THE COMBINATION PROBLEM FOR PANPSYCHISM: A CONSTITUTIVE RUSSELLIAN SOLUTION

AN INVESTIGATION INTO PHENOMENAL BONDING
PANPSYCHISM AND COMPOSITE SUBJECTS OF EXPERIENCE

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by

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Abstract

In this thesis I argue for the following theory: constitutive Russellian phenomenal bonding panpsychism. To do so I do three main things:

1) I argue for Russellian panpsychism.
2) I argue for phenomenal bonding panpsychism.
3) I defend the resultant phenomenal bonding panpsychist model.

The importance of arguing for (and defending) such a theory is that if it can be made to be viable, then it is proposed to be the most promising theory of the place of consciousness within nature (Chalmers, 2016a; Strawson, 2006a). This is because constitutive Russellian panpsychism has all the theoretical virtues of physicalism and dualism but does not face the problems they do (Alter and Nagasawa, 2015a; Chalmers, 2016a).

The combination problem, however, is the most significant problem for the Russellian panpsychist (Chalmers, 2016b; Goff, 2017a), and, hence, in order to show the viability of the theory I address this problem. Moreover, I present a novel 'mereological argument' for panpsychism which makes it necessary that the Russellian panpsychist addresses (and solves) the combination problem. The focus of this thesis is therefore addressing this problem.

I argue that the combination problem can indeed be solved. To do so I argue for the phenomenal bonding solution proposed by Goff (Goff, 2016, 2009a). I argue that this solution works and that we can form a positive concept of the *phenomenal bonding relation* (Miller, 2017). This forces the panpsychist to make sense of how experiencing subjects can be proper parts of other experiencing subjects (Miller, 2018). I then argue that this can indeed be made sense of and show that we can indeed be composite subjects made of other subjects.

To show that we can be subjects made up of other subjects I defend this proposal from various objections from throughout the literature. All these objections can be responded to by the constitutive Russellian phenomenal bonding panpsychist. Ultimately this leaves us with a novel and interesting account of what conscious subjects are, and what the material world is: they are both composite entities made wholly of conscious matter.

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Table of Contents

List of Figures

Introduction

This thesis proposes a conception of subjects and experiences which integrates them into the structure of the material world without denying the evident reality of conscious experience. Likewise, it proposes a conception of the structured material world which is forced upon us when we are confronted with the evident reality of experiencing subjects. In other words, this thesis proposes a panpsychist worldview – a worldview in which all things are suffused with mentality, irrespective of their outward appearance and/or behaviour. This is not to say that this thesis offers some sort of revisionary ontology – I do not swap objects and properties for events or processes. Rather, this thesis is the complete opposite: the sort of panpsychism I propose is simply the conjunction of many ideas that are taken seriously alone, but which are not often given much thought together.

The picture that I end up with is a picture of a world brimming with conscious experience, but which I take to be relatively uninteresting from our or God's points of view. When the world was made, matter had to have some *real* nature – there had to be something 'that breathes fire into the equations' (Hawking, 1992, p. 174) of physics – and that real material nature is simply consciousness. This means, in a properly panpsychist fashion, there is nothing exceptional about the existence of consciousness in the world, and nothing exceptional about *our* existence in the world. Likewise, this means that our nature is completely continuous with the nature of the world 'out there' – there is no special domain or breach within nature that separates us from the world. Mostly things change in degree, not in kind, and hence there is little special about human-shaped meat-lumps (although we may often feel that there is). Matter is simply conscious, and we are simply matter.

An obstacle to this panpsychist picture of the world is that we are conscious subjects of experience, and what we know *for sure* is that conscious subjects of experience *are* a special domain or breach within nature. We know for sure that conscious subjects (unlike the material world we all encounter on a daily basis) are inviolable spheres of indefinable, non-decomposable, and unanalysable ghost-like mind-stuff. A sort of stuff that excludes itself from being a part of the world – in all its complexity and structure – and which shares none of the properties or attributes that it has. This means that whilst the material world turns out to be a complex structure of atoms composing molecules, and molecules composing everyday objects, we are not a part of that structure: we are unique.

In panpsychist circles this obstacle of exceptionalism presents itself as the 'combination problem': how on earth can experiencing subjects like ourselves add up so as to make other experiencing subjects like ourselves? The world is composite through and through, but we are not – how on earth could we be, and what would that even look like? Although we may use phrases like 'hive mind' to talk about swarms of bees, or 'collective consciousness' to talk about the popular opinion of a country's citizens, we do not *really* think that such groups have minds like yours and mine. We do not really think that such groups have minds made up of the minds of their members. Granted, some may think that these groups do share features that we could broadly considered to be mental (e.g. coordinated behaviour that can be *seen as* intentionally directed), but they are not conscious like we are: there is not *something which it is like to be them*. After all, it is the fact that we are conscious experiencing subjects which means we cannot make up other conscious experiencing subjects – it is our conscious nature which means we are an exception to, and stand outside of, the structure of the material world. This, in essence, is the combination problem.

I think this is idea false. I think that subjects can add up to as to compose other subjects. I think they are not exceptions to, and do not stand outside of, the material world. And, I think that consciousness is the real, intrinsic nature of matter. There is nothing about consciousness that means this cannot be true, and anything that would suggest it cannot be so is grounded in an intuition that does not correspond to any underlying reality. My aim in this thesis is then to show that this is indeed possible.

To do so I need to do roughly three things: (1) I need to argue that panpsychism is a plausible (if not true) theory; (2) I need to show how and when subjects can add up to make other subjects; (3) I need to make sense of subjects being composite entities made up of the minds of other conscious subjects. Once I have done this, the hope is that we have a model of experiencing subjects that does not differ significantly from our model of material objects. To this end, I have divided this thesis into three corresponding parts.

> Part 1 'A World of Consciousness and the Combination Problem'.
>
> Part 2 'Phenomenal Bonding Panpsychism and Composite Subjects of Experience'.
>
> Part 3 'Making Sense of Some Composite Phenomenology'.

Part 1 consists in chapters 1 – 4, in which I define panpsychism, argue for a Russellian monist version of it, and formulate the combination problem. Part 2 consists in chapters 5 – 9, in which I argue for a certain type of panpsychism titled 'phenomenal bonding panpsychism', suggest that it looks hard for the panpsychist to escape some form of unrestricted composition (but that it does not really matter), and defend the panpsychist from the arguments concluding that we are mereological simples. Part 3 consists in chapters 10 and 11, in which I try to respond to arguments showing that the sort of composite phenomenology the constitutive panpsychist must believe in is incoherent.

The following is a more detailed breakdown of each of the chapters within this thesis.

Chapter 1: To begin with I shall outline the two central veins within this thesis: panpsychism and Russellian monism. Firstly, I shall distinguish panpsychism from all the other similar theses, along with outlining the assumptions and commitments I make within this thesis regarding consciousness itself. The definition of panpsychism that I will adopt is *at least all fundamental entities and some non-fundamental entities are subjects having experiences, i.e. they instantiate phenomenal properties*. This is the form of panpsychism that is currently in vogue, mainly as a consequence of aiming to address the hard problem. Secondly, I will outline Russellian monism. Russellian monism is 'at least as bold and exciting as Newton's proposed unification of terrestrial and cosmic reality' (Ney, 2015, p. 349), because it proposes to unify phenomenal and physical reality with one another. Consciousness, according to Russellian monism, is the intrinsic nature of matter, which is inscrutable to our fundamental physical sciences. I shall then move on to look at the two most famous arguments for Russellian panpsychism: the anti-emergence argument (chapter 2) and the intrinsic nature argument (chapter 3).

Chapter 2: I will look at the anti-emergence arguments given by Strawson and Nagel. I shall propose my own, novel formulation of the anti-emergence arguments called the 'mereological argument for panpsychism'. This argument is rather simple and requires the following three things: the existence of phenomenal consciousness within the world, the existence of a mereological structure to the world, and a mereological conjecture that I call 'confinement': *that genuine, material mereological relations must hold between the same sorts of entities*. Importantly this argument establishes panpsychism, but the lemma of the argument also establishes a form of panpsychism which makes it imperative for the panpsychist to make sense of proper parthood relations holding between conscious

experiencing subjects. Why? Because the lemma of this argument shows that the world as a whole is a conscious subject and all its proper parts are too.

Chapter 3: I will look at the intrinsic natures argument for panpsychism. This is the argument in which I establish the need for the Russellian proposal that matter has an intrinsic nature, over and above its merely causal and formal nature. I suggest that our best theory models that nature as phenomenal, rather than it being proto-phenomenal, neutral, or unconscious qualitivity. I do not propose a novel argument in the section, and much of what I say simply relies on the arguments already present within the literature.

Chapter 4: Given that I will have hopefully established constitutive Russellian panpsychism as a highly plausible thesis, I will move on to look at the main objection to the view: the combination problem. The combination problem is the most significant problem for the panpsychist, and after outlining it in this chapter the rest of this thesis goes on to address it. I shall outline eight combination problems that I shall address in this thesis, and most of them are focused upon the following: making sense of the idea that subjects of experience can be proper parts of, and thereby compose, other subjects of experience.

Chapter 5: In chapter five I present my second positive proposal, I argue that the 'phenomenal bonding solution' – first forwarded by Goff (Goff, 2016, 2009a, 2009b) – to the subject summing problem is a viable option because we can form a positive conception of that relation. I spend some time trying to do this, arguing against Goff's arguments for scepticism regarding our ability to form such a positive conception of the relation. I aim to show that the relation of co-consciousness allows us to form a positive (not merely role-playing) conception of the relation. The conclusion then is that 'phenomenal bonding = co-consciousness'.

Chapter 6: In chapter six I will look at a the second of the combination problems outlined in chapter 4: the boundary problem. The boundary problem states that whatever mechanism we use to get around the subject summing problem it will over generate subjects and annihilate all but one subject from existence. This problem motivates an alternative to phenomenal bonding: protophenomenal bonding. I argue, however, that the phenomenal bonding panpsychist can respond to the boundary problem and suggest that we do not have bounded consciousnesses, nor do we have reason to suppose so.

Chapter 7: I look at a problem for constitutive panpsychism forwarded by Sam Coleman: 'the real combination problem', or as I call it 'the perspectives problem'. This problem is

grounded in the possibility that subjects of experience have *perspectives*. I argue that even if subjects have perspectives, this does not generate a problem for constitutive panpsychism. Only if they have a *sui generis* 'exclusory' phenomenology would there be a problem.

Chapter 8: In chapter eight I look at one of the most important problems for the constitutive panpsychist: the special phenomenal composition question. This is the panpsychist analogue of the special composition question. I will look at the prospect of giving a moderate answer, aiming to limit the instances of subject-composition to the relevant few that we pre-theoretically would want to believe in. I argue that this does not look possible and that the panpsychist must subsequently either accept either nihilism or universalism: either no subjects are ever phenomenally bonded, or they always do.

Chapter 9: the previous chapter ended on a disjunction: either nihilism or universalism are true. If panpsychist nihilism is true, then subjects of experience must be mereologically simple. I take it that it is a reasonable assumption that we are composite entities, hence the panpsychist must defend themselves from the arguments advancing the mereological simplicity of subjects. I shall look at three contemporary arguments: David Barnett's (Barnett, 2010, 2008), Howard Robinson's (Robinson, 2016), and E.J. Lowe's (Lowe, 2001, 2000). All three arguments turn out to be invalid or unsound.

Chapter 10: In chapter ten I turn to look at the first of two arguments focused on showing the incoherence of the sort of composite phenomenology entailed by constitutive panpsychism. I will look at an argument forwarded by Pierfrancesco Basile (Basile, 2010, 2008) and William James (James, 1912) which is intended to show that constitutive panpsychism is incompatible with phenomenal holism. I argue that the argument is invalid and that no incoherence is generated by conjoining panpsychism and phenomenal holism. I also propose two new version of this problem, grounded in two additional accounts of phenomenal holism: relational phenomenal holism (Dainton, 2010, 2008, 2000) and attentional holism (Chudnoff, 2013; Watzl, 2017, 2014).

Chapter 11: Finally, I turn to look the second of the two arguments focused on composite subjectivity. Here I propose a novel problem that has been overlooked within the panpsychist literature. I call this problem the 'subjectivity problem' and it asks how can token experiences which are shared by subject-parts and subject-whole have subjective phenomenology of the sort theorised by Dan Zahavi and Uriah Kriegel (Kriegel, 2009; Kriegel and Zahavi, 2016; Zahavi, 2010, 2008). I find the seeds of this problem in Sprigge

(Sprigge, 1983) and I argue that it cannot be made into a valid argument without additional premises – I then look at haecceitism about subjectivity and respond.

PART 1: A WORLD OF CONSCIOUSNESS AND THE COMBINATION PROBLEM

1 Chapter 1: What is Panpsychism?

"Yes, we have a soul, but it's made of lots of tiny robots' and I thought that's exactly right'

(Dennett, 2004)

1.1 Introduction

Francesco Patrizi (1529-1597) the Italian humanist, philosopher, and poet coined the name 'panpsychism' and introduced the word *as we know it* into the western philosophical vocabulary (Skrbina, 2007, p. 70). The word 'panpsychism' can be broken down into two parts deriving from Greek: 'pan' meaning 'all', and 'psyche' meaning 'soul' or 'mind'. This simple breakdown of the name can give us some idea of the definition of the view: 'all-soul' or 'all-mind'. However, what we want is a *precise* definition of the theory that accords with the contemporary discussion. In this chapter I will aim to give that precise definition of panpsychism, so as to demarcate it from its closely related alternatives. I shall also outline the assumptions that I will be making throughout this thesis about the nature of consciousness, the priority of parts, the features of constitution and more. Importantly I will introduce Russellian monism: a non-standard materialist monism that promises to unite the physical and phenomenal.

Daniel Stoljar defines physicalism (another popular contemporary view) as the thesis that 'everything is physical', and it would be useful for us to define panpsychism in an analogous manner:

> everything is mental

Of this definition we can ask the following questions, analogous to Stoljar's own:[1]

> **Completeness question:** What does it mean to say that *everything* is mental?
>
> **Condition question:** What does it mean to say that everything is *mental*?

[1] I take this method of defining panpsychism from Hedda Hassel Mørch (Hassel Mørch, 2014, pp. 2–10) who took inspiration for this method from Stoljar (Stoljar, 2016). Andrew Bailey (Bailey, 2015) also uses a similar method to define the thesis of *Animalism*: 'we are animals' (Bailey, 2015, p. 867).

Relation question: What does it mean to say everything *is* mental?

Building question: What is the *relationship* between my mentality and the mentality of everything else?

By answering these questions, mostly by a process of elimination, I will end up with the following definition of panpsychism:

> at least all fundamental entities and some non-fundamental entities are subjects having experiences, i.e. they instantiate phenomenal properties.

This definition is broad enough to capture different types of panpsychism that are proposed in the contemporary literature, but also specific enough to rule out other views which are similar to panpsychism (e.g. panprotopsychism, panexperientialism, or neutral monism).

In the following sections I will address each of these questions, outlining the definition of panpsychism and subsequently homing in on the specific type I intend on defending/investigating in this thesis: constitutive Russellian phenomenal bonding panpsychism.

1.1.1 The Completeness Question: 'Everything'?

The question asks:

> What does it mean to say that *everything* is mental?

What is not included in this definition of panpsychism that I have given above? Abstract objects, gerrymandered objects, ordinary objects, arbitrary undetached parts, and much more. This means table-halves, chairs, arbitrary mereological sums, sets, and numbers are not mental.

What then is included in 'everything'?

Firstly, we must recognise that we are mental or have mentality. That is, some non-fundamental, derivative entities clearly are mental: humans and non-human animals. If panpsychism is going to be a successful theory, then it must not rule out ascribing mentality to Miles Davis or Shamu the whale. Hence, panpsychism should be compatible

with the view that brains or animals are mental (in the requisite sense to be outlined below).[2]

Secondly, to this question the panpsychist has a ready and well-rehearsed answer. I call this the 'fundamental mental entities thesis':

Fundamental Mental Entities: the fundamental or basic entities are mental.

The minimal commitment of panpsychism is that *fundamental* or *basic* concrete entities are mental. Hence, the panpsychist takes it to be the case that at least the *fundamental constituents* of the cosmos are mental (quarks, electrons, etc., possibly even spacetime itself).

Three immediate questions arise regarding the fundamental entities thesis:

Q.i) What are the fundamental entities?

Q.ii) Is there a fundamental level?

Q.iii) Are there any non-fundamental entities?

I shall here give a positive answer to (Q.ii): yes, I will assume that there is a fundamental or basic level of reality, i.e. a level of reality upon which all other things depend but which does not itself depend upon anything else (Schaffer, 2010a, 2009a). However, such an assumption is not a foregone conclusion, and some do not think that it is justified (Schaffer, 2003).[3] Nonetheless, I shall assume that there is a fundamental level.

I shall also answer (Q.iii) in the positive: yes, there are non-fundamental entities. Again, this is not uncontroversial. However, insofar as we think we are human beings existing at a macro-level of reality, we must commit ourselves to some non-fundamental entities. Importantly, though, panpsychism does not *require* a commitment to them, but given our assumption it should accommodate them (especially mental ones).

To answer (Q.i) we need to first mention a common assumption. More often than not, fundamental entities (or 'ultimates' to use Strawson's terminology (Strawson, 2006a)) are taken to be the micro-physical objects that our best physical science tells us about. However, there is a venerable tradition of taking the 'cosmos', or whole of the universe,

[2] I shall take it that either brains or animals, or something within their vicinity, are the non-fundamental entities that panpsychism takes to be mental (along with the fundamental entities).
[3] The important question is: does panpsychism *require* a fundamental level? *Prima facie* insofar as other monist views like physicalism do not require a fundamental level (Montero, 2006), then neither does panpsychism. I would like to think that *infinite descent* is compatible with panpsychism, and nothing obvious about their conjunction appears to generate a conflict.

to be the single fundamental entity (within panpsychist circles: Baruch Spinoza (1632-77), Philip Goff (Goff, 2017a), Itay Shani (Shani, 2015), Miri Albahari (Albahari, forthcoming)), and recently Jonathan Schaffer has given a wide-ranging defence of this view (Schaffer, 2010a, 2010b, 2009a, 2009b, 2007). These two outlooks give mutually exclusive and exhaustive answers to (Q.i):

a) Priority Pluralism

b) Priority Monism

To get either of these views one needs only two assumptions: (i) there is a world and it has a structure of proper parts, (ii) the world has a structure of metaphysical dependence relations between its parts. I shall make both assumptions and I take it that nearly all panpsychists, physicalists, and dualists do too. Priority monism takes the cosmos, defined as that concrete object of which all other objects are proper parts, to be fundamental. Priority plurality takes the many microscopic proper parts of the cosmos to be fundamental. This allows us to make the distinction between two forms of panpsychism:

a) Pluralist panpsychism

b) Cosmopsychism

Pluralist panpsychism – which I shall continue to simply call panpsychism throughout this thesis – is the conjunction of priority pluralism and the fundamental mental entities thesis, and cosmopsychism is the conjunction of priority monism and the fundamental mental entities thesis (see (Albahari, forthcoming; Goff, 2017a; Kastrup, 2017; Miller, 2018; Shani, 2015; Wager and Nagasawa, 2016) for discussions of this latter view). Which of these is true is an open question, but we can see that the minimal commitment of all types of panpsychism is that the fundamental concrete entities, whatever they are, are mental/have mentality.[4]

Let us move on to the condition question to see what contemporary panpsychists (of both sorts) mean when they say that fundamental entities have mentality, and to separate panpsychism from some similar doctrines.

[4] There may be room for a further view on which neither the mereological simples of the cosmos are fundamental, but instead some array of non-fundamental composite objects are fundamental along with the simples or the cosmos. I am taking this to be ruled out by Schaffer's tiling constraint (Schaffer, 2010a), thus making pluralism and monism exclusive and exhaustive.

1.1.2 The Condition Question: 'Mental'?

The question asks the following:

> What does it mean to say that everything is *mental*?

As above, in clarifying this question it will prove to be helpful to rule out certain of types of mentality. The properties that I shall rule out are: (i) psychological properties (Chalmers, 1996, chap. 1), (ii) protophenomenal properties (Chalmers, 1996, p. 127), and (iii) intentional properties. I shall rule psychological and intentional properties without discussion, they are not the concern of the contemporary panpsychist (pluralist or monist).[5] However, it will be helpful to consider three variations of the fundamental mental entities thesis:

> **Fundamental protophenomenal entities:** the fundamental or basic entities are protophenomenal.
>
> **Fundamental qualitied entities:** the fundamental or basic entities are non-conscious qualities.
>
> **Fundamental conscious entities:** the fundamental or basic entities are conscious.

I shall discuss each of these briefly and rule out the first two. The panpsychist's answer to the condition question will turn out to be:

> a subject of experience having phenomenally conscious experiences (i.e. instantiating phenomenal properties).

Firstly, we can rule out fundamental protophenomenal entities. Protophenomenal properties are widely discussed in the literature surrounding panpsychism. Chalmers defines protophenomenal properties as 'not themselves phenomenal, but together they can yield the phenomenal (Chalmers, 1996, p. 127). Whilst this is illuminating, we can continue to give a more precise definition of protophenomenal properties:

> Protophenomenal properties are those properties, P, such that:
>
> (i) they are distinct from structural properties (as revealed by physics)
>
> (ii) they are distinct from phenomenal properties

[5] If fundamental entities instantiate psychological properties, then we get *pancognitivism* (Goff, 2017b)

(iii) there is an *a priori* entailment from truths regarding them to phenomenal truths.

This is a role-playing definition of protophenomenal properties, and aside from this it is hard to provide a positive conception of them (see chapter 3.2.1 for further discussion). Moreover, there is some dispute as to what should count as a protophenomenal property. Either way, we can make the distinction between panpsychism and *panprotopsychism* (Chalmers, 2016a): the view that all fundamental entities instantiate protophenomenal properties. Panpsychism is not panprotopsychism.

Secondly, we can rule out non-conscious qualities. Non-conscious qualities are supposed to be similar to protophenomenal properties because truths regarding them a priori entail truths about phenomenal properties. However, they are supposed to be protophenomenal properties which we *can* form a positive conception of. The concept is something like this: non-conscious qualities are *qualities analogous to (and continuous with) the conscious qualities we find within our experience*, e.g. redness or painfulness. Whether this concept is coherent is not yet my focus (see chapter 3.2.3 for further discussion), we can simply make the distinction between panpsychism and panqualityism (Coleman, 2016, 2015; Lockwood, 1989).

We are left then with consciousness, or conscious experience. Conscious experience is that property which is responsible for the hard problem of consciousness as opposed to the easy problems (Chalmers, 2010, 1996, 1995a), and contemporary panpsychists take it that fundamental entities have conscious experience of this sort. This is because contemporary panpsychism has arisen as an attempted solution to the hard problem of conscious experience, and is an attempt to find a place in nature for that property which 'makes the mind-body problem really intractable' (Nagel, 1979, p. 165). Hence, the panpsychist endorses the fundamental conscious entities thesis (above).

Let us move on to consider the nature of conscious experience in more detail, and its relation to panpsychism. Doing so will allow me to state some more of my assumptions.

1.1.2.1 Conscious Experience and its Subject

Consciousness is a tough property to characterise in an informative way (Chalmers, 1996, p. 4), even though we are intimately acquainted with it every waking moment of our lives. Often it is better to highlight the nature of consciousness by ostension and example than by other methods (Papineau, 2002, p. 19), which is easy because conscious states are large

in number and examples are easy to come by: reflection on one's own mental states will reveal many experiences, and often one's experience 'can be fascinating to attend to' (Chalmers, 1996, p. 6) if the experiences are particularly novel, intense, pleasurable, or peculiar. When we reflect on these states we notice that they all have something in common, their shared attribute is precisely that these states all *feel* a certain way for the entities which undergo them. They are also each different, each state has a different type of *feel*.

The most common manner in which to define consciousness is by using the Nagelian 'what-it's-like' locution (Farrell, 2016; Nagel, 1979, p. 166; Sprigge and Montefiore, 1971, p. 167; Wittgenstein et al., 1988, p. 19). Following Nagel, we can define what it takes for something to be conscious in the following way:

> **Conscious:** an entity, X, is conscious at a time, T, if and only if (i) X is concrete and (ii) there is something that it is like to be X at time T.

This in turn allows us to define the property of consciousness:

> **Consciousness:** that property, P, an entity, X, instantiates in virtue of which X is conscious.

If an entity is conscious, then that entity instantiates *phenomenal properties*. Being conscious consists in the instantiation of phenomenal properties and consciousness is best understood as the determinable property of the determinate phenomenal properties. Phenomenal properties have certain *phenomenal character* which characterise what it is like to instantiate them. Often phenomenal character is described as being a 'qualitative feel' and phenomenal qualities as being 'qualia' (Chalmers, 1996, p. 4).[6]

If one is a panpsychist, then one holds that the fundamental entities instantiate micro-phenomenal properties with a specific micro-phenomenal character; they have micro-consciousnesses. If one is a cosmopsychist, then one holds that the fundamental entity instantiates cosmo-phenomenal properties with their cosmo-phenomenal character; it has a cosmos-consciousness. We human animals instantiate macro-phenomenal properties, with macro-phenomenal character; we have macro-consciousnesses (so we assume).

[6] I follow Chalmers in using this term in a way that is relatively non-committal with regards to features like: whether they are knowable incorrigibly, whether they are intrinsically intentional etc. (Chalmers, 1996, p. 359).

Now we know that the panpsychist holds that the fundamental entities are conscious (whether they are pluralists or monists) the following questions regarding fundamental consciousness immediately arise:

> Q.i) What phenomenal character do fundamental phenomenal properties have (i.e. what *type* of experience are they)?
>
> Q.ii) Are the fundamental entities that instantiate them *subjects*?
>
> Q.iii) Is there a certain *structure* to consciousness?

Let us take these questions in order.

1.1.2.1.1 What is the Phenomenal Character of the Fundamentalia?

If the panpsychist claims that there is something it is like to be the fundamental entities, then precisely *what* is it like to be them? Contemporary panpsychists are typically quiet on this issue and remain somewhat non-committal – they often gesture towards an answer by referring to visual qualia, or suggesting something like Chalmers' 'Edenic qualities' (Chalmers, 2010, chap. 12). Some contemporary authors, however, have made a sustained effort to answer this question: Patrick Lewtas, Sam Coleman and Keith Turausky offer accounts (Coleman, 2016; Pat Lewtas, 2013; Turausky, ms). For now, though, we can note two classes of view: range

> **Small-palette:** fundamental entities instantiate a small number of fundamental qualities.
>
> **Large-palette:** fundamental entities instant the full of experiential qualities.

On the small-palette view the phenomenal properties instantiated by fundamental subjects are significantly different from any phenomenal properties instantiated by non-fundamental subjects. On the large-palette view the phenomenal properties instantiated by fundamental subjects are not different, in any significant sense, to our experiences (Chalmers, 2016b, p. 205). Panpsychism itself does not *require* any specific thesis as to the type of phenomenal properties that fundamental entities instantiate, only *additional* commitments would mandate such a thesis.

In this thesis I shall assume a small-palette view because of reasons of parsimony (it also fits better with Russellian monism (below)).

1.1.2.1.2 Are the Fundamentalia Subjects?

The second question raises the possibility of experiences without subjects to undergo them, but it also raises the further question of what exactly is a *subject of experience*? Let us look briefly at each of these issues.

The idea that there can be experiences without subjects is what Nagel (Nagel, 1986, p. 30) calls the 'No-Ownership Thesis', the converse being the 'Ownership Thesis'. The two theses can be stated in the following way:

> **Ownership:** for any experience, E, necessarily there is a subject, S, of that experience.
>
> **No-Ownership:** for no experience, E, necessarily there is a subject, S, of that experience.

These two theses allow us to make the distinction between panpsychism and *panexperientialism*. I take it that the panpsychist thinks that the ownership thesis is true, that at least all fundamental entities and some non-fundamental entities are subjects undergoing experiences. Contrary to this the panexperientialist takes the no-ownership thesis to be true. They think that there is merely experience at the fundamental level and some non-fundamental entities are subjects (e.g. humans and non-human animals).

It is typically assumed that the no-ownership thesis is false and that the ownership thesis is true. Nagel (Nagel, 1986, p. 30) and Chalmers (Chalmers, 2016b, p. 197) both think it is unintelligible, and I agree. However, this is evidently dependent upon one's notion of a subject. This ultimately determines one's answer to (Q.ii).

To highlight why, we can make the distinction between a 'thick' or 'thin' concept of subjects.[7] Thick concepts of subjects are things like 'person', 'human animal', or 'a complex of psychological capacitates'. These are concepts of subjects which it is unlikely a fundamental entity can satisfy, there are many complex necessary and sufficient conditions that an object must satisfy in order for it to be 'a person' or 'a human animal'.

[7] There are many claims to what subjects amount to within the literature, take for example the following non-exhaustive list: Subjects = Experiences (Strawson, 2017a, chap. 3, 2009); Subjects = Animals (Van Inwagen, 1990); Subjects = Bare locus of mental life (Johnston, 1987); Subject = A complex structure of psychological states and capacities (Lewis, 1983, chap. 5); Subjects = C-systems (Dainton, 2008); Subjects = Virtual objects (Bayne, 2010); Subjects = Centres of narrative gravity (Dennett, 1992); Subjects = Non-spatial immaterial substances (Descartes, 1996); Subjects = Conscious beings (Nagel, 1974); Subjects = Mereological simples (Lowe, 2001); Subjects = Edenic Subjects (Chalmers, 2016a).

A thin notion of a subject will much more likely be satisfied by the fundamental micro-physical objects, and it is unlikely that such subjects could be absent in the presence of phenomenal experiences. A thin concept of a subject may be 'a conscious being', 'an experiencer'. There are not many complex conditions that an object must satisfy in order to be 'a conscious being' or 'an experiencer', they must simply be instantiating phenomenal properties.

Ultimately the notion of a subject is determined by what role one needs it to play in one's theory, what 'self-role' one is interested in. I take it that the relevant self-role for the panpsychist trying to define their view is the role of 'having experiences' or 'is a conscious being'. This means that the panpsychist must say that subjects are something metaphysically thin like 'conscious beings', and this means that fundamental entities are subjects (it also means ownership is true). I shall assume that subjects = conscious beings (Nagel, 1974), such that instantiating a phenomenal property is *sufficient* for being a subject of experience.[8] I shall also assume that fundamental subjects are always conscious (the Russellian monist (see below) *must* assume this).

This allows us to say that micro-physical entities are micro-subjects, they instantiate micro-phenomenal properties. The cosmos is a 'cosmos-subject', it instantiates cosmo-phenomenal properties. We (you and me) macro-physical entities are macro-subjects, we instantiate macro-phenomenal properties. These distinctions only pick out the respective scale on which the subjects exist, not their sophistication or nature.

This does not mean the panpsychist cannot ask questions like 'what are we?', or that we are the *only* macro-subjects possible. Macro-subjects will come in different *types* because 'subject' is a broad enough category to include all sorts of material objects as long as they instantiate phenomenal properties (this also means that micro-subjects come in different types given that there is not a single type of fundamental particle). Hence, if we turn out to be entities like brains or human animals too then we will be macro-subjects of the brain or human animal type – as long as they instantiate phenomenal properties. Moreover, if tables or chairs themselves turn out to have experiences (not just their fundamental parts) then so too will they be macro-subjects, along with Martians or octopuses. This means

[8] One may ask whether there are *no* restrictions here? What if a region of space were to instantiate a phenomenal property, would that be a subject? To this I would say insofar as it is *possible* for regions of space to instantiate phenomenal properties, it is *possible* for them to be subjects. Moreover, if regions of space do *actually* instantiate phenomenal properties, then regions of space are *actually* subjects. Assuming also that regions of space or prior to space as a whole.

that panpsychism will be compatible with more views than it is typically assumed to be the case, it may however mean that certain of our assumptions about subjects must be jettisoned.

Two points are necessary to note before moving on.

Firstly, although an objects parts instantiate phenomenal properties, this does not mean the object as a whole is a subject of experience, to think this would be a fallacy of composition. The entity as a whole must instantiate phenomenal properties to be considered a conscious subject of experience. Panpsychist zombies are not subjects, for example, and neither are rocks, tables, or chairs as typically construed by the panpsychist.

Secondly, although being conscious is *sufficient* for subjecthood, is it also necessary? In other words, can there be subjects of experience that are not experiencing at a given time, T1? Again, this I think depends upon the self-role that one employs when first starting.[9] But, I believe for the sake of this thesis we can avoid this issue. I am focused upon *currently experiencing conscious subjects*. All the issues that arise in this thesis focus on currently conscious experiencing subjects.

1.1.2.1.3 What is the Internal Structure of Consciousness?

The third question now arises: is there an internal structure to experience? Here there are two views, which we can call 'two-level' or 'one-level' views, or alternatively 'awareness-content' views or 'intrinsic glow' views. The source of the dispute between these views comes down to what we (macro-level subjects) take the structure of *our* experience to be, this structure is then imparted to the fundamental consciousnesses of micro-subjects (in the absence of reason to do otherwise).

To make the idea simple we can illustrate the difference between the awareness-content view and the intrinsic glow view. Consider the following diagram (Figure 1):

[9] If one employs a self-role that is designed to tell us how we persist across periods of time, then we may plausibly hold that *being conscious* is not necessary: we often have dreamless non-conscious episodes of sleep, and if we think we are the same subject as we were yesterday, then we would hold that we can have unconscious subjects. If one employs a self-role that is not designed to tell us how we persist across time, instead only holding the thin concept of a subject as *being conscious* then it does look like consciousness is necessary for subjecthood: a sleeping person cannot at that moment in time be properly described as 'being conscious' or 'is conscious'. In short, if one's self-role is thin enough, then one will reach a view on which subjects are necessarily conscious. If one's self-role is thick enough, one will reach a view on which subjects are not necessarily conscious.

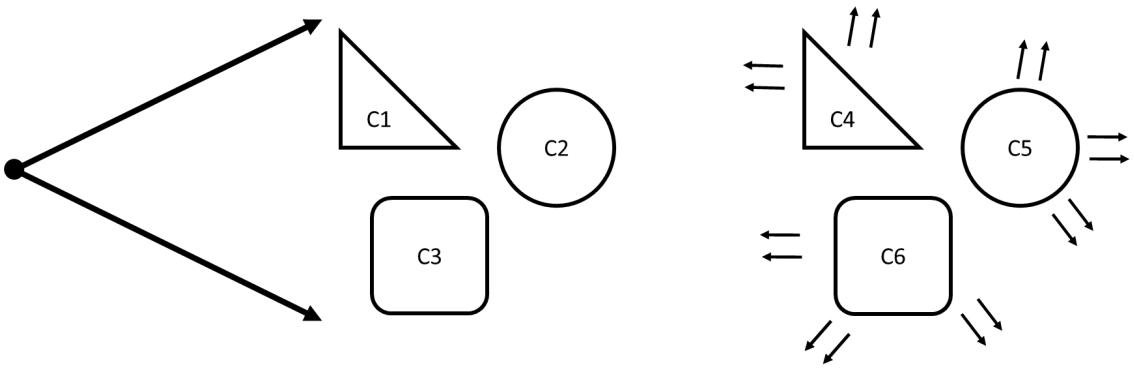

FIGURE 1 AWARENESS-CONTENT (LEFT) AND INTRINSIC GLOW (RIGHT)

On the awareness-content view consciousness has a distinct structure which is analysed as two parts: awareness and content. On the intrinsic glow view consciousness does not have such a structure.

On the awareness-content view the contents or qualities present within consciousness need a distinct act of awareness to make them conscious, for before that any content/quality is unconscious and has merely the potential to become conscious. There is nothing it is like, in the Nagelian sense, for C1, C2, or C3 to be instantiated. Only when the awareness takes C1, C2 and C3 as its contents is there something which it is like – this still is not C1-3 though, it is the 'awareness-C1-3' that there's something which it is like to be instantiated. The *awareness* of the awareness-content view typically lacks any phenomenology. It is, as Dainton highlights, "pure' in the sense of lacking any intrinsic phenomenal qualities of its own, it makes no positive phenomenological contribution to consciousness' (Dainton, 2008, p. 42). The *featureless* or *pure* awareness of the awareness-content view is therefore unintrospectible. It is not in virtue of its unintrospectability that it is featureless, it is in virtue of its featurelessness that it is unintrospectible.

On the intrinsic glow view no additional awareness is needed in order for the contents C1, C2, and C3 to be conscious. There is something which is it like for C1, C2, and C3 to be instantiated, in the Nagelian sense, without there being a high-order apprehension of C1, C2, or C3. This is because, according to this view, phenomenal contents are experiences in their own right; they are intrinsically conscious. The intrinsic glow view agrees with the awareness-content view that the apparent awareness of experience lacks any phenomenology. However, the intrinsic glow view agrees with this idea because it holds that there does not exist a distinct awareness that could be such that it lacked any phenomenology. Moreover, both views agree that not such awareness is introspectible.

The panpsychist can adopt either of these views, neither is necessary to panpsychism. The panexperientialist can also adopt either of these views as neither is necessary to panexperientialism. On the awareness-content version of panpsychism, we can say that we have a 'two-level' account of fundamental and non-fundamental consciousness. On the intrinsic glow version of panpsychism, we can say that we have a 'one-level' account of fundamental and non-fundamental consciousness.[10]

We can now distinguish panpsychism from pancognitivism (fundamental entities instantiate psychological properties), panprotopsychism, panqualityism, and panexperientialism. We are also now in the position to say that the panpsychist thinks that:

> at least all fundamental entities and some non-fundamental entities are subjects having experiences, i.e. they instantiate phenomenal properties.

To make *my* intentions clear. In this thesis I am assuming a that:

- Subjects are simply conscious beings.
- The ownership thesis is true.
- Consciousness has a one-level structure.

Let us now move to look at the relation question and ask how consciousness is related to the fundamentalia. This will allow us to draw out the popular contemporary version of panpsychism which will be the focus of this thesis: Russellian panpsychism.

1.1.3 The Relation Question: 'is'?

The question can be stated in the following way:

> What does it mean to say everything *is* mental?

'is' typically has two senses, predication and identity, and this distinction does not help us to define panpsychism. Instead I want to make a different distinction relevant to the contemporary literature: Russellian monist panpsychism, and non-Russellian panpsychism. I will also make the distinction between 'pure' Russellian panpsychism and

[10] According to panqualityism the fundamental entities instantiate the content or qualities that we find within consciousness, but those entities lack the *awareness* required to make those qualities conscious. Arguably, in order for panqualityism to be true, the two-level account of consciousness must be true. If consciousness does not have a two-level structure, then it is hard to see how one of those levels which is intrinsically conscious could be instantiated in a non-conscious manner.

'impure' Russellian panpsychism (Chalmers, forthcoming; Strawson, 2016). We will also be able to distinguish panpsychism from typical idealism.

Firstly, the non-Russellian panpsychist holds that at least all fundamental entities and some non-fundamental entities instantiate phenomenal properties. For the non-Russellian panpsychist the relationship between the fundamental phenomenal properties and their bearers is no more or less complex than *instantiation*, and the relation between fundamental phenomenal properties and physical properties is no more or less complex that *co-instantiation* (Nagel, 2012, 1979). The Russellian monist panpsychist, however, believes that there is more to say here (as I will explain below). James calls this type of panpsychism 'mind-stuff theory' (James, 1890, chap. 6).

