the causal powers of the fundamental physical entities. Kim (1993) has stated this principle in relatively strong terms, as the proposition that all physical events are the result of only physical causes, while Montero (2003) states it in relatively weaker terms as the proposition that all physical events have a physical cause. The core idea is that nothing causally novel breaks in and disrupts the causal structure of the universe. This idea is not entirely uncontroversial, but the basic idea of viewing any proposed external interruptions to the causal web of the universe with extreme caution, is likely to be widespread.

Given that cosmopsychists are likely to claim that the cosmic consciousness has some causal significance or other, since the majority will want to reject cosmic epiphenomenalism, it may seem they find themselves in a quandary; how can the cosmic consciousness have some causal relevance while also maintaining causal closure?

The cosmopsychist has a straightforward response to the objection; it can both maintain causal significance for the cosmic consciousness while also adhering to causal closure, in virtue of its commitment to Russellian monism. Recall that according to Russellian monism, (at least some of) the properties that ground the structure revealed by physics are phenomenal properties. On such a view, phenomenality is afforded causal relevance as the ground of all causal powers observed in physics, while at the same time it does not violate causal closure because its causal relevance is such that it does not interrupt the causal web revealed by physics. Rather, it is already accounted for in the physical causal picture, by being its ground. Cosmopsychism, as it is committed to Russellian monism, inherits this same response to the objection from the violation of causal closure.

#### **9.4.2 The Objection from the Preclusion of Evolution**

Another objection that stems from a worry about cosmopsychism's estrangement from current science, is the objection from the preclusion of evolution. The idea is that there is an incompatibility between cosmopsychism and the evolution of life. The objection could go something like the following: the process of the evolution of life from which we have materialised, is a process moving from simpler life forms to more complex ones, over unimaginably long periods of time. We can also infer the same direction of travel with regards to consciousness, with more complex instances of consciousness materialising out of a long process taking consciousness from simple to more complex forms. But how is it that such a process could occur if cosmopsychism is true? Does cosmopsychism not imply

that the cosmic consciousness is the most complex form of consciousness, and given that it is surely the oldest form of consciousness, does it not preclude the process of the evolution of life (and consciousness)?

One aspect of this objection stems from the worry that the cosmic consciousness, as prior to sub-cosmic consciousnesses, is more complex than sub-cosmic consciousnesses, and this seems to counter evolution. Another aspect of the objection boils down to the worry that the top-down structure of the cosmopsychist worldview does not allow for seemingly bottom-up processes, like the evolution of life, to unfold.

The cosmopsychist can respond to the first worry by highlighting that, in being prior, the cosmic consciousness does not therefore need to be, overall, more complex than sub-cosmic consciousnesses. Take, for example, a painting consisting of a very large blank canvas with a very small space in one corner containing the most intricately detailed and colourful brushwork. It is not strange to say that the painting overall is less complex than one of its regions. Likewise, the cosmos, overall, does not necessarily need to be more complex than its parts. But even if it is more complex, it is not clear that that precludes the evolution of bottom-up processes.

This brings us to the second worry, that cosmopsychism, as a top-down view, does not allow for seemingly bottom-up processes (like the evolution of complex life from simple life). I should note at this point a distinction between two general approaches, a synchronic approach and a diachronic approach. A synchronic approach tries to understand the world at a moment in time, while a diachronic approach tries to understand the world as it comes about in time. My approach in this paper is generally a synchronic one and this worry has to do with diachrony, but I will attempt to offer an answer, nonetheless.

With that in mind, in response to this objection the cosmopsychist can, first, note that the objection is rooted in its commitment to priority monism, and second, look to ways that priority monists might reply to the same objection. On the face of it, there appears to be no reason why priority monism precludes the possibility of seemingly bottom-up processes. The truth of priority monism does not entail a static whole grounding a plurality of static derivative parts. The derivative parts are not precluded from being dynamic in all manner of ways, nor does priority monism deny the existence of the entities at the micro-physical level that physics studies, nor the kinds of interactions among them that physics observes. Priority monism simply says that the cosmos, as a whole is prior to its parts. It makes a claim about part-whole relations, but that does not entail that it rejects the unfolding of dynamical processes over time among its derivative parts.

## **10 Conclusion: A Future for Cosmopsychism?**

Throughout this paper, I have given an account of, and motivated, a particular version of cosmopsychism. My primary goal was to motivate CRP cosmopsychism as a promising alternative to constitutive panpsychism, but I have shown how the mixture of its core commitments afford it a unique set of responses to persistent problems for panpsychism, and indeed much more far flung approaches to the problem of phenomenal consciousness too. Moreover, it can make significant progress in overcoming arguably cosmopsychism's biggest challenge, the derivation problem, from all three of its aspects. Cosmopsychism, I conclude, is alive and well.

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