The non-Russellian version of panpsychism is not so popular at this moment in time because it does not have the advantages that come with the Russellian version. I shall discuss these advantages more below (see chapter 1.1.3.1 & chapter 3.1), but in short: Russellian panpsychism offers us a causally integrated and unified picture of the world, whereas mind-dust panpsychism does not. I shall therefore put mind-dust panpsychism to one side and discuss it no further.

Let us move on to look at Russellian Monism.

1.1.3.1 Introducing Russellian Monism

Russellian panpsychism is a panpsychist version of Russellian monism. Russellian panpsychists see the relationship between the fundamentalia and consciousness as more specific than mere instantiation. Russellian monism is a view that has been advocated, in one form or another, by many philosophers over the last century (Alter and Nagasawa, 2015b; Feigl, 1967; Goff, 2017a; Lockwood, 1989; Maxwell, 1979; Pereboom, 2011; Rosenberg, 2004; Strawson, 2006a, 2006b).

Russellian monism holds that the relationship between the physical and the phenomenal is an incredibly close one, it is a view according to which 'phenomenal consciousness fills a gap in the picture of nature painted by physics' (Alter and Nagasawa, 2015a, p. 422). Different authors have placed emphasis on what the 'gap' left by physics is, and how it should be filled, so I shall give a merely representative outline beginning with Bertrand Russell and Arthur Eddington.

Bertrand Russell (Russell, 1948, 1927a, 1927b) and Arthur Eddington (Eddington, 1927) both (and separately) had an insight like the following. The information that we receive

from physics is about the structural and relational features of reality, this highly abstract and nomic-cum-logical information reveals to us nothing about the entities that realise this structure or stand in those relations. There must be something non-relational and non-structural that grounds this abstract structure revealed by physics, argue the pair, on pain of physics being a meaningless or incoherent description. Moreover, we have every good reason to think that the non-relational and non-structural stuff that grounds the physical structure is mental, if not intimately related to it.

Eddington, for instance, gives the following forceful statement of this vital and Copernican insight:

> '[N]ow we realize that science has nothing to say as to the intrinsic nature of the atom. The physical atom is, like everything else in physics, a schedule of pointer readings. The schedule is, we agree, attached to some unknown background. Why not then attach it to something of spiritual nature of which a prominent characteristic is *thought*. It seems rather silly to prefer to attach it to something of a so-called "concrete" nature inconsistent with thought, and then to wonder where thought comes from. We have dismissed all preconception as to the background of our pointer readings, and for the most part we can discover nothing as to its nature. But in one case – namely, for the pointer readings of my own brain – I have an insight which is not limited to the evidence of the pointer readings. That insight shows that they are attached to a background of consciousness. Although I may expect that the background of other pointer readings in physics is of a nature continuous with that revealed to me in this particular case, I do not suppose that it always has the more specialized attributes of consciousness. But in regard to my one piece of insight into the background no problem of irreconcilability arises; I have no other knowledge of the background with which to reconcile it' (Eddington, 1927, pp. 258–9).

Following Yujin Nagasawa and Torin Alter (Alter and Nagasawa, 2015a, 2012), we can say that Eddington's and Russell's central claims are the following three theses:

> **Structuralism about physics:** the basic properties physics describes are structural/relational properties.
>
> **Realism about inscrutables:** there are inscrutable properties, the natures of which are not wholly structural/relational.
>
> **(proto)phenomenal foundationalism:** at least some inscrutables are either phenomenal or protophenomenal properties.

To make the position clearer, we can also add a fourth:

Consciousness relevance: the inscrutable micro-properties of matter help to explain macro-phenomenal consciousness.

Russellian monism is the conjunction of these four theses. The details, however, can vary along four dimensions:

(i) What *type* of property the inscrutables are.

(ii) How one cashes out the *distinction* between fundamental physical properties and the inscrutables.

(iii) The relationship between the inscrutables and the fundamental physical properties.

(iv) The relationship between the fundamental inscrutable properties and our consciousness.

Putting (ii) and (iv) aside for now (I shall look at (iv) in the following section and (ii) in chapter 3), we can now define different types of Russellian monism in terms of (i) and (iii), and specifically different types of panpsychism.

With respect to (i), Russellian monists often claim that the inscrutables are: (a) neutral properties, (b) protophenomenal properties, or they are (c) phenomenal properties. Each of these would deliver us a Russellian version of the views outlined above. I shall discuss these options in more detail in chapter 3.2.

Dimension (iii) allows us to make our second distinction, between *pure* and *impure panpsychism* (Chalmers, forthcoming; Hassel Mørch, 2014; Strawson, 2016, 2006b). The Russellian monist can, broadly speaking, claim that the inscrutable phenomenal properties and *some* fundamental physical properties are both equally fundamental (co-fundamental) aspects of the same underlying reality, or that the phenomenal properties are fundamental and ground *all* the physical properties described by physics. The latter view would get us a version of *pure panpsychism*, whilst the former would get us a version of *impure panpsychism*. The pure panpsychist takes it that, in Strawson's words, 'all being is experiential being' (Strawson, 2006b, p. 222). The impure panpsychist holds that (to echo Strawson) *most* being is experiential being.

Pure panpsychism is a form of idealism, but it is not the anti-realist sort. Hence the panpsychist (of any sort) endorses:

> **Realism:** there is a world of objects, properties, and relations that exist, and which exist as such, independently of convention, stipulation, belief, conceptual scheme, cognitive grasping, perception, understanding and so on.[11]

What physical properties does the impure panpsychist take to be co-fundamental? They do not think that physical properties like mass, spin, or charge are fundamental. Properties like this are grounded in fundamental phenomenal properties; here the pure and impure panpsychist agree. The impure panpsychist typically takes it that spatiotemporal properties are not grounded in the fundamental phenomenal inscrutables, these properties are fundamental non-mental properties (Chalmers, forthcoming; Hassel Mørch, 2014). They may, however, add to the stock of co-fundamental physical properties, but for now I shall assume only spatiotemporal ones.

The most important question, then, is why would one want to endorse Russellian monism? What are the arguments which motivate the view? In short, Russellian panpsychism is an elegant middle-way between dualism and physicalism – I shall explain (briefly (c.f. (Alter and Nagasawa, 2015b; Bruntrup and Jaskolla, 2016; Skrbina, 2009))).

The first advantage of Russellian monist panpsychism is that it is realist about consciousness. Physicalism has evident problems for even accounting for the mere existence of consciousness within the world, but because of the realism about consciousness Russellian monism inherits the potential merits of views like substance/property dualism (Chalmers, 2016a, pp. 24–30).

The second advantage of Russellian monism is that it does not suffer the causal exclusion problems faced by dualism. These two views have problems integrating consciousness into the causal nexus of the world: mental causes are either all systematically overdetermined or they are epiphenomena, precisely because the micro-physical world seems to be 'causally closed', i.e. it is causally sufficient unto itself (Chalmers, 2016a, p. 23; Papineau, 2002, pp. 17–36). Physicalism does not suffer this fate and neither does Russellian monism. According to physicalism there are no non-physical mental events such that their existence and assumed causal efficacy would violate the causal closure of the micro-physical world. According to Russellian monism there are non-physical properties, but they ground the fundamental micro-physical world and undergird the causal efficacy of the physical.

[11] Chalmers (Chalmers, forthcoming, p. 3) and Strawson (Strawson, 2016, p. 94) echo this point. I

The third advantage of Russellian monism is that it effect solves two significant problems with one solution; it has an advantage of economy (Alter and Nagasawa, 2015a, pp. 444–5; Chalmers, 2016a, p. 26). In the metaphysics of science there is the problem that the putatively fundamental micro-physical properties that are revealed by our best orthodox science need to be grounded. In philosophy of mind there is the hard problem of consciousness (Chalmers, 1995a) and the problem of the place of consciousness within nature (Strawson, 2006a). Russellian monism addresses both of these problems with one solution: the place of consciousness in nature is to ground the ungrounded micro-physical properties of matter. There's a 'help-wanted' problem in science, and a 'job-seeking' problem in philosophy of mind (Alter and Nagasawa, 2015a, pp. 444–5). Russellian monism solves both at once.

These reasons speak in favour of the view. The potential benefit of an integrated picture of the world is great. Russellian monism presents us with precisely this picture.

Answering the relation question has allowed us to formulate three types of panpsychism: non-Russellian 'mind-stuff' panpsychism, Russellian pure panpsychism, and Russellian impure panpsychism. These views can also come in priority pluralist or monist forms, can still differ (within possible limits) on what they take subjects to be, and whether or not consciousness has a two-level or one-level structure.

To further clarify my intentions within this thesis. I am assuming:

- Pluralism.
- One-level.
- Russellian panpsychism.
- Impure panpsychism.
- Subjects are thin *conscious beings*.

We can move on to look at our final question: the building question.

1.2 Types of Panpsychism and The Building Question

The panpsychist posits significantly more consciousness within the natural world than we pretheoretically think exists, so they must say what the relationship is between the abundant consciousness and the consciousness we ordinally believe in. We can call this the 'building question' and state it as follows:

> What is the *relationship* between fundamental subjects and their experiences, and non-fundamental subjects and their experiences?

As with the relation question, answering the building question by process of elimination will not prove to be of any benefit as there is nothing to rule out. Any answer to the building question will simply generate distinct types of panpsychism. The answers to the building question that exist within the philosophy of consciousness literature are the following:

1. Identity
2. Constitution.
3. Emergence.[12]

The three notions of identity, constitution, and emergence allow us to define many types of panpsychism present within the contemporary literature. These types of panpsychism can vary along all the dimensions already suggested, e.g. priority pluralism vs monism etc. Not all of these types of panpsychism are of interest to us, and each of these positions is not currently held by someone.

It would be beneficial to define the three relations that will generate the distinct types of panpsychism, and then to outline the types of panpsychism which employ them. In this thesis I am only concerned with constitutive panpsychism (see below), this is the view that intend on upholding, cashing out the details of, and defending.

Let us turn to the building relations.

1.2.1 Identity Panpsychism

First, is the identity relation. We can define this relation in the typical way using Leibniz's Law or its converse:

> **Identity:** object, X, is identical to object, Y, *iff* for every property P, object X has P *iff* object Y has P.

This definition of identity is not beyond reproach, and Leibniz-style definitions can be questioned. For now, at least, I take it that the *indiscernibility of identicals* and the *identity of*

[12] Karen Bennet (Bennett, 2017, pp. 12 & 58) claims that emergence is *not* a building relation. I use the term more loosely than Bennett does. She is correct, however, that emergence is not a building relation, for emergents are not 'made up of' their base, they are merely synchronically caused by the base or are brutally supervenient upon them.

indiscernibles will be sufficient for defining identity in order to distinguish types of panpsychism.

Examples of identity are easy to come by. We can signify any object and it will be identical with itself. Other more interesting examples of identity occur when we mistakenly think we signify two objects to then find out that they are in fact the same object: Bob Dylan and Robert Zimmerman for instance; Hesperus and Phosphorus.

The identity panpsychist denies that subjects like us are 'built from', in any sense, more fundamental subjects. Instead we *are* one of the fundamental subjects: organic subjects like ourselves are identical to fundamental subjects, and these could either be priority pluralist or monist subjects. Either we are identical to a particular atom amongst the horde within our brain, or we are identical to the whole cosmos (and thereby identical to one another!).

There are problems with the identity view in all its guises, but I shall not outline them here. I will not be concerned with identity cosmopsychism: I am assuming we are not identical to one another, and hence will not engage with identity cosmopsychism. I shall discuss pluralist identity panpsychism in chapter 9 – which leads to a form of mereological nihilist panpsychism – but only to defend constitutive panpsychism from it.

1.2.2 Constitutive Panpsychism

Next is the constitution relation. We can define the constitution relation in the following way:

> **Constitution:** object, X, and its properties, P, are constituted by objects, $Y_1 \ldots Y_n$, and their properties $F_1 \ldots F_n$, *iff* (i) object X and its properties, P, exist in virtue of the objects, $Y_1 \ldots Y_n$, and their properties $F_1 \ldots F_n$, and the real relations, R, between them; (ii) object X is nothing over and above the objects $Y_1 \ldots Y_n$ and the real relations, R, between the objects $Y_1 \ldots Y_n$; (ii) the properties, P, of object X are nothing over and above the properties $F_1 \ldots F_n$ of objects $Y_1 \ldots Y_n$ and the real relations, R, between them.

This notion of constitution is supposed to be general enough such that it captures the sense in which four legs and a top constitute a table and the sense in which two hydrogen atoms and one oxygen atom constitute a water molecule. The later both exist in virtue of the former and a nothing over and above them.

Alternatively, one could say that constitution is the relation in which the truths about one concrete object and its properties are *wholly grounded* in the truths about more fundamental concrete objects and their properties. This means we can also say that the legs *partially ground* the table by partially constituting it (Chalmers, 2016a, p. 25).

Examples of constitution are not hard to find. One can signify a host of objects and they will most likely be constituted by more fundamental objects: a chair, a seagull, an Aloe Vera plant. Each of these objects are constituted by more fundamental parts, and typically each of the more fundamental parts are themselves constituted by more fundamental parts. For example: the chair is constituted by four legs, a top, and a back; each of these (the legs, top, and back) are themselves constituted by certain molecules, which are themselves constituted by atoms; those atoms will in turn be constituted by even smaller parts until we reach some partless mereological simples (or we have decomposition all the way down (I am assuming we do not)). Constitution is the most prevalent building relation in the natural world, it appears that all derivative material objects and their properties are constituted by more fundamental objects and their properties.

Although the relation of constitution is the most prevalent building relation, it is nevertheless a peculiar relation to capture conceptually. Take for example the use of the locution 'nothing over and above' within the definition. Whist this is intuitively a plausible gloss on what it means for some object to be *constituted* by a set of other objects, it is hardly a precise notion. In fact, 'nothing over and above' has a *prima facie* paradoxical nature: A is nothing over and above B, but A is something *in addition* to B, which, it may be said, is A being *something over and above* B. In short, if A and B are non-identical, then how could B be nothing over and above A? But, A and B are not identical, and yet B *is* nothing over and above A.[13]

This prima facie paradoxical nature is not something which can be easily avoided – any attempt to rectify it would take some slow, patient work. However, neither is the notion of *nothing over and above* something that we do not readily understand: (a) we have the intuitive grasp of what it means for something to be nothing over and above something else, and (b) we seem to be able to readily apply the concept to all the things which we need/would need it to apply to. I can therefore freely use the concept with little loss of meaning and am not obliged to precisify it in much more detail. With that being said, I

[13] See Goff and Sider (Goff, 2017a, chap. 2; Sider, 2015) for discussions of this notion.

can give some more formal features of constitution and the nothing over and above relation to help make things somewhat clearer.

Firstly, in constitution the whole and the parts must co-exist for the duration of time over which the whole itself exists. This is because a whole cannot be *constituted* by parts if those parts do not exist; non-existing entities cannot constitute anything (especially something that exists!). For example, a table cannot be constituted by one non-existent top and four non-existent legs. This does not mean, however, that whist the parts exist the whole must also exist, merely that whilst the whole exists the parts must exist. For example, four legs and a top which lie strewn across a carpenter's workshop do not yet make a table, but once the table is made those legs and the top must continue to exist. Neither does this mean that for the duration of the existence of the whole, i.e. the constituted entity, that the *very same* parts must continue to exist, rather it simply means that the parts required for the whole exist throughout its duration. For example, throughout the existence of my life many of the cells composing me are continually replaced, I, however, continue to exist whilst different parts come and go.[14]

Secondly, the properties of the parts and the properties of the whole must continue to exist for the duration over which the properties of the whole exist. This is because the properties of the whole cannot be constituted by the properties of the parts if those properties do not exist (i.e. are not in fact instantiated by the parts). For example, the turquoise colour of the paint cannot be constituted by the green pigment and the blue pigment if they do not exist. Again, as with the objects, this does not mean the whole *must* exist whilst the parts exist, and neither does it mean the *very same* parts must exist whilst the whole exists. Only after the pigments have been mixed does the turquoise paint exist, and if the green pigment were removed and replaced with another pigment of the same colour, then the turquoise paint would continue to exist.

Thirdly, constitution is an 'ontological free lunch'. This means that, in a sense, the non-fundamental constituted entities come at no cost to one's ontology. One could say that the constitution relation is an ontological free lunch in the sense that it makes one's ontology no less sparse, all the while allowing the creation of new objects and properties in the world. Again, this highlights the potential paradox that is the *nothing over and above*

[14] The co-existence of the propertied parts and the whole (amongst other things) distinguishes constitution from 'fusion' (Coleman, 2014; O'Connor and Wong, 2005, 2005; Seager, 2016, 2010)

aspect of the constitution relation, however it also highlights that the relationship between the whole, its parts, and their properties is an incredibly intimate one.

Fourthly, constitution is a transitive relation. This means that if the entities As constitute some entity B, and B (along with some other entities) constitutes entity C, and C (along with some other entities) constitutes some entity D, then the As *partially* constitute the entity D. This means that, following the first two points, whilst D and its properties exist, its constituting entities and properties must also exist.

Fifth, constitution seems to hold between entities of the same metaphysical type. Objects can only be parts of other objects. Properties can only be parts of other properties. Objects and properties cannot be parts of events (unless one is a reductionist/eliminativist). This is not to say there is not a sense of speaking in which I am 'a part' of the graduation ceremony, but I am not a constitutive part of that ceremony in the way in which the commencement speech is a part of it.

Sixth, the constituted entity need not inherit all the properties of the constituting entities, only some of them. If one was to think that *all* properties of the parts must be inherited by the whole, then one would be committing the fallacy of composition. Just because the wheel of a car has a cylindrical shape, this does not mean that the car-as-a-whole has a cylindrical shape. Likewise, just because the roof of the car is grey, this does not mean the car is grey. This does not mean the car does not have a 'grey roof' or a 'cylindrical wheel', however. A whole still has parts with certain properties and the properties of the whole remain *nothing over and above* those properties of the parts. The same applies for the fallacy of decomposition, given the fact that the constituted whole has a certain property, its parts need not have that property. The ball, for example, is spherical, but no part of the ball is spherical.

Constitutive panpsychism takes macro-subjects and their experiences to be nothing over and above the fundamental subjects and their experiences, along with the real relations between them. Constitutive panpsychism can be pluralist or monist, pure or impure, Russellian or not. The pluralist constitutive panpsychist believes that the many micro-subjects are fundamental, and these micro-subjects, and the real relations between them, constitute non-fundamental macro-subjects like us. The experiences of the micro-subjects also constitute the experiences of macro-subjects. The constitutive cosmopsychist believes the converse of this: the cosmos-subject and its experiences constitute macro-subjects and their experiences.

For the constitutive panpsychist, their picture of what a normal human subject consists in is much like what a normal table consists in. Me, you, and our friends are swarming masses of fundamental subjects of experiences, interacting in many complex ways, evolving dynamically over time, and constituting the non-fundamental subjects which we are. For the constitutive panpsychist me and my experience of red, or you and your experience of pain, are nothing over and above the experiences of some of the smallest parts of our brains and their experiences appropriately structured or arranged.[15]

It would be helpful to introduce a name for these different types of subject according to the constitutive panpsychist model. Firstly, we can say that there are subject-parts, these are subjects of experience which are proper parts of other subjects of experience *qua* experiencing subjects. Whether pluralist or monist, there will undoubtedly exist many subject-parts if constitutive panpsychism is true: micro-subjects (and many others) will be subject parts according to the pluralist, macro-subjects (amongst others) will be subject-parts according to the cosmopsychist. To be a subject-part is not simply to be a proper part of another subject, a foetus may be a proper part of maternal organism (Kingma, 2018) but it is not a subject-part of the maternal organism: the mind of foetus is not a part of the mind of the mother, it's consciousness does not constitute the mind of the mother. Secondly, we can say that there are subject-wholes, these are subjects of experience which have other subjects of experience as proper parts. Again, if constitutive panpsychism is true, then there will be many subject-wholes: macro-subjects (amongst others) will be subject-wholes according to the pluralist, and the cosmos-subject will be a subject-whole according to the cosmopsychist. Likewise, to be a subject-whole is not simply to have subjects as proper parts, rather it is to have the minds of the parts be parts of one's own; a consciousness made of other consciousnesses. Being a subject-part does not exclude one from being a subject-whole, and neither does being a subject-whole exclude one from being a subject-part: if the constitutive panpsychist picture is correct, then it may be plausible that one quarter of my brain is a subject-part but also a subject-whole.

As with material constitution then, we can also say the following (made specific for constitutive pluralist panpsychism only). Firstly, the subject-parts and the subject-whole must co-exist for the duration of time over which the whole itself exists; they need not

[15] If our brains have *capacities* for consciousness, then the micro-subjects and the relations between them will also account for these.

be the *very same* subject-parts, but they must exist and be subjects (importantly this rules out what I have elsewhere called 'subject-denial' (Miller, 2018): the claim that the part or the whole are not subjects of experience). Secondly, the properties of the subject-parts and the subject-whole must co-exist for the duration of time over which the subject-whole exists; the need not be the *very same* properties. Thirdly, the subject-whole is an ontological free lunch, it comes at no cost: fix the facts about the fundamental subject-parts and the real relations between them, and the facts about macro-level subject-wholes (like us) come for free. Fourthly, subject-constitution is a transitive relation, meaning the fundamental subject-parts which constitute some of my non-fundamental subject-parts jointly constitute me. Fifth, my subject-parts constitute me as a subject-whole, the experiences of my subject-parts constitute my experiences as a subject-whole. Sixth, subject-constitution is not an example of the fallacy of composition: not all the properties of the parts are inherited by the whole, however the whole still has those properties insofar as its properties are nothing over and above the properties of the parts.[16]

There are problems for constitutive panpsychism, the most important and pressing of which is the combination problem. In short this problem is 'how can many minds add up to make further minds'. Or, as William Seager phrased it as he brought the problem back into mainstream analytic philosophy:

> 'how the myriad elements of 'atomic consciousness' can be combined into a new, complex and rich consciousness such as that we possess' (Seager, 1995, p. 280).

I shall suspend discussing the problem in detail until later (chapter 4), suffice to note two things.

Firstly, the combination problem is an incredibly hard one to solve. Here is William James (often who the contemporary formulation of the problem is attributed to (Seager, 1995)) confessing his inability to solve it:

> 'Sincerely, and patiently as I could, I struggled with the problem for years, covering hundreds of sheets pf paper with notes and memoranda and discussions with myself over the difficulty. How can many consciousnesses be at the same time one consciousness? How can one and the same identical fact experience itself so diversely? The struggle was in vain; I found myself in an impasse' (James, 1912, p. 207)

[16] Coleman (Coleman, 2014) sets out different conditions on subjects composition. Roelofs (Roelofs, 2015) sets out very similar conditions. Both have the same underlying assumptions, however.

Secondly, William James is wrong. The struggle is not in vain and there is no impasse. Many consciousnesses can at the same time be one consciousness, this is what I aim to show in this thesis along with addressing the various combination problems for constitutive panpsychism. The method, ultimately, will be one that takes material constitution of subjects by subject seriously, highlighting how this is indeed possible and what subjects end up looking like according to this constitutive panpsychist model.

1.2.3 Emergent Panpsychism

The next building relation is emergence, which typically speaking comes in two forms: strong and weak. Weak or 'epistemic emergence' is merely constitution but non-ideally grasped (in God's book of metaphysics, there is no weak emergence). It is an interesting phenomenon, but not my focus and I shall not be concerned with it. Strong emergence, on the other hand, is *genuine ontological novelty*. We can define strong emergence in the following way:

> **Strong Emergence:** property, P, is an ontologically emergent property of object, X, *iff* (i) P is a property of X, (ii) P something over and above the properties, Qs, of X and the real relations between them, and (iii) P is not entailed by the Qs and real relations between them.

Strongly emergent properties are properties that demand an expansion of our worldview. If certain entities have strongly emergent properties that are not entailed by the fundamental properties that they instantiate and are an ontologically novel something over and above the fundamental properties, then we must introduce new *fundamental emergence laws* connecting the emergent properties with the fundamental ones. Examples of strong emergence are contentious. Chalmers, for instance, says that there is only one clear case of *potential* strong emergence: phenomenal consciousness (Chalmers, 2006, p. 246).

Strong emergence can itself come in two forms: inter-category or intra-category, which depends upon whether one is espousing a dualist or monist form of emergence. The dualist emergentist about consciousness thinks that the emergent phenomena and the base phenomena are of different categories: physical and phenomenal (either can be base, either can be emergent). The monist thinks they are the same: phenomenal or physical. I am not concerned with the physicalist monist radical emergentist, only the dualist strong emergentists and the panpsychist monist strong emergentist.

The strong emergentist panpsychist does not believe that macro-phenomenal properties are wholly grounded in fundamental-phenomenal properties. Rather, they hold that macro-phenomenal properties strongly emerge from the fundamental-phenomenal properties, and hence are an ontologically novel property and something over and above them. They also endorse a host of fundamental laws that govern the relationship between these 'layers' of reality (and consciousness).

In fact, the emergent panpsychist takes it to be the case that the emergent macro-phenomenal properties are fundamental too, however fundamental in a slightly different sense to what we have previously seen. The emergent subjects and their experiences are *dependent upon* the fundamental subjects and their experiences, such that the emergent would cease to exist without that from which they emerged, but they are also themselves fundamental and cannot be reduced to (or be accounted for by) anything else. Emergent panpsychism can be pluralist, pure or impure, Russellian or not etc.[17]

The strong emergentist panpsychist does not face the combination problem: the mechanism of strong emergence allows for subjects and their experiences to be created (unified, experiencing, displaying all the requires structure and complexity etc.) not by combination. However, strong emergence is a mechanism which the panpsychist has historically and typically been opposed to. As we will see in the next section, one of the two main arguments for panpsychism is that it avoids the strong emergence of consciousness. Some think it is incoherent, some think it otiose, some think violates the causal close of the physical. Either way, if the combination problem can be solved, then the motivation for emergent panpsychism will be removed.

1.3 Conclusion

Panpsychism is the view that *everything is mental*. Each of the terms of this definition is open to interpretation, and as we have seen the panpsychist can embrace this flexibility

[17] Emergent cosmopsychism is incoherent, as Schaffer highlights: there can be no property of the parts that is not dependent upon the properties of the whole, because any property of the parts is by that very fact a property of the whole. Schaffer states the following: 'An underlying mereological asymmetry comes to light: the asymmetry of supervenience. The asymmetry is that the proper parts must supervene on their whole, but the whole need not supervene on its proper parts. In other words, though emergence is metaphysically possible, submergence—the converse of emergence—is metaphysically impossible. For submergence, the intrinsic properties of the proper parts, along with the fundamental relations between these parts, must fail to supervene on the intrinsic properties of the whole. This is impossible because (i) any intrinsic property of the proper parts ipso facto correlates to an intrinsic property of the whole, namely, the property of having-a-part-with-such-and-such-intrinsic-property, and (ii) any relations between the parts also correlates with an intrinsic property of the whole, namely, the property of having-parts-thus and-so-related. Fix the whole, and all of its parts are fixed' (Schaffer, 2010a, p. 56).

in order to define different versions of their view. The dimensions of variation for panpsychism we are left with are:

- Priority pluralism vs. monism.
- Large palette vs. small palette.
- One-level vs. two-level.
- Russellian vs. non-Russellian mind-dust.
- Pure vs. impure.
- Identity vs. emergence vs. constitution.

Along with this, we have been able to demarcate panpsychism from the closely related views such as panprotopsychism, panexperientialism, pancognitivism, panqualityism etc.

To conclude this chapter, I will state again the view of which I am attempting to uphold, and the assumptions I am making at the outset. I am assuming and/or trying to uphold:

1) Priority pluralism.

2) A one-level account of consciousness.

3) The ownership thesis.

4) Russellian panpsychism.

5) Impure panpsychism.

6) Constitutive panpsychism.

7) Small palette view.

Let us move on to look at *why* someone would want to be a panpsychist and the arguments in favour of the view. There are many arguments in favour of panpsychism, however I shall be looking at the two most important types: anti emergence and intrinsic natures. Whilst I employ a relatively routine version of the intrinsic natures argument, I do propose a novel argument version of the anti-emergence argument: the mereological argument for panpsychism.

2 Chapter 2: From Scarcity to Surplus: The Anti-Emergence Argument

'Ex nihilo nihil fit, whatever anyone says (Nobel Prize winners included)'

(Strawson, 2006a, n. 34)

2.1 Introduction

There are two contemporary anti-emergence arguments for panpsychism: Thomas Nagel's and Galen Strawson's. The first argument that brought panpsychism back into the mainstream of philosophy is given by Nagel in *Mortal Questions* (Nagel, 1979). Although Nagel's argument is intended to support panpsychism, he himself suspended endorsing the position – Nagel in fact continues to suspend endorsing this view today (Nagel, 2012, 1986). Galen Strawson also argues against the emergence of consciousness and for panpsychism (Strawson, 2016, 2006a, 2006b). Unlike Nagel, Strawson wholeheartedly endorses panpsychism, holding that we have no evidence for any other view. Strawson now endorses a Russellian pure-panpsychist view, i.e. he thinks that all being is experiential being.

The anti-emergence arguments are arguments primarily against a certain type of theorist, i.e. those theorists who take there to be a rarefied amount of consciousness at specific brain-like locations in the universe. They become arguments for panpsychism by showing that the 'emergence' mechanism by which non-physical consciousness comes to exist in rarefied amounts, and at specific locations, born out of wholly non-conscious matter, is somehow flawed. Hence, by virtue of the flawed emergence mechanism, consciousness should not be rarefied and confined to brain-like locations. Instead consciousness is a ubiquitous property that does not 'emerge' from anywhere, instead it has been present all along.[18]

Here I want to present an alternative version of the anti-emergence argument for panpsychism: the mereological argument for panpsychism. I shall not survey either of Nagel's or Strawson's arguments because it is not obvious that either the arguments establish panpsychism without revision (especially Nagel's). Moreover, the mereological

[18] I am here only focusing on radical dualist emergentism, monist physicalist radical emergence is not my concern.

argument is more expedient: it establishes panpsychism and the need to look at parthood relations between experiencing subjects without further or additional reasons, viz. the combination problem.

Recall our non-Russellian definition of panpsychism:

> at least all fundamental entities and some non-fundamental entities instantiate phenomenal properties

Key to this definition is the following:

> **Fundamentality:** the phenomenal properties are instantiated by the *basic* constituents of the world.
>
> **Ubiquity:** the phenomenal properties are instantiated by *all* of the basic constituents of the world.
>
> **Nature:** the properties that are possessed by the basic constituents are *phenomenal* and not protophenomenal or neutral.

There are certain features of Nagel's and Strawson's arguments that mean these success conditions are not met. In other words, their arguments do not entail the fundamentality, ubiquity, and phenomenality of the additional properties they are intended to show the need for (given the failure of the emergence mechanism). Nagel's argument notoriously does not establish panpsychism (Coleman, 2018; Goff et al., 2017; McLaughlin, 2016; Seager, 2006). Nagel's argument fails to establish panpsychism because: (i) it does not establish ubiquity, it only establishes that *some* basic constituents of matter need additional non-physical properties; (ii) it does not establish the phenomenal nature of the additional properties of matter, it only establishes that additional *non-physical* properties are needed; (iii) it does not rule out the nomological emergence of consciousness from the physical in virtue of fundamental nomological emergence laws. Strawson's argument succeeds on most fronts because he relies on stronger and more controversial theses than Nagel – two theses regarding the homogeneity of the material realm: (i) a *fundamental* homogeneity claim, and a (ii) *stratified* homogeneity claim (Strawson, 2006a, 2006b).[19] However, like Nagel Strawson also fails to rule out the nomological emergence of phenomenal

[19] The *fundamental* homogeneity claim is the claim that fundamental material reality is homogeneous. The *stratified* homogeneity claim is the claim that the levels of material reality are homogeneous.

properties by virtue of additional emergence laws. Hence, whilst Strawson's argument (if successful) establishes panpsychism, both authors fail to rule out emergentism.

The mereological argument that I shall present *does* establish each of the success conditions (fundamentality, ubiquity, nature), and in this way it is superior. Not only this, but the argument also puts the panpsychist in the position in which they *must* make sense of proper parthood relations between subjects of experience, irrespective of the combination problem. This is dialectically advantageous for the opponents of panpsychism, but advantageous for the coherence and narrative of this thesis. Finally, the mereological argument, I want to suggest, is based upon assumptions that either, or both Nagel Strawson endorse.

2.2 The Mereological Argument for Panpsychism: the Essence of Anti-emergence

The anti-emergence arguments for panpsychism work by claiming that the mechanism of radical emergence is not one that can account for the existence of consciousness and subjects within the world. Instead, the relation between subjects, their consciousnesses, and the rest of the material world is the same as all of the other parts of the material world – consciousness is no exception.

In this section I want to propose a new formulation of the anti-emergence argument for panpsychism: the mereological argument for panpsychism. I believe this argument gets to the essence of the panpsychist outlook and Nagel/Strawson's arguments. It also does so in a more expedient manner. I shall briefly outline the assumptions behind the current anti-emergence arguments for panpsychism and then present my own (my aim is to highlight their continuous nature).

Firstly, the anti-emergence arguments start with a claim about the reality of consciousness and the material nature of objects that we find ourselves to be (i.e. human animals). Nagel, for instance, employs the following two premises within his argument:

> **Material Composition:** human beings are complex systems wholly composed by a large number of particles arranged in a specific way.
>
> **Phenomenal Realism:** humans have qualia, i.e. phenomenal properties.

Strawson employs a single premise, which is in effect the equivalent of the conjunction of Nagel's two premises:

> **Realist Physicalism:** experience is a real, concrete, physical phenomenon and every real concrete phenomenon is physical.[20]

Secondly, the arguments then make an anti-emergence claim, i.e. a claim about the lack of genuine, strong, ontological emergence relations within the material world. Nagel for instance employs the following premise:

> **Anti-emergence:** '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' (Nagel, 1979, p. 182).

Strawson similarly claims:

> **Anti-brute-emergence:** there is no brute emergence, i.e. there is no emergence of the form: E emerges from its base B *iff* (i) E is wholly dependent upon B, but (ii) the emergent E is not intelligibly derived from B.[21]

On one hand both of these anti-emergence premises are explicitly stating that genuine, ontological emergence does not occur – especially of inter-category sort (i.e. the phenomenal *from* the physical). On the other hand, they are also implicitly claiming that, the only type of relation between material objects (and their properties) are either of the other two types of building relation laid out in chapter 1.2: constitution or identity.

With the two main assumptions of the anti-emergence arguments in hand, I can offer the alternative version. It is, in short, a recognition of the same two things that underly Nagel's and Strawson's arguments:

- The irreducible reality of consciousness.
- The world exists and has a mereological structure of part-whole relations.

Once one recognises these two facts, then, given a seemingly plausible mereological conjecture, some form of panpsychism or cosmopsychism seems to be true. The mereological conjecture that I think this argument requires is the following:

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[20] Strawson does not commit himself to a particle ontology of the physical (Strawson, 2016, 2006a, 2006b). Thank you to Barry Dainton for highlighting this.

[21] An example of the intelligible derivation of one property from another is the property of liquidity from the interaction of the properties of water molecules. This is Strawson's example (Strawson, 2006a). Both Nagel and Strawson employ the same sense of intelligible derivation. Another example

Mereological Confinement: concrete, material, mereological relations only occur between entities of the same broad ontological type.

With this plausible conjecture, the reality of consciousness, and the world's mereological structure, I believe we can forward the following argument for panpsychism or cosmopsychism. I call this argument the 'mereological argument for panpsychism':

The mereological argument for panpsychism:

1. **Consciousness Realism:** Conscious subjects (and their consciousness) are real irreducible parts of the world.
2. **Mereological Realism:** The world exists and has a mereological structure of part-whole relations between its objects and properties.
3. **Mereological Confinement:** Concrete, mereological relations can only occur between entities of the same broad ontological type.
4. Consciousness subjects must be parts within the mereological structure of the world (from 1 and 2).
5. Consciousness subjects can only stand in mereological relations to other consciousnesses subjects (from 1 and 3).
6. **Lemma:** the mereological structure of the world must be a structure of part-whole relations between subjects and their consciousnesses (from 4 and 5).
7. If the mereological structure of the world is a structure of relations between conscious subjects, then either panpsychism or cosmopsychism is true.
8. Hence, either panpsychism or cosmopsychism is true.

The argument as it is does not get us panpsychism yet, we must know whether the parts of the cosmos or the cosmos itself is ontologically and metaphysically prior. However, as I have stated, I am assuming the truth of priority pluralism until (if at all) I am forced to accept the alternative (Nagel and Strawson both agree with this assumption). Thus, we get panpsychism:

9. The pluralistic parts of the cosmos are prior to the whole.
10. Hence, panpsychism is true.

The argument here is valid, hence the anti-panpsychist or emergentist must find fault with the assumptions (1), (2), (3) or (7), as they are the only underived premises.[22] Let us turn to look at each premise, and their connections to Strawson and Nagel's arguments.

Premise (1) rejects substance dualism, illusionism, and various other forms of reductionism. Hence if one were to reject (1) one would have to accept either substance dualism, illusionism or another form of reductionism. The substance dualist would reject the claim that consciousness and subjects are parts of the world. The substance dualist accepts that consciousness is a real property, they also accept that subjects are real. They would, however, say that consciousness is somehow 'outside of' the world, existing in a non-spatial and distinct realm. The illusionist would reject the claim that consciousness is a real property, and that there are such things as subjects of experience (Dennett, 2016, 1991; Frankish, 2016). They also reject the claim that subjects and experiences are parts of the world, but they may be able to accept some claim about the referents of our false beliefs regarding subjects and their experiences still being parts of the world. The reductionist thinks that consciousness is wholly reducible to the wholly non-conscious, that it can be fully accounted for in terms of the physical (Churchland, 1996). I take it for granted that consciousness is real and irreducible, hence the only opponent that I have in encountering (1) is the dualist. We have good reasons not to be a dualist, and importantly Nagel and Strawson both reject substance dualism.

Premise (2) claims that the world is not *mereologically flat*, i.e. there are mereological relations that structure the world into parts and wholes. If one were to reject (2), then one would have to accept mereological nihilism: in being a nihilist one believes that there are no objects with proper parts, hence one must be an existence monist or an existence atomist. The existence monist would say that only one object exists, it has no proper parts, and hence there are no objects which could be proper parts of the one object. Typically, this is the cosmos. The existence atomist says that only mereological simples exist, but these simples never stand in proper parthood relations and never compose anything else. Both of these positions would *prima facie* amount to a challenge to my argument, there are, however, evident problems with both of these views.

[22] Except for (9), which I am assuming.

The existence monist must concede that all subjects are identical, which I take to be false (see chapter 1 above). The existence atomist is in a better position, and I will look further into this view in chapter 9.

Importantly, Both Nagel and Strawson agree with premise (2). Firstly, in his *material composition* premise (above), Nagel claims that human beings have no non-material (non-spatial) substances as parts, and they are wholly *composed* of material particles arranged in specific, complex ways. This is an implicit rejection of the mereological nihilist position. Secondly, both Strawson and Nagel are claiming that consciousness exists at a non-fundamental level in order to subsequently 'inject' it into the fundamental level, again this is an implicit rejection of the idea mereological nihilism. Thirdly, and importantly, both Strawson and Nagel make 'fungibility claims'. A fungibility claim is a claim about the recombinability of matter. Nagel, for instance, states the following to express this idea:

> Each of us is composed of matter that had a largely inanimate history before finding its way onto our plates or those of our parents. It was once probably part of the sun, but matter from another galaxy would do as well. If it were brought to earth, and grass were grown in it, and milk from a cow that ate the grass were drunk by a pregnant woman, then her child's brain would be partly composed of that matter. Anything whatever, if broken down far enough and rearranged, could be incorporated into a living organism. No constituents besides matter are needed (Nagel, 1979, p. 181).

Strawson makes similar claims under various iterations (Strawson, 2017b, p. 385, 2016, p. 98), and Nagel does the same again too (Nagel, 1986, p. 28), but the thing to note is that they involve an explicit rejection of mereological nihilism: matter cannot be fungible and recombinable if matter cannot combine in the first place. Hence, a rejection of nihilism.

One may also try to reject premise (7) if the mereological structure of the world is a structure of relations between consciousnesses, then either panpsychism or cosmopsychism is true. If one were to reject premise (7) however, it is not clear how far one could get with the idea. If one rejected (7), then one would be claiming the truth of the following: that a world consisting entirely of subjects and experiences standing in proper parthood relations to other subjects and experiences is not panpsychism or cosmopsychism. If we hold this to be true, then we have lost any meaning attached to panpsychism and cosmopsychism. I have defined panpsychism as the thesis *that at least all fundamental entities and some non-fundamental entities are subjects having experiences, i.e. they instantiate phenomenal properties*. To reject (7) is to reject my definition of panpsychism. There is no good reason to reject this definition.

The final potential premise to reject is (3) mereological confinement*: concrete, mereological relations occur between concrete entities of the same broad ontological type.* Before we consider the plausibility of this premise, let me explain it in more detail what this premise means.[23]

Firstly, I mean mereological relations of the sort that hold between a table, its legs, and its top. Or, between a water molecule, it's hydrogen atoms, and its oxygen atom. These are the parthood relations that confinement is concerned with, they are those relations that structure the world. They are the relations that I outlined in chapter 1.2.2 above.

Secondly, I mean the sort of mereological relations that hold between these entities, i.e. propertied material objects. This means confinement is not concerned with the broader class of *general* mereological relations, for example those mereological relations that we could say hold between a sentence *qua* abstract object and its constituent words. Or between, for example, the united states constitution, its articles, and its amendments. Or, for example, between a society, its classes, and its citizens. These are not *material* mereological relations, these are not the focus of mereological confinement. Neither does confinement cover the following sort of mereological sequence: atoms are proper parts of people, people are proper parts of social clubs, by the transitivity of parthood atoms are therefore proper parts of social clubs (however, atoms are patently not proper parts of social clubs). Here there is a change in the type of parthood relation from material objects to social entities, this is not the focus of confinement.[24]

Thirdly, by broad ontological type I mean the most general category – maybe other than concrete/abstract, or object/property/relation – that entities may fall into. Examples are: physical, non-physical, immaterial etc. Here I am adding an additional claim to the ones I made in chapter 1.2.2, viz. that material constitution relations hold between entities of the same type (properties, objects etc.). In short, I am using those categories which are used to distinguish the different types of strong emergentism.

The questions that now arise are the following. Firstly, is mereological confinement plausible? Secondly, does anything Strawson or Nagel say support it? I take it that mereological confinement is highly plausible, and I take it that Nagel and Strawson both

[23] A former definition of this premise contained 'material'. One may say the confinement thesis is trivially true if it contains 'material' in its definition. One may say, for example 'Isn't it true by definition that the material part-whole relation only holds between material things?'. I think this is true, but not trivial: matter could partially be physical and partially be phenomenal. Such a world is ruled out by this confinement thesis.
[24] The failure of transitivity here is down to the change in the type of mereological relation.

endorse ideas which support it (explicit or implicitly). Let me move on to look at this claim.

2.2.1 Supporting Mereological Confinement

How can we support mereological confinement? I am by no means sure that confinement is undoubtedly true, but I believe the following considerations may give it support:

1. Intuitively plausible.
2. Abductive support from 'no jumps thesis'.
3. Radically different natures.
4. Empirical support.

Let us look at each of these considerations in turn.

Firstly, I think that the principle has a great deal of intuitive support. If we reflect for a moment on the idea that the most different of entities could be real parts of one another, it seems to only emphasise that they could not: how could a non-physical, phenomenal subject be a genuine proper part of wholly physical non-phenomenal entity (I expand on this below).

Secondly, I think it is plausible and supported by Nagel and Strawson because it respects a homogeneity thesis that they both endorse. Both Nagel and Strawson endorse homogeneity theses either explicitly or implicitly. Nagel's material composition premise (above) is a homogeneity thesis, it is the claim that humans have and are made of parts, but also that they have no non-physical parts. Strawson (Strawson, 2016, p. 82) makes the claim that there are no *radical qualitative discontinuities* in nature – what he calls 'no jumps in being' (c.f. Leibniz and Strickland, 2014). Both these ideas may support mereological confinement, the no radical qualitative discontinuities more so. If one thinks that the no jump thesis (no radical qualitative discontinuities in nature thesis) is plausible, then we may be inclined to think that mereological confinement is plausible. This is because we may be able to give abductive support for mereological confinement from the no jumps thesis. In other words, mereological confinement may be the best, or at least a good, explanation of the assumed truth of the no jumps thesis.

How precisely would mereological confinement help explain the no jumps thesis? Well I suggest that the explanation would look something like the following.

If the no jumps thesis is false, then we can have strong emergence of radically different sorts of entities: we can have the emergence of the wholly non-physical from the physical.

To illustrate this idea, we can consider the emergence of phenomenal properties across time. Take a, b, and c, to be basic physical entities lacking wholly lacking experiential properties of any sort (or a large collection therefore), and R to be the relation that they stand in such that their standing in this relation constitutes the antecedent of some emergence law.[25] That is R(a, b, c) is the condition in which the emergence law is triggered, such that the emergent subject and its experience E emerges. Consider also that R* is some relation that a, b, and c can stand in such that the moment after R*(a, b, c) is instantiated it causes R(a, b, c), but is not itself sufficient for consisting the emergence law. This allows us to illustrate the emergence of an arbitrary experiential property in the following manner (see Figure 2):[26]

$$\text{T1: } \frac{}{R*(a,b,c)} \quad \rightarrow \quad \text{T2: } \frac{E}{R(a,b,c)}$$

FIGURE 2 THE DIACHRONIC EMERGENCE OF PHENOMENALITY

At time T2 there is new stuff in the world: subjects and their experiences! These subjects and their experience – represented by E in Figure 2 – did not exist before emerging at T2, and they do not consist in anything that existed before T2. However, as soon as these new subjects and their experiences exist at time T2, they are now real parts of the world, and they are parts of the mereological structure of the world (given premises (1) & (2)). By virtue of the fact these subjects and their experience exist as parts of the mereological structure of the world they must either be proper parts of the cosmos and themselves have proper parts, or be proper parts of the cosmos but be mereologically simple.[27]

If they do not consist in anything that existed before T2, then they cannot themselves have proper parts which are entities that existed before T2, however this does not mean

[25] Or at least something *law-like*.
[26] I take this notation from Lewtas (Patrick Lewtas, 2013).
[27] I cannot see how they could exist as parts of the mereological structure of the world but yet fail to be proper parts of the cosmos (that objects which contains all other objects as proper part), this is precisely why I do not include this option.

they are simple. They may come into existence *as* composite entities, and hence their proper parts may come into existence at the same time, T2, as they do.

Either way, they are still proper parts of the cosmos and mereological confinement stops this from happening, precisely because the new non-physical subjects and their non-physical experiences would be parts of the physical world – if they come into existence as composites, then the problem is quantitively worse because there now exist more new parts which are ruled out by confinement. My suggestion, then, is that the truth of the no jumps thesis is potentially explained by the truth of mereological confinement.

Two more methods of supporting confinement suggest themselves.

The first way one may try, for instance, to support confinement is to suggest that, given the radically different natures between the putative physical and non-physical, it would be incoherent for them to be able to stand in concrete material proper parthood relations to one another. This may be thought of as the mereological equivalent of Elizabeth Princess of Bohemia's interaction problem for Descartes' substance dualism (Descartes, 1996).

A second way one may want to support confinement is empirical. Two considerations are worth noting here:

1. A failure to encounter violations of confinement.
2. Material fungibility.

On the first point, it does not appear to be the case that we have encountered any non-material entities that stand in concrete, material mereological relations to the material entities we encounter day-to-day and in our sciences. As a matter of fact, we can say, our best sciences have yet to reveal any immaterial parts of the world, the structure and make-up of the world (so far) revealed to is appears to be of the same broad ontological category. In other words, we seem to have no evidence that falsifies the mereological confinement thesis, and much more evidence to raise the likelihood of it being true.

Indeed, one may think that the dualist has a response here, for they hold that non-physical phenomenality exists outside of the world so would say 'of course we have not encountered a violation of confinement'. But this would not undermine the claim of mereological confinement, it would in fact support it. The dualist is, in effect, conceding my point: phenomenality does not exist as part of the mereological structure of the world (according to them), so cannot be used as a counterexample to confinement. In other

words, the fact that according to them no mereological relations hold between these different types of entities does not undermine the claim of confinement: that no mereological relations between these different types of entities can hold.[28]

On the second point, it looks like that if confinement were false, then so too would be fungibility. Given that fungibility looks like a highly plausible thesis, then we should suppose confinement to be true on pain of falsifying fungibility. As we saw above, fungibility is a claim about the recombinability of matter. It says that for any two objects, O1 and O2, and the matter composing them, M1 and M2 respectively, that matter could be rearranged such that the matter, M1, formerly composing object, O1, came to compose object, O2, and the matter, M2, formerly composing object, O2, came to compose object, O1. If confinement were false, however, then it could be the case that there were objects that were of a radically different kind to other objects, such that the matter which composes them (if they are indeed composites of matter) could not be rearranged to compose some other objects, and vice versa. In other words, if confinement is false, then all matter won't be fungible.

2.3 Conclusion

What now?

We are in a position in which it seems reasonable to concede that the material world is a structure of subjects and their experiences standing in mereological relations to one another. Given the fact that conscious subjects exist as mid-level parts of the world and must be parts of other subjects, then the non-mid-level entities must also be consciously experiencing subjects – this means that we are subjects, our parts are subjects, and the cosmos of which we are parts is also a subject. Moreover, we are in a position in which we must now make sense of this idea, viz. subject-to-subject proper parthood relations, independently of the combination problem.

One may object to this mereological argument, one my try to find flaws in the premises. If so, then so be it. The original emergence arguments are sufficient to support panpsychism, they are simply less efficient (also see Lewtas (Patrick Lewtas, 2013) for

[28] In this way, then, my empirical criticism is different to the typical 'violation of conservation laws' criticism of interactionist dualism. On the conversation laws criticism, the dualist can respond and save the appearance: interaction laws between the material and the non-material realms 'operate in such a way as to 'pay back' all the energy they 'borrow' and vice-versa' (Papineau, 2002, p. 252). The empirical finding of the conservation of energy merely puts constraints upon how an interactionist dualism must work. There is nothing the dualist can do to save the appearance in the case of mereological confinement, for they concede the reality behind that appearance.

arguments against the emergence of consciousness): less efficient at establishing the conclusion, and less efficient at establishing the need for the panpsychist to make sense of parthood relations between experiencing subjects. Given that this thesis focuses on precisely that, I take the argument to have achieved what I need it to achieve.

The mereological argument still only establishes the three conditions (fundamentality, ubiquity, nature) of non-Russellian panpsychism. In the next chapter I will look at establishing the Russellian aspect of the definition. Establishing Russellianism is important for three reasons:

(1) Russellian panpsychism is the most promising form of panpsychism available (in virtue of the promising features of Russellian monism).
(2) The phenomenal bonding solution to the combination problem I propose in chapter 5 & 6.2 is a Russellian view.
(3) Other arguments I make in this thesis (in response to different combination problems) rely on Russellian assumptions.

Let me move on to establishing the Russellian aspect of Russellian monist panpsychism.

3 Chapter 3: From Surplus to Inscrutables: The Intrinsic Natures Argument

'But think not haply that the primal bodies
Remain despoiled alone of colour'

(Lucretius et al., 1999, bk. II)

3.1 Introduction

Intrinsic nature arguments for Russellian panpsychism are very different from the anti-emergence arguments. The anti-emergence arguments ostensibly secure the fundamentality and ubiquity of phenomenal properties by showing that the building relation of emergence is flawed. Intrinsic nature arguments do not show that any building relation is flawed, instead they show that our concept of the building blocks themselves is flawed. Intrinsic nature arguments question the coherence of the concept of *matter* as given to us by orthodox physics, and subsequently argue that a coherent concept of *matter* leads one to a commitment to panpsychism. The intrinsic nature arguments are independent of philosophy of mind, they are arguments from the philosophy of science and metaphysics.

As was the case in the previous chapter, I shall not survey any existing arguments. Instead I shall simply present a generic version of the intrinsic natures argument based upon plausible premises and theses forwarded by those in the debate.[29] Recall the definition of Russellian panpsychism:

> at least all fundamental entities instantiate fundamental inscrutable phenomenal properties and fundamental physical properties, and some non-fundamental entities instantiate inscrutable phenomenal properties.

[29] Willian Seager (Seager, 2006), Godehard Brüntrup (Brüntrup, 2011), Timothy Sprigge (Sprigge, 1983), and Galen Strawson (Strawson, 2016, 2006a) have all forwarded intrinsic nature arguments for panpsychism. Philip Goff (Goff, 2017a), Derk Pereboom (Pereboom, 2011), Sam Coleman (Coleman, 2015, 2009), and Michael Lockwood (Lockwood, 1989) all employ the argument to establish broadly panprotopsychist conclusions

Aside from the key features of fundamentality, ubiquity, and nature, the Russellian definition has the following additional features:

> **Realism about inscrutables:** the basic entities of the world must have inscrutable properties.
>
> **Phenomenal foundationalism:** the inscrutable properties of the basic entities are identical to their phenomenal properties.

For the intrinsic nature argument to be considered a success, we must establish each of these features of the definition. The general formulation of the intrinsic natures argument for panpsychism that we can use will be something like the following:

> **Generic Intrinsic Natures Argument:**
>
> 1) If causal structuralism is true, then matter does not need non-structural categorical properties.
>
> 2) Matter does need non-structural categorical properties.
>
> 3) Hence, causal structuralism is false (from 1 and 2)
>
> 4) Phenomenal properties are the best candidate for the non-structural intrinsic properties of matter.
>
> 5) If matter needs non-structural categorical properties and phenomenal properties are the best candidate for such properties, then panpsychism is true.
>
> 6) Hence, panpsychism (from 4 and 5)

If this argument is sound, then it will entail both realism about inscrutables and phenomenal foundationalism. This is because the arguments supporting premise (2) will vindicate realism about inscrutables, and the arguments in support of premise (4) will vindicate phenomenal foundationalism. Both (2) and (4) are the most important premises of the argument.[30]

To support (4) I shall look at the alternative theses regarding the nature of the categorical properties. I will suggest, quite simply, that phenomenal properties preserve theoretical simplicity and elegance in a manner that the others do not, and that we should prefer a

[30] Does this argument secure ubiquity, fundamentality, and nature? It does. Premise (5) secures the phenomenal nature, and the argument supporting premise (2) secures ubiquity and fundamentality.

positively conceivable nature than a noumenal one. Phenomenal properties easily meet these standards, whilst it is much less obvious that other candidates do. To show (2) I will look at the powers regress argument against causal structuralism, one version of ontic structuralism (Ladyman et al., 2007) that takes the information revealed by physics to be about merely the causal profile of the fundamentalia.

Before looking at these two premises, it may be best to quickly recall the general concept of Russellian monism and its appeal. Russellian monists claim that physics delivers an *austere* and *circumscribed* description of nature merely in terms of the causal dispositions of the fundamental entities, such that certain integral features are left out. Those integral features are the inscrutable non-dispositional properties of matter, and it is this inscrutable nature of matter that helps to explain consciousness.

The advantages of Russellian monist panpsychism are that (see chapter 1.1.3.1 for the previous mention of these):

(1) Russellian monist panpsychism recognises the existence of consciousness and thereby inherits the merits of dualism (Alter and Nagasawa, 2015a, pp. 442–4).
(2) Russellian monist panpsychism is *monist* and places consciousness within the causal nexus of the world, precisely by using phenomenal properties to ground causal-physical dispositions, and thus inherits the causal advantages of physicalism (Alter and Nagasawa, 2015a, pp. 442–4) – neither does it suffer the from the causal interaction problems that faces dualism (Papineau, 2002).
(3) Russellian monist panpsychism solves the problem of consciousnesses place within nature, and the problem of a lack of metaphysical grounding within the metaphysics of science, in one simple move (Alter and Nagasawa, 2015a, pp. 444–5).

3.2 Supporting premise (4): Phenomenal Properties are The Best!

In order to support the generic intrinsic natures argument, we need to support premise (4), the claim that

> (4) Phenomenal properties are the best candidate for the non-structural intrinsic properties of matter.

Justifying this premise is relatively easy compared to other key premises so far. What one needs to do to support this premise is to establish some criteria of being 'the best' and simply show that phenomenal properties and no other properties meet these criteria (or

simply phenomenal properties meet more of these criteria).[31] To do this we could claim that to be 'the best' – in the sense relevant here – the properties must satisfy one or both of the following:

(i) They must be positively conceivable (i.e. not merely role-playing).

(ii) They must maximise theoretical simplicity and elegance.

Both of these criteria are used, in one form or another, to support panpsychism and the use of phenomenal foundationalism (Coleman, 2009; e.g. Goff, 2017a, chap. 7; Strawson, 2006a).

Is there any justification for either (i) or (ii)? Well (ii) seems to be a reasonable methodological principle used in all areas of philosophy and science, and (ii) could even be supported by Occam's razor: theoretical simplicity and elegance can easily be understood as, or following from, *not multiplying explanatory entities beyond necessity*. (i) seems to also be a reasonable requirement too, especially an all-things-considered requirement: all things being equal (e.g. explanatory power), we should prefer a theory that involves objects, properties, and relations which are positively conceivable.

Panpsychism meets both (i) and (ii), the other potential candidates within the literature do not. They are:

a. Protophenomenal properties
b. Neutral properties
c. Non-conscious qualities

Let us look briefly at each of these options; only (c) non-conscious qualities is a serious contender.

3.2.1 Protophenomenal Properties

Recall that protophenomenal properties are properties that are not phenomenal, but when organised in a specific manner will a priori necessitate phenomenal properties. The problem with protophenomenal properties is it is not obvious that they can meet (i). There are two potential views here:

[31] N.B.: neither the conclusion of the mereological argument (see chapter 2), nor any of its premises, are present within this section. If they were, the panpsychist would most likely be able to dispense with the alternative candidates for the inscrutable properties in a quicker fashion. I have here not employed this method of argument.

Mysterianism: protophenomenal properties are (positively) inconceivable.

Nagelianism: protophenomenal properties are *currently* (positively) inconceivable.

Mysterianism says that we are cognitively closed to forming a positive concept of protophenomenal properties, our constitution means that they will forever be beyond our grasp. Only a change in our nature and perspective would allow us to form such a concept (McGinn, 2006, 1989). This version of the view fails to meet (i). Nagelianism holds that sometime in the future, by means of conceptual paradigm shift and not by a change in our constitution, we may come to form a positive concept of protophenomenal properties (Nagel, 1986, pp. 51–2). This view *may* be able to meet condition (i).

Only Nagelianism, and not mysterianism, is an option. However, the truth of Nagelianism is an open question. Ultimately, the ability to form a concept of protophenomenal properties depends upon *how* one thinks our concept formation process works. Whilst I am sympathetic to the idea that we might be able to form a concept of protophenomenal properties by imagination etc., I am more inclined to side with Goff in holding a sceptical outlook towards to Nagelian option. It is plausible that to form a new concept of a property we must at least be acquainted with a sufficiently similar property, such that we could form a concept of the new property by abstraction, analogical extension, or some other process. I find it hard to see how, given our acquaintance with phenomenal and physical properties that we could move from either of these to protophenomenal properties – as Goff suggests, it would need to 'involve first-person and third-person representational faculties employed in a unified conception of a single property' (Goff, 2017a, p. 169). I am sceptical therefore of Nagelianism.

Not only do we not have a positive conception of protophenomenal properties, introducing them into our picture fails to meet (ii). If we introduce unknown protophenomenal properties, properties that may also be *in principle* unknowable, then we are not maximising simplicity. We would be unnecessarily expanding the Russellian's basic ontology while a perfectly good alternative was available: phenomenal properties. There are two arguments one might consider supporting this: Goff's simplicity argument for panpsychism and Strawson's silliness argument for panpsychism. Goff's argument is as follows: 1) given that we know phenomenal properties are categorical, intrinsic properties; 2) that we have a 'gap' for categorical, intrinsic properties; then (3) it is most reasonable to fill that gap with known and helpful properties rather than noumenal ones.

Strawson's argument differs on in the final premise: (3*) it would be silly to fill the gap with something unknown and unknowable, especially considering the Russellian premise of consciousness relevance: the inscrutable micro-properties of matter help explain macro-phenomenal consciousness (Strawson, 2006a).[32]

3.2.2 Neutral Properties

Neutral properties can be defined in various ways (Stubenberg, 2017), but importantly for our purposes we need a positive concept of them. So, for example, the typical definition of neutral properties (what Stubenberg calls the *Neither View*) as being 'intrinsically neither mental nor physical' doesn't meet (i). Insofar as 'neutral' is merely a category, and insofar as it will always be defined in a negative, role-playing manner in relation to the physical and the phenomenal, then it will fail at (i).[33]

As with protophenomenal properties, the generic category of neutral properties will simply introduce disunity and inelegance into our picture, and thereby fail to satisfy (ii). We can reformulate Strawson's silliness argument and Goff's simplicity argument to simply reapply to neutral properties. To paraphrase, introducing neutral properties introduces disunity and inelegance, and it would be unnecessary (and silly) to introduce neutral properties when we have phenomenal properties.[34]

3.2.3 Non-conscious Qualities

Non-conscious qualities are a type of property proposed by the 'panqualityist' like Coleman (Coleman, 2016, 2015, 2012a). On this view consciousness is analysed as a form of awareness of qualities, such that any given experience is constituted of two aspects: E1 = [awareness + quality]. The panqualityist says that the quality present in this analysis of consciousness could be the categorical properties that belong to matter over and above any structural ones. The awareness aspect of experience, according to the panqualityist,

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[32] Technically Strawson's argument depends upon the intrinsic natures and consciousness being *discontinuous* in nature. If one thinks a priori entailment from facts about one to facts about the other is sufficient for continuity of nature, then the argument would not work.

[33] There are proposals as to what neutral properties may be, but for them to compete with panpsychism they need to be positive proposals. James' neutral monism employs 'pure experience' and Russell's employs 'percepts'. Both types of ostensibly neutral property are evidently intimately related to the phenomenal. Coleman's proposal of non-conscious qualities may also be understood as a version of neutral monism and is also intimately related to the phenomenal. I shall look at this proposal in the following section. There is a debate about how to interpret Russell's view, along with James'. Chalmers (Chalmers, 2016a, p. 41) for examples claims that these views are versions of panqualityism (below).

[34] Moreover, only if neutral properties are defined in such a way as to rule out emergence (as protophenomenal properties are) would they not then be subject to the typical anti-emergence arguments.

can be reduced to some functional mechanism, it can be captured in completely dispositional and structural terms.

Do non-conscious qualities meet condition (i)? It is far from obvious that non-conscious qualities do meet (i), but at the same time it is not obvious to me that they fail to meet (i) either. Goff, for example, objects to this proposal in the following manner:

> 'Can we make sense of the qualities in our experiences existing unexperienced? Could that very quality exist unfelt? Arguably, the qualities in our experience just are, in their essential nature, experience-characterizing properties. The quality I find when I attend to the pain in my leg is *what it's like to feel pain (of a certain kind)*. How could *what it's like to feel pain* be instantiated without anyone feeling pain?' (Goff, 2017a, p. 161)

Goff is obviously pressing a strong intuition here regarding the conceivability of non-conscious qualities, but it is not obvious what this criticism is really supposed to be. In fact, it appears that there are two criticisms here, the first of which misses its target and the second needs further justification not given by Goff.

Panqualityism is distinct from panexperientialism – as I highlighted in chapter 1.1.2.1 – so Goff's criticism that 'how could there be the feeling of pain without anyone feeling it' is a criticism that would only work against the panexperientialist, not the panqualityist: the panqualityist does not think that there are 'unfelt feelings' or 'experiences not had by subjects'.[35] The panqualityist does not think there is 'the feeling of pain' without a feeler, they think that the *quality of the feeling of pain* is instantiated in the absence of an experience *and* an experiencer (subject).

What about the criticism that 'the qualities in our experience *just are* essentially experience-characterising properties'. This, I believe, is more to the point, for if it were true that they were essentially experience-characterising, then they could not be instantiated 'outside of' an experience. Goff does not give is reason to think this is true, however I think the following may shed some light on this idea.

What one means by non-conscious qualities is evidently dependent upon what one means by 'conscious qualities' and one's analysis of the internal structure of conscious experiences (see chapter 1.1.2.1). The awareness-quality view is not the only view available, and it seems plausible that it is only on this two-level account of the structure of consciousness one may form a positive concept of a non-conscious quality. Why?

[35] Chalmers (Chalmers, 2016a, p. 42) makes a similar point.

Because if a one-level account of experience is true (in which there is no awareness-quality structure only primitive *experienced qualities*) then it seems harder to simply 'remove' one aspect of experience in order to arrive at a positive concept of a non-conscious version of the other aspect, viz. qualities. On the one-level account experience is not made up of an apprehension of content, an awareness of quality, instead the content or quality is simply intrinsically conscious. This means the awareness and the quality are not as obviously detachable from one another, after all they are not distinct things. In this way, if there is not a distinction between the awareness and the quality in experience, then it looks more like qualities will be *essentially* experience-characterising. That being said, there remain further nuances to be explored here.

Unlike protophenomenal properties, I am much less sceptical of our ability to form a positive concept of non-conscious qualities. After all, our concept of these properties is at least grounded in a property that we are acquainted with. As I suggest above, this will still depend upon our concept forming processes, along with the internal structure of experience. But this does mean that panqualityism is in a much better position than panprotopsychism.

Do non-conscious qualities maximise theoretical simplicity and elegance, i.e. do they meet (ii)? It is much less obvious that we are admitting noumenal properties into our fundamental picture, so in this sense it does not forfeit simplicity or elegance in the same manner that the previous accounts do. Goff thinks that his simplicity argument does not hold here (Goff, 2017a, p. 161) precisely because non-conscious qualities may not be noumenal. Likewise, Strawson's silliness argument would not apply either precisely because non-conscious qualities should be *continuous* with conscious qualities.

I take it that phenomenal properties are the best proposal for being the inscrutable, categorical properties of mater. Not only by the standards I have just suggested, but also by any other reasonable standard that *could* be offered. Given that phenomenal properties would be the best candidate for the categorical and intrinsic properties of matter, I will now move on to show that matter needs these properties. Hence, I will move on to support premise (2) of the intrinsic natures argument for panpsychism.

3.3 Supporting premise (2): the Need for Categorical Properties and the Argument Against Causal Structuralism

We have recognised that the information that physics gives us about its object of inquiry, i.e. the material world, is merely a form of structural information. In this section I will look at the argument which depends upon this structural information being understood as causal, specifically *dispositional*. I will argue that the 'powers regress' argument is successful, and that it shows we need to posit some categorical properties to underlie the dispositions of matter. What then are dispositional properties and categorical properties?

Dispositions are properties that objects have which mean that the object in question will behave in a certain manner in a certain circumstance. Alternatively, a disposition is a type of property that an object may have such that having the property will bring about some effect when in suitable conditions. Or, once again, a dispositional property is a property that an object may have such that it has the power to produce a certain outcome. Consider the example of the property *solubility*: salt has the property of being soluble, which means that when put in a solution like water the salt will dissolve. Consider, alternatively, the property of being *flammable*: a cotton-wool ball has the property of being flammable, which means that when near a heat source it will burn. Any disposition's nature is therefore dependent upon that which it brings about, what is called its *manifestation*.

Objects have their dispositional properties before their manifestation occurs, and many people think that an object can have a disposition even if the manifestation of that disposition is never brought about – alternatively, we can say that when a dispositional property is instantiated it need not be actual, it is only actual when it manifests. Consider, for example, the fragile vase which is never shattered, or the table salt at the back of one's kitchen cupboard that is never used to cook. Dispositions are not only dependent upon their manifestations, however, but also upon the circumstances which the manifestation occurs: their manifestation partners. The salt's property of *solubility* depends on the water's property of *being a solvent* for the manifestation *dissolving* to occur.

Dispositional properties are relational, they depend upon both their manifestation and their manifestation partner for their nature. Dispositions are often also called 'powers', 'capacities', or 'potencies', and so I will not hesitate to alternate between these terms. Let us then give the following schema for a power/disposition:

> Property, P, is the power to manifest, M, when triggered by stimulus, S.

In contrast to dispositional properties are categorical properties. Categorical properties do not depend upon their manifestations or upon a stimulus for their nature (in the manner dispositional properties do), precisely because whenever a categorical property is instantiated it is manifest. Categorical properties do not lay dormant, as it were. Typical examples of categorical properties are things like an object's shape or colour (although shape can be analysed dispositionally). Consider *redness*: the football scarf has the property of being red, which means that it is always red, and nothing is needed to trigger it to manifest this red.

The causal structuralist thinks that an exhaustive description of the fundamental material entities can be given by listing the causal profile of their properties (Bird, 2007; Hawthorne, 2001; Ladyman et al., 2007; Mumford, 2004).[36] In other words, the causal structuralist thinks that for any given fundamental property, that property *is* a disposition. Moreover, for all fundamental and non-fundamental properties, those properties are dispositions: the material world is a series of dispositions acting upon other dispositions. The causal structuralist takes it that there are no categorical properties at any level of reality.

This is picture of dispositions acting upon dispositions is where the problem arises for this view, as many have proposed that such a picture is unintelligible. It has been taken to be unintelligible or incoherent for different reasons, but whatever the reasons are the conclusion is that matter needs categorical properties too. Two reasons present themselves most prominently:

(a) Dispositional properties lack sufficient actuality.

(b) Dispositional properties leave the nature of matter undetermined.

Both (a) and (b) are established by arguments taking the form of a vicious infinite regress, as do most arguments against causal structuralism. I shall here only focus on (b) because it is not obvious that arguments that attempt method (a) are successful.

Alexander Bird calls (a) the 'actuality regress' argument (Bird, 2007) and Rögnvaldur Ingthorsson calls it the 'reality regress' argument (Ingthorsson, 2015). Others call it the 'always packing never traveling' objection (Molnar, 2003; Mumford, 2004), and versions of it are presented in Goff (Goff, 2017a, p. 140) and Heil (Heil, 2013, pp. 210–11).

[36] Often people call causal structuralists 'dispositional essentialists'.

However, it is not clear that in these arguments the reality of dispositions is being treated as more than mere potentials, rather than *powers* or *potencies* – i.e. they employ overly austere concept of the real oomph and thereby miss their target (Mumford, 2004, p. 174). I leave this open, therefore, and focus only on (b).

3.3.1 Indeterminate Identity

Goff (Goff, 2017a, chap. 6) calls the problem, which will follow, the 'specification problem' and Robinson (Robinson, 2009) calls it the 'powers regress' problem. Goff paraphrases the problem as: it being difficult to 'capture the nature of any causal power without referring to properties that are not causal power' (Goff, 2017a, p. 137). Robinson paraphrases it as:

> 'What it is a power to do is a function of what would constitute its manifestation, and if the nature of this latter can have no determinate expression, neither can the power which is defined in terms of it' (Robinson, 2009, p. 192)

Their claim, then, is that an exhaustively dispositional view of matter is going to be incoherent because it fails to secure the determinate identity of any material properties. Hence, matter needs categorical properties too in order secure its identity.

We could see the argument in the following way:

> 1) If matter has no categorical properties, then the identity of fundamental properties will be undetermined.
>
> 2) The identity of fundamental properties cannot be undetermined.
>
> 3) Hence, matter has categorical properties.

The argument is valid. What are the justifications given for the two premises (1) and (2)?

Premise (2) seems to be a reasonable assumption of our fundamentalia (and most other properties). I take it to be true and it is not obvious why one would want to reject it. Neither Goff nor Robinson appear to give explicit support for the premise, however.

Premise (1) gets its support from the actual powers regress argument itself, let us then turn to this argument. Recall that on causal structuralism powers are the power to bring about some manifestation, where that manifestation is another power; dispositions are the disposition to bring about some other disposition. This means for any arbitrary power, A, it will be the power to bring about B, where B itself is another power. Recall the schema for a power/disposition:

Property, P, is the power to manifest, M, when triggered by stimulus, S.

We can now then formulate the regress, or specification problem.

Take an arbitrary causal power, A. To understand what this power is, we must understand what it does. To understand what it does we must understand its manifestation, and manifestations are usually taken to be categorical properties. If the manifestation of A is not a categorical property, as the structuralist holds, then it must be some other power, which we can call B. Hence, if we want to know what A is, then we must know what it does, which is to manifest B. But to know that A manifests B is not illuminating, for we now need to know what B is. Since we are supposing structuralism, B must itself be a causal power, and, hence, to know what B is, we must know what it does. To understand what B does, we must therefore understand its manifestation, which we can fittingly call C. C is the manifestation of B, and C is itself a power because we are assuming structuralism. So, if we want to know what B is, we must know what C is, and in virtue of being a power we must know what C does. And, again, to understand what C does, we must know what its manifestation D is. And, again, D is a power, so we must know what its manifestation is if we want to know what D is. But, unfortunately, the manifestation, E, of D is simply another power, and hence will not be able to know what E is without knowing what its manifestation, F, is. And so on, *ad infinitum* into a vicious regress. And, as Goff and Robinson highlight, the regress will only stop if some manifestation is categorical.[37]

Like any regress argument there are two ways for the causal structuralist to respond. Firstly, they could argue that although there is regress, the regress is not vicious. Secondly, they could argue it is not an infinite regress, rather it is circular and not vicious because of a form of *holism* about dispositions. It is not clear, however, that either of these methods will work. Let me take them in turn, employing the responses from Goff and Robinson.

Firstly, although there are regresses that are non-vicious, the powers regress does seem to be a vicious one. Robinson claims that the mark of a vicious regress is when 'the content of the early members of the series depends on the content of the later' (Robinson,

[37] Although I have formulated this in terms of 'what we know' this does not mean the problem is an epistemic one. The argument could be rephrased to simply be concerned with 'dependence' or some other such metaphysical notion. Robinson and Ingthorsson make this point (Ingthorsson, 2015; Robinson, 2009, sec. 2.1).

2009, p. 193). So, whilst regresses like the asymptotic precisification of the number π (3.14159265359…), or the reiteration of truth 'that P' do not worry us, the powers regress should. In our example what it means to *be* A depends on what it means to *be* F, and so on.[38] Hence, it seems like the causal structuralist's regress is vicious, for each member of the series depends upon a later member of the series, and yet each member in the series is dependent upon some latter member, and so on. We could say for any power A, its identity is dependent on B, which is dependent upon ∞ number of further powers. Hence, for any power, its identity is deferred upon ∞ number of times.

Secondly, the causal structuralist can say that there is no infinite regress (after all, the world is a closed system and there must be a finite number of members in the series, moreover there must be a finite number of fundamental properties) but there is a *circularity* which is non-vicious. Instead, one simply would have an inter-defined class of fundamental dispositions, where A were dependent upon, ultimately, F, but where F were also, ultimately dependent upon A. The group of inter-dependent dispositions could obviously be bigger and more complex than a mere, metaphorical, circle, and instead be a large web-like structure of power relations.[39] The idea is that any given property will now be identified by reference to a *pattern* of causal relationships that it stands in, rather than an infinite sequence of them.

But, again, this seems to be insufficient. A circular chain of power relations seems to be as unable as an infinite chain is at securing the identity of any given power. Goff claims, for instance, that whilst this exhaustive web of dispositional relations may allow us to 'pick out' (Goff, 2017a, p. 139) or refer to a causal power, it still fails to 'specify the essence' of the causal power (Goff, 2017a, p. 139), by which I take him to mean specify its identity in terms of its *nature*. Likewise, Robinson claims that the web-like structure of dispositions fails to make the identity of any causal power determinate:

> 'What it is to be a particular power does depend on what it is a power to produce, for to say that something is a power, without saying what it is a power to do, does not distinguish it from all other powers: which, if powers are all that there are, fails to distinguish it from anything else. So,

[38] Robinson (Robinson, 2009) also considers the example of an infinite causal regress. The difference with this infinite, potentially vicious series and the powers regress is that, the former concerns the possibility of actual infinities and the later concerns the nature of the members of an infinite series.
[39] This seems to be John Hawthorne's suggestion (Hawthorne, 2001, pp. 369–70).

> for any given power, there must be a contentful nature to what it is a power to do, otherwise it is not differentiated from anything else' (Robinson, 2009, p. 193) [40]

The reason for the indeterminacy, claims Robinson, is that a power locution like our schema (property, P, is the power to manifest, M, when triggered by stimulus, S) is what he calls an 'incomplete expression' (Robinson, 2009, p. 193). So, to try and complete the expression with further incomplete expressions, and to then complete it with *itself*, is to not complete the expression at all. Hence, a web-like structure of ghostly incomplete expressions fails to determine the identity of any given power (this is not to say that the argument rests upon the counterfactual analysis or schema of powers, as Robinson highlights when responding to Mumford (Robinson, 2009)).

Another way to say this would be that the identity of a disposition can only be as determinate as the identity of its manifestation, which, because it is itself a power, is forever deferred and not determined. Or, the identities of the members of the set of relational dispositions is dependent upon their *relata*, i.e. their manifestations, which are *ex hypothesi* themselves not determined (Bird, 2007, p. 524). It looks like a world without categorical properties would be a world in which no property would have a secure identity, hence we must posit categorical properties in order to secure the identities of the entities which science reveals.

I take it that these arguments show that we need to have a world with properties that are not wholly dispositional, we need categorical properties in our picture along with the dispositional ones. Given the defence of premise (4) above, these properties are best considered to be phenomenal properties.

3.4 Conclusion

We have seen that contrary to causal structuralism, matter needs intrinsic, categorical properties to ground (and make determinate) the fundamental material entities. In addition to this, we have seen that this intrinsic nature of matter is best supposed to be phenomenal – neutral, proto-phenomenal, and unconscious qualities all suffer some flaw that phenomenal properties do not. Moreover, phenomenal properties maximise the simplicity and elegance of the theory.

[40] If we read Robinson's use of 'distinguish' not as the epistemic notion of *our ability to distinguish* but as the metaphysical notion of *distinguished by its identity*, then we can read his claim as an indeterminacy one. Elsewhere Robinson makes the same indeterminacy claim (Robinson, 1982, pp. 114–5).

Now we have reached the state at which the conditions of success for showing Russellian panpsychism have been met. I take myself, therefore, to have forwarded a strong argument in favour of constitutive Russellian panpsychism: the mereological argument in conjunction with the powers regress argument.

I will thus turn to the main focus of this thesis: the combination problem and subject-to-subject proper parthood relations. In the next chapter I will outline some of the combination problems that I will address in this thesis and following this I will turn to defend the phenomenal bonding view of constitutive panpsychism.

4 Chapter 4: The Combination Problem and Composite Consciousness

'How can many consciousnesses be at the same time one consciousness? How can one and the same identical fact experience itself so diversely?'

(James, 1912, p. 207)

4.1 Introduction

It is often assumed that the combination problem is by far the most significant problem facing panpsychism. All the opponents of panpsychism take this to be true and nearly all its proponents do too. Such an assumption would be a fair one to make: one can look to nearly any article, chapter, or book on panpsychism and one will there find lengthy passages struggling with the issue (this thesis is in no way an exception to this rule). Moreover, as we saw earlier (chapter 1.2.2), William James took the combination problem to be insoluble without dropping the law of non-contradiction (James, 1912).

The combination problem in its various guises is the focus of this thesis. This for two reasons. Firstly, if the combination problem can be solved, then a fully worked out constitutive Russellian panpsychism is the best account of the place of consciousness within nature (Chalmers, 2016a, 2016b; Goff, 2017a). As I have outlined, panpsychism, if successful, has many positive benefits. Moreover, Russellian panpsychism offers us the most integrated and elegant picture of the world (currently available). Hence, given that the combination problem is *the* biggest problem for Russellian panpsychism, the motivation to get around it is great.

Secondly, not only is the project of providing answers to the combination problem necessary to show panpsychism to be our best theory of consciousness, but it is also necessary given the lemma of the mereological argument in chapter 2.2. As we saw, the lemma of that argument tells us that:

> **Lemma:** the mereological structure of the world is a structure of relations between consciousnesses.

This means that we need to make sense of how subjects and their experiences can be parts of other subjects and their experiences even before we are presented with the combination problem.

In this chapter I want to list some of the most pertinent combination problems/arguments within the literature, and those which are most relevant to this thesis. This task should not take us too long, for I am more concerned with offering the solutions than listing the problems themselves.

Firstly, I will hint at a general taxonomy that will help orient the reader. Secondly, I will briefly state and explain the problems themselves. Thirdly, I will suggest what my solutions to these problems will be.[41]

4.2 The When and how of Subject Parthood (Notes on Chalmers and Coleman)

Chalmers and Coleman forward important taxonomies of the combination problems and we can take something helpful from both. Chalmers' taxonomy is useful because divides the combination problem into three aspects which, he states, reflect significant and widely recognised aspects of phenomenal consciousness:

1) That experiences are had by subjects.
2) That experience involves certain qualities.
3) That experience has a certain structure.

Chalmers, however, fails to disambiguate the fact that experiences are had by subjects, i.e. the ownership thesis (see chapter 1.1.2.1.2), from the phenomenological observation that experience has *subjective character* alongside qualitative character (I call this the 'Subjectivity Observation' – see chapter 11.1). Hence, we should add:

4) That experience involves certain subjective character.

We have then: 1) subject combination problems, 2) quality combination problems, 3) structure combination problems, and 4) subjectivity combination problems. Each of Chalmers' problems has the following form: 'how do micro-X combine to yield macro-X', where the variable 'X' is either a subject, quality, experiential structure, or subjectivity.

[41] An earlier draft of this thesis had an exhaustive list of 20 combination problems (maybe 23 on a charitable reading) in a more rigid taxonomy. I no longer see the need for this taxonomy, nor for such an exhaustive list.

These four aspects of consciousness are a helpful lens through which to think about the various combination problems.

Coleman also employs a helpful taxonomy. Coleman's taxonomy consists in what he calls 'bridging' problems and 'internal' problems:

1) **Bridging Combination Problems:** how can the combination of micro-subjects and their experiences so as to yield macro-subjects and their experiences be compatible with our best natural sciences of the brain and of physics?
2) **Internal Combination Problems:** how can the combination of micro-subjects and their experiences so as to yield macro-subjects and their experience be consistent with (i) widely accepted and stable posits of mind-theory and (ii) itself?

As Coleman acknowledges, internal problems are prior to bridging problems in their urgency. If a theory cannot deal with its internal problems, then we need not bother to check if it is compatible with our best science. Moreover, as Coleman highlights 'there is usually more than a single option for understanding the science of the moment, and the dominant scientific account in an area at a time is highly liable to shift' (Coleman, 2016, p. 254). Both of these claims are true, so we should agree internal problems have priority. Moreover, internal problems will be the focus of this thesis, not bridging problems.

My own preferred method of taxonomizing the problems is the following.[42] Broadly speaking, the combination problems come in two sorts (the variables 'Xs' and 'Y' can be understood as one of the aspects, (1) – (4), that Chalmers outlines above):

(i) under what conditions do some Xs combine to constitute some Y

(ii) how can some Y be understood as a composite of some Xs.

In other words, (i) when does the combination of subjects and their experiences occur (and how), and (ii) can subjects and their experiences actually be understood as composite subject-wholes made of subject-parts and their experiences, and what would this look like?[43]

This is how I see the combination problem and this is how a handful of others (not all) see the problem too (see (Albahari, forthcoming; Basile, 2010, 2008; Coleman, 2014,

[42] Goff's 'top-down' and 'bottom-up' taxonomy best fits my own (Goff, 2017a, chaps. 7 & 8).
[43] One may recognise the similarity between (i) and Peter Van Inwagen's special composition question (Van Inwagen, 1990). I shall suspend discussion of that question until later in this thesis (see chapter 8.2).

2012b; Goff, 2006; James, 1912; Mendelovici, forthcoming; Miller, 2018; Montero, 2016; Roelofs, 2015, 2015; Shani, 2015; Sprigge, 1983)). Problems of either sort can come in different strengths, depending, for example, on whether they show panpsychism to be explanatorily insufficient or positively incoherent. However, internal problems remain my focus.

Any putative solution to the combination problems must therefore either offer those conditions that are relevant for (i), or instead give an explanation of some situation such that it illuminates how (ii) could be the case. These sorts of answers are the sorts of answers that will be presented within this thesis (importantly this rules out what I have elsewhere called 'subject-denial' (Miller, 2018): claiming part or whole are not subjects). The question is what problems will I be looking at?

Let us turn to the list of combination problems. Five of these problems will be of type (ii), three of them are of type (i).

4.3 The Combination Problems I Shall Address

Here are the problems that I shall address in this thesis. The first three problems – the subject-summing problem (chapter 5), the boundary problem (chapter 6.4), and the problem of compositional nihilism (chapters 8.4 & 9) – are of type (i): under what conditions do some Xs combine to constitute some Y. The subsequent five problems – the unity/boundedness inconsistency problem (chapter 6.4), the perspective problem (chapter 7), the simple subjects problem (chapter 9), the phenomenal context/holism problem (chapter 10), and the subjectivity in the part and whole problem (chapter 11) – are all problems of type (ii): how can some Y be understood as a composite of some Xs.

Let us turn now to list these problems. After this the rest of the thesis shall aim to address them all.

First is the subject-summing problem:

> **Subject-summing Problem:** the existence of a group of subjects of experience does not seem to necessitate the existence of a further subject experience.

This is the most widely discussed combination problem within the literature. This problem is formulated by Philip Goff (Goff, 2017a, 2009a, 2009b) and David Chalmers (Chalmers, 2016b, 1996) as a lack of *a priori* necessitation between the micro-level subject-involving facts and the macro-level subject-involving facts. Most authors trace the

problem back to William James' *Principles of Psychology* (James, 1890), but Timothy Sprigge (Sprigge, 1983) also notes that the problem is found in William James' *A Pluralistic Universe* (James, 1912). Most authors agree that the problem can be formulated as a zombie argument against panpsychism.

I respond to this argument with the 'phenomenal bonding proposal' (Goff, 2016, 2009a). I shall spend much of part 2 of this thesis cashing out the details of the phenomenal bonding proposal and how it relates to, avoids, or is confronted by the subsequent problems (see chapters 5, 6, and 8). I shall also respond to Goff's scepticism regarding our ability to form a positive concept of the phenomenal bonding relation (Miller, 2017) (see chapter 5).

Second is the Boundary problem:

> **The Boundary Problem:** whatever mechanism, M, or relation, R, that could get us around the subject-summing problem, would also inadvertently relate the whole cosmos, giving us one large subject of experience.

This problem is raised by Gregg Rosenberg (Rosenberg, 2004) and depends on the mechanism or relation that one uses to get around the combination overreaches and generates a single cosmos-subject, annihilating us from existence. David Chalmers (Chalmers, 2016b) also mentions this problem, and so too does Barry Dainton (Dainton, 2011).

I respond to the boundary problem by saying that over generation of subjects is not *really* a problem, that it cannot be used to motivate a 'proto-style' variant of phenomenal bonding (protophenomenal bonding panpsychism), and the essence of the problem is really of type (ii) and is the unity/boundedness inconsistency problem (below) (Miller, 2018) (see chapter 6).

Third is the problem of compositional nihilism:[44]

> **Compositional Nihilism Problem:** if compositional nihilism is true, then micro-level subjects and their experiences cannot compose any macro-level subjects and their experiences because it is never true that anything composes anything else.

[44] Compositional Nihilism is the thesis that there are no mereological relations or composite entities. Only mereologically simple entities exist. See chapter 2.2.

This problem is mentioned by William James in *The Principles of Psychology* (James, 1890). David Chalmers (Chalmers, 2016b), Philip Goff (Goff, 2017a, 2016) and Itay Shani (Shani, 2010) all raise this issue and attribute it to James. Coleman attributes a statement of this problem to Lucretius (Lucretius et al., 1999). Goff does not address the issue other than stating that it exists, whilst Chalmers seems to think that because mereological nihilism is widely rejected the problem does 'not have much dialectical force in an argument against panpsychism' (Chalmers, 2016b, p. 186).

I respond to this problem by arguing against the mereological simplicity of subjects of experience, viz. by arguing that *we* are composite entities (see chapter 9). I do not explicitly state that I am addressing this problem, but it follows from my response and rebuttal of the simple subjects argument (below).

The Fourth problem is the unity/boundary inconsistency problem:

> **Unity/Boundedness Inconsistency Problem:** if subjects have phenomenal fields (or total experiences) which are essentially unified and bounded, then it cannot be true that one subject and its experiences be a proper part of another subject and its experiences.

This problem is mentioned by Greg Miller (Miller, 2018), and it depends upon the subjects having essentially phenomenally unified sets of experience with a determinate boundary. This problem is closely related to the unity problem (Chalmers, 2016b) and the boundary problem (see chapter 6 and (Rosenberg, 2004)).

I respond to this problem simply by accepting that subjects need not have bounded consciousnesses. In fact, in response to Dainton (Dainton, 2011) I highlight that our epistemic situation does not warrant the assumption that subjects have bounded consciousnesses in the first instance.

Fifth is the perspective problem:

> **Perspective Problem:** if subjects of experience are considered to be/have perspectives or points of view, then it cannot be true that one subject can be a proper part of, and thereby be overlapped by, another subject.

This problem is raised by Sam Coleman (Coleman, 2014, 2012a), it depends on the way he defines subjects as having (being?) perspectives and how he characterises perspectives as 'exclusive'. Philip Goff (Goff, 2017a), Itay Shani (Shani, 2015), and Barbara Montero

(Montero, 2016) also all raise this problem. Roelofs (Roelofs, 2016) raises the problem too, but considers it to be an instance of the 'context/holism' argument (below), I disagree: Coleman cares about *perspectives* and *points of view*, not the holistic nature of experience.

I respond to Coleman's argument by looking at what potentially grounds his claim that subjects have perspectives or points of view. I look at three options and show that nearly all three can be accommodated into the picture of proper parthood relations between subjects of experience. I also argue against Goff's response to Coleman, suggesting that he underestimates the nature of the constitution of subjects and experience by their parts (chapter 7).

The sixth problem is what I call the 'simple subjects problem':

> **The Simple Subjects Problem:** if subjects, like fundamental atoms, are mereologically simple, then it cannot be the case that we have subject-wholes with subject-proper parts.

This problem is not mentioned in the contemporary literature on panpsychism, it does however arise in arguments against materialism. David Barnett (Barnett, 2010, 2008) argues for simplicity and against materialism, Howard Robinson (Robinson, 2016) and EJ Lowe also argue for the mereological simplicity of subjects of experience (Lowe, 2001, 2000). One could read Jaskolla and Buck (Jaskolla and Buck, 2012) as raising this problem for panpsychism, but they merely assert the simplicity of subjects and do not argue for it.

I respond to this problem by looking at three contemporary arguments for the mereological simplicity of subjects and responding to each. I suggest that each of the arguments somehow underestimates the resources of the *phenomenal bonding* panpsychist (chapter 9.2) , the *constitutive* panpsychist (chapter 9.3), and the *Russellian* panpsychist (see chapter 9.4). In short: each problem underestimates constitutive Russellian phenomenal bonding panpsychism.

The seventh problem is the phenomenal context problem:

> **The Phenomenal Context/Holism Argument:** if some form of phenomenal interdependence or holism is true, then subject-parts and subject-wholes cannot share experiences when they overlap, i.e. holism negates proper parthood between subjects and their experiences.

This problem is noted by Pierfrancesco Basile (Basile, 2010, 2008) and Timothy Sprigge (Sprigge, 1983), who both trace it back to William James (James, 1912). It depends upon the character of experiences influencing the character of the experiences they are co-conscious with. This is an internal problem.

I respond to this problem by showing that the argument which Basile and James present is invalid. The argument double counts the number of phenomenal contexts. In addition to this I expand the problem to look at a form of phenomenal holism proposed by Dainton (Dainton, 2010, 2008, 2000), and a form proposed by Watzl and Chudnoff (Chudnoff, 2013; Watzl, 2014). Ultimately, I argue that all of the types of phenomenal holism/interdependence can be accommodated by the constitutive phenomenal bonding panpsychist (see chapter 10).

The eighth is what I have called the 'subjectivity problem':

> **Subjectivity in the Part and Whole:** if some form of subjectivity characterises macro-subjects experience, then subject-wholes and subject-parts cannot share token experiences, i.e. subjects as a part of the *content* of the experience negates the subject-subject proper parthood relation.

This problem is not explicitly mentioned in the contemporary literature, however I believe we can find the *seeds* of this problem in Timothy Sprigge (Sprigge, 1983). This problem is precisely overlook by Chalmers (Chalmers, 2016b) due to an equivocation (or an absence of precisification), in his statement of the subject combination problem (see above).

I respond to this argument in two ways. Firstly, I distinguish three different notions of subjectivity within the literature, subsequently showing that only two of these notions can be used to generate an internal problem for the panpsychist. I then argue that a valid argument cannot be made against the panpsychist without additional premises. Following this I argue that the panpsychist must adopt a notion of 'subjective alignment' as a relationship that holds between subject-parts (see chapter 11). I then argue that there is no objection to subjective alignment that does not also need additional premises. I turn to look at haecceitism regarding subjects of experience.

4.4 Conclusion

I have outlined how I see the combination problem for panpsychism and related it to Chalmers' and Coleman's taxonomies. I see there being two aspects:

(i) under what conditions do some Xs combine to constitute some Y

(ii) how can some Y be understood as a composite of some Xs.

In other words: under what conditions do some subjects compose another subject, and how can we make sense of subject-to-subject proper parthood relations.

Let us now turn to the task get getting around these combination problems. In doing so I want to defend the picture of macro-subjects and their experiences that I outlined in chapter 1 and also the stronger version which was forced upon us by the lemma of the mereological argument in chapter 2 – a picture of subjects and their experiences which is deeply integrated into our picture of the *structured* material world, which is itself a structure of conscious subjects. If we are subjects, our parts are subjects, and the cosmos of which we are a part is a subject, then we ought to make sense of this idea.

PART 2: PHENOMENAL BONDING PANPSYCHISM AND COMPOSITE SUBJECTS OF EXPERIENCE

5 Chapter 5: Forming a Positive Concept of the Phenomenal Bonding Relation

> 'Once we acknowledge distinctively phenomenal relations between microsubjects and their phenomenal states, we can see how all this might constitute a macrosubject and macrophenomenal states'
>
> (Chalmers, 2016b, p. 200)

5.1 Introduction

The 'phenomenal bonding solution' to the subject-summing problem proposes that the subject-summing problem can be avoided once one allows for a *phenomenal bonding relation* between subjects. However, the main proponent of the phenomenal bonding view, Philip Goff (Goff, 2016, 2009a, 2009b), believes that we can only form a merely 'role-playing concept' of the relation. In other words, at best the panpsychist's concept of the relation is the role it plays in their theory, it is merely *the relation that gets us around the subject-summing problem*. Hence, Goff is sceptical about our ability to form a positive concept of the phenomenal bonding relation.[45]

In this chapter I will argue that we should not be sceptical about forming a positive concept of the phenomenal bonding relation. I will also aim to improve Goff's phenomenal bonding solution by offering a positive conception of the phenomenal bonding relation.

To do this I will first outline the subject-summing problem for panpsychism as formulated by Goff and the proposed phenomenal bonding solution (Goff, 2016, 2009a, 2009b). From Goff's explanation of his scepticism I will extract three necessary and sufficient conditions that a prospective phenomenal bonding relation must meet. I will subsequently argue that these conditions can be met. If these conditions can be met, then the panpsychist can get around the subject-summing problem and close their 'explanatory

[45] This chapter is a near exact reproduction of: Gregory Miller, 'Forming a Positive Concept of the Phenomenal Bonding Relation for Constitutive Panpsychism', *Dialectica* 71, no. 4 (December 2017): 541–62, https://doi.org/10.1111/1746-8361.12207. I would like to thank the journal *Dialectica* and for allowing me to reprint this material here. I would also like to thank the anonymous referees for their comments on the earlier drafts of the article that resulted in this chapter.

gap' between the micro-level subjects and their experiences and the macro-level subjects and their experiences. The three conditions that the relation must meet are:

i. It must be a phenomenal relation.
ii. It must hold between subjects *qua* subjects of experiences.
iii. It must necessitate further distinct subjects.

The first condition can be met with relative ease, and I motivate the existence of phenomenal relations with three arguments. I shall suggest that the relation which best fulfils the role of phenomenal bonding is the 'co-consciousness' relation (section 3).

The second condition is considerably more demanding because it involves phenomenal relations between subjects: whilst it is obvious that we often encounter spatial or physical relations between subjects, it is less obvious that we often encounter co-consciousness occurring between subjects. I will however argue that Goff's reason for being sceptical about (ii) – namely, that we need introspective access to other subjects and we do not have it – is false. Whilst having introspective access to another subject would be sufficient for us to formulate a concept that met (ii), it is not necessary: there are other concept-forming process that would allow us to form a concept that met (ii). Consequently, I propose we form a concept of this relation by a process of 'analogical extension' (section 4).

The third condition can also be met now we have established the other conditions. To show this I highlight the inconceivability of 'panpsychist zombies' for which our phenomenal bonding relation holds true (section 5). In other words, I highlight the inconceivability of 'phenomenally bonded zombies': functionally identical humans, whose micro-physical parts are micro-subjects, and between which the phenomenal bonding relation holds.

By doing this I hope to have achieved my aim of showing that we do no need to be sceptical about forming a positive concept of the phenomenal bonding relation and improving Goff's account by offering a positive concept of the phenomenal bonding relation. Moreover, I will of show how a group of subject-part come to compose a subject-whole: by becoming phenomenally bonded.

5.2 The Subject-Summing Problem and the Phenomenal Bonding Solution

The subject-summing problem is the aspect of the combination problem generated by the subject-involving nature of experiences, i.e. that experiences are had by subjects. In this section I shall outline this problem, the phenomenal bonding response, and the three necessary and sufficient conditions any prospective phenomenal bonding relation must meet.

Philip Goff (Goff, 2016, 2009b) formulates the subject-summing problem as a sort of 'panpsychist zombie' conceivability argument, analogous to zombie conceivability arguments against physicalism.[46] The subject-summing argument is as follows:

The Subject-Summing Argument:

1. If constitutive panpsychism is true, then there exists a number of micro-subjects, $S_1 \ldots S_n$, with certain experiences, $E_1 \ldots E_n$, and a distinct macro-subject, S_x, with its experiences, E_x, such that the existence of the micro-subjects, $S_1 \ldots S_n$, and their experiences, $E_1 \ldots E_n$, necessitates the existence of the distinct macro-subject, S_x, and its experiences, E_x.

2. **Conceivable Isolation of Subjects (CIS):** For any group of subjects, $S_1 \ldots S_n$, with certain conscious experiences, $E_1 \ldots E_n$, it is conceivable that just those subjects, $S_1 \ldots S_n$, with those conscious experiences, $E_1 \ldots E_n$, exist in the absence of any further subject, S_x, with its experiences, E_x.

3. **Phenomenal Transparency:** direct phenomenal concepts are transparent.

4. **Transparent Conceivability-possibility Principle:** for any proposition, P, which contains only transparent concepts, if P is conceivably true, then P is possibly true.

5. **Metaphysical Isolation of Subjects (MIS):** For any group of subjects, $S_1 \ldots S_n$, with certain conscious experiences, $E_1 \ldots E_n$ it is possible that just those subjects with those conscious experiences exist in the absence of any further subject, S_x (from 2, 3, and 4).

[46] Chalmers (Chalmers, 2016b) subsequently formulates it in a similar manner.

6. **No Summing of Subjects (NSS):** It is never the case that the existence of a number of subjects, $S_1 \ldots S_n$, with certain experiences, $E_1 \ldots E_n$, necessitates the existence of a distinct subject, S_x (from 5).

7. Hence, constitutive panpsychism is false (from 1 and 6).

Premise (2) is supported by the conceivability of panpsychist zombies. Like a normal zombie, the panpsychist zombie is functionally identical to a normal person and lacks macro-phenomenal consciousness. But unlike a normal zombie, all the micro-physical ultimates that constitute it are micro-subjects having micro-experiences.

Premise (3) claims that our phenomenal concepts are transparent, which for the sake of argument I will assume is true.[47] Goff defines transparent concepts in the following way: a concept is transparent *iff* it is *a priori* to the concept user what it is for an object or property to satisfy that concept (Goff, 2016, p. 289). Concepts like *million sided* are transparent, for it is *a priori* what it takes for an object to satisfy this concept by instantiating the property.[48]

Goff believes that it is plausible that our direct phenomenal concepts are transparent, i.e. the concepts that we employ when we think about our experiences whilst undergoing them. He writes:

> Direct phenomenal concepts are plausibly transparent… When I attend to a pain, it is directly revealed to me what it is for something to feel that way. When I attend to my experience of orange, it is directly revealed to me what it is for something to instantiate an experience of that kind (Goff, 2016, p. 291).

Premise (4) is Goff's 'transparent conceivability-possibility principle' and allows for the move from conceivability to possibility when using transparent concepts. This means that when we are conceiving using only transparent concepts, i.e. ones which it is *a priori* what it takes for that concept to be satisfied, we can move from the conceived scenario to the possibility of that scenario. To use Goff's example: we can move from the conceivable existence of a *million-sided object* to the possible existence of such an object.[49] Hence, because our phenomenal concepts are transparent, when we are conceiving using them

[47] This is not an endorsement of the principle.
[48] In distinction to transparent concepts are 'opaque concepts', these are concepts which do no not reveal *a priori* what it takes for something to satisfy the concept. There are also translucent concepts which fall somewhere in between this.
[49] When using opaque concepts, like *water*, we cannot move from conceivability to possibility. This is how Goff accounts for the gap between conceivability and possibility resulting from Kripkean *a posteriori* necessities (like water = H_20).

we can move from the conceived scenario to the possibility of that scenario. Again, for the sake of the argument in this chapter, I will be using Goff's transparent conceivability-possibility principle and will assume its truth.

Premises (2), (3), and (4) allow us to infer the 'Metaphysical Isolation of Subjects': conceiving of a set of subjects in the absence of a further subject, and doing so using transparent concepts, allows one to move to the possibility of such a set of subjects in the absence of a further subject. If the Metaphysical Isolation of Subjects (MIS) is true, then so too is premise (6) the No Summing of Subjects (NSS) thesis. If (NSS) is true, then constitutive panpsychism is false because it fails to supply the requisite necessitation that constitution demands. Hence, it seems that constitutive panpsychism is false.

Let us move on to the phenomenal bonding response this argument.

5.2.1 The Phenomenal Bonding Response

Fortunately for the constitutive panpsychist, the subject-summing argument can be responded to. Premise (1) is limited to merely *the existence* of a set of micro-subjects and their micro-phenomenal experiences, (1) does not include any relations between the subjects and their experiences. Hence, the argument does not rule out the possibility that there can be some *state of affairs* that the subjects enter into: a set of relations between them such that they necessitate a further subject of experience.[50]

The phenomenal bonding panpsychist argues that we should include these possible relations and reformulate constitutive panpsychism in something like the following way:

> (1*) If constitutive panpsychism is true, then there exists of a number of micro-subjects, $S_1 \ldots S_n$, with certain experiences, $E_1 \ldots E_n$, standing in certain relations $R_1 \ldots R_n$ to one another, and a distinct macro-subject, S_x, with its experiences, E_x, such that the existence of the micro-subjects standing in those relations necessitates the existence of the distinct macro-subject with its experiences, E_x.

Premise (1*) and the No Summing of Subject thesis (NSS) are not inconsistent,[51] hence we cannot derive the falsity of constitutive panpsychism from it. Goff argues that the constitutive panpsychist now has room to posit some *state of affairs* to avoid the subject-summing argument, some relation or set of relations $R_1 \ldots R_n$.

[50] When we talk about molecules constituting water, or frames and wheels constituting bikes, we talk of the parts and the relations they stand in (see chapter 1). The panpsychist is therefore justified in doing the same.
[51] One would need a 'No summing of Related Subjects' to falsify (1*), as I will discuss below (section 5).

To make progress, however, the constitutive panpsychist needs to form a *positive* concept of this relation. As it stands they have a merely role-playing concept. By 'merely role-playing concept' I mean that the concept merely designates the role the relation plays in the panpsychist's theory: it tells us simply that it must necessitate the existence a distinct subject if it holds between a group subjects. Goff is sceptical of the idea of making progress on forming a positive (i.e. not merely role-playing) concept of phenomenal bonding. He believes that our epistemic relationship to the phenomenal bonding relation is of a 'mysterian' kind.

The reason for his scepticism is twofold. Firstly, were we to form a concept of a phenomenal bonding relation, we would have to be able to form a concept of a phenomenological relation. Goff believes we cannot do this because no such relations exist. Secondly, we would have to be able to form a concept of a relation that held between subjects of experience *qua* subjects of experience. Goff believes we cannot do this because we do not have introspective access to other subjects. I believe we can take these reasons for being sceptical and conjoin them with our role-playing definition of phenomenal bonding to obtain three necessary and jointly sufficient conditions that any prospective relation must meet for it to be a satisfactory phenomenal bonding relation:

Phenomenal bonding = Relation R, such that:

(i) R is phenomenal;

(ii) R holds between subjects *qua* subject of experience;

(iii) when R holds between a set of subjects, $S_1 \ldots S_n$, with their experiences, $E_1 \ldots E_n$, it necessitates a distinct subject, S_x, with its experiences, E_x.

I will address each necessary condition in the order stated above, and in doing so argue that we can form a positive (and not merely-role-playing) concept of the phenomenal bonding relation. Hopefully by showing this I will have made some movement towards closing the ostensible explanatory gap for the constitutive panpsychist: I will have shown how it is the case that subject-parts come to compose a subject-whole.

In the following section I will argue that there are phenomenal relations, co-consciousness being one of them, and that co-consciousness is what we should take our prospective phenomenal bonding relation to be. I will show that each condition can be met and following this consider some objections to the proposal that co-consciousness is phenomenal bonding.

5.3 Meeting the First Bonding Criterion: Phenomenal Relations and Co-consciousness

Why then, according to Goff, can we not form a concept of a relation that meets the first necessary condition? For Goff, we cannot form a concept of a relation that meets requirement (i) because of our epistemic situation with regards to the world and the nature of consciousness. Goff states the following:

> 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… 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 (Goff, 2016, pp. 292–3).[52]

Goff is right in claiming that current physics reveals the nature of matter to be merely a set of mathematico-causal relations, and we have seen that this is one of the Russellian commitments (see chapter 1 & 3).

However, Goff's claim that we cannot form a concept of a phenomenological relation because states of consciousness are monadic, and hence we are not acquainted with any relations between conscious things does not seem to be right. In the next section I will give three arguments to support this criticism and the claim that there are phenomenal relations which we are acquainted with, along with the proposal that phenomenal bonding is co-consciousness.

5.3.1 Three Arguments for Phenomenal Relations

I believe the following three facts can support the claim that there are phenomenal relations with which we are acquainted and of which we can form concepts: (i) phenomenal relations are introspectible; (ii) absent phenomenal relations generate false phenomenological descriptions; (iii) phenomenal relations fail to generate phenomenal contrast arguments. If there are phenomenal relations with which we are acquainted in our consciousness, then we have perfectly good relations as candidates to meet the first necessary condition on phenomenal bonding. I shall first state what I take a phenomenal relation to be, give some examples including co-consciousness (which is our candidate

[52] See Goff (Goff, 2009a, pp. 132–3) for the same remarks.

relation for phenomenal bonding), and then give the arguments in favour of phenomenal relations.

Firstly, what is a phenomenal relation? I take it that Goff's phrasing is suggestive of the nature of phenomenal relations: 'relations which conscious things bear to each other'. To make this precise we can say that phenomenal relations are relations that hold between subjects or/and experiences. In other words, 'conscious things' like subjects or experiences are the relata of phenomenal relations. Also, we can say that phenomenal relations are *themselves* phenomenal, i.e. there is something which it is like for that relation to be instantiated (unlike the way in which there is not 'something it is like' for spatial or causal relations to be instantiated).

What are examples of such phenomenal relations? Putative examples of such concrete phenomenal relations may be things like attentional relations between experiences, i.e. some experiences being peripheral to other experiences and some experiences being central. Other examples of phenomenal relations would be the relation of *inner awareness*, *for-me*-ness, or self-*intimation* that experiences (or subjects) bear to themselves.[53]

In our case the phenomenal relation in question is the *phenomenal unity relation*: the relation in virtue of which conscious experiences have a conjoint phenomenology or a conjoint what-it-is-like-ness. There are competing accounts of this relation, but I here intend to follow Chalmers' and Dainton's speculations (Chalmers, 2016b; Dainton, 2011) that the *co-consciousnes*s relation is phenomenal bonding. The co-consciousness relation is that relation in virtue of which a set of experiences has a conjoint phenomenology.

The co-consciousness relation meets our first necessary condition on a phenomenal bonding relation (i), but it also has the benefit of being a relation which is *constructive* – whereby 'constructive' I mean: (a) that it is a concrete relation and not a formal one (so it holds between concrete particulars and cannot hold between abstract entities), and (b) that when it holds between its relata there is a significant *structural* difference as compared to the scenarios in which it does not hold between the relata. To illustrate this, consider the following example: if two hydrogen atoms and one oxygen atom stand in the relation

[53] In fact, Marie Guillot has recently defined inner awareness and for-me-ness in terms of some relation R holding between either a subject and it's experiences, or between the subject and itself (Guillot, 2016). Likewise, Galen Strawson has defined self-intimation as a relation R that holds between an experience and itself (Strawson, 2015). It is a contested issue whether subjects have an inner awareness of their experiences, or whether all experiences are reflexively aware of themselves. See Strawson and Guillot for discussions (Guillot, 2016; Strawson, 2015). Also see chapter 11.

of 'being members of the periodic table', then (all things considered) there is no further interesting thing to say about them. This relation, 'being members of the periodic table', is merely formal and brings about no structural difference to its relata. But, if the relation of being *covalently bonded* holds between the particulars, then (all things considered) there are further interesting things to say about the scenario as compared to when it does not. The members of the set share electrons, for instance, and the set itself has the property of liquidity: a new structural feature of the set arises in virtue of the relation that holds between the members of the set (and this relation is not merely formal). Analogously, there is a significant difference between the scenarios in which a set of experiences exists and a merely formal relation holds between the members of the set, or a constructive relation holds between the members of the set. For example, consider two experiences between which the relation 'being of the same sensory modality' holds.[54] All things considered, there is nothing further interesting to say about these two experiences. This relation is formal and brings about no structural difference. On the other hand, if we consider a set of experiences the members of which are related by the co-consciousness relation, then, all things considered, there are further interesting things to say about them: there is a conjoint phenomenology between the experiences, a new structural feature of the set that arises in virtue of the members of the set being related by co-consciousness.

With a better understanding of the co-consciousness relation (I shall discuss it more in chapter 6), and with examples of other phenomenal relations in hand, let us turn to the arguments establishing the existence of such relations.

5.3.1.1 Positively Introspectible

Firstly, we can support the claim that there are phenomenological relations by arguing that they are positively introspectible. Moreover, if they are positively introspectible, then we obviously have a good concept of what a phenomenological relation is. In addition, we may even have *as good* a concept of the phenomenal relations as we have of the intrinsic phenomenal properties that populate our conscious states.

When one introspects one's experience it is true that one comes across many intrinsic properties: the greenness of a pen, the hum of a taxi engine, and the smell of newly painted walls. But it does not seem to be the case that when one introspects, one's conscious life is as austere as this. One's experience of the smell is *related to* the sound of the taxi and the sound of the taxi is *related* in some manner to the colour of the pen. The

[54] I mean on the type or token level.

smell and the hum may be at the peripheries of one's consciousness, and the greenness of the pen at the centre, hence there are attentional relations between the experiences that one introspects. And, each of these experiences may be self-intimating, or the subject may have an inner awareness of each experience that they can introspect. Moreover, and importantly for the constitutive panpsychist, the greenness of the pen is *co-conscious* with the hum of the taxi, and when one introspects this is what one finds.[55]

5.3.1.2 Absent Relations Generate False Phenomenological Descriptions

Secondly, we can support the claim that there are phenomenal relations by appealing to the false phenomenological descriptions that denial of this claim, viz. that there are phenomenal relations, would entail. These false descriptions suggest that there is a significant part of our phenomenal lives that we are normally acquainted with, but which has been missed out.

Any description of one's synchronic total experiential field that listed only the monadic qualities of the experiences, however long and rich the description, would be quite unlike anything we experience day to day. For if consciousness was described merely in terms of monadic phenomenal properties, like the greenness of the pen, the hum of the taxi, and the smell of paint, then there would seem to be something significant missing from our description: namely, phenomenal relations. Describing merely the greenness, or the smell, would leave out the fact that one was at the centre of one's attention. Describing merely the smell or greenness may leave out that the subject has an inner awareness of those experiences, or that each experience is reflexively aware of itself. And, importantly, it would leave out the fact that the co-conscious relation holds between the two experiences.[56]

5.3.1.3 Phenomenal Contrast

Thirdly, we can support the claim that there are phenomenological relations by appealing to the failure of phenomenal contrast arguments in this context (Kriegel, 2007, pp. 125–9). In phenomenal contrast arguments, we try to imagine sympathetically some state, S2, (which is to attempt to imagine it phenomenologically from the first-person perspective) identical to the phenomenal state, S1, we intend to 'investigate'. But, in the state, S2, that we sympathetically imagine, we purposely imagine it lacking a specific property, P: the

[55] Each of these experiences might also stand in the relation of 'self-intimation' to themselves. Again see (Guillot, 2016; Strawson, 2015).
[56] See Bayne (Bayne, 2010, p. 11) for a similar claim.

property that is the focus of the phenomenal investigation. If one can (a) positively imagine this alternative state S2, and when one does (b) there is a phenomenological difference between the states S2 and S1, then that absent property P is phenomenological (Kriegel, 2007).[57] Hence, successful contrasts show that certain properties are phenomenal. Failed contrast arguments do not, however, show that certain properties are not phenomenal, this is because there are certain properties of experience that we cannot imagine it not having: properties that fail to generate phenomenal contrast arguments because they fail at step (a) (i.e. we are unable to positively imagine experiences which *lack* them). If the contrast fails at (b), then the property in experience is not phenomenal, but, as Kriegel (Kriegel, 2007) argues, the properties which fail at step (a) are the properties that are *necessary* for, or *constitutive* of phenomenal consciousness.[58]

My claim is that *the same goes for some phenomenal relations*. That is, we cannot sympathetically imagine what it would be like to experience only monadic properties in a conscious field without those properties being related to one another by relation R. Thus, phenomenological relation R is necessary for, and constitutive of, phenomenal consciousness. In particular, the claim in this chapter is that co-consciousness is a relation that fails phenomenal contrast arguments at step (a): one cannot sympathetically imagine a conscious state lacking the co-consciousness relation between the experiences constituting that state.[59]

These three arguments give us good reason to endorse the existence of phenomenal relations, one of which is co-consciousness: the candidate phenomenal bonding relation.[60] Now we have good reason to think that there are phenomenal relations, and that co-consciousness is the relation which we intend to use to meet condition (i), we need to show that we can form a concept of a relation that meets condition (ii) i.e. that it holds

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[57] The typical example is hearing a conversation in French with and without understanding the meanings of the words (Strawson, 1994). If one is (a) able sympathetically to imagine what this state would be like, and (b) there is a significant difference in one's phenomenology, then it is inferred that the property of 'meaning' is phenomenally manifest i.e. there is distinctly something which it is like to understand meanings. See Bayne and Montague's volume on cognitive phenomenology for an in depth discussion on this topic (Bayne and Montague, 2011).

[58] Compare our ability to perform a phenomenal contrast of a state in the absence of colour, with our putative inability to perform a phenomenal contrast of a state with absence of its *subjectivity* or *self-intimation*. As fn.10 notes, the primate status of 'for-me-ness' or 'self-intimation' is still contested.

[59] Attentional relations are not like this, one can perform contrast cases for states lacking this relation. Hence, this argument only holds for the constitutive aspects of phenomenal consciousness. It is contested whether the contrast case works for for-me-ness and self-intimation, however.

[60] N.B.: one is phenomenally aware of the relation, i.e. one is aware of the relation and it *feels a certain way*.

between subjects *qua* subject of experience. In the next section I shall take up this task, following that I shall show co-consciousness also meets condition (iii).

5.4 Meeting the Second Bonding Criterion: Intersubjective Relations

Forming a conception of a phenomenological relation might not be as hard as it initially seemed: many relations occur within my total conscious field and it seems the co-consciousness relation is the ideal relation to meet the requirement (i). But why does Goff think we cannot form a concept of a relation that satisfies requirement (ii): R holds between subjects *qua* subject of experience? Again, it seems to be because of our epistemic situation regarding subjects of experience:

> I have epistemic access to only one subject of experience *qua* subject of experience, i.e. the subject of my own experience accessed via introspection. It follows from the fact that we can introspect only one subject of experience, that we cannot introspect how subjects of experience *qua* subjects of experience are related, for to introspect how subjects of experience qua subjects of experience are related we would have to be able to introspect more than one subject of experience. Given that we can experience subjects of experience *qua* subjects of experience only via introspection, and we have introspective access only to one subject of experience, it follows that we cannot experience subjects of experience qua subjects of experience as related (Goff, 2009a, p. 132).[61]

Goff's point is quite clear, if we were to form a concept of the phenomenal bonding relation it would require us to have introspective access to more than one subject. Or at least, it would require us to introspect the experiences of another subject of experience. If we had such access to another subject and its experiences, alongside such access to our own, then we would be able to introspect a relation that held between them (if a relation did indeed between them). But, we do not have such introspective access to other subjects and their experiences, so we cannot form a concept of the relation.

Rather than adopting mysterianism at this point, the optimistic phenomenal bonding panpsychist may respond by arguing in two ways. Firstly, that we do not need introspective access to other subjects *qua* subjects of experience to form a concept of a relation that holds between them. Secondly, if we are composite subject-wholes made up of subject-parts, then it is false that we do not introspect other subjects' experiences: we constantly introspect the experiences of the distinct subjects which we overlap every time

[61] See Goff (Goff, 2016, p. 293) for the same claim, the choice of quotation is purely for reasons of exposition.

we introspect. In other words, if constitute panpsychism is true, then we do introspect the experiences of other subjects.

In the following section I will, however, only focus on the first of these responses. I will show Goff's demand for introspective access is misplaced, and that we may be able to form a concept of the relation by the process of 'analogical extension'.

5.4.1 Introspection is not Necessary

The panpsychist should accept condition (ii) as a necessary condition on something's being the phenomenal bonding relation. However, Goff's claim that we need to have introspective access to other subjects seems to be a *further* requirement that is not a necessary condition on the nature of the relation itself. Instead, having introspective access to another subject seems to be a restrictive condition on *how* we come to know about and form a concept of the relation, and this way of coming to form a concept of the relation may be one of many possible ways.

In other words, having introspective access to another subject may be a process *sufficient* for forming a concept that meets requirement (ii). However, it does not seem to be *necessary* for forming a concept of a relation that meets condition (ii). Thus, there may be other concept-forming processes that are sufficient, such that they would allow us to form a concept of a relation that meets condition (ii), and which did not require us to be able to introspect another subject.[62]

The question is: how else could we form a concept that met (ii)? I propose the following answer: we could form a concept of a relation that met condition (ii) by simply *analogically extending* our concept of the relation that met condition (i) to the context in which it holds between distinct subjects *qua* subjects of experience. By 'analogical extension' I mean something similar to Colin McGinn, he writes:

> 'suppose we try out a relatively clear theory of how theoretical concepts are formed: we get them by a sort of analogical extension of what we observe. Thus, for example, we arrive at the concept of a molecule by taking our perceptual representations of macroscopic objects and conceiving of smaller scale objects of the same general kind' (McGinn, 1989, p. 358).

[62] Alternatively, the panpsychist can say that we do have introspective access to other subjects. If constitutive panpsychism is true, then myself and my experiences are constituted by many subjects and their experiences. Hence, if constitutive panpsychism is true, it is true that I have introspective access to other subjects: namely, those subjects that constitute me. Hence, the constitutive panpsychist can respond to Goff by claiming that (a) Goff is incorrect that introspective access to distinct subjects is necessary, (b) introspective access to other subjects is sufficient, and (c) that we do indeed have introspective access to distinct subjects.

Here McGinn's example of analogical extension is of our concept *physical object* and moving down in scale, we take our concept *physical* at the macro-level and extend it to the context of the micro-level. Another example of analogical extension may be when we form a concept of the 'earlier than' relation for vast stretches of time: we experience two closely temporally related events with a distinct order (e.g. the flicking of a switch and the boiling of a kettle), form a concept of 'earlier than', and we apply that concept to a new context in which the temporal distance between the two events is much greater than we can experience (e.g. the French revolution occurring before the battle of Waterloo).

An example regarding our experiences may be the following by Brian Loar. In essence, Loar is applying the same method of analogical extension to the phenomenal similarity relation:

> 'It appears that one's phenomenological conception of how others' phenomenal states resemble one's own has to be drawn from one's idea of how one's own phenomenal states resemble each other. A person's quality space of interpersonal similarity must derive from her quality space of intrapersonal similarity. How else is one to get a conceptual grip on interpersonal phenomenal similarity? This seems inevitable on any account – physicalist or antiphysicalist – on which phenomenal concepts are formed from one's own case' (Loar, 1997, p. 606).

Here Loar is taking the phenomenal similarity relation that holds between a subject's experiences and saying that we can apply this to the experiences of different subjects and between different subjects; we are taking an intrapersonal relation and applying it interpersonally. Likewise, the optimistic panpsychist should aim to analogically extend their concept of co-consciousness (that I have shown meets condition (i)) to the scenario in which it holds between subjects and thus meets condition (ii). That is, the phenomenal bonding panpsychist should aim to show that the co-consciousness relation that holds within a subject's conscious field can hold between the conscious fields of distinct subjects.[63] If this is possible, if no *a priori* contradiction arises as a result of the analogical extension, then the optimistic phenomenal bonding panpsychist can meet both of the first two conditions of a candidate phenomenal bonding relation. How can the panpsychist show this?[64]

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[63] N.B.: the relation that Loar uses is a formal relation and not a concrete one, but it may be possible that the analogical extension can still be done. This is precisely my claim below.

[64] It is worth noting that the panpsychist is already committed to doing something like this when they form a concept of their fundamental particles. The panpsychist takes the concept *phenomenal consciousness* from applying to human beings like ourselves and extends it to the context in which it applies to fundamental particles like quarks, leptons, and bosons. The panpsychist, therefore, should already be open to the utility of analogical extension method.

One way to show that this is possible would be to show that it is actual. Much has been written about the unity of consciousness regarding split-brain patients and on certain readings we can plausibly argue that there is a form of co-consciousness that holds between two distinct subjects. For instance, if something *similar* to the 'partial unity account' notably proposed by Michael Lockwood (Lockwood, 1989) (and recently defended by Elizabeth Schechter (Schechter, 2014)) is true, then we could understand the relations between each hemisphere as being an instance of the co-consciousness relation holding between the conscious fields of different subjects. The crux of partial unity models is that they see co-consciousness as a non-transitive relation, i.e. if experiences e_1 and e_2 are co-conscious, and e_2 and e_3 are co-conscious, it does not follow that e_1 and e_3 are co-conscious. To highlight how this helps consider Lockwood's example of a neuron by neuron corpus callosotomy (Lockwood, 1989, p. 87), where the two hemispheres of the brain are separated by cutting the corpus callosum one connection at a time. Consider the point at which *all* connections between the two hemispheres have been severed except one. It seems plausible to suggest that at this point we have co-consciousness relations holding between distinct, non-identical subjects of experience: if each hemisphere is considered as subject (as opposed to the organism as a whole), then co-consciousness relations between subjects would follow.

Even if split-brains cases are best understood in another manner one may still argue that there is no incoherence in this suggestion, and one may offer some other plausible account to highlight this possibility. If this is possible, then we can see that we could have co-consciousness relations between distinct, non-identical subjects' experiences. For the sake of brevity, I leave this an open but defensible possibility, one that needs a further argument beyond the scope of this chapter.[65] What is important to note, as will become clear in the next chapter when discussing the potential protophenomenal bonding view,

[65] I will note two further things, however. Firstly, Luke Roelofs (Roelofs, 2016) has recently argued that the phenomenal unity relation can hold between distinct subjects of experience. He has defended this possibility from three objections, and he has shown that all three can be overcome by adopting some very reasonable principles. Moreover, Roelofs argues that the burden of proof lies with the defender of the claim that, necessarily, phenomenal unity (in our case co-consciousness) cannot hold between subjects, rather than those who make the possibility claim that it can (Roelofs, 2016, p. 5). This is precisely why he *defends* the thesis. Secondly, it is also worth noting that in principle Goff has no objection to the idea of co-consciousness holding between distinct subjects. As far as one can tell, his objection is merely to the idea that we could form a concept of this relation by any means other than introspection of another subject's experiences. Nothing he has said indicates that if phenomenal relations existed, it would not be possible that co-consciousness could be extended to the interpersonal context.

is that the panpsychist who accepts phenomenal bonding accepts co-consciousness between distinct subjects of experience.

Although not necessary, I believe we can attempt at defining analogical extension in the following way:

Analogical extension:

(i) Acquire concept C_1 in scenario S_1

(ii) Apply concept C_1 to a *similar* scenario S_2

(iii) It is not incoherent that C_1 apply in S_2

This is in essence what the panpsychist does when they form a concept of micro-phenomenal properties, and it is what I think they can do to form a positive concept of the phenomenal bonding relation.

I have shown that Goff's scepticism regarding condition (ii) is misplaced. He focuses on a merely sufficient process of concept formation, and neither does he show that such a process is necessary. I have also suggested that we may be able to analogically extend our concept of co-consciousness. I shall now move on to consider the third criterion. If we can show that co-consciousness meets condition (iii), then the phenomenal bonding panpsychist will have met all three conditions and will have a positive concept of the phenomenal bonding relation. In the next section I will show precisely that. Following this I will consider some objections to this proposal.

5.5 Meeting the Third Bonding Criterion: Necessitation

I have tried to show that there exist phenomenal relations and that co-consciousness is one such relation, i.e. condition (i) of phenomenal bonding can be satisfied. We are also assuming that it is defensible that the co-consciousness relation can be analogically extended from its intrapersonal context to an interpersonal context without any incoherence arising, i.e. that condition (ii) can be satisfied. The only question that remains is whether co-consciousness can satisfy the third condition:

> (iii) when R holds between a set of subjects, $S_1 \ldots S_n$, with their experiences, $E_1 \ldots E_n$, it necessitates a distinct subject, S_x, with its experiences, E_x.

To determine whether co-consciousness necessitates further subjects and their experience we can try to run the subject-summing argument again, but this time include co-

consciousness in our formulation. The aim of the subject-summing argument is to show that there is precisely a lack of necessitation between the facts about micro-subjects and the facts about macro-subjects. It achieves this aim because of the putative truth of the conceivable isolation of subjects. Hence, if the argument fails at this stage (with co-consciousness in the picture), then we will have shown that there is the relevant necessitation between the facts about micro-subjects and the facts about macro-subjects. If we can show that co-consciousness provides the required necessitation, then co-consciousness will have met all three conditions on a phenomenal bonding relation. In the next subsection, I shall show that such an argument does fail, and that co-consciousness meets condition (iii).

5.5.1 The Inconceivability of Isolated Co-conscious Subjects

The important premise for our purposes is the Conceivable Isolation of Subjects (CIS). However, because constitutive panpsychism includes relations between the subjects (as I suggested in chapter 1.2.2 section 5.2.1), to show that there is a lack of necessitation we would need a thesis which included the relations in question. What would be needed would be the Conceivable Isolation of Related Subjects (CIRS):

> **Conceivable Isolation of Related Subjects (CIRS):** For any group of subjects, $S_1 \ldots S_n$, instantiating certain conscious states, standing in certain relations, $R_1 \ldots R_n$, to one another, it is conceivable that just those subjects, $S_1 \ldots S_n$, with those conscious states exist in the absence of any further subject, S_x with its experiences, E_x

Using the Conceivable Isolation of Related Subjects (CIRS) we could run a Related-Subject-Summing Argument against panpsychism inserting co-consciousness as the variable relation R in (CIRS). Doing so would get us the 'Conceivable Isolation of Co-Conscious Subjects' (CICCS):

> **Conceivable Isolation of Co-Conscious Subjects (CICCS):** For any group of subjects, $S_1 \ldots S_n$, instantiating certain conscious states, standing in certain relations, $R_1 \ldots R_n$, to one another, where one of the relations R_1 is the co-consciousness relation, it is conceivable that just those subjects, $S_1 \ldots S_n$, standing in the co-consciousness relation, R_1, with those conscious states exist in the absence of any further subject, S_x with its experiences, E_x

With this thesis, the transparency of our phenomenal concepts, and Goff's transparency-possibility principle, we should be able to formulate another subject-summing argument against panpsychism: a 'Co-Conscious Subject-Summing Argument'.[66] The conclusion of this argument would be that phenomenal bonding panpsychism, which claims that phenomenal bonding is co-consciousness, would be false.

What should we make of such an argument? I will show that it is unsound: the Conceivable Isolation of Co-Conscious Subjects (CICCS) is false. If the Conceivable Isolation of Co-Conscious Subjects (CICCS) is false, then co-consciousness is the necessitating relation that the panpsychist needs. Hence, co-consciousness meets condition (iii). To show the falsity of (CICCS) I shall return to the panpsychist zombie and show it is inconceivable.

The conceivability of a panpsychist zombie can give us the support we needed for the standard Conceivable Isolation of Subjects (CIS), but cannot help us with the Conceivable Isolation of Co-Conscious Subjects (CICCS). Instead, to support this thesis we would need a 'co-conscious panpsychist zombie'. Like a standard zombie, the co-conscious panpsychist zombie acts just like a normal human person and its brain etc. is functionally identical. However, just like a standard panpsychist zombie each of the microphysical ultimates are micro-subjects instantiating micro-phenomenal properties. In addition to this, however, unlike a normal panpsychist zombie the co-consciousness relation holds between all the micro-subjects' experiences.[67] Moreover, just as a normal zombie and a panpsychist zombie lack a macro-consciousness, so too must the co-conscious panpsychist zombie. In other words, there is something which it is like to be each of the microphysical parts, the co-consciousness relation holds between all these parts, but there is nothing which it is like to be the whole. This is what a co-conscious panpsychist zombie amounts to.

The problem is this: we cannot conceive of a co-conscious panpsychist zombie. We cannot conceive of a set of subjects each member of which is related by co-consciousness, without also conceiving of a subject corresponding to the set. Alternatively: we cannot conceive of a set of subjects, related by co-consciousness, without them composing a subject-whole. To illustrate this, consider a simple set of micro-subjects $S_1 \ldots S_n$ with their

[66] For the sake of brevity, I leave the task of formalising this argument up to the reader.
[67] Or at least, all those parts of a human organism that are relevant for the production of macro-consciousness, e.g. the brain and maybe nervous system.

certain micro-experiences, and consider that the co-consciousness relation holds between the experiences of each of the members of the set. Once each member of the set of subjects and their experiences becomes bonded by co-consciousness, there exists an experience that corresponds to the set and the co-consciousness relations between them: there is the set and its conjoint phenomenology. If there is a conjoint phenomenology corresponding to the set, then there is a what-it's-likeness corresponding to the set, and, hence, there is a macro-subject which corresponds to the set.[68]

It seems then that co-consciousness can provide the phenomenal bonding panpsychist with the requisite necessitation. Moreover, we have been able to show that co-consciousness meets the conditions (i) – (ii) of a phenomenal bonding relation. The phenomenal bonding panpsychist is now in a position to claim that they are no longer operating with a merely role-playing concept, and that their concept *phenomenal bonding* has the positive content that we were searching for. I shall now move on to discuss some objections to this proposal.

5.6 Objections and Clarifications

Now that we have the proposal on the table, namely that co-consciousness is a workable phenomenal bonding relation, it is worth considering some objections to it. I will consider two such objections: (i) that we need transparent access to the relation R; (ii) that co-consciousness is the explanandum not the explanans.

We need transparent access

Goff (and other mysterians about the phenomenal bonding relation) may respond by saying that our conditions are not strict enough: (i)-(iii) are not sufficient, and, as such, will not help us form an adequate concept of phenomenal bonding. Instead the correct conditions on a phenomenal bonding relation would be ones that required us to have transparent access to the phenomenal relations. Hence, they may claim, we should add the following condition that, importantly, we have failed satisfy:

(iv) We must have a transparent concept of the relation R.

The problem with this objection is that insofar as we have such transparent access to our experiences, we also seem to have such access to the co-consciousness relation that holds between them. Consider Goff's claim (section 2 above) that we have transparent access

[68] The 'corresponds' relation here is not intended to be *identity*.

to our experiences of pain or the colour orange: if the nature of the experiences of pain or orange alone are revealed to me in introspection, then so too is the co-consciousness relation that holds between them. As such, not only do I form an ostensibly transparent concept of the intrinsic phenomenal properties in my conscious field, but also of the co-conscious relation that holds between them

The response may be that (iv) still is not satisfied. Whilst it may be the case that we have a transparent concept of a phenomenal relation that satisfies (i), to have a transparent concept of a relation that meets condition (ii) we *must* come to know it by having introspective access to another subject. We may be able to have a concept of a phenomenal relation between subjects of experience by analogical extension, but without introspective access it would not be a transparent concept. Therefore, it would not be adequate for being our concept of phenomenal bonding.

Again, I believe the optimistic phenomenal bonding panpsychist can reply. They can say that if I am acquainted with the relation in my experience and I know *a priori* that it can hold between the experiences of distinct subjects of experience, then I have met the minimal requirements on what counts as a transparent concept of the relation as outlined by Goff.

Co-consciousness is helping oneself to the explanandum

Sam Coleman (Coleman, 2016) has recently criticised the co-consciousness is phenomenal bonding proposal. He writes:[69]

> But this is to describe the (desired) outcome of a certain process, without telling us at all *how* it is achieved. Co-consciousness requires a subject: it's consciousness *for a subject* of some items. That makes *being co-conscious* relevantly like *being co-punched*, in that when two things are co-punched, we must ask: *by whom*? When we drag two experiential packets out of respective microsubjects, whence does the new subject come for whom they are to be coconscious? To say that experiential packets are related now by co-consciousness is certainly to *imply* that a new subject has come into being for whom they are unified, but it is not to tell us how this happens, nor whether it is possible. In the absence of further positive content, what the notion of phenomenal bonding really amounts to is a *schema*: it specifies what an explanation of subject combination must achieve. It is a mere black box (Coleman, 2016, p. 257).

Coleman's concern seems to be that the panpsychist who claims that 'phenomenal bonding is co-consciousness' is making some sort of category mistake. His claim appears

[69] Coleman (Coleman, 2016) also makes a similar criticism as Goff above, but the comparative relation is a 'neutral-to-phenomenal bonding relation'. My response to Goff applies equally to Coleman's criticism.

to be that co-consciousness is the explanandum and we are in search of, precisely, an explanans for it: to cite co-consciousness *as* the explanans will not do, that would be putting the cart before the horse. This means that we cannot use co-consciousness as our concept of phenomenal bonding and that co-consciousness as phenomenal bonding does not constitute an *explanation*, merely an assertion of the thing to be explained.

Firstly, it is true that phenomenal bonding as outlined by Goff was a mere schema, a black box. But, now that I have shown that the co-consciousness relation satisfied all the conditions of such a schema, we are no longer in a position of having no positive concept of the relation. Co-consciousness is a relation that we are all acquainted with in our day to day conscious lives.

Secondly, Coleman's objection assumes a model of priority between subjects, experiences, and unity, which need not be shared by the phenomenal bonding panpsychist. Here Coleman assumes that subjects are in some sense prior to their experiences and the unity of each of their consciousnesses. For the panpsychist this is just not the case. In this way being co-conscious is not like being co-punched where we assume that there is *already* someone to do the punching. Being co-conscious, or more correctly being phenomenally bonded, is more like being covalently bonded. So, Coleman is correct in saying that if two experiences are co-conscious, then this implies a new subject has come into being for which they are jointly experienced. But, he is not correct in claiming that this does not tell us how. Precisely how that subject comes into being is by the elements of a set of experiences being phenomenally bonded together by the co-consciousness relation.

5.7 Conclusion

I have given three necessary and jointly sufficient conditions on a prospective phenomenal bonding relation (extracted from Goff's exposition), and I have made the case that co-consciousness may satisfy all three. If one should no longer be sceptical about forming a positive concept of phenomenal bonding, then one should recognise that phenomenal bonding panpsychism appears to be our best theory.

There remains more work that the phenomenal bonding panpsychist must do, further questions that they need to answer, and more details to be worked out. In the next chapter I will turn to look at these details. The driving force behind the following chapter is whether the phenomenal bonding panpsychist can address the boundary problem, and because of this problem should they adopt a 'proto variant' of their view:

protophenomenal bonding panpsychism. At the same time, I will look at the transitivity of phenomenal unity, and the essential boundedness of subjects of experience. Let us turn to this task.

6 Chapter 6: Protophenomenal Bonding and the Boundary Problem

> 'The surrounding space is so vast that it becomes more and more difficult to keep a balanced grip on one's own being… The mind expands to fill the entire landscape, becoming so diffuse in the process that one loses the ability to keep it fastened'
>
> (Murakami, 2003, p. 139)

6.1 Introduction

The constitutive panpsychist can appeal to the phenomenal bonding relation, and importantly to the speculation that co-consciousness = phenomenal bonding, in order to avoid the subject-summing argument. As we have seen, the phenomenal bonding panpsychist avoids the subject-summing argument because the phenomenal bonding relation is positively responsible for combining micro-subjects into macro-subjects, such that it would be inconceivable for there to be a group of phenomenally bonded micro-subjects in the absence of subject-whole constituted by them. Hence, the thesis which we called the 'conceivable isolation of co-conscious subjects' (CICCS) is false:[70]

> **Conceivable Isolation of Co-Conscious Subjects (CICCS):** For any group of subjects, $S_1 \ldots S_n$, instantiating certain conscious states, standing in certain relations, $R_1 \ldots R_n$, to one another, where one of the relations R_1 is the co-consciousness relation, it is conceivable that just those subjects, $S_1 \ldots S_n$, standing in the co-consciousness relation, R_1, with those conscious states exist in the absence of any further subject, S_x.

The next step, however, is for the phenomenal bonding panpsychist to further cash out the details of their phenomenal bonding account. We must, therefore, ask some important questions, to which the phenomenal bonding panpsychist must provide an answer. I take

[70] Much of this chapter is material from: Gregory Miller, 'Can Subjects Be Proper Parts of Subjects? The De-Combination Problem', *Ratio* 31, no. 2 (June 2018): 137–54, https://doi.org/10.1111/rati.12166. I would like to thank the journal *Ratio* for allowing me to reprint this material here.

these questions from the literature that surrounds the phenomenal bonding response to the subject-summing argument.

The first thing we want to know is 'what room is there in the panpsychist ontology for a phenomenal bonding relation?'. This question arises most pertinently for the Russellian panpsychist, for them it is the question 'what physical relation phenomenal bonding is the deep nature of?'. Moreover, this raises whether phenomenal bonding is fundamental or derivative, and hence whether or not we should accept a 'protophenomenal bonding' version of the view (Chalmers, 2016b; Goff, 2017a, 2016).

Second of all we want to know how the panpsychist is going to address the 'boundary problem' (Rosenberg, 2004):

> **The Boundary Problem:** whatever mechanism, M, or relation, R, that could get us around the subject-summing problem, would also inadvertently relate the whole cosmos, giving us one large subject of experience.

Dainton and Chalmers both discuss this problem, and in doing so raise the issue of the transitivity of co-consciousness. Dainton proposes that if the relation is transitive, then the panpsychist has a problem. If, however, the relation is non-transitive, then the panpsychist does not have a problem. Chalmers, however, believes that even a non-transitive relation presents the phenomenal bonding panpsychist with a problem.

I shall first start by looking at the place of the phenomenal bonding relation in the panpsychist's ontology and will suggest that we should be Russellian about this relation. I shall then consider the potential of adopting a proto variant of phenomenal bonding: protophenomenal bonding. The motivation for this view is that it avoids the boundary problem. I suggest that it does not avoid the problem and lack motivation, the boundary problem is really concerned with subject proper parthood relations.

Following this I will outline some of the formal features of the co-consciousness relation, and turn to look at the boundary argument against subject-to-subject proper parthood (this is the essence of the problem and is what Rosenberg, Dainton, and Chalmers (Chalmers, 2016b; Dainton, 2011; Rosenberg, 2004) are getting at). I will discuss the methods of avoiding the problem, mainly denying the transitivity of the co-consciousness relation, but will ultimately suggest the panpsychist must deny the essential boundedness of consciousness. Finally, I will suggest that the introspective motivation to assume boundedness does not support it.

6.2 Phenomenal Bonding or Protophenomenal Bonding?

As we have seen, the phenomenal bonding relation is that relation such that when it holds between distinct subjects of experience, those subjects constitute and thereby necessitate the existence of a distinct, non-identical conscious subject of experience. Moreover, we have seen that because of this the panpsychist has been able to avoid the subject-summing argument by rejecting the conceivable isolation of co-conscious subjects. The question is what place does the phenomenal bonding relation have in the panpsychist's ontology and the natural world?

It does not seem like phenomenal bonding could be a physical relation typically construed, mainly because such relations are non-phenomenal (and phenomenal bonding is phenomenal). Neither does it seem to be parsimonious to add a *sui generis* phenomenal bonding relation in addition to those revealed by physics (macro-subjects would also potentially suffer from being epiphenomenal if we were to do this (Chalmers, 2016b, p. 200)). But phenomenal bonding could be the deep material nature of some physical relation. In the same manner that physics characterises micro-physical properties too austerely, it also characterises micro-physical relations too austerely. The Russellian monist posits that such micro-physical properties need a deep nature, and the panpsychist posits phenomenal properties as that nature. Likewise, the Russellian monist can claim that the micro-physical relations need a deep nature, and the panpsychist can claim this nature is phenomenal bonding. From now onwards I will equate phenomenal bonding with Russellian phenomenal bonding.

The question is which relation – described merely as a role within our physical theories – is phenomenal bonding the deep nature of? Moreover, we can also ask whether phenomenal bonding is the deep nature of a *fundamental* physical relation, R1, or a *derivative* relation, R2.

The distinction between phenomenal bonding being a fundamental relation vs. a derivative relation allows us to make the following distinction of views:

- Phenomenal bonding panpsychism
- Protophenomenal bonding panpsychism.

Phenomenal bonding holds that the phenomenal bonding relation is a fundamental physical relation, R1. Protophenomenal bonding panpsychism holds that protophenomenal bonding relation is the deep nature of the fundamental relation, R1,

and that protophenomenal bonding relation constitutes the phenomenal bonding relation which itself grounds the derivative relation, R2.

The motivation for choosing protophenomenal bonding over phenomenal bonding is often assumed to be: the protophenomenal bonding view does not entail the ubiquity of the phenomenal bonding relation, and it will not therefore entail that all the subjects in the cosmos will be phenomenally bonded (thereby composing a further subject). In other words, protophenomenal bonding will not generate a cosmos-subject and will avoid the boundary problem.

The problem is that this false or bad motivation, especially given the position we are already in.

Firstly, the fundamentality of the phenomenal bonding relation does not entail the ubiquity of the relation – not all fundamental physical relations hold ubiquitously. Likewise, the non-fundamentality of phenomenal bonding relation does not entail it would not hold ubiquitously.[71]

Secondly, even if we assumed the previous two points were false (such that the fundamentality of the relation entailed its ubiquity and its non-fundamentality entailed its non-ubiquity), the mere fact that the cosmos turns out to be a subject is not what makes the boundary problem pressing. As all the authors who write on this problem have noted (Chalmers, 2016b; Dainton, 2011; Rosenberg, 2004), it is the fact that the cosmos is the *single* subject, i.e. we are no longer subjects if it is a subject, which makes it pressing. Determining a principle by which to draw the boundaries of most material entities is a problematic issue, it is not one specific to panpsychism. The problem specific to panpsychism is the subject-to-subject proper parthood relation, endorsing protophenomenal bonding does not remove that problem (it also ultimates requires endorsing the same solutions).

Thirdly, given the lemma of the mereological argument in chapter 2, the cosmos is already a subject if it is true that it exists, and we are proper parts of it (which I take it to be the case we are). Hence, the fact that the phenomenal bonding relation may not extend beyond our skulls does not alleviate the phenomenal bonding panpsychist of cosmos-subjects.

[71] Mihálik (Mihálik, 2016, chap. 7) makes these points quite nicely, along with an interesting discussion of protophenomenal bonding panpsychism.

Fourthly, introducing protophenomenal bonding relations is to introduce noumenality back into the panpsychist picture. For not that we have no other conception of the protophenomenal bonding relation – likewise, the proto-co-consciousness relation – other than the following role-playing definition:

> Protophenomenal bonding relation is that relation R such that:
>
> i) R is distinct from merely structural relations revealed by physics;
>
> ii) R a priori necessitates the phenomenal bonding relation when instances of it constitute structure S.
>
> iii) R is distinct from the phenomenal bonding relation.

If we have already eschewed other positions for introducing noumenality or being mysterian, then we should likewise eschew this position: noumenality is noumenality, it should be avoided wherever possible, the panpsychist will say.

Not only has the boundary problem motivated some authors to adopt protophenomenal bonding, it has motivated some others to raise question of whether the co-consciousness relation is transitive or not. In the rest of this chapter I shall look at the boundary problem as it concerns the subject-to-subject proper parthood relation. Firstly, I will explain the possible structures of consciousness entailed by denying the transitivity of co-consciousness and following this I will outline the boundary problem and respond.

6.3 Strong and Weak Phenomenal Unity

Firstly, it would be beneficial to set out some of the formal features of the co-consciousness relation.

Typically, it is claimed that phenomenal unity, or co-consciousness, is a reflexive relation (Bayne, 2010; Dainton, 2000; Lockwood, 1989). A reflexive relation is a relation that some entity bears to itself. Identity is an example of a reflexive relation, object A is identical to object A. Another example of a reflexive relation is the everyday relation of self-consciousness, if a person, Hilary, is self-conscious, then they are conscious of Hilary. When it comes to phenomenal unity, then, this means that any given experience, E, will be co-conscious with itself.

It is also often claimed that co-consciousness is a symmetric relation (Bayne, 2010; Dainton, 2000; Lockwood, 1989). A symmetric relation is a relation such that if an individual A bears that relation to an individual B, then the individual B bears that relation

to individual A. Again, identity is another example of a symmetric relation: if object A is identical to object B, then object B is identical to object A. Another example of a symmetric relation is the relation of 'being married to': if a person, Hilary, is married to another person, Morgan, then Morgan is also married to Hilary. For experiences, this means that for an experience, E1, and another experience, E2, if E1 is co-conscious with E2, then E2 must be co-conscious with E1.

Along with reflexive and symmetric, it is most often held – albeit, often after considerable thought (Alter, 2010; Bayne, 2010; Dainton, 2008, 2000; Gazzaniga, 2005; Lockwood, 1989; Nagel, 1971; Schechter, 2014, 2010) – that co-consciousness is a transitive relation. A transitive relation is a relation such that, for any three individuals, A, B, and C, if the relation holds between A and B, and it also holds between B and C, it must also hold between A and C. A prime example of a transitive relation is the identity relation. If object A is identical to object B, and object B is identical to object C, then object A will be identical with object C. Another example of a transitive relation is the relation of set containment. If the set of all chimpanzees, C, is a subset of the set of all apes, A, and the set of all apes is a subset of the set of all mammals, M, then the set of all chimpanzees must be a subset of the set of all mammals. The transitivity of the co-consciousness relation between experiences means that for four experiences, E1, E2, E3, and E4, if E1 and E2 and co-conscious, E2 and E3 are co-conscious, and E3 and E4 are co-conscious, then E1 and E4 must be co-conscious. If E1, E2, E3, and E4 are co-conscious in this manner, then they will compose a further experience E5 of which each of them are parts (see Figure 3).

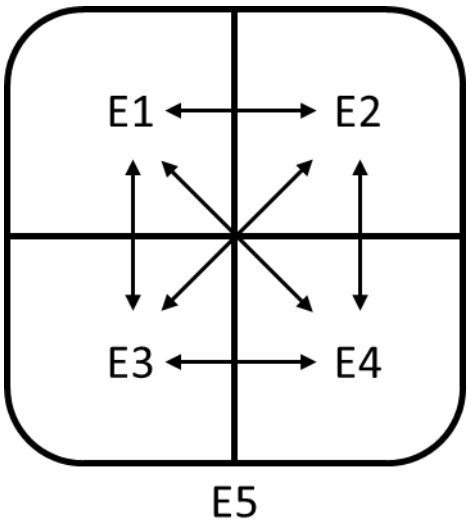

FIGURE 3 STRONG PHENOMENAL UNITY

These three notions allow us to define a possible phenomenal structure of a subject's consciousness, a strongly unified consciousness:

> **Strong Phenomenal Unity:** an experience, E, is strongly phenomenally unified *iff* every part of E is co-conscious with every other part of E, i.e. the parts of E are transitively co-conscious.

It is not, however, always assumed to be the case that co-consciousness is a transitive relation. Hence, it is not always assumed to be the case that an experience must be strongly unified. As we saw in the previous chapter (see chapter 5.4.1), split-brain research raises serious doubt over the transitivity of co-consciousness, and it has led some to suggest that it is a non-transitive relation. A relation is non-transitive or intransitive if for any three individuals, A, B, and C, if A is R-related to B, and B is R-related to C, then A and C need not be R-related. An example of a non-transitive relation is the relation of predation: humans may hunt and eat whales, and whales hunt and eat plankton, but humans do not hunt and eat plankton. Applied to co-consciousness, this would mean that for four putative experiences E1, E2, and E3, if E1 is co-conscious with E2, and E2 is co-conscious with E3, E1 need not be co-conscious with E3. These three experiences would nevertheless compose a further experience, E4, it is simply that all the parts of E4 are not unified with one another (see Figure 4).

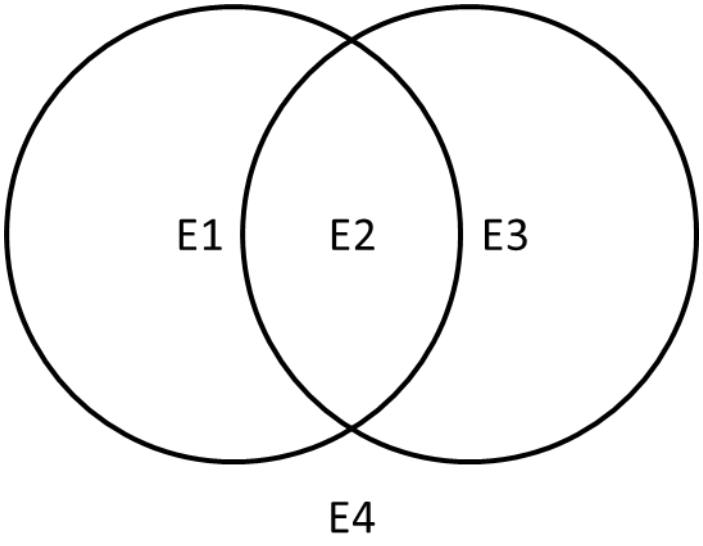

FIGURE 4 WEAK PHENOMENAL UNITY

This allows us to define an alternative possible structure of a subject's consciousness, a weakly unified consciousness:[72]

> **Weak Phenomenal Unity:** an experience, E, is weakly phenomenally unified *iff* every part of E is co-conscious with some other part of E, i.e. the parts of E are non-transitively co-conscious, and every part of E is not co-conscious with every other part of E.

Weak phenomenal unity allows for some more interesting phenomenal structures than figure 2. For instance, if co-co-consciousness is non-transitive, then we would be able to have different degrees of disunity available. We could have a subject with an experience, E1, which had parts many of which were co-conscious with many of the other parts of E. Or alternatively, we may have a subject with an experience, E2, which has parts that are almost completely partitioned into two discrete experiences apart from unity relations between a small number of experiences (see Figure 5).

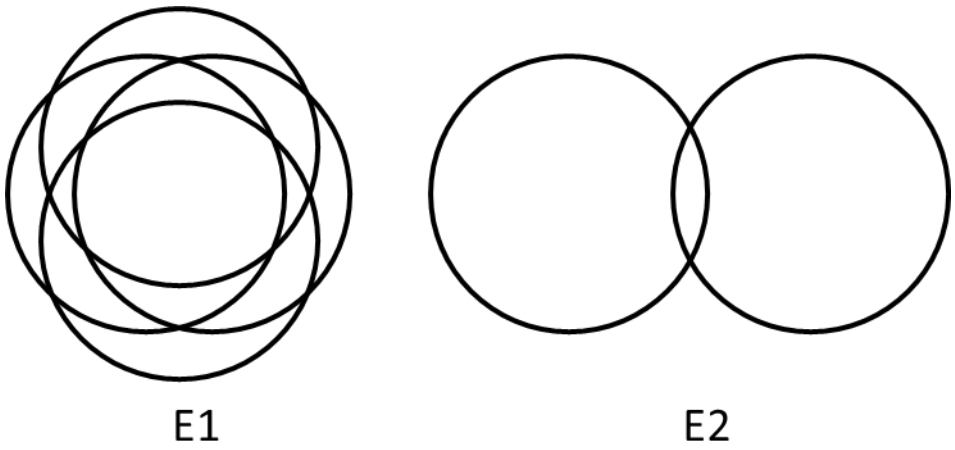

FIGURE 5 DEGREES OF DISUNITY

This is not making the stronger claim that co-consciousness is an anti-transitive relation. An anti-transitive relation is such that for three individuals A, B, and C, if A and B are related, and B and C are related, then A and C are never related. If co-consciousness were anti-transitive, it could never be the case that E1 was co-conscious with E3 in our example. If co-consciousness were anti-transitive, then we would have subjects with experiences which could *never* be unified, no matter the circumstances. We would have

[72] Also often called a partially unified consciousness. I shall switch between the terminology.

split-brain patients undergoing commissuroplasty procedures, but where the phenomenal unity between the experiences of each hemisphere was not restored.

Without getting into the reasons for or against the transitivity (or otherwise) of the co-consciousness relation, let us move on to look at the boundary problem itself.

6.4 The Boundary Problem: Parthood Relations Between Unified and Bounded Subjects

The boundary problem is not merely premised upon the fact that fundamental transitive phenomenal bonding yields a cosmos-subject, it is that it yields 'a *single* giant subject' (Chalmers, 2016a, p. 201 emphasis added). Such that, if there is a cosmos-sized subject, then it 'banishes middle-level individuals from existence' (Rosenberg, 2004, p. 88). Elsewhere I have argued that this problem is in essence a problem for the subject-to-subject proper parthood relation, grounded in the essential unity and boundedness of consciousness (Miller, 2018). It is this conception of the problem as arising from the apparent boundary of consciousness that gives the problem it's fitting name. It is this *essential* version of the problem that I shall address.

Dainton (Dainton, 2011) gestures to a further reason to think that the panpsychist would be in trouble: the postulation of unity relations between human subjects which are 'clearly not mutually co-conscious' (Dainton, 2011, p. 257).

There are two problems in this vicinity then:

1) Generating a single cosmos-subject.
2) Lack of evidence for between human unity.

Both of these problems rely on the following theses:

> **Human & Cosmos Subjecthood:** The cosmos is a subject-whole and all its subject-parts (like us) are transitively unified.

I shall firstly look at the problem of generating a single cosmos-subject, and then I will look at the problem of there being a lack of between unity.

Why this order? I will suggest first (in response to (1)) that we should reject the boundedness of subjects, then argue that (in response to (2)) our epistemic situation does not justify the claim that there is not unity between humans (and hence that subject boundedness is true). Let us move on to this task.

Let us define what it means for a group of experiences to be 'bounded', or to have a boundary:

> **Phenomenal Boundedness:** an experience, E, is phenomenally bound *iff* (i) it is strongly or weakly unified, and (ii) no proper part of E is co-conscious with any experience that is not a proper part of E.

If an experience, E1, is bounded then if that experience has proper parts, none of its proper parts can be co-conscious with the proper parts of another experience, E2. In other words, a pair of experiences will both be phenomenally bounded if each of their parts are unified (strongly or weakly), but not unified with one another (see Figure 6).

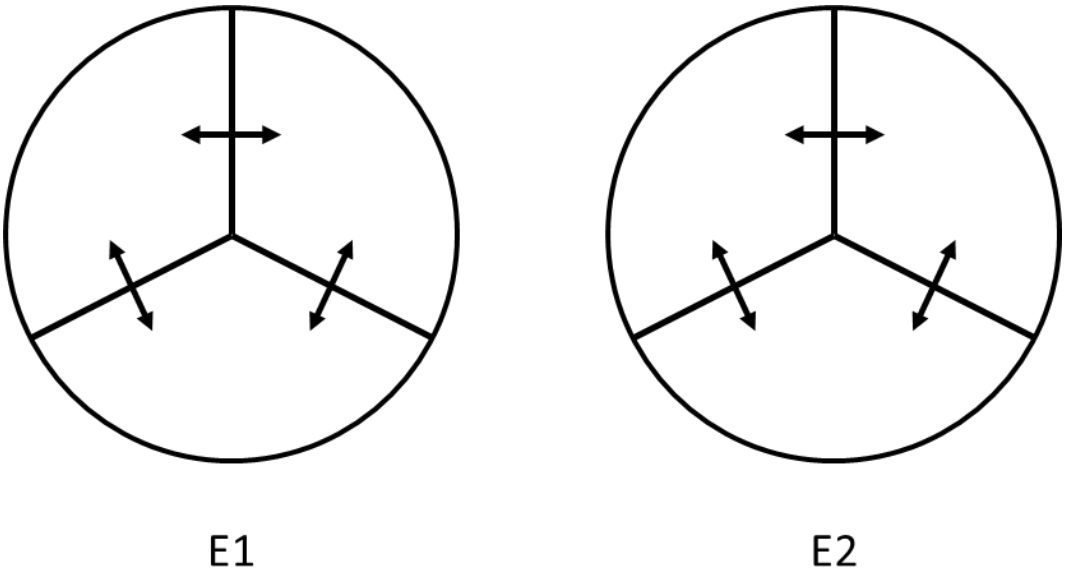

FIGURE 6 TWO PHENOMENALLY BOUNDED EXPERIENCES

Together with the unity theses (see above), this logically entails what I call the 'Unity/Boundedness Inconsistency Thesis':

> **Unity/Boundedness Inconsistency Thesis (UBIT):** (i) that co-consciousness cannot extend beyond a bounded experience, E, and (ii) that phenomenal boundedness cannot occur within a strongly or weakly unified experience, E.

This thesis tells us that if an experience, E1, is unified (strongly or weakly), then none of its proper parts can be bounded. Likewise, if an experience, E1, is bounded, then it cannot be a proper part of another experience, E2, which is unified (strongly or weakly).

This thesis alone would not generate the boundary problem, for as it stands it does not tell us why a cosmos-subject would annihilate the human and animal subjects throughout

the world. This thesis simply tells us about certain constraints upon the structures of phenomenal consciousness.

Importantly we need the additional claim that the experiences of a subject are *essentially* bounded. Moreover, that a subject's experiences are *essentially* unified. Such a claim may come in two strengths, corresponding to the two potential strengths of phenomenal unity. I articulate these ideas with the following theses:

> **Strong Subject Essence Thesis (SSET):** Subjects are (i) essentially strongly phenomenally unified and (ii) bounded.
>
> **Weak Subject Essence Thesis (WSET):** Subjects are (i) essentially weakly phenomenally unified and (ii) bounded.

The strong subject essence thesis simply means that subjects have experiences which are transitively co-conscious with all of that subject's other experiences, and not co-conscious with any experiences which do not belong to that subject, such that if they were not, then they would cease to exist as subjects. The first conjunct of this thesis constrains the degree to which a subject's experiences are unified, the second conjunct constrains whether a subject's experiences are bounded (see Figure 7, S1).

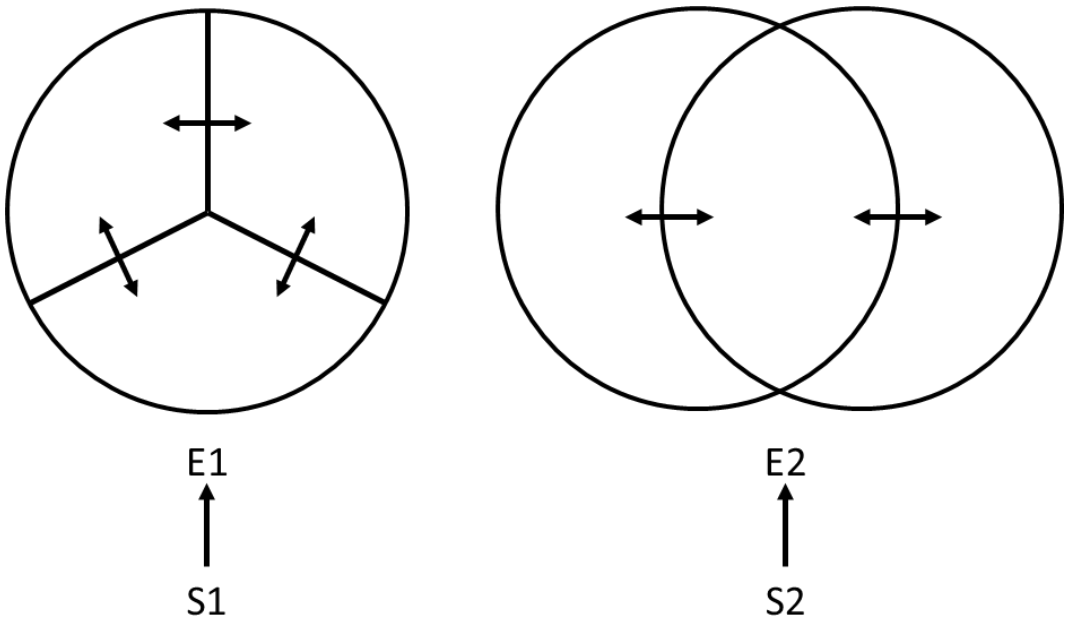

FIGURE 7 STRONG AND WEAK SUBJECT ESSENCE

Weak subject essence means that subjects have experiences which are co-conscious with some of their other experiences (not all), and not co-conscious with any experiences

which do not belong to that subject, such that if they were not, then they would cease to exist as subjects. Again, the first conjunct constrains the degree to which a subject's experiences are unified, the second whether they are bounded (see Figure 7, S2).

We are now in a position to better formulate the boundary problem against the phenomenal bonding panpsychist who (i) takes co-consciousness to be a transitive relation, and (ii) the deep nature of a fundamental physical relation. The following is what I (Miller, 2018, p. 145) call the boundary argument:

The Boundary Argument

1) **Human & Cosmos Subjecthood:** The cosmos is a subject-whole and all its subject-parts (like us and the micro-subjects) are transitively unified.
2) **Unity/Boundedness Inconsistency Thesis (UBIT):** (i) that co-consciousness cannot extend beyond a bounded experience, E, and (ii) that phenomenal boundedness cannot occur within a strongly or weakly unified experience, E.
3) **Strong Subject Essence Thesis (SSET):** Subjects' consciousnesses are (i) essentially strongly phenomenally unified and (ii) bounded.
4) The cosmos is essentially phenomenally unified and bound, and each of its macro-subject-proper parts are essentially unified and bound (from 1 and 3).
5) If the cosmos has phenomenal boundaries 'within' its phenomenally unified field, then it is not a subject, and, if phenomenal unity extends beyond the boundary of the subject proper parts, then they are not subjects (from 2 and 3).
6) Hence, the cosmos is not a subject and its proper parts are not subjects (from 4 and 5)
7) Hence, (1) is false (from 1 and 6).

This argument is problematic: it shows us that the parts and the whole cannot be subjects of experience, and that the phenomenal bonding view (which consists in this claim) must thereby be false. Moreover, as we saw in chapter 2 of this thesis, the panpsychist needs to make sense of the world being a structure of subjects and their experiences standing in mereological relations to one another. The question is how precisely should the phenomenal bonding panpsychist respond to this argument?

There are four underived premises (1), (2) and (3) for the panpsychist to reject. I will suggest, ultimately, that the panpsychist should respond by rejecting (3) and allowing for a greater number of possible phenomenal structures.

Chalmers and Dainton both suggest denying (1) by denying the transitivity of consciousness, I will look at this option but reject it as insufficient. The panpsychist could also try denying (2), I look at this option when considering the unity between normal humans argument (see (6.4.1.3) and (Miller, 2018)).[73]

Before moving on it is important to note that (as I highlight in chapters 1.2.2 & 4.2 and (Miller, 2018)), it is not worth the phenomenal bonding panpsychist trying to deny that either the macro-subject or micro-subject parts were not in fact subjects, or, alternatively that the cosmos itself was not a subject.

Firstly, this means they must deny that one term of the proper parthood relation is a subject whilst also holding that it is fully conscious in the same manner a subject is. If there's something which it is like to be either the whole or the part, then it qualifies for *subjecthood* in the minimal Nagelian sense. Hence, it becomes unclear what it means to be a subject of experience once we start denying whole or part that status.

Secondly, denying that either the whole or the parts are subjects of experience would simply be to reject the phenomenal bonding response: one would be claiming that although all of the subjects are related by the phenomenal bonding relation it did not generate subjects of experience, which the phenomenal bonding panpsychist cannot do.

Thirdly, the lemma of the argument I outlined in chapter 2 requires premise (1) to be true:[74] the world is a mereological structure of subjects and their experiences constituting further subjects and their experiences. The panpsychist in our position cannot therefore deny subjecthood to the part or whole.

6.4.1.1 Denying Premise (1): Accepting the Non-transitivity of Co-consciousness

The panpsychist may deny the second conjunct of (1), they may deny that co-consciousness is a transitive relation and accept a non-transitive co-consciousness holds between some subjects. This is the option that Dainton suggests (Dainton, 2011). By doing this, it is supposed that all the micro-subjects in the cosmos will not become phenomenally unified and the problem will be avoided.

On this picture the idea is supposed to be that for any group micro-subjects which are fundamentally connected, and thereby phenomenally bonded, the non-transitivity of the

[73] I shall also look at reformulating (1) and supplanting it with a weaker thesis claiming fundamental connectedness is only indirect. Again, this alone is not sufficient.
[74] Or at least something close enough to premise (1).

co-consciousness relation would not entail they compose a single subject. Instead, for a group of micro-subjects, we will have pairwise connections of co-consciousness and hence composition of subjects, but no connection or composition greater than any given pair of subjects (see Figure 8).

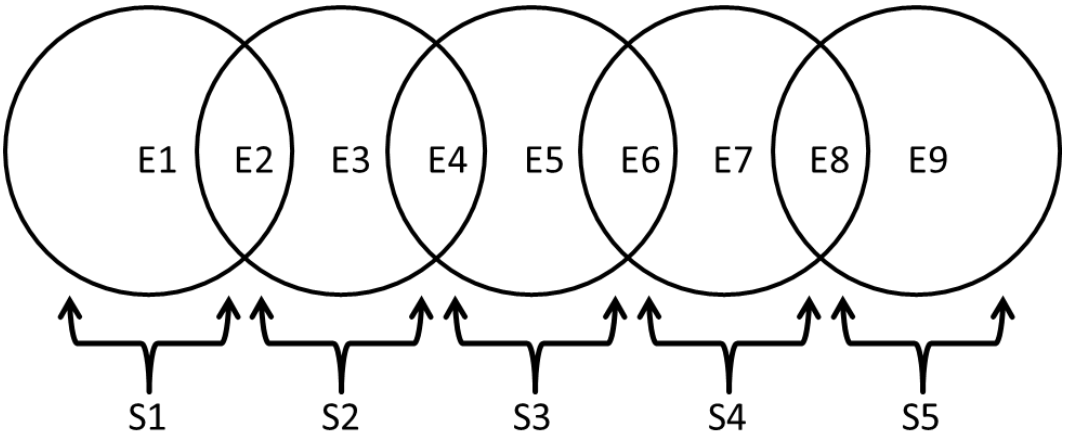

FIGURE 8 INTENDED STRUCTURE OF THE NON-TRANSITIVITY APPROACH

If co-consciousness was transitive, then we would not be able to limit the relation to hold between pairwise subjects. Hence, the whole group of subjects would compose a further subject.

There are problems with this response. First, merely non-transitive co-consciousness alone will not save the panpsychist from potentially generating a cosmos-subject, we also need to know whether or not subjects are essentially strongly or weakly unified. Secondly, either option will violate the essential boundedness of a given subject's consciousness, annihilating macro-subjects (like ourselves) from existence. Thirdly, if we were to assume the ubiquity of the fundamental phenomenal bonding relation (which the panpsychist is not obliged to do), although co-consciousness will not be necessarily transitive it will nevertheless hold transitively. Let me explain these further.

If we deny the transitivity of co-consciousness and hold that subjects must be essentially strongly phenomenally unified, then we will end up with something akin to a web-like structure of partially overlapping subjects of experience (as was depicted in Figure 8 above). Without rejecting the essential boundedness of subjects, this option annihilates all subjects from existence: every subject within this sort of configuration will have experiences that are co-conscious with experiences that are not proper parts of their consciousness, and hence every subject will be in violation of the essential boundedness

of subjects. This problem will then only be made more acute when we focus on the human case (rather than this artificially simple one).

If we deny the transitivity of co-consciousness and hold that subjects can be weakly essentially phenomenally unified, then we *may* still have a web-like structure of partially overlapping subjects, but importantly will also have a cosmos-sized weakly unified subject. Although for any group of micro-subjects we may only have pairwise unity connections, this would be sufficient to compose a subject with an incredibly disunified consciousness (see Figure 9).

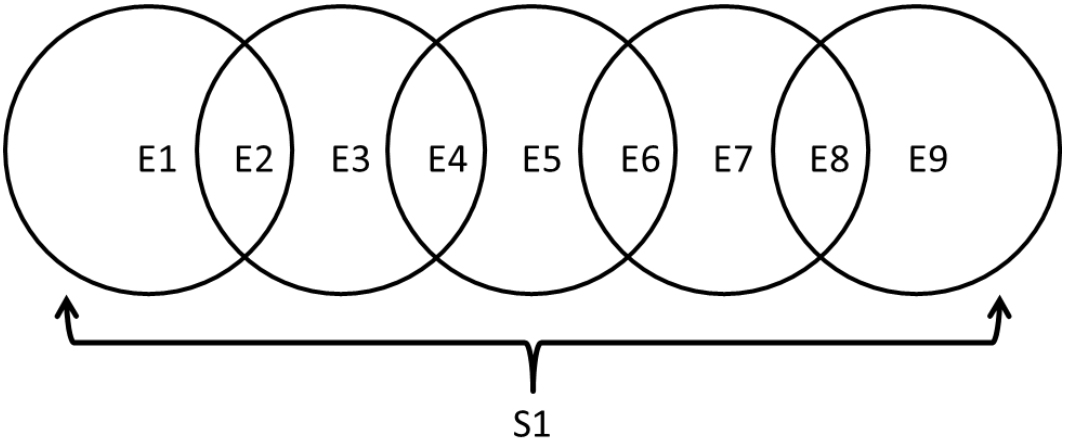

FIGURE 9 WEAKLY UNIFIED COSMOS-SUBJECT

Without rejecting the essential boundedness of subjects, this option annihilates all but one subject – the partially unified cosmos-subject – from existence: every subject except the cosmos-subject will have experiences which are not phenomenally bounded, hence every subject will be in violation of the essential boundedness of subjects apart from the cosmos-subject: the cosmos-subject will be phenomenally bounded, for there will be no experience that is not a part of its weakly unified consciousness, hence there will be no experience not a part of its own consciousness that it could be possibly co-conscious with.

Even if non-transitivity were able to help, if we assumed the ubiquity of the fundamental phenomenal bonding relation, then it would still ensure that all subjects would sum into a cosmos-subject. Consider fundamental connectedness:

> **Arbitrary Fundamental Connectedness:** for any two subjects, S1 and S2, they are related by the fundamental physical relation R.

If one accepts the connectedness of subjects by fundamental relations, then *all* subjects will be connected by the fundamental relation that is phenomenal bonding. Given that all subjects are still connected by the non-transitive co-consciousness relation, this means that *no* subject will fail to be co-conscious with any other subject. Hence, although co-consciousness is a non-transitive relation, it will still end up holding between all subjects and summing them into a cosmos-subject. To highlight this, consider four micro-subjects, S1, S2, S3 and S4, between which the non-transitive co-consciousness relation holds. Arbitrary fundamental connectedness tells us that S1 will be co-conscious with S2, but also that it will be co-conscious with S3 and S4. Likewise, S2 will be co-conscious with S3 and S4 etc. Hence, the non-transitivity of co-consciousness is undermined by the ubiquity of the relation.

Merely denying transitivity alone is not sufficient to avoid the boundary problem.

Some panpsychists may respond by claiming the following could help: the conjunction of non-transitive co-consciousness and a form weaker form of connectedness. They may claim that the fundamental relation does not hold ubiquitously, so at best most micro-subject parts of the cosmos are merely indirectly related. In other words, they may claim that the following is likely to be true:

> **Weak Arbitrary Fundamental Connectedness:** for any two subjects, S1 and S2, they are indirectly related by the fundamental physical relation R.

For two subjects to be indirectly related by R is for those two subjects to be both R-related to a common subject, but not to one another. For example: if A is R-related to B, and B is R-related to C, then A and C would be indirectly R-related.

In conjunction with non-transitive co-consciousness (along with modifying phenomenal bonding to apply only to *directly* related subjects) this would then get us a situation in which not all subjects would be directly phenomenally bonded, instead only certain subjects would be directly phenomenally bonded and compose a further subject. We would still get a web-like structure of partially overlapping subjects for all those which are indirectly phenomenally bonded (as in Figure 8 above), and total overlap for those which are directly phenomenally bonded.

The problem is that premise (3) of the argument still rules out this phenomenal structure: the essential boundedness of subjects of experience means that each instance of direct phenomenal bonding annihilates the subjects involved. Moreover, the important locales

of direct phenomenal bonding that would hold (presumably within brains) would still also be ruled out. Let us turn to the final solution, denying premise (3).

6.4.1.2 Denying Premise (3): The Essential Unity and Boundedness of Subjects

The phenomenal bonding panpsychist can also deny (3) the strong subject essence thesis. In denying strong subject essence (SSET) the panpsychist need only deny one of the conjuncts whilst maintaining the other. They may choose to deny either (i) essential strong phenomenal unity, or (ii) essential phenomenal boundedness. I shall look at the former of these options first, subsequently suggesting that the latter option is to be preferred.

6.4.1.2.1 Denying Essential Unity

The phenomenal bonding panpsychist can deny (3.i), the first conjunct of the strong subject essence thesis. If they do so they can have subjects with weakly unified experiences, or subjects with experiences which are even more disunified (as I suggest below, we can call this 'phenomenally scattered'). Again, the problem with this response is that is still falls short of denying essentially bounded subjects and is thereby insufficient. Let us look at the two options.

One could accept weak subject essence:

> **Weak Subject Essence Thesis (WSET):** Subjects are (i) essentially weakly phenomenally unified and (ii) bounded.

Doing so requires the panpsychist to deny the transitivity of co-consciousness: for any weakly unified subject, there must be an experience, E, had by that subject such that only some parts of E are co-conscious with the other parts of E. If this were not the case, then it could not be the case that the subject was *weakly* phenomenally unified. Hence, denying the weak phenomenal essence thesis also requires denying the transitivity of co-consciousness. This gives the panpsychist a picture identical to the second option in the previous section (see Figure 9 above), and as before this will annihilate all subjects from existence except the partially unified cosmos-subject. All the subject-parts of the cosmos will be in violation of the essential phenomenal boundedness of subjects, and hence will cease to exist. Only the weakly unified cosmos-subject will not be in violation of this essential feature of subject.

The panpsychist could try to be even more lenient on the essential unity of subjects. Elsewhere I have suggested they may try to accept the following thesis (Miller, 2018):

> **Phenomenally Scattered:** a set of experiences $E_1 \ldots E_n$ is phenomenally scattered *iff* they are (i) not parts of a strongly unified experience, or (ii) parts of a weakly unified experience, i.e. there are neither directly or indirectly co-conscious.

A subject that had a phenomenally scattered experience would be a subject which had an experience, E5, which had parts that were not co-conscious in any manner. A subject that had a group of phenomenally scattered experiences would have one of the most disunified consciousness possible, such that it seems highly questionable whether we should say it has *a consciousness* which was disunified: there is something which it is like to have *each* of the experiences, but there nothing it is like for the subject to have *all* or *some* of them together.[75] It is hard for us to understand the sense in which the hypothetical experience E5 could in fact *be* an experience, and equally how there could in fact be a single subject, S1, undergoing all these experiences (see Figure 10).

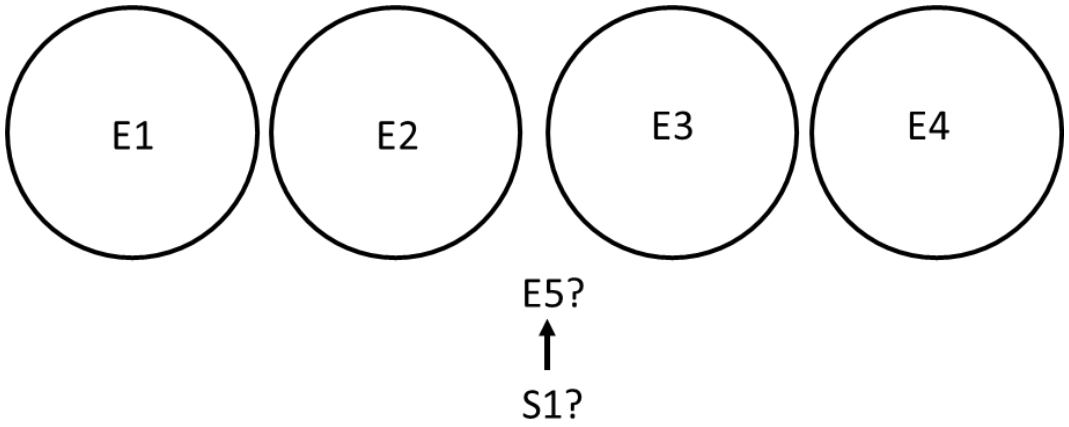

FIGURE 10 PHENOMENALLY SCATTERED SUBJECT

The problem with this response is that if we assume the ubiquity of the fundamental phenomenal bonding relation, it is hard to see on what grounds the panpsychist could claim that any subject (cosmos, macro, or otherwise) was phenomenally scattered. In essence, the possibility of such a subject is irrelevant if all subjects are arbitrarily connected by the fundamental phenomenal bonding relation.

In addition to this, it is also difficult to see how a phenomenally scattered subject will be able to cope with *mereological reiteration*: that subject parthood will apply across micro, macro, and cosmos-sized scales. Our solution cannot simply allow for macro-subjects to

[75] This point becomes more acute when one considers the fundamental subjects with their mereologically simple experiences. In this instance, any of the given experiences of a phenomenally scattered subject will be mereologically simple, and hence no unity relations will occur between their experiences whatsoever. In the example I give above potential for E5 to be a composite experience remains open.

be subject-parts of the cosmos-subject, it must also allow for micro-subjects to be parts of macro-subjects. By virtue of the fact that we appear to not be phenomenally scattered subjects (in fact we appear to be subjects with strongly unified consciousness) this response will fail to work as a solution for the micro-subject to macro-subject proper parthood relation.

Moreover, if we can have subjects which are phenomenally scattered, then this seems to undermine the phenomenal bonding response to the subject-summing problem. If we allow phenomenally scattered subjects of experience, then we are allowing subjects that *seem to be equivalent* to panpsychist zombies (see chapter 5). If phenomenally scattered subjects are equivalent to panpsychist zombies, then the phenomenal bonding solution will not work. In the zombie case there is no unified experience corresponding to the human-as-a-whole, in the phenomenally scattered yet phenomenally bonded subject case there is no experience corresponding to the human-as-a-whole. If this is correct, then it is hard to see how a phenomenal bonding approach which allows for phenomenally scattered subjects will not undermine itself: the phenomenally bonded subject is equivalent to the zombie, which means it is not a subject of experience. Hence, although the phenomenal bonding panpsychist may *claim* that they have generated a new subject, it would appear to be little more than a *stipulation*: nothing would appear to be different.

6.4.1.2.2 Denying Essential Boundedness

Rather than questioning the degree to which a subject's consciousness is necessarily unified, the panpsychist can and should question the extent to which it must be bounded. That is, they can deny conjunct (ii) of the strong subject essence thesis:

> **Strong Subject Essence Thesis (SSET):** Subjects consciousnesses are (i) essentially strongly phenomenally unified and (ii) bounded.

If the panpsychist denies conjunct (ii), then they can say that whilst phenomenal unity extends beyond a given subjects set of experiences, this does not mean the subject ceases to exist. If the subject does not cease to exist, then the panpsychist should accept this option.

If we deny essential phenomenal boundedness, then it allows us to formulate the following two notions of phenomenal unboundedness, a stronger and a weaker form.

Weak Phenomenal Unboundedness: an experience, E, is phenomenally unbound *iff* (i) it is strongly or weakly unified, and (ii) some part of E is co-conscious with some experience(s) that is not a part of E.

Strong Phenomenal Unboundedness: an experience, E, is phenomenally unbound *iff* (i) it is strongly or weakly unified, and (ii) all parts of E are co-conscious with some experience(s) that is not a part of E.

If the panpsychist rejects phenomenal boundedness and accepts weak unboundedness, whilst still ruling out strong unboundedness, then we can have subjects with experiences some of which are unified with another subject's experiences. For instance, it would allow for a subject, S1, to have an experience, E6, a part of which, E2, was co-conscious with an experience, E3, that was not a part of that experience, E6, and which belonged to a distinct subject, S2 (Figure 11):

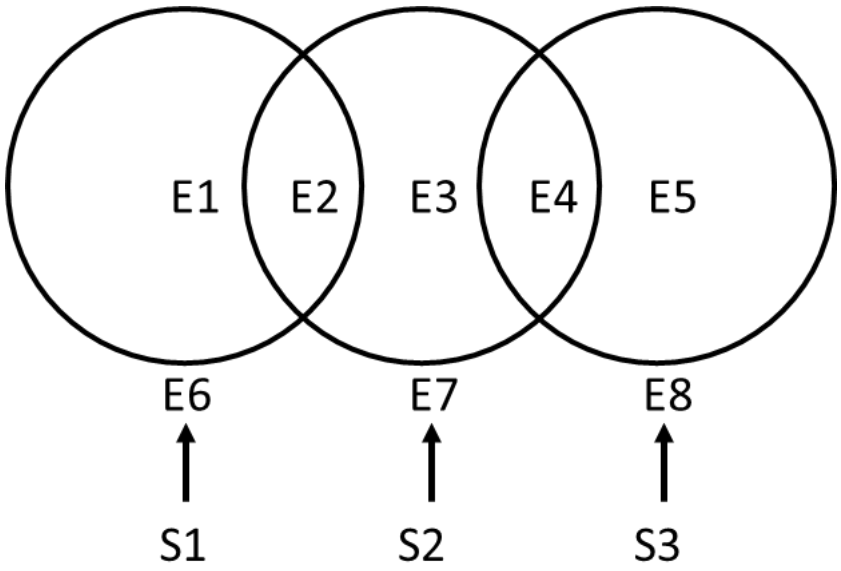

FIGURE 11 WEAK PHENOMENAL UNBOUNDEDNESS

This would allow for the partial overlap of subjects of experience, however weak phenomenal boundedness requires co-consciousness to be a non-transitive relation. This is because if co-consciousness were transitive, then unity could not hold between *some* parts of two experiences belonging to distinct subject. Transitivity ensures that for two experiences, if a part of each is co-conscious with a part of the other, all parts of both will be co-conscious with one another. Hence, weak unboundedness requires non-transitivity in order for it to not collapse into strong phenomenal unboundedness.

Weak unboundedness is compatible with subjects having essentially strong unified consciousnesses: two subjects, S1 and S2, each with composite experiences, E1 and E2, of which the parts were mutually co-conscious, could share a proper part, E3. Weak unboundedness is also compatible with subjects having a merely weakly unified consciousness: there may be a subject, S3, which is undergoing the weakly unified stated, E4, composed of E1+E2.

The problem with accepting only the weak phenomenal unboundedness thesis is that *if* we assume the ubiquity of the phenomenal bonding relation, it looks like it will quickly collapse into strong unboundedness which is ruled out on this account. Moreover, given the ostensible complexity of subjects like us, and the number of interrelated parts, it is hard to how it would not also collapse into strong unboundedness.

Consider the following rather simple example. The composite experiences E1, E2, and E3 each have two proper parts. E1 and E2 share a proper part and overlap, so too do E2 and E3. This simple example would look like the following (Figure 12):

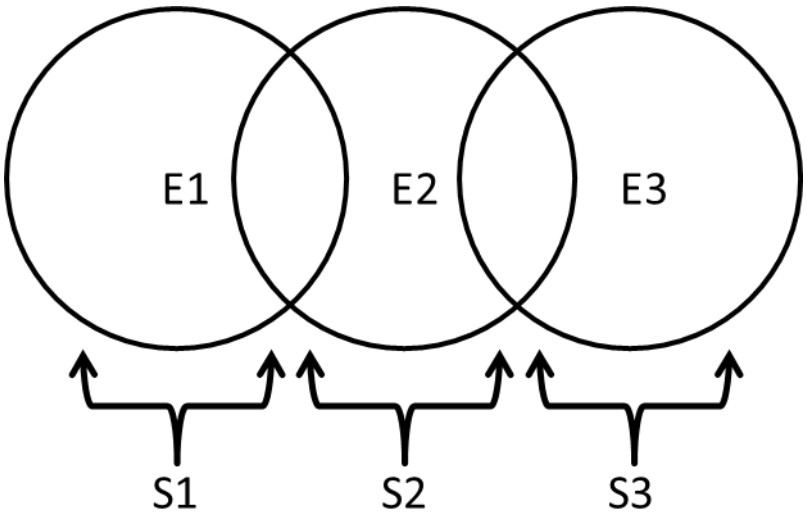

FIGURE 12 SIMPLE COMPOSITIONAL STRUCTURE RULED OUT BY WEAK UNBOUNDEDNESS

In this example, the proper parts of experience E2 are co-conscious with experiences not had by the subject of E2, S2. This means that the experience E2, of subject S2, is strongly phenomenally unbounded, which is not allowed on this account. These three rather simple yet non-fundamental experiences should not be ruled out. This problem becomes more acute once one realises that the subjects which constitute us will be overlapped with

remainder by us. Hence, like denying transitivity or strong unity, allowing for weak unboundedness alone is not sufficient.[76]

Alternatively, the panpsychist can simply accept strong unboundedness. If they do so, then they can accept that some or *all* of a subject's experiences can be unified with experiences not belonging to that subject. For instance, we could have subject, S1, with experience, E1, that itself had an experiential part, E2, had by subject, S2, that was co-conscious with an experience, E4, had by a subject, S4, which was not a part of experience E1 and was not had by subject S1 (see Figure 13).

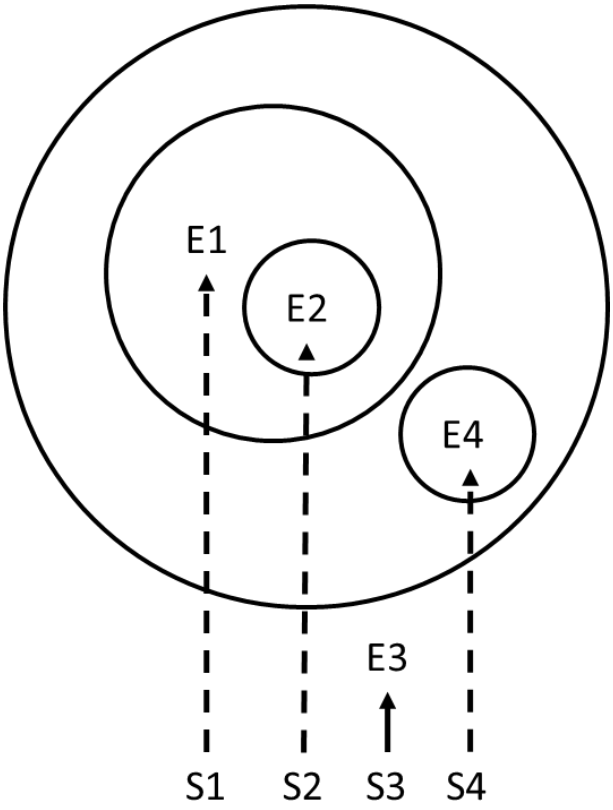

FIGURE 13 COMPLETE OVERLAP OF SUBJECTS

This would allow for the complete (not merely partial) overlap of subjects of experience. Each subject in figure 10 is overlapped by another subject, except for subject S3 which overlaps the others. This is what I take the phenomenal bonding panpsychist's model of ourselves to be like (see chapter 1 for additional details), and what the whole model of the cosmos to be like given: (i) the boundary problem, and (ii) the lemma of our

[76] This account is compatible with either a field or particle approach to our fundamental objects.

mereological argument (also maybe (iii) the conclusion of the anti-vagueness argument (see chapter 8.4)).

Strong phenomenal unboundedness is compatible with both transitive and non-transitive co-consciousness (see figure 9 above). This is because it is the most liberal rendering of unboundedness possible, so constraints upon the nature of the unity that (no longer) violates the boundedness of subjects' consciousnesses no longer matters. Likewise, strong unboundedness is compatible with both weak and strong unity, nevertheless allowing for weak unity would still require non-transitive co-consciousness.[77]

Accepting strong phenomenal unboundedness is the *only* option of those we have looked at so far which allows the phenomenal bonding panpsychist to avoid the annihilation of subjects of experience when they are proper parts of other subjects, whether it is micro-subjects annihilated by macro-subjects or macro-subjects annihilated by the cosmos-subject. It is for this reason that the phenomenal bonding panpsychist should simply accept that subjects of experience are not phenomenally bounded. In short, accepting strong phenomenal unboundedness allows for subjects to stand in proper parthood relations.

To fully appreciate the utility of allowing subjects to have strongly unbounded experiences, we can consider a relatively simple example of phenomenal bonding and the amount and array of subjects that it allows the panpsychist to claim exist. Consider an example in which four micro-subjects with their four mereologically simple experiences become phenomenally bonded, thereby constituting a further subject and its experiences (see Figure 14):

[77] Allowing for strong unboundedness does not mean there could not be a subject with bounded experiences. In fact, the cosmos-subject would have a trivially bounded consciousness.

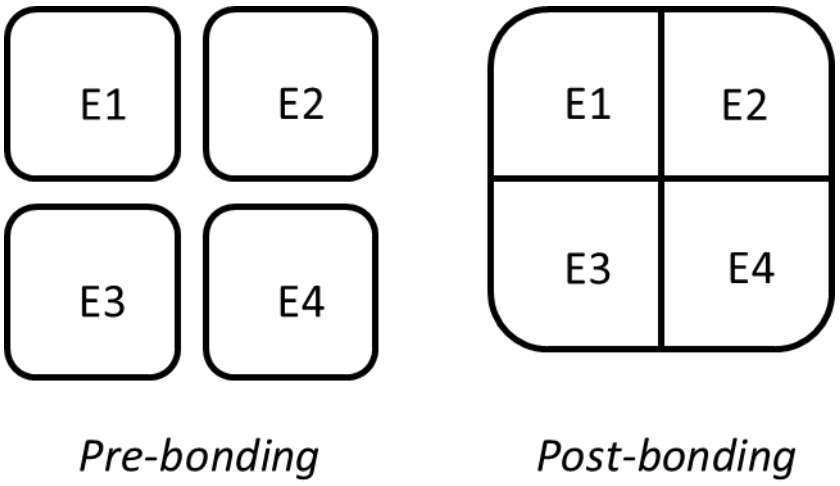

FIGURE 14 SUBJECTS PRE- AND POST-BONDING

The question that we want to know is post-bonding, how many subjects are there?

We can answer this question quite simply: there are *at least* as many subjects as there are experiences. Given that the co-consciousness relation is phenomenal bonding, we know that each instance of the co-consciousness relation will generate a subject of experience according to the phenomenal bonding panpsychist. Hence, where experiences are co-conscious and compose a further experience, their subjects will be phenomenally bonded and compose a further subject also.

We know that in this example there are four micro-subjects and four experiences, which compose without remainder a fifth subject and its experience. Hence, we know that there are at least five subjects. However, we also know that E1 and E2 are co-conscious and compose an experience, which will also generate a subject to undergo it. Likewise, for E2 and E3, and so on. In fact, if we were to ask how many experiences existed post-bonding, then our answer would be that the number of experiences would be the power set of our original set, minus the empty set. Given the set of pre-bonding experiences had 4 members, this would give us 2^4-1 post-bonding experiences. Hence, we would have fifteen experiences post-bonding. And, given that co-consciousness is phenomenal bonding, we would have fifteen subjects post-bonding.

To demonstrate this, idea let us consider the pre-bonded and not co-conscious set of experiences: E1, E2, E3, E4. Pre-bonding we have four experiences, each of which is had by a subject:

E1: {E1}

E2: {E2}

E3: {E3}

E4: {E4}

But after phenomenal bonding, these experiences will also compose experiences with two members or proper parts:

E5: {E1, E2}

E6: {E1, E3}

E7: {E1, E4}

E8: {E2, E3}

E:9 {E2, E4}

E10: {E3, E4}

Each of these pairwise bonded subjects now also compose a subject which has the experiential pairs. Hence, our number of subjects, along with experiences, will increase to ten.

Not only will there be the experiences composed of two proper parts, there will also be those experience composed of three proper parts:

E11: {E1, E2, E3}

E12: {E1, E2, E4}

E13: {E1, E3, E4}

E14: {E2, E3, E4}

And, following this, there will be subjects each themselves with three proper parts, increasing the number to fourteen. Finally, there will be the experience composed without remainder by the four experiences:

E15: {E1, E2, E3, E4}

Undergoing this experience will be the fifteenth subject, composed without remainder by our initial four subjects.

Importantly this response is completely compatible with mereological reiteration. Unboundedness allows for macro-subjects to be proper parts of a cosmos-subject without the existence of the latter bringing about the annihilation of the former, and likewise it allows for micro-subjects to be proper parts of macro-subjects without themselves being annihilated. Hence, unboundedness applies at all mereological scales. Moreover, this response is completely compatible with arbitrary fundamental connectedness.[78]

One may wonder, though, on what grounds we are able to reject the boundedness of consciousness and accept the strong unboundedness thesis. I shall address this problem in the following section, at the same time as responding to the concern that unity relations now hold between subjects like us – in fact, all of us. In short, I simply suggest that introspection cannot justify boundedness.

6.4.1.3 Unity Between Normal Human Persons

The second argument (i.e. that which Dainton (Dainton, 2011) alludes to) arises as an inconsistent triad with the addition of the following thesis:

> **Ordinary Human Disunity:** for any two human-subjects, S1 and S2, at any given time their experiences are not co-conscious with any experiences which are not their own, nor are they mutually co-conscious.

Ordinary human disunity simply says that human subjects have bounded consciousnesses, and that ordinary human subjects do not have experiences which are mutually co-conscious. If it is true that for any arbitrary subjects, S1 and S2, the co-consciousness relation holds between their experiences, but it is also clear that for any two typical human-subjects the co-consciousness relation does not hold between their experiences, then we have an evident contradiction.

I suggest that we reject arbitrary human disunity, for the grounds on which it is held do not support it. Those grounds are introspective.[79]

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[78] At this point the panpsychist may be faced with an incredulous stare: the number of subjects that now exist if we allow for strong unboundedness has increased massively. If the panpsychist applies this reasoning to the cosmos as a whole, then they will get a rather particular number of subjects and this number will be vastly greater than we ever thought it would be. Cosmos aside, if we simply apply this to ourselves there will be an incredibly larger number of subjects in my vicinity. 'Stare away' is what I say.

[79] We cannot perceive phenomenal unity relations, so it couldn't be on this ground. Neither can we perceive the deep nature of matter, a point emphasises and reiterated by Goff (Goff, 2017a).

If a human subject's experiences are unified with experiences it does not itself have, viz. a human subject's consciousness is unbounded, then we should not reasonably expect that subject to be able introspect the phenomenal unity between them. Why? Because the following seems to be a reasonable requirement on introspectibility:

> **Relata Requirement:** a subject can only introspect a relation between two or more experiences, if, at the least, they have those two or more experiences.

Because of this, we should not expect a human subject like ourselves to be able to introspect whether or not any phenomenal unity relations hold between us. Hence, it is not 'clear' that they are not unified (nor is it thereby clear that our experiences are bounded (see below)).

This reasonable requirement on introspection is not the same as Michael Lockwood's claim that: 'What is accessible to any act of introspection will invariably be the contents of a single perspective' (Lockwood, 1989, p. 92). This is because Lockwood's claim rules out a composite subject being able to introspect the experiences of the subject-parts which compose it, which we do not want to (and cannot) rule out. My claim does not rule that out, it only disallows subject-parts to introspect a disjoint subject-part's experiences.

Hence, if we ask whether our experiences are composite parts of a subject with many disjoint experiences, then we will be asking a 'question that sheer looking within oneself can do nothing to answer' (Lockwood, 1989, p. 92). The grounds upon which arbitrary human disunity is held do not therefore support it.

Importantly, this also means the grounds upon which the phenomenal boundedness theses (see above) are made do not in fact support them: simply because there is a limit to my introspective capacity, such that I cannot introspect the potential unity relations which hold between myself and another disjoint subject's experiences, that does not mean no such unity relations hold and that my consciousness is therefore bounded.

At best our introspective capacities could justify the following version of boundedness, which I have elsewhere called 'phenomenal boundedness-relative' (Miller, 2018):

> **Phenomenal Boundedness-relative:** an experience, E, is phenomenally bound-relative *iff* (i) it is strongly or weakly unified for a subject, S, and (ii) no proper part of E is co-conscious with any experience that is not a proper part of E for subject, S.

This thesis says that an experience, E, of a subject, S, is bounded-relative if, for subject S, none of the parts of E are unified with any experiences not had by S. This allows for the parts of the experience, E, to be unified with experiences not had by subject, S. It just says that as far as subject S is concerned, they are not. This version of boundedness is completely compatible with phenomenal unity between humans, and between all the subject-parts of the cosmos-subject (Miller, 2018, pp. 147–50): it allows two experiences to be bounded relative to subject-part S1, whilst also allowing them to be unified for subject-whole S2.

6.5 Conclusion

If the constitutive panpsychist wants to get around the subject-summing problem, then they can do so: accept the phenomenal bonding solution. However, in cashing out the details of their account we have seen that they inevitably run into the boundary problem. The most pernicious and essential form of the boundary problem being the 'boundary argument' against subject-to-subject proper parthood relations. However, this should not concern us too much, because, as we have seen, the panpsychist can avoid the boundary argument by rejecting the essential boundedness of consciousness. Rejecting the essential boundedness of consciousness allows for phenomenal bonding, co-consciousness, to hold between the experiences of distinct subjects without them ceasing to exist.

Rejecting the strong boundedness of consciousness is not all we can do, however. It is simply the option that avoids the argument. The panpsychist can still endeavour to investigate the transitivity of the co-consciousness relation, and whether or not its non-transitivity will deliver us helpful phenomenal structures. I have here remained agnostic on this issue (see the following for interesting discussions (Bayne, 2010; Bennett and Hill, 2014; Brook and Raymont, 2017; Dainton, 2008, 2000; Lockwood, 1989; Schechter, 2018; Tye, 2003)).

Now we have made sense of how the unity and boundary of consciousness can be made compatible with the subject-to-subject proper parthood relations required by the phenomenal bonding account, I will move on to look at another problem. This is Coleman's 'real combination problem' or, what we have called the perspectives problem (chapter 4). In the next chapter I will show that Coleman's argument does not constitute a problem for the phenomenal bonding panpsychist.

7 Chapter 7: Coleman's 'Real Combination Problem' for Conscious Perspectives

'I do not believe that the point of view from which I see the world is *the* perspective of reality. Mine is only one of the many points of view from which the world is seen'

(Nagel, 1986, p. 57)

7.1 Introduction

Sam Coleman has recently given an argument against constitutive panpsychism based upon the notion that subjects have 'points of view' or 'perspectives'. In this chapter I will respond to this perspectives problem proposed by Coleman. Coleman gives two versions of the problem: a top-down version of the problem and a bottom-up version. The conclusion of both arguments, claims Coleman, is that it is incoherent that subjects' perspectives can be proper parts of other subjects' perspectives. Coleman also concludes that whilst a subject's perspective cannot be a proper part of another perspective, the contents or qualities within those perspectives can – at best this is what the constitutive panpsychist can hope for. Coleman argues for this claim by insisting that subjects have 'perspectives' and that perspectives are defined so as to *exclude all other things*. This property of exclusion is what Coleman takes to generate the problem for subject-subject proper parthood relations and is why he think constitutive phenomenal bonding panpsychism must, ultimately, be incoherent.

To respond to Coleman, I will look at what 'exclusion' is and precisely *what* is responsible for it. In other words, I will look at what grounds and explains it. I will consider three options:

A) It is a positive phenomenological feature, a quale of exclusion.

B) It is a negative fact about certain sets of experiences.

C) It is the *awareness* of the awareness-quality model of consciousness.

I shall argue that (A) only works if we take the relevant phenomenology of exclusion to be *sui generis*. I shall argue that (C) only works if it collapses into a fuller, more detailed

version of (A). I shall argue that (B) does not work at all: negative facts are not an obstacle to proper parthood relations of any sort, let alone those between subjects of experience.

After looking at these responses to Coleman, I shall also look at Goff's response to Coleman, arguing that it too fails. Instead, we should simply adopt my solution for the phenomenal bonding panpsychist: argue Coleman's problem only works if it is grounded in a *sui generis* phenomenology of exclusion.

Goff's argument fails because he thinks that an entity, X, which is constituted by entities, Ys, need not be characterised by the Ys. This means that the exclusory nature of the constituting entities need not characterise the constituted entity. This, I argue, is wrong: characterisation and constitution do not dissociate in the manner which Goff thinks.

I shall here only focus on Coleman's bottom-up version of the argument. Why? Because the top-down argument does not show that subject-to-subject proper parthood is incoherent. It merely shows that: if the awareness-quality model is true, we only need the qualities of the parts to account for the existence of the subject-whole (not the awarenesses of the parts).

To repeat my claim: if (i) subjects have perspectives which are (ii) defined in this exclusory manner, then the phenomenal bonding panpsychist can mostly incorporate this into their view. The only thing, it seems, that stop subject-to-subject proper parthood relations in the sui generis 'exclusion' phenomenology.

7.2 Argument from Ostracising Experiences

According to Coleman the essence of a point of view is not merely what it experiences but also what it does not experience:

> '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' (Coleman, 2014, p. 33).

In order to express this latter idea, the additional clause of 'to-the-exclusion-of-everything-else' is used when describing a subject's experiences.[80] So if I was to describe

[80] It is worth noting that Coleman does not make clear whether or not the 'to-exclusion-of-everything-else' clause is supposed to apply at a token or type level. In other words, if it is best to individuate my experience

my experiences at this very moment, for example, the description would come out something like the following:

> E1: [A white screen with black lines] & E2: [firm key sensation on fingertips] & E3: [dull humming of the street below] … E_N & EX: [to the exclusion of everything else].

If this is the manner in which we are supposed to characterise our synchronic experiences, i.e. our experiences at a time, then so too is this the way we are supposed to characterise the experiences of the micro-subjects. Considering the two subjects that we started with, *Red* and *Blue*, I shall summarise the criticism with what I call the 'Ostracising Experiences' argument:

> **Ostracising Experiences:**
>
> 1) Subject-parts' perspectives must be parts of the subject-whole's perspective.
> 2) A subject's perspective is defined inclusively by what it experiences, but also *exclusively* by what it does not experience i.e. with an additional 'to-the-exclusion-of-all-else' clause.
> 3) Therefore: if the subject-whole contained other subjects as parts, then it would result in the incoherence of each experience-part to the exclusion of all of the other experience-parts.
> 4) Therefore, subjects cannot be parts of other subjects (*by reductio*).

So, if the subject-whole had other subjects as parts, then not only would it have to experience the experiences of those parts, but it would have to experience each part to the *exclusion* of the others, which it does not and could not. In other words, the subject-whole composed of *Red* and *Blue* would have to have the impossible composite-experience 'red-to-the-exclusion-of-(blue-and)-all-else [and] blue-to-the-exclusion-of-(red-and)-all-else' (Coleman, 2014, p. 33).

How can the constitutive panpsychist respond to this problem?

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with the 'exclusion-of-all-else' clause, then does the 'all else' refer to all other token specific concrete experiences, or all other concrete experiences at their type level. So, for Coleman, it may be impossible to instantiate a token experience in the absence of all other tokens of experiences which it is not experienced alongside. Or it may be impossible that this token experience could be instantiated only in the absence of tokens of the same type as those of which it is not experienced alongside. I suggest that we read the account charitably as applying on a type level, otherwise the identity of our experiences depends on the absence of all other concrete experiences described at a token level. And although it seems odd to individuate our experiences with by reference to such negative facts, the type level negative fact seems less extreme than token level.

There are three ways the constitutive panpsychist can respond to this argument. They may either reject premise (2) or premise (3). The difference in rejecting (2) or (3) lies in what it is taken grounds the 'to-the-exclusion-of-all-else' feature of experience. I take it that there are three options:

A) It is a positive phenomenological feature, a quale of exclusion.

B) It is a negative fact about certain sets of experiences.

C) It is the *awareness* of the awareness-quality model of consciousness.

Rejecting premise (2) undermines the argument, as it removes the motivation or shows that it is mistaken. For me rejecting (2) consists in holding that the exclusion property of a subject's experience is simply a negative fact about them (B). It is not part of the definition of a subject's perspective that it excludes certain experiences, it is just a trivial negative fact that it does not.

Rejecting premise (3) grants the motivation, viz. exclusion, but shows that it can be incorporated and does not generate any incoherence. This consists in either showing that if (A) is true, it does not matter, or that if (C) is true is does not matter. In other words, showing (A) or (C) do not generate an incoherence for subject-to-subject proper parthood relations.

I shall begin with rejecting premise (3) and then move on to rejecting premise (2).

7.2.1 Rejecting Premise (3): Incorporating the Phenomenology or Awareness

In this section I will look at attempting to incorporate the phenomenology of exclusion or incorporating the two-level account of conscious experience. As I suggested, only the *sui generis* phenomenology of exclusion can generate a problem for the constitutive panpsychist.

7.2.1.1 Incorporating the Phenomenology of Exclusion

This approach to Coleman's problem aims at showing that such phenomenology poses no problem for the panpsychist, and, importantly, can guide our speculations as to the phenomenology of being a subject-part of a subject-whole. There are two different responses I can see that are available, the panpsychist need not endorse both (as far as I can see they may be held independently of one another), but each pressures Coleman's argument. The first is an instance of a typical deflationary approach to any prospective

phenomenology, the second accepts a non-deflationary account of the phenomenology but uses Coleman's conditions of subject composition against him.

7.2.1.1.1 Deflation

Firstly, the panpsychist may respond to premise (3) by saying that the subject-whole does indeed experience each experience to the 'exclusion' of the others, but that this is highly normal feature of subjects' experiences. They can agree that Coleman has correctly identified a positively experienced aspect of our phenomenology, but he has reified it as an independent *sui generis* type. Instead we could take a deflationary approach and say the exclusory nature of our experiences is merely an aspect of each experience itself: we can say it is nothing over and above the *particularity* and *homogeneity* of our experiences. The move here is intended to be analogous to how some phenomenologists deny that 'subjectivity' or 'for-me-ness' is an independent feature of our experience, instead it is just a product of other features correctly arranged (see Dainton's 'phenomenal background' account (Dainton, 2016, 2008)). Or how some phenomenologists deny that cognitive phenomenology is *sui generis*, claiming instead that it is nothing over and above certain emotional and sensory phenomenology (c.f. Bayne and Montague, 2011).

If one reflects on one's experiences, typically one's experience of red *does* exclude one's experience of blue in some sense. If I stare at the map of the world on my wall, the qualities of the experiences do exclude the qualities of the other experiences: the green of the landmass excludes the blue of the oceans, and the blue of the French Tricolour excludes the red and the white. I do not experience each band of the flag as being red, white, and blue all over, and I do not experience the landmasses and being green and blue all over. If exclusion is really a *positive phenomenal feature*, then it may be nothing more than this mundane fact of particularity and homogeneity.[81]

When the subject-parts and their experiences compose our subject-whole, their exclusory phenomenology is inherited so that the whole does indeed have such phenomenology, but on this account the inheritance of exclusion is nothing over and above the inheritance of the particular and homogenous experiences themselves. Thus, even though the whole and the parts do experience exclusion *in this sense*, it does not generate the contradiction required and so the *reductio* cannot go through.

[81] This is not supposed to be the correct or best deflationary response, neither is it supposed to give a detailed account of what the phenomenology may alternatively consist in. Rather, it is merely supposed to be an intuitively plausible immediate response; a 'just so' story.

7.2.1.1.2 Alteration

Secondly, we could say that when subject-parts compose a subject-whole, it may be the case that the exclusion phenomenology of the parts is inherited by the whole but is mutually altered by the other parts.[82] That is, it may be the case that the alteration which it undergoes is one which changes it in such a way that it is no longer recognisably that experience type and can no longer generate the contradiction needed. In this scenario the whole does not experience the ostensible exclusory experiences of the parts, but neither do the parts themselves experience the ostensibly exclusionary phenomenology once they ate combined into a whole. Hence there are no contradictory experiences generated and the *reductio* fails. The question that remains is what sort of alteration happens to the exclusory phenomenology, what is it modified into? There are different alternatives for this approach, leave the phenomenology unspecified or tentatively suggest a possibility. Let us consider the second, more interesting proposal.

The second option is to offer a tentative account of the type of change that the subject-parts experiences would undergo. I want to suggest that it may become an analogue of the phenomenology of unity: the exclusory phenomenology of the subject-parts, when entering into the composite subject-whole, have this experience altered in a manner that is reasonably recognisable. One plausible account may be that our subject-whole experiences each and all the experiences as being unified with each other, i.e. it has a fully unified phenomenal field, and the subject-parts, in a limited sense, do so too: their experience of exclusion may become one of 'betrayal'. Whereby betrayal I mean that the experiences of the subject-parts somehow suggest the experiences of the other subject-parts (in chapter 10 I discuss this further, as a consequence of a certain form of phenomenal holism). So formerly the subject-parts had their determinate experiences of, say, redness or blueness and the phenomenology of there being no other experiences or this 'exclusion-of-all-else' phenomenology. But, once the subject-parts are combined and unified within a subject-whole, this phenomenology of there being no other experiences becomes a phenomenology of there being some other experiences i.e. it is altered from the 'exclusion-of-all-else' to the 'inclusion-of-X' (Luke Roelofs (Roelofs, 2015) suggests an innovative a view of this sort, in which any given phenomenal part phenomenally

[82] In fact, this response is entailed by two of Coleman's own conditions on subject composition: (ii) stipulates that *subject-parts experiences must contribute to the experiences of the subject-whole,* and because condition (iii) stipulates that *the interaction of subject-parts must intrinsically alter the experiences of the other subject-parts* (Coleman, 2014).

adumbrates the others).[83] The whole experiences each of its experience as being unified with each of its other experiences, and the parts experience their experiences as being unified with some other experiences. In this scenario neither the whole nor the parts experience exclusion, strictly speaking, but the parts and the whole experience a remnant analogue of it. However, this new type of phenomenology does not generate a contradiction between the experiences of the parts and the whole and so the *reductio* cannot go through.

The problem with this response though, is that in essence it is denying that the sui generis phenomenology of exclusion is individuative of a subject's perspective. In other words, it is denying premise (2). If we are accepting that the phenomenology of exclusion defines a subject's perspective, then we cannot say that the phenomenology changes without also admitting that the subject-parts perspectives do not continue to exist within the subject-whole.[84]

7.2.1.2 Incorporating the Two-level Awareness Model

If one is not satisfied with the above options and instead holds that Coleman's problem is grounded in the two-level awareness-quality model of consciousness, then we must find some manner to incorporate this instead. If one cannot avoid Coleman's problem even on the two-level model, then one will be forced to reject the two-level account of consciousness. Whether or not the two-level account is independently plausible is not my concern, I simply do not want phenomenal bonding panpsychism to fail if it turns out to be.[85]

Let us first recall the two-level account of consciousness from chapter 1. On this account, consciousness consists in two parts or aspects an 'awareness' and a 'content'. To illustrate this idea quite simply, we used the following diagram (Figure 15):

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[83] *Prima facie* this type of phenomenology can be described in a more adequate manner than the initial 'exclusion' phenomenology can, see above. I leave it open whether it should be characterised at the type or token level. They may either have the phenomenology of their experiences being unified with *exactly* those other experiences which it is unified with in the token sense, they may experience their experiences being unified with the other experiences on a type level, or they may experience them as merely being unified with *some* other experiences. Exactly which of these options depends on how we cash out the unity consciousness and the phenomenology involved. See Dainton (Dainton, 2008) chapter 9 for an account of unity which expresses an account of unity that would be compatible with this idea.

[84] N.B.: Coleman cannot employ this response himself, as it is entailed by conditions (ii) and (iii) of his account of composition – see fn.82. This does not mean another philosopher cannot.

[85] Independently, however, I do not see the appeal of the two-level account.

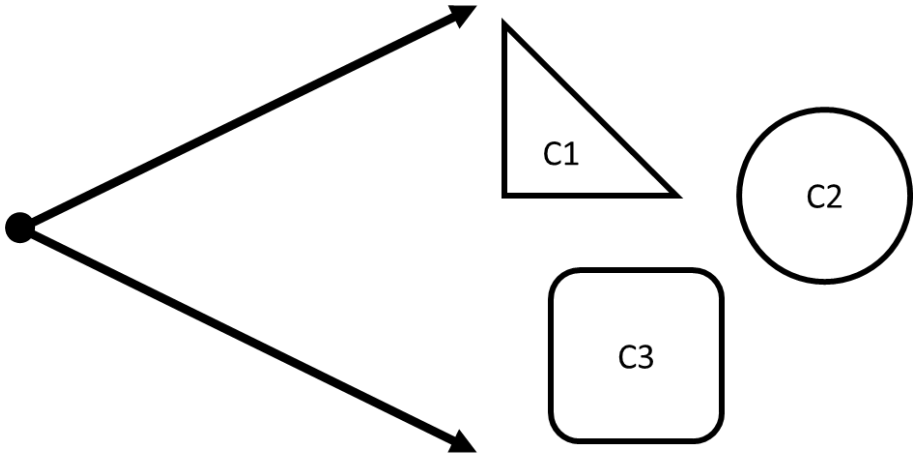

FIGURE 15 THE TWO-LEVEL ACCOUNT OF CONSCIOUS EXPERIENCE

The 'awareness' on the two-level model is what makes the content phenomenal, but the awareness itself is completely phenomenologically absent. It is 'pure' or 'transparent', it is introspectively indiscernible because it is almost completely featureless. But, not completely featureless, because, at least as this potential argument goes, it must have *some* feature that corresponds to Coleman's 'exclusion-of-all-else' exclusivity clause. Or, at least, there must be something about its completely pure nature that does ground the exclusivity.

If there is something about the pure awareness that excludes proper parthood relations between subjects' perspectives, then the two-level account entails that the following scenario is incoherent (Figure 16):

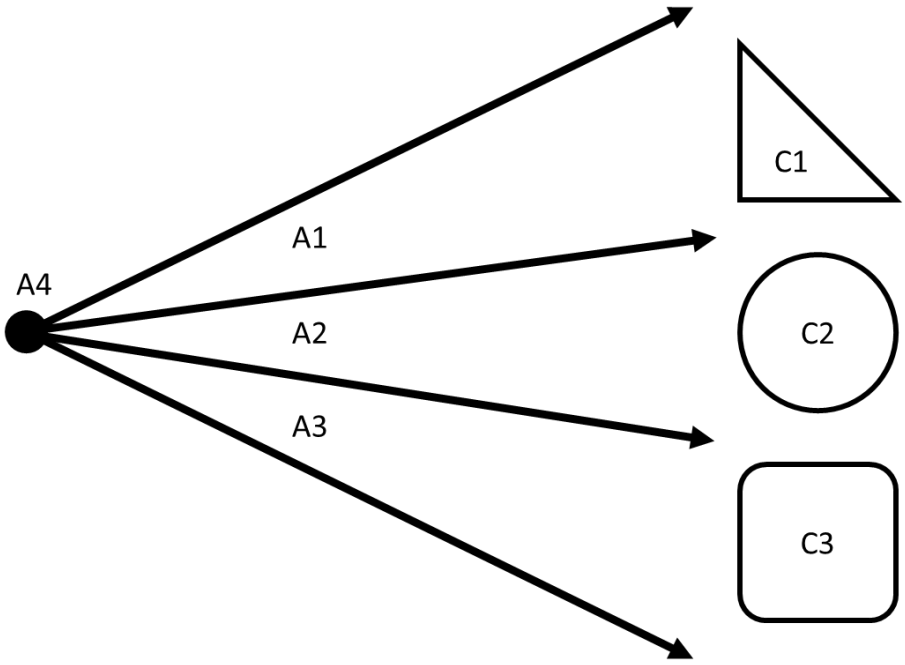

FIGURE 16 THREE AWARENESSES CONSTITUTING A FOURTH AWARENESS ON THE TWO-LEVEL MODEL

In this diagram we have three awarenesses, A1, A2, and A3 each aware of their own contents, C1, C2, and C3, constituting a fourth awareness, A4, that is aware of all of their contents together: [C1+C2+C3]. The fourth awareness here wholly overlaps and is constituted by the other three awarenesses and supposedly experiences their contents. None of A1, A2, or A3 experience each other's contents, they remain focused upon only their own respective contents (e.g. A1 takes C1 as its content and neither C2 nor C3 etc.). This is the picture that would have to be ruled out if Coleman's argument is successful.

If Coleman's argument is grounded in the two-level account, then I can see two ways for the incoherence to be generated and for the above picture to be ruled out:

> C.1) The awareness of the two-level account generates the positive phenomenology of exclusion *within* the content of the experience.
>
> C.2) The pure awareness of the two-level account *itself* is an exclusory structural feature.

Let us look at these in turn.

On (1) when the awareness casts its gaze upon the unconscious qualities they become conscious qualities and it somehow generates the phenomenology of exclusion. This phenomenology of exclusion will be generated as a *sui generis* phenomenology and cannot

be deflated into the homogeneity and particularity of our experiences. On this option, the incoherence is generated for the same reason as it is on (a) (above), however on this account we have an *explanation* for that phenomenology and a reason to think it is *sui generis*.

We cannot employ the same method of response to (1) as we can to (a) above. This is because the first method above relied on a deflationary account of the phenomenology of exclusion, which this version of the problem does not allow for.

Can we employ the second method, claiming that the phenomenology changes from exclusory phenomenology to something else? Again, we cannot. This would entail that the perspective no longer continues to exist when it becomes a proper part of the whole, which we cannot accept, and we now have a *reason* to think that such a phenomenology is individuative of a perspective: the awareness generates the *sui generis* phenomenology. In short, the awareness-quality view further justifies the claim that *sui generis* phenomenology of exclusion is individuative of a subject's perspective, which would disallow it from being a proper part of another subject's perspective.

On (2) the awareness *itself* accounts for the exclusion. It does not somehow impart a phenomenal character of exclusion to the content, but it is instead itself and exclusionary structural feature. This means that the awareness itself rules out the possibility of the scope of another awareness being wholly overlapped by it, thus ruling out proper parthood of subjects.

The problem with (2) is that it is not clear as to why precisely the pure awareness is in fact exclusory. We can stipulate that a subject's perspective is defined in such a manner as to be exclusory and we can stipulate that the awareness of the two-level model accounts for this, but the *explanatory relation* between the two is quite opaque. What is it about the awareness itself that grounds and explains why a subject's perspective is exclusory?[86] I have grappled with this issue and I cannot see what it is. A pure awareness must exclude other pure awarenesses as proper parts, but why?

[86] One option is that the contents now 'belong' to the subject when they are the objects of awareness, such that certain qualities/content 'belong to that subject to the exclusion of all else'. The problem here is the 'all else' becomes unclear. If it refers to other experiences, then it does not generate a problem distinct from (b) below. If it refers to subjects, then it seems to just be begging the question. Moreover, Coleman allows for the partial sharing of content, which would be ruled out by this second reading of 'all else'.

If (2) does not offer an (partially) illuminating explanation of exclusion, then I will take it that (2) is not responsible for exclusion.[87] Let us move on to rejecting the second premise.

7.2.2 Rejecting Premise (2): Negative Properties are not Problematic

One response to this argument may be to simply question the general plausibility of the assumption behind premise (2): A subject's perspective is defined inclusively by what it experiences, but also exclusively by what it does not experience i.e. with an additional 'to-the-exclusion-of-all-else' clause. The *reductio* could apply equally to any of the assumptions used, and it does not seem *prima facie* obvious that it should apply to premise (1). That is, we could simply question the idea of characterising a subject's experiences with a 'to-the-exclusion-of-all-else' clause. It may indeed be true that I, as a subject, am only experiencing a certain set of experiences, but it does not seem to be true that this is the correct way to describe my experiences. If this is not the correct way to describe my synchronic consciousness, then the argument is unsound (see fn. 24). This might just seem like philosophical point scoring, but it seems reasonable that our *reductio* should apply to the least justified of our assumptions, and the burden seems to be on Coleman in this instance to justify why this is the best description of our experiences.

In order to do this, we can either reject (A) or (C) as true and say that there is not exclusion grounded in either of these features, or we can accept (B):

B) It is a negative fact about certain sets of experiences.

(B) grants that there is the negative fact, but I argue that this negative fact should not be something that affects composition of subjects. Let us see how this works.

Firstly premise (2) seems to have mistaken a negative fact, viz. that a subject does not experience anything else, for a *positive phenomenological* one. By 'positive phenomenal truth' I simply mean something which is genuinely apparent or experienced by a subject, for example: I see the red cup and positively experience it as *being red* or *as cup shaped*, but I do not positively experience it as *not being a door*, and I do not positively experience it as *not being a tidal wave*. It is true that my experience of the red cup is not an experience of a door, and that it is not an experience of a tidal wave, but this is not a part of the experience itself. Likewise, if I were to have a simple experience of the taste of sugar, the *sweetness* or

[87] If the awareness itself grounds exclusion and it turns out that I am wrong, then I still take my current claim to be sufficiently well justified. For if the argument is grounded in the two-level model's awareness, then this must be a fluke because the evident connection is not there. Moreover, if additional theses about awareness are needed, then my claim still stands.

sweet quality is a positive feature of my experience. But that this sweet experience is not an umami experience, or that this sweetness is not sour, is not a part of the experience itself. It is just a trivially true negative fact about the experience. My claim is that this is the mistake that Coleman has made with regards to exclusion: the subjects do not experience anything else, but this is simply a negative fact about them, it is not a positive feature of their experiences. Just as it is true that the cup experience isn't a tidal wave experience, this isn't a positive phenomenal feature. The shift from the former claim to the latter claim is obviously substantive too.

In this scenario then the panpsychist can say that it is true negative fact that a subject does not have any other experiences than those which it has, but it is not true that the subject has the positive experience of *not having any other experiences* or positively experiences a 'to-the-exclusion-of-all-else' type of phenomenology. The ostracising experiences argument works because the subject-whole positively experiences an ostensibly contradictory experience which is inherited from its subject-parts. But if the subject parts do not themselves positively experience this 'to-the-exclusion-of-all-else' phenomenology, then the subject-whole which they constitute cannot inherit their experiences of a 'to-the-exclusion-of-all-else' because there are no such experiences for them to inherit. If the subject-whole does not inherit these exclusory experiences because they do not exist, then the subject-whole cannot have the contradictory experience of each of its experiences apparently excluding the others. In other words, if none of the parts are having an experience, then the whole cannot inherit it from them and no contradiction can be generated to forward the *reductio*.

Coleman's response to my argument may be that no such mistake has been made, the argument does not work because the subject-whole *positively* experiences an ostensibly contradictory experience inherited from its subject-parts which *positively* experienced it too. Instead, Coleman will say, the argument works simply because of the true negative fact that the subject-parts do not experience anything else, it *is* this negative fact that does all the work.

If this were the case, however, it is hard to see how it would cause a problem for the composition of subjects and their experiences. To highlight why this would not generate a problem consider an analogy with atoms. It is a true negative fact that the hydrogen atoms which compose a water molecule are not oxygen atoms, and the converse is true for the oxygen atom i.e. that it is not a hydrogen atom (moreover, it is not two hydrogen

atoms). But we do not then suppose that this generates a problem for the composition of water molecules, we do not then say that water has the contradictory nature of both being and not being hydrogen and oxygen. But this is indeed what we would have to say if the merely negative fact was that which was motivating the ostracising experiences argument.

Why is this? It seems to be because we do not think that merely negative properties of parts are inherited by the wholes which they compose. If we did think that the negative properties of the parts were inherited by the whole, then each instance of composition would turn out to be incoherent. This is because each part of an object has the negative property of *not being the whole object*, and if this property of *not being the whole object* were to be inherited, then the whole object would have the property of *not being the whole object*. This is evidently incoherent, and hence why we do not suppose that all merely negative properties of parts are inherited by their wholes.

Now, one may insist that 'whatever is true of the parts is true of the whole', but this is simply to state the opposite of my claim. Moreover, as I have suggested, once we reflect upon examples of composition we realise that statement is patently false (it is also a fallacy of composition).

The response again may be that 'the problem is not whether the negative fact is inherited by the whole, but whether it remains true of the parts when they compose the whole' such that if it is no longer true then they've lost an essential property. Even if this is really what grounds the argument, it is not true that the negative fact then fails to hold true of the parts once they compose a whole. Consider our generic case above: even when the parts are bundled into the whole, they still retain the property of *not being the whole object* (and the whole object does not inherit this property). There is no risk of the parts losing out on some essential negative property that they may have once had.

If the exclusion by which we ostensibly defined a subject's perspectives is really just an expression of a negative fact as in (B), then I take it that I have shown this does not generate a problem. Let me turn to look at Goff's failed response to Coleman.[88]

7.3 Goff's Failed Response to Coleman

Goff (Goff, 2017a) offers a response to Coleman's perspective problem. I want to suggest that Goff's response fails (this is pertinent also because Goff employs the response again

[88] Thanks to Sam Coleman for a helpful and invaluable discussion of this issue.

to defend his own priority cosmopsychist view from the problem). Instead, we should simply adopt mine.

In short Goff's response fails because it does not take seriously the constitution of one experiencing subject by others, and it assumes that the constituting entities must be clearly discernible and 'show up' within the entity which they constitute. Moreover, it seems like Goff's response only works on the (A) positive phenomenological feature reading of Coleman's problem. Let me explain.

Goff thinks Coleman's argument relies on the equivocation between the following two facts:

> a) phenomenal quality/point of view X is *partially constituted* by phenomenal quality/point of view Y.
>
> b) phenomenal quality/point of view X is *partially characterised* by phenomenal quality/point of view Y – that is, Y is phenomenally present or 'show up in the subject of X's experience.

Goff claims that Coleman's argument relies on running together these two notions. If we think that when some entity X (partially) constitutes some entity Y, X also (partially) characterises Y, then we can generate the problem. If we do not think that constitution and characterisation go hand-in-hand, then Coleman cannot generate his problem: the subject-whole need not have an incoherent experience consisting of each part to the exclusion of the others. As Goff states:

> 'In Coleman's argument, he assumes that if a lesser point of view partially constitutes a greater point of view, then the lesser point of view must be phenomenally present in the greater point of view (which he tries to show is incoherent). In both cases, the equation of partial constitution with partial characterization is crucial. However, this equation can be coherently denied.' (Goff, 2017a, p. 189)

I do not think this response works. This is because Goff equates 'characterising' an experience and 'being present' or 'showing up' in experience, which themselves have two readings: a stronger and a weaker. Because of the equivocation between the two readings of 'showing up', he thinks that constitution and characterisation can come apart. However, this is only the case on the stronger reading. I shall explain this in more detail.

First of all, let us get clear about what is it we mean by the character of an object. What do we mean by the character of an object? To answer this, consider an object, O, and ask

what is its character? It seems that the answer will be simply: its properties. If we consider O to be a ping pong ball, we would say its character was 'its shape', 'its size', 'its colour', 'its bounciness' etc. The character of an entity, considered in and of itself, appears to be simply its properties. If we then ask why this entity has this character, our answer will be because of the character of the entities which constitute it. In other words, the ball has the properties it does because of the properties of the constituent parts, and the properties of the ball are *nothing over and above* the properties of the constituent parts. If this is true, then it seems hard to see how characterising and constitution can come apart: the character (properties) of the whole is nothing over and above the character (properties) of the parts. What room is there for the dissociation?

Secondly, Goff equates 'characterising' with 'showing up', which itself has two readings: a weak and strong. The weak notion of 'shows up' does not dissociate constitution from characterisation, whereas the strong notion of 'shows up' does allow for one to think that they can be dissociated. Before making this distinction as precise as possible, consider the following intuitive case.

When I pick up the paperweight from my desk and inspect its character (properties) certain aspects of that character show up. It can feel its weight, I can see its opaque colour, and I am sensitive to the coolness of the glass and the smoothness of its texture. These properties of the constituted object show up for me as clear, distinct properties of the object. The properties of the parts of the paperweight also show up, however they show up in a weaker sense. I pick up the paperweight and I can feel the weight of one of its halves, one of its quarters, or even one the atoms that constitute it. Likewise, when I look at it I see the properties of one half of it, and I can see the properties of the atoms which constitute it.

This example is supposed to show that the character (properties) of the constituting parts show up in the weaker sense *in and as that which they constitute*. Whereas the character (properties) of the constituted entity show up in the stronger sense *as the clearly distinct constituted properties*. It is only in the stronger sense of 'show up' that it appears that constitution and characterisation can come apart. An approximation then of this distinction is as follows:[89]

[89] See Roelofs (Roelofs, 2014, pp. 63–5) for a similar distinction in response to James' objection to *phenomenal blending* as a response to the palette problem.

Strong shows up: Y shows up in X if Y is a clearly distinct and discernible part of X.

Weak shows up: Y shows up in X if Y is one amongst many parts, $Z_x...Z_n$, of X.

Only the stronger reading allows for constitution and characterisation to come apart, the second reading does not. Only if one thinks that for some entity to characterise another entity is to strongly show up, then one may think that the constituting entities do not characterise the constituted entity precisely because they are not clearly distinct and discernible parts of the constituted entity. On the weaker reading the response to Coleman cannot work, the constituting entities do show up in the constituted entity. In fact, and this is an important point: in constitution the constituting entities and their properties show up *as the constituted entity and its properties*. The character of the whole cannot thereby come apart from the character of the parts in such a way that we can say 'because the parts don't show up, they can't create a problem for the panpsychist'.

One may feel that this response to Goff is begging the question, or merely reasserting the opposite conclusion. I do not think that this is the case in any way. The response here depends upon an equivocation, such that one reading does not allow for Goff's argument to work and the other is an unjustified requirement of our introspective capacities (especially given the nature of constitution).

One may instead feel that although this does not beg the question, it is undermined by my other responses to Coleman. In other words, if one reads Coleman's argument as grounded in either (A), (B), or (C) from above, then Goff's response does in fact work. Moreover, and conversely, one may feel that if this response to Goff does work, then either certain or all of the responses to Coleman grounded in (A), (B), or (C), will not in fact work. Fortunately, none of these conflicts arise and, in fact, it seems that Goff's response relies on the (A) reading being correct. Goff's response to Coleman relies on the micro-subjects and their experiences 'showing up' within the macro-subject whole and its experiences. As we saw, it is unclear what is supposed to ground Coleman's problem, and I offered three potential readings:

(A) It is a positive phenomenological feature, a quale of exclusion.

(B) It is a negative fact about certain sets of experiences.

(C) It is the *awareness* of the awareness-quality model of consciousness.

Goff's response to Coleman's argument will not work on reading (B) precisely because the negative fact is not a phenomenological one, the negative fact about the part is not something which *can* characterise of show up in the phenomenology of the whole. Neither will Goff's response work on reading (C). As we saw, the awareness of the awareness-content model is pure, meaning it is completely featureless. Moreover, proponents of this model, especially Coleman, claim such awareness is not introspectible at all (Coleman, 2016). Now, given that the awareness is pure, then it should not 'show up' in the way that Goff needs it to.

Finally, the justification that Goff gives for the dissociation between constitution and characterisation seems to be false example. Goff claims that on panprotopsychism and physicalism, micro-physical properties and/or protophenomenal properties potentially constitute macro-phenomenal properties, but those micro-physical and/or protophenomenal properties do not characterise macro-phenomenal properties. This is an example, claims Goff, of constitution where the constituting properties of the parts do not characterise the properties of the constituted whole. The problem with this example is precisely that at best physicalism and panprotopsychism are not examples of successful constitution.[90] As such, they cannot be examples of constitution in which constitution and characterisation come apart, for the fact that there is no evident characterisation is a consequence of there being a failure of constitution in the first instance. What we need to highlight the dissociation is an example that is a successful case of constitution to see whether it is dissociated from characterisation. It seems that in most cases of successful constitution, character is not dissociated in this way.

One may respond by saying that my distinction between the two notions of 'shows up' somehow undermines this, such that it allows for physicalism and panprotopsychism to be examples of successful constitution. However, it is hard to see why it would. It is true that if Goff's examples were instances of successful constitution, that my distinction would still apply: micro-physical or micro-protophenomenal properties would not strongly show up, only weakly show up, and that is why we would think the character of these properties could be dissociated from the character of the phenomenal properties they constitute. But, one cannot take the possibility of a dissociation between the strongly showing up and constitution to show that physical and protophenomenal properties are successful examples of constitution. I take it that we have good reason to think that

[90] Or, at worst, they are highly contested examples of constitution.

physicalism is not successful constitution and whilst it is an open question whether panprotopsychism is or is not, it is not an example of successful constitution.[91]

My response to Goff is not in any way intended to show that Coleman's problem is in any manner successful, it is simply to show that my response is preferable – as I have already argued, Coleman's problem can be avoided as long as it is not grounded in a non-deflatable *sui generis* phenomenology.

7.4 Conclusion

Coleman's 'real combination problem' can be responded to quiet easily, as the problem depends upon what precisely grounds the exclusory nature of a subject's perspective. As I suggested that this can be one of three things:

> A) It is a positive phenomenological feature, a quale of exclusion.
>
> B) It is a negative fact about certain sets of experiences.
>
> C) It is the *awareness* of the awareness-quality model of consciousness.

Where the third, (C) could be separated further into two:

> C.1) The awareness of the two-level account generates the positive phenomenology of exclusion *within* the content of the experience.
>
> C.2) The pure awareness of the two-level account *itself* is an exclusory structural feature.

I have argued that only (A) and (C.1) can adequately ground the apparently exclusory nature of a subject's perspective such that it would generate the relevant incoherence for subject-to-subject proper parthood relations. In other words, only a special phenomenology of exclusion would do the job that Coleman needs it to do. This is because (B) negative facts in general do not pose a problem for constitution, so there is no reason to think that they do for constitutive panpsychism. (C.2) does not offer an explanatory relationship between the awareness and its exclusory nature, in other words: it is just stipulated.

In addition to this I have suggested that even if the phenomenology is sui generis, it may be deflatable into some other forms of phenomenology that do not generate an

[91] This argument does not rely on my mereological argument in chapter 2. The panpsychist could well appeal to it to show Goff's examples to be impossible cases of constitution.

incoherence. Only if the phenomenology is not deflatable does this cause a problem for proper parthood relations between subjects.

8 Chapter 8: The Special Phenomenal Composition Question and the Anti-Vagueness Argument Against Restricted Composition

'the reader who found himself swamped with too much metaphysics in the last chapter will have a still worse time of it in this one'

(James, 1890, p. 145)

8.1 Introduction

If subjects of experience should be understood as having perspectives and these perspectives should be defined in a manner such that they are exclusory, then the phenomenal bonding panpsychist can incorporate this into their view. The only instance in which they cannot is if the exclusory nature of a subject's perspective is grounded in some sort of *sui generis* 'exclusion phenomenology'. And, as we have seen the panpsychist must reject the essential phenomenal boundedness of subjects. Doing so allows the panpsychist to have unified conscious subjects with other subject-parts. Moreover, *if* the fundamental phenomenal bonding relation is ubiquitous, then this does not entail the annihilation of all subjects of experience bar one. Neither will all subjects cease to exist given the lemma of the mereological argument in chapter 2.

An important question remains to be answered though, for although as I suggested in the last chapter not necessarily all subjects will be phenomenally bonded (and even if they are we should not be worried), Philip Goff has recently argued that all subjects are phenomenally bonded. As we saw in chapter 4, the first type of combination problem asks:

(i) under what conditions do some Xs combine to constitute some Y

Answering this question for subjects also leads to the combination of *all* subjects, it will lead us to unrestricted phenomenal compositions, for it is identical to the 'special phenomenal composition question': 'under what conditions do subjects combine to produce a further subject?' (Goff, 2016, p. 296).

Why is this problem important? Well, as Goff notes, for the phenomenal bonding panpsychist this question amounts to:

> 'which subjects bear the phenomenal bonding relation to each other?'

The phenomenal bonding panpsychist must answer this question, and the proposal that phenomenal bonding = co-consciousness does not alleviate them of the need to do so. The reason that the 'phenomenal bonding = co-consciousness' proposal does not alleviate them of needing to answer the question is because that proposal is about forming a positive, substantive concept of phenomenal bonding. It does not tell us *which* subjects stand in the co-consciousness relation, or *when* that relation is instantiated. One can simply reformulate the question to ask:

> 'which subjects bear the co-consciousness relation to each other?'

Neither does anything we have thus far looked at in relation to Coleman's perspectives problem alleviate the panpsychist of this problem.

The protophenomenal bonding panpsychist would also have to answer this question. Recall our definition of protophenomenal bonding:

> Protophenomenal bonding is that relation R such that:
>
> i) R is distinct from merely structural relations revealed by physics;
>
> ii) R a priori necessitates the phenomenal bonding relation when instances of it constitute structure S.
>
> iii) R is distinct from the phenomenal bonding relation.

For them the special phenomenal composition question is equivalent to the following:

> 'what is the structure, S, and when is it instantiated?'

Nothing we have said in the previous chapter alleviates the protophenomenal bonding panpsychist from answering this question. In short, both views must tell us *when* it happens, both views must answer the special phenomenal composition question.

Firstly, I will outline Van Inwagen's special composition question, and orient the reader to its structure, importance, and possible answers. Following this I will turn to look at Goff's statement of the special composition question for panpsychism. Similarly, I will orient the reader to its structure, importance, and possible answers. Following this I will

present the anti-vagueness argument against restricted composition – based on the Sider-Lewis argument (Lewis, 1986; Sider, 2001). The anti-vagueness argument will force the phenomenal bonding panpsychist and the protophenomenal bonding panpsychist into a corner: they must either adopt nihilism about subject-composition, or unrestricted subject-composition (as I shall explain below). Both are on an epistemic par, and no advantage of protophenomenal bonding remains.[92]

Let us turn to look at the special phenomenal composition question.

8.2 The Special Composition Question

We take it for granted that there exist material objects in addition to the fundamental atoms, or simples which make up the basic level of reality. Tables, chairs, cats etc., we assume that these material objects exist. We assume that they have parts and sometimes that they are parts of other material objects. In *Material Beings* (Van Inwagen, 1990) Peter van Inwagen incisively questions this assumption. Van Inwagen asks the materialist metaphysician

> when is it true that there exists an object, Y, such that the objects, Xs, compose Y?

This is what he calls the 'special composition question'. Practically speaking, what Van Inwagen wants to know is: given a group of objects, what conditions one would have to put those objects in such that they combined to produce a further object?

This problem is notoriously difficult to answer in a satisfying manner, precisely because all answers betray our common-sense assumptions about when some objects compose another object.

Answers to the special composition question come in two types: extreme and moderate. Such answers will stipulate the necessary and jointly sufficient conditions a group of objects must satisfy in order that there exists an object composed of the group. Moderate answers supposedly entail that composition occurs in limited cases, they are supposed to preserve our common-sense beliefs about when composition occurs. Extreme answers

[92] There is no method available to the protophenomenal bonding panpsychist to account for this vagueness that is not also available to the phenomenal bonding panpsychist. This means they must appeal to the same methods as above and our criticisms will hold equally. The protophenomenal bonding panpsychist cannot therefore account for the vagueness, and hence they should reject the common-sense answer to what they think the structure S is. Thus, they will be left with either a form of nihilism or a form of universalism.

entail that composition occurs in cases contrary to common sense, they do not preserve our common-sense beliefs about when composition occurs.

A representative moderate answer to the special composition question maybe something like 'contact':

> **Contact:** for any objects Xs, there is an object Y composed of the Xs *iff* the Xs are in contact with one another and do not overlap.

Contact tells us that when and only when we put a group of objects into contact with one another do they compose something, as soon as we take them out of contact from one another they cease to compose anything. This answer is obviously problematic,[93] and so too the other moderate answers van Inwagen considers.

The two extreme answers to the special composition question are 'mereological universalism' and 'mereological nihilism':

> **Nihilism:** for any objects Xs, there is an object Y composed of the Xs iff there is only one of the Xs.
>
> **Universalism:** for any objects Xs, there is an object Y composed of the Xs *iff* the Xs do not overlap.

Nihilism tells us that it is impossible for us to arrange a group of simples in such a way that any two or more of those simples compose something. According to the mereological nihilist composition only ever occurs between a mereological simple and itself, the only objects that exist are mereological simples: there are no complex objects only mereological simples.

Universalism tells us that it is impossible for us to arrange a group of simples in such a way that they come to compose something, this is because on universalism composition is 'automatic' (Van Inwagen, 1990, p. 74) and the simples *already* compose something. According to the universalist composition is unrestricted, it always occurs and there is a vast number of complex objects and mereological simples. Composition only fails to occur when two objects overlap.

[93] There are many examples of objects not in contact which we would want to say compose some further object, and examples of objects in contact which we would want to say don't.

We can paraphrase the distinction between nihilism and universalism as: composition *never* occurs vs. it *always* occurs.

Let us move on to the special *phenomenal* composition question, the real focus of this chapter.

8.3 The Special Phenomenal Composition Question

Philip Goff proposes that the panpsychist also faces their own version of the special composition question: 'under what conditions do subjects combine to produce a further subject?' (Goff, 2016, p. 296). For the phenomenal bonding panpsychist, Goff claims that the question becomes the following:

> 'which subjects bear the phenomenal bonding relation to each other?' (Goff, 2017a, p. 296).

Let us call this the special phenomenal composition question.

Answers to the special phenomenal composition question also come in moderate and extreme forms. Again, extreme answers to the special phenomenal composition question would be answers which entail that phenomenal composition of subjects occurs in cases contrary to common sense.[94] Moderate answers preserve our common-sense beliefs about when phenomenal bonding occurs. This is not to say that we have common-sense beliefs with contents about the specificities of panpsychist theory, that would be highly implausible. Rather, the relevant common-sense beliefs are those beliefs we have about which material objects or systems are conscious. For example, most people have the belief that other human beings are conscious subjects of experience. Equally, most people probably have the belief that 'higher' animals are conscious. It is beliefs of this sort that will determine our answers to the special phenomenal composition question, and by which we will judge our answers to be either 'extreme' or 'moderate'.

This means that our representative answer to the special phenomenal composition question will be quite different to the representative answer to the special composition question. This will mostly be due to our pre-theoretic belief regarding the scarcity of subjects in the world as compared to material objects, and this will be highlighted in the

[94] The panpsychist already admits that there are more subjects than common sense, we can still define extreme and moderate views relative to our pre-theoretic beliefs about subjects though.

lack of generality in the moderate answers to the special phenomenal composition question.

Goff says that *the* representative moderate answers to the special phenomenal composition question is what he calls, 'the common-sense answer':

> **Common-sense answer: '**particles form a conscious subject when and only when they form an organism (or a subset of organisms, or the brains/central nervous systems of [organisms)]' (Goff, 2016, p. 297)

The common-sense answer means that only the micro-subjects that compose an organism are phenomenally bonded with one another, and as soon as we remove the micro-subjects from the organism they are no longer phenomenally bonded.[95]

As before, the two extreme answers to the special phenomenal composition question are 'phenomenal universalism' and 'phenomenal nihilism':

> **Nihilism:** for any subjects Xs, there is a subject Y composed of the Xs *iff* there is only one of the Xs.
>
> **Universalism:** for any subjects Xs, there is an object Y composed of the Xs *iff* the Xs do not overlap.

Nihilism entails that no subjects are ever phenomenally bonded. According to the nihilist panpsychist there are no composite subjects and only mereologically simple subjects (I will move on to look at this view in chapter 9).

Universalism entails that phenomenal bonding is unrestricted, so for any group of subjects they are related by phenomenal bonding and compose a further subject (as long as they do not overlap). According to the universalist panpsychist, there is a vast number of composite subjects – e.g. my brain and my foot, the rings of Saturn and your elbow, each snowflake in a blizzard etc. – and simple micro-subjects. We can paraphrase the distinction between nihilism and universalism as: subject- composition *never* occurs vs. it *always* occurs.

N.B.: I am putting the issue of the inclusion of *temporal parts* to one side here. Typically, unrestricted composition is taken to entail some form of four-dimensionalism: the view that material objects have temporal (as well as spatial) parts and thereby perdure (not

[95] This example of an organism is merely an example, the reader is encouraged to fill in their own common-sense (probably not common-sense) answer.

endure) though time. This means that, at the least, by stipulation I am not taking universalism to entail the thesis that any group of past, present, or future subjects thereby phenomenally bond and compose a further subject. However, I think it is also worth noting that given this question asks when certain subjects are phenomenally bonded, there may be a *good enough* reason to restrict the discussion (for now). If some subjects, the Xs, are phenomenally bonded this means they compose some further subject, Y, and that there is something it is like to be Y. In other words, Y has a unified consciousness. The problem then arises that, if the subjects, Xs, are stretched out across time (say over the period of 101 days), then they compose a subject, Y, and there is something it is like to be Y; Y has a unified consciousness. If we can make sense of there being something it is like to have a unified consciousness that stretches much longer than a typical specious present (estimates vary from 12 seconds to 0.75 seconds), then I do not think there is a problem here. If we cannot, then I think there by be a problem for unrestricted phenomenal composition *across time*. For now, I shall take this as a good enough reason to limit my discussion to the synchronic case.

Let us move on to look at the anti-vagueness argument against restricted phenomenal composition.

8.4 Anti-vagueness Argument Against Restricted Phenomenal Composition

Considerations in favour of mereological universalism or mereological nihilism are usually that they do not introduce vagueness into the world, whereas moderate answers, on the other hand, do introduce vagueness into the world (Lewis, 2009, pp. 210–14; Sider, 2001, pp. 120–39). Panpsychist universalism and nihilism are no exception here, and moderate panpsychist answers also introduce vagueness. It is precisely this vagueness that Goff employs to argue for unrestricted phenomenal composition. I shall briefly outline this argument, before looking at it in more detail.

The common-sense answer introduces vagueness into our picture because the concept *organism* is vague. The concept *organism* allows for 'borderline cases', which are cases in which there is no fact of the matter whether or not some object satisfies the concept; it is indeterminate whether or not an object satisfies the concept. To highlight this one need only reflect upon the beginning and end of any given organism's life. After conception, there is no specific moment in time at which we can say prior to there was no life, and after there was life. Likewise, there seems to be no moment at which we can say before

there was a person and after a corpse. If we assume that the common-sense answer is true, then not only will there be borderline cases for organisms but also for (non-fundamental) subjects of experience. That is, if common-sense is true, then there will be 'phenomenal borderline cases'. These are borderline cases in which there is no fact of the matter whether or not some object is a subject of experience; it is indeterminate whether or not some object is conscious. This is because if some object X is necessary and sufficient for the existence of a conscious subject, but the object X is such that it is often vague whether or not objects of type X exist, then it will also often be vague whether or not we have subjects of experience. Again, to highlight this one need only reflect upon the start or end of an organism's life.[96]

This vagueness of certain subjects of experience now produces a problem for the panpsychist because they must try to account for it. Goff suggests there are three ways that they could do this: a) they could adopt a linguistic account of vagueness; b) adopt a metaphysical account of vagueness; c) adopt an epistemic account of vagueness. Goff believes that the linguistic account of vagueness is the most appealing account of vagueness in general, and we should try to account for the vagueness of subjects in these terms. The problem, he argues, is that we cannot account for phenomenal vagueness in terms of linguistic vagueness. Because we cannot account for phenomenal vagueness in linguistic terms, we should reject the common-sense answer to the special phenomenal composition question. Goff's argument mirror's Lewis' and Sider's arguments for unrestricted composition (Lewis, 1986; Sider, 2001).

We can formalise the anti-vagueness argument in the following way:

Anti-vagueness Argument Against Restricted Phenomenal Composition

1) If panpsychist universalism or nihilism are false, then we can create a Sorites-like series for subject-composition.

2) Such a Sorites-like series of subject composition must contain either a sharp cut-off or borderline cases of subject-composition.

3) In no Sorites-like series of subject composition is there an exact cut-off in whether subject-composition occurs.

[96] Again, this is merely representative answer.

4) In any case of subject-composition, either subject composition definitely occurs, or it definitely does not occur (i.e. there are no borderline cases of subject-composition).

5) Therefore, panpsychist universalism or nihilism must be true.

Premise (1) relies on the concept of a sorites sequence. A sorites sequence is a continuous series of adjacent 'cases' in which the two poles of the sequence differ, but in which any two adjacent cases are incredibly similar (near identical, even). At the 'left-hand' of the sequence we have a case in which we are maximally certain of a certain truth about that case. In this instance the left-hand case is that subject-composition occurs, at the left-hand we are maximally certain that there is a subject-whole composed of subject-parts. At the 'right-hand' of the sequence we have a case in which we are maximally certain of a certain truth about it. In this instance the right-hand is that subject-composition does *not* occur, at the right-hand we are maximally certain that there is no subject-whole composed of any subject-parts. We can illustrate this idea in the following intuitive way (Figure 17):

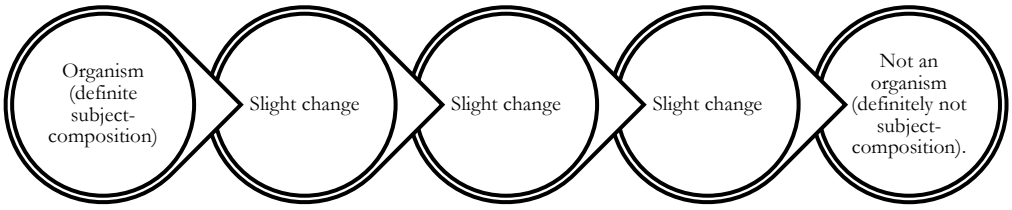

FIGURE 17 SORITES SEQUENCE OF SUBJECT-COMPOSITION

Premise (1) is true in virtue of the sort of answer one gives to the special phenomenal composition question, for example 'being a brain' or 'being an organism'.[97] If one could

[97] Three examples of relevant sorites-like sequences would be the following: (a) Zuboff-style brain expansion cases, in which the electrical signals within the brain are replaced by radio signals from transmitters and each neuron of the brain is then scattered, inch-by-inch (in fact, smaller), over a great distance (Unger, 1990, pp. 177–210; Zuboff, 1981); (b) the organic-to-silicone neuron replacement thought experiments, in which each organic neuron in the brain is slowly replaced (over the course of a week) by functionally isomorphic silicone stand-in (Dainton, 2008, chap. 1); (c) the slow death of a person and the decay of their corpse.

find an answer to the question that did not admit of a Sorites-like sequence, then one could reject premise one. Evidently, the common-sense answer does admit of a Sorites-like sequence.

The two main premises of the argument are (3) and (4).

If one were to reject premise (3), then one would have to accept that there can be differences in subject composition that were brute. This would be to admit the following: there can be cases along our sorites sequence in which two adjacent cases differ with respect to their subject-compositional facts (i.e. whether or not a subject is composed), but which do not differ in any other facts that could explain or ground the compositional facts. It would lead to the following implausible result: the difference in spatial location, say of a few nanometres, of two, maybe three fundamental atoms explain why subject-composition occurs in one case and not in the other. The reason that this is sort of brute fact is implausible, whereas other brute facts that we must recognise do not seem as implausible, is because such a difference appears to be completely arbitrary and yet utterly precise. Usually when we find such arbitrary precision in nature, we search for an underlying *mechanism* to explain it. If we find such precision in our metaphysics, then we should equally try find some underlying explanation. But there cannot be such an underlying explanation because it is brute, it just is. It seems reasonable to think we should avoid such completely arbitrary and utterly precise bruteness in our metaphysics.

The panpsychist could reject (4), but this is where the real problem arises. To reject (4) is to admit that it can be vague whether or not a subject is composed (and thereby exists). Lewis supports (4) for non-panpsychist composition by appealing to a semantic account of vagueness, Sider supports (4) for non-panpsychist composition by arguing that rejecting it would lead to count indeterminacy. Goff, analogously to Lewis, also appeals to semantic accounts of vagueness.

8.5 Supporting Premise (4): The Linguistic Argument Against Borderline Cases of Phenomenal Composition

I believe we can formalise Goff's argument supporting (4) in the following way:

Linguistic Argument Against Phenomenal Borderline Cases:

A1) If there are borderline cases of subject-composition, then this must be because of a vague predicate in our sentences regarding the existence of conscious subjects.

A2) If there are vague predicates in such sentences, then they must be accounted for in terms of semantic indecision and multiple admissible precisifications.

A3) None of the predicates in sentences expressing the existence of conscious subjects admit of multiple admissible precisifications.

A4) Hence, there can be no borderline cases of subject-composition.

The two key premises here are (A2) and (A3).

Goff justifies (A2) by claiming that semantic/linguistic accounts of vagueness are the most plausible. One could reject (A2) and instead claim that a metaphysical or epistemic account of vagueness could be given. Goff justifies (A3) by appealing to our phenomenal concepts, his claim is that our phenomenal concepts are sharp because if they were not his thesis of phenomenal transparency would be false. Goff does not elaborate on the reasons why the linguistic account of vagueness is the best, neither does he consider how we could justify (A3) without employing phenomenal transparency. I will here assess these options in the following sections.

8.5.1 Supporting Premise (A2): Accepting the Metaphysical Account of Vagueness

If one accepts a metaphysical account of vagueness, then one must accept that the vague predicates in our sentences expressing the existence of subjects correspond to vague properties (or objects). On this account vagueness is not something we bring to bear on the world, instead the world presents us with genuine, objective, mind-independent vagueness and we simply pick up on that fact. Typically, philosophers have tried to avoid this sort of vagueness, but not all have. Putting the intricacy of the discussion aside, I think the following fact lends weight to rejecting a metaphysical account of vagueness when it comes to panpsychism at the least:

> **Metaphysical Vagueness Entails Real Vague Conscious Subjects of Experience:** that there are entities which are vaguely conscious (sort-of-conscious-and-sort-of-not-conscious); there is something which is it like to be them and also not anything it is like to be them; they do not have an 'inner life' but they also kind of do have one etc.

This is something I find hard to grasp. It is incredibly hard to grasp how it could be that there exist subjects that have a vague form of existence and a vague form of conscious

experience. Hypnagogic states (falling asleep) and hypnopompic states (waking up) may be a way for us to *try* and make sense of this, but it is far from clear that these states are not just conscious states. Albeit, conscious states with a peculiar 'not-awake-type' phenomenology.

Certain panpsychists may respond here with an attempt to defend the metaphysical vagueness of conscious subjects. One potential method may be something like the following. We are interested in the *capacity* for conscious experience in complex subjects, a subject is something with the *capacity for conscious experience* and that capacity is not always exercised: in dreamless sleep, in a coma, and when placed under anaesthetic the capacity for consciousness is not realised. These sorts of subjects, i.e. those with the capacity for consciousness, are typically vague entities and that does not worry us. If we distinguish between (i) type-A conscious subjects and (ii) type-B non-conscious-but-the-capacity-for-consciousness subjects, it means we can reject (A2) and accept the existence of metaphysically vague subjects. Specifically, metaphysically vague subjects of sort (ii) type-B non-conscious-but-the-capacity-for-consciousness.

This means the panpsychist can agree and say that it cannot be metaphysically vague whether there is a type-A subject, for any consideration I have presented (and will present) in favour of this claim is justified. But, it *can* be metaphysically vague whether there is a type-B. Ultimately, the panpsychist will claim, this allows them an out: unrestricted phenomenal composition does not follow because they account for the vague predicates within borderline cases of subject composition in terms of metaphysical vagueness. These metaphysically vague subjects are type-B.

While I think there may be potential here, I am not sure that this option fully succeeds for the phenomenal bonding panpsychist. The question we are asking of the phenomenal bonding panpsychist is 'which subjects bear the phenomenal bonding relation to each other?', which is equivalent to 'which subjects bear the co-consciousness relation to each other?'. This means that the question is itself posed in terms of explicitly conscious relations between explicitly conscious parts, which generate an explicitly conscious whole. This means that given the definition of phenomenal bonding, viz. that it generates and necessitates a larger conscious whole when holding between conscious parts, we cannot say a group of subjects can be *phenomenally bonded* and be a type-B vague subject. If the phenomenal bonding panpsychist were to say this, they would violate the necessity present within the definition of phenomena bonding. In other words, the phenomenal

bonding panpsychist can say that there are type-B subjects, but those are not subjects which are phenomenally bonded together. Rejecting (A2) and accepting a metaphysical account of vagueness is not open to the phenomenal bonding panpsychist.

In addition to this all the claims I have made have been about *conscious subjects*, as I suggested in chapter 1.1.2.1.2, and the anti-vagueness argument is formulated in terms of them. This means that, ultimately, this response of introducing type-B non-conscious (and thereby) possibly vague subjects misses the mark.

8.5.2 Supporting Premise (A2): Accepting Epistemic Vagueness, Consciousness+, and Phenomenal Bonding+

If one accepts an epistemic account of vagueness, then, like the linguistic account, one holds that there is no vagueness in the world. Vagueness is something we bring to bear on the world. On this account, however, vagueness arises as a consequence of our ignorance not our concepts. The concepts that we use and the properties which they pick out have perfectly sharp boundaries and do not admit of borderline cases, instead the actual location of these sharp boundaries are simply not available to us. Why are they not available? It could be for a number of reasons. One reason is precisely because they are sharp boundaries and the location of such sharp boundaries are the sorts of things that we cannot know *in general*. Alternatively, there may be something specific about the case in hand, viz. subject composition, that means we cannot know where the sharp boundary lays.

The epistemic approach strikes me as a plausible route for the Russellian phenomenal bonding panpsychist to adopt, albeit not the option I shall adopt here. The epistemic vagueness panpsychist may argue for *something like* the 'consciousness+' proposal advanced elsewhere by Goff (Goff, 2017a), claiming the two instances of ignorance present (viz. our ignorance of the sharp boundaries and of the property 'consciousness+') are related. Let me explain the two routes available.

The consciousness+ proposal is a solution to the subject-summing problem. The consciousness+ proposal claims that the property of consciousness is an aspect of a greater property called 'consciousness+', and it is this greater property consciousness+ which we have only partial knowledge of. We are constitutively unable to grasp the whole of the property consciousness+, but the 'consciousness' aspect of consciousness is something we can grasp. The rest of the greater property conscious+ which we know

nothing of, claims Goff, could be that aspect of the property such that if we were to know it, then we would see how phenomenal combination occurs. Our ignorance of this aspect is what bars us from this.

The epistemic vagueness panpsychist who wants to reject (A2) may claim that the predicate in a vague sentence is vague because we are ignorant of its sharp boundary. They may then also claim that we are ignorant of its sharp boundary because the predicate is one which corresponds simply to an aspect of a greater property which we are constitutively unable to grasp. It is our ignorance of the whole of consciousness+ which account for our ignorance of the sharp boundaries of the predicate 'is conscious'. In short, we can introduce some new ignorance into our picture to integrate the (potential) ignorance of the sharp boundaries of subject-composition.

Alternatively, the Russellian phenomenal bonding panpsychist may apply a similar method of ignorance introduction, this time concerning the phenomenal bonding relation itself. One option may be to claim that the phenomenal bonding relation is merely a relational aspect of a greater relation 'phenomenal bonding+'. We are ignorant of the phenomenal bonding+ relation, but we know an aspect of it: phenomenal bonding. Our ignorance of the sharp boundaries of when the phenomenal bonding relation is instantiated is accounted for by our ignorance of the greater relation phenomenal bonding+ (of which phenomenal bonding is a mere aspect).

Unlike the metaphysical account of vagueness, I do not have an immediate response to this option because nothing about it obviously and immediately violates the phenomenal bonding panpsychists position. I shall not adopt either of these views, however. Why? The following are some considerations in that favour.

Firstly, either of these views has the potential to introduce noumenalism which I have elsewhere suggested the panpsychist eschew. It may be objected that the noumenalism it introduces is weaker than the sort we previously looked at (see chapter 3 on protophenomenal properties) – Goff (Goff, 2017a, pp. 180–1) claims precisely this, along with also maintaining simplicity and continuity. So, whether or not it does remains an open question.

Secondly, it means accepting the epistemic account of vagueness itself, which, independently of this issue, it not obviously the most appealing account of vagueness. Moreover, as Goff himself admits, the linguistic account of vagueness is the most

generally appealing, so it would be a peculiar exception to make in this instance to accept the epistemic account (Goff, 2016, p. 299).

Thirdly, accepting the epistemic account of vagueness also means accepting that there are sharp cut offs with respect to subject composition somewhere along our sorites sequence. This means that the phenomenal bonding panpsychist who rejects (A2) must also reject (3) of the anti-vagueness argument (Korman, 2010, n. 16; Sider, 2001, p. 132). This means that the problems which face the brutal cut off view *may* also face this view. The ignorance which we have may be able to account for the metaphysical arbitrariness and precision of a sharp cut off in the sequences, however. In other words, the epistemicist may claim that the is some noumenal fact that accounts for the sharp cut off, and which if we were to know would make the appearance of metaphysical arbitrariness disappear.

8.5.3 Supporting Premise (A3): Justifying the Sharpness of Consciousness

Goff justifies (A3) by appealing to our phenomenal concepts, as he states 'it is hard to make sense of the predicate "is conscious" being associated with a spectrum of [precisifications]' (Goff, 2016, p. 298). Goff's claim appears to be true, it is indeed hard to make sense of the concept *having an inner life*, or there being *something which it is like to be X* admitting multiple precisifications. If the concept does not admit of precisifications, then it is sharp. The intuition that *consciousness* is sharp is one shared by many (Chalmers, 1996, p. 105; McGinn, 1996, p. 14; Searle, 1992, p. 3; Strawson, 2010, p. 153), and it seems to be the intuition we have before discrediting it as a consequence of our ontology.

There are only two ways to make sense of rejecting (A3) according to Goff, and neither are open to the panpsychist. The first way would be to accept analytic functionalism so that the predicate 'is conscious' is *a priori* identical to some functional predicate. This would allow for the predicate to have certain precisifications that were in fact the precisifications of some functional state. The panpsychist cannot adopt this approach, they are not analytic functionalists (and they are robust realists about consciousness).

The second way would be to try to claim that the meaning of the predicate 'is conscious', claims Goff, is 'determined by facts outside of what is a priori accessible to the concept user' (Goff, 2016, p. 299). If the panpsychist were to adopt this approach, then they could claim that 'although the meaning of the predicate involves a spectrum of [precisifications], that spectrum of [precisifications] is not a priori accessible' (Goff, 2016, p. 299). This

would mean mere reflection of the concept *is conscious* would not reveal that the predicate would have precisifications (unlike mere reflection on the concepts *baldness* or *the outback* do reveal a priori that they have precisifications). The panpsychist cannot adopt this approach according to Goff, because it would require denying phenomenal transparency (see chapter 5 above).

We could formalise Goff's argument in the following way:

> G1) If phenomenal concepts are transparent and 'is conscious' is vague, then the precisifications of 'is conscious' are a priori accessible.
>
> G2) The precisifications of 'is conscious' are not a priori accessible
>
> G3) Hence, it is not the case that phenomenal concepts are transparency and 'is conscious' is vague.
>
> G4) Hence, either phenomenal concepts are not transparent, or 'is conscious' is not vague.
>
> G5) Phenomenal concepts are transparent.
>
> G6) Hence, the predicate 'is conscious' is not vague.

The panpsychist who does not want to endorse phenomenal transparency (or similar exhaustive revelation theses regarding our epistemic access to the nature of our experience) but who wants to uphold Goff's argument needs another reason to either support (A3), (4), or (G6). That is, they need to give another reason to think our predicate 'is conscious' is sharp (which does not depend on phenomenal transparency) or give another reason to think that there cannot be borderline cases of phenomenal composition. I will look at two other reasons to support (A3) – the sharp fundamental predicates argument and phenomenal translucency – and one other reason to support (4) – Sider's argument from count indeterminacy.

To uphold (A3) without appeal to phenomenal transparency the panpsychist can claim that consciousness is a fundamental property in their ontology and therefore this means that they cannot claim the predicate 'is conscious' has precisifications. To do this requires endorsing the following principle: *fundamental properties have sharp predicates*. If this is true, then we can give the following argument for the sharpness of 'is conscious':

> **Sharp Fundamental Predicates Argument:**

S1) 'is conscious' is a predicate expressing a fundamental determinable property.

S2) All fundamental properties have sharp predicates.

S3) Hence, 'is conscious' is a sharp predicate.

The question is how plausible is the principle that fundamental properties have sharp predicates? I take this to be a reasonably plausible yet defeasible principle.[98] Why should we think it is plausible but defeasible? Well I think it is plausible because it seems to not currently have a counter example, there seem to be no fundamental properties that admit of multiple admissible precisifications. But, I think it is defeasible because it may turn out that we do find some, i.e. I am open to there being some such fundamental property.

Note, however, that even if a counter example can be given, the argument may still be reformulated so long as the example is a non-material fundamental property. Consider if one were to present the panpsychist with an example of a fundamental moral property and consider further that this fundamental moral property somehow had a vague predicate that picked it out in the world (whether this is indeed possible I do not know). In that case the panpsychist should simply reformulate the argument to the following:

S1*) 'is conscious' is a predicate expressing a fundamental determinable property of matter.

S2*) All fundamental material properties have sharp predicates.

S3*) Hence, 'is conscious' is a sharp predicate.

It may be responded that at best we can show only that the predicates of fundamental phenomenal properties are sharp, not that *all* phenomenal properties have sharp predicates. The putative borderline cases in which we are interested will be cases of non-fundamental phenomenal properties being instantiated by potentially composite subjects. So, whilst the phenomenal properties instantiated by micro-subjects will be fundamental and have sharp predicates, the phenomenal properties instantiated by hypothetical borderline cases will not be fundamental and will not have sharp predicates.[99]

[98] N.B.: this argument would beg the question against a physicalist, however our debate here is between panpsychists endorsing universalism or restricted composition.

[99] N.B.: I do not think the panpsychist should readily demand that all our phenomenal concepts are sharp, to me my concept *phenomenal red* seems as vague as my concept *red*, for both admit of precisifications – note that Goff cannot admit this, all phenomenal concepts for Goff are transparent and hence all should have a priori accessible precisifications.

This response would miss its target because it is concerned with determinate phenomenal properties rather than the determinable property of being conscious. So even though putative borderline cases will instantiate non-fundamental properties which may or may not have non-sharp predicates, they still instantiate the determinable property which is sharp.[100]

The alternative to the sharp fundamental predicates argument is to simply support (A3) with a weaker epistemic thesis than transparency. The panpsychist could say that they are acquainted with their experience in a manner that was not as all-revealing as Goff's phenomenal transparency thesis, but that one of the things revealed to a subject is the sharpness of consciousness. The reason that we have the intuition that consciousness is sharp – an intuition I take is shared by many – they could claim, is that we have implicit knowledge that it is.

It appears that premise (A3) can get relatively good support, especially if we accept that consciousness is a fundamental property – as the panpsychist does. The sharpness of consciousness is obviously open to be rejected. However, another argument from Sider regarding count indeterminacy might force the panpsychist into unrestricted phenomenal composition still.

To support (4) without looking at phenomenality itself, the panpsychist sympathetic to unrestricted composition could adopt Sider's argument, as I suggested above. In short Sider's argument for (4) applied to panpsychism would be that if there are borderline instances of composition, then there will be count indeterminacy, which is to say that it will be indeterminate how many subjects exist. Because there cannot be numerical sentences that express a vague number of concretely existing subjects, there cannot be count indeterminacy, and therefore no borderline cases of subject composition. This is a method that can be taken, but the panpsychist may prefer to uphold (A3) also.

What then are we left with? Where does the panpsychist stand?

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[100] Finally, one may object to this argument in the following way. The unified conscious state of a subject is sharp, let's suppose. But the subject is not the state and is more than the state, hence subjects of experience can be vague although the conscious states are sharp. I do not think this response works. Firstly, the predicate 'is conscious' applies to both state consciousness and creature consciousness, precisely because creature consciousness is defined in terms of state consciousness. This is how Goff's argument is formulated and how I have done so here. If state consciousness is sharp, then so too is creature consciousness. In short: if the definiens and sharp, then so too is the definiendum. Secondly, and more loosely speaking, if the predicate 'is conscious' is sharp and is necessary and sufficient for subjecthood, then it does not seem to be true that we could have an entity which satisfied the predicate but was not a subject. Thank you to Barry Dainton for this objection.

Unable to respond to the anti-vagueness argument, we are left with either panpsychist nihilism or panpsychist universalism. If the panpsychist accepts universalism, then they would be accepting unrestricted phenomenal composition. If the panpsychist accepts nihilism, then they would be accepting that subject of experience (like ourselves) are in fact mereologically simple. Goff rejects nihilism because of our common-sense beliefs, he states:

> 'we can take it that nihilism is a nonstarter on the grounds that the subjects we are pre-theoretically committed to are composite objects of some sort' (Goff, 2016, p. 299).

Formalising this argument, we could state it as follows:

1) I exist, and I am not mereologically simple.

2) If nihilism is true, then I exist, and I am mereologically simple.

3) Hence, Nihilism is false.

Hence, if we are rejecting nihilism, then we must accept universalism.

The panpsychist must do more than Goff in order to reject the mereological simplicity of subjects of experience, that the theory is not in accordance with our pre-theoretical beliefs is not grounds on which to reject it. Neither nihilism nor universalism are in accordance with our common-sense beliefs, so to reject either on these grounds would be inconsistent if one were not also rejecting the other.[101] We must at least defend (1) the idea that we are composite objects from the arguments to the alternative. This is precisely what Goff does not do.

In the following chapter I will look at three contemporary arguments in favour of the mereological simplicity of subjects of experience and the simplicity argument against constitutive phenomenal bonding panpsychism. If subjects of experience are not mereologically simple, then mereological nihilism will turn out to be false. I shall defend the idea that subjects are composite from these three arguments which aim to show that they are simple – I will show they are either invalid, unsound, or beg the question.

[101] Goff may claim that at least universalism *accommodates* the composite subjects that we do believe in, whereas nihilism does not. This is true, but universalism also accommodates composite subjects we do not believe in. Moreover, this in part seems to be dependent upon how fine-grained we take our common-sense beliefs to be; specifically, whether or not they exclude certain entities as conscious subjects.

8.6 Conclusion

It looks like the panpsychist is forced into accepting unrestricted composition about conscious subjects, this was because of the anti-vagueness argument. In order to avoid the argument that I have presented, and thus avoid the conclusion that unrestricted phenomenal composition is true, then the panpsychist must do one of the following:

> 1) They can try to find a non-borderline admitting structure that would allow for a moderate answer to the special phenomenal composition question.
>
> 2) They may reject some fundamental premise of the anti-vagueness argument, i.e. they may accept an epistemic theory of vagueness, a metaphysical theory of vagueness, or accept brute subject-composition.
>
> 3) They can accept nihilism and claim subject-composition never occurs.

I see (1) as being unlikely and I have here tried to show the costs of (2).

In order to accept (3) the panpsychist must argue that we, human subjects are mereologically simple.

Assuming we are composite subjects, it is necessary for the panpsychist to address the arguments for the mereological simplicity of subjects of experience because if they cannot adequately respond we will be left with a form of identity panpsychism. Moreover, if the panpsychist cannot adequately respond to the argument for the mereological simplicity of subjects, then their efforts in making sense of composite-subjects (i.e. respond to the boundary problem and the perspectives problem) will have been in vain.

As we have seen, Goff simply rejects the claim that we're simple because it is contrary to common sense. If we are going to assume that we're composite objects, we must defend this assumption from arguments to the contrary. Not simply reject the contrary, viz nihilism, because of its lack of fit with common-sense and our assumption.

9 Chapter 9: Mereologically Simple Subjects

'all mankind place their personhood in something that can't be divided or consists of parts. A part of a person is an obvious absurdity… A person is something indivisible; it is what Leibniz called a 'monad"

(Reid, 2011, chap. 4)

9.1 Introduction

In this chapter I intend to defend the phenomenal bonding panpsychist from the charge that we, human macro-subjects are mereologically simple. If we were mereologically simple, then constitutive phenomenal bonding panpsychism, as I understand it, would be false: that macro-subjects and their experiences are made up of an innumerable number of micro-subjects and their experiences is incompatible with the thesis that subjects of experience are mereologically simple, i.e. they have no parts.[102]

If all subjects of experience are mereologically simple, as in the generic simplicity thesis [G-ST], then we can formulate the following novel Simple Subjects Argument against constitutive panpsychism:[103]

Simple Subjects Argument against Panpsychism

1) If constitutive panpsychism is true, then macro-subjects are composite in nature, i.e. they are grounded in a host of micro-subjects and their experiences, and the real relations between them.

2) **Generic Simplicity Thesis [G-ST]:** Subjects of experience are mereologically simple i.e. they have no proper parts.

3) Hence, constitutive panpsychism is false.

[102] Likewise, if all subjects are mereologically simple, then priority cosmopsychism (e.g. Goff, 2017a) would be false too.

[103] Not all types of panpsychism are susceptible to this argument. William Seager's fusionist panpsychism is consistent with the mereological simplicity of subjects. Hedda Hassel Morch's (Hassel Mørch, 2014) version of fusionism is incompatible with this type of panpsychism, for she holds that macro-subjects still have parts.

Not only this, but if subjects are mereologically simple, then given the conclusion of the anti-vagueness argument (see chapter 8) we also have an argument for panpsychist nihilism. This argument for panpsychist nihilism would be as follows:[104]

Argument for Panpsychist Nihilism

1) If subjects of experience are mereologically simple, then panpsychist nihilism is true.

2) **Generic Simplicity Thesis [G-ST]:** Subjects of experience are mereologically simple i.e. they have no proper parts.

3) Therefore, panpsychist nihilism is true.

Typically, (1) would not be true: one could claim that subjects are mereologically simple, but that they are immaterial substances outside of space. However, given that we have rejected dualism, and our only other option is universalism we can take (1) to be true. Ultimately though, even if one does not buy the upholding of (1) by rejecting dualism at an earlier stage, one can still see that the simple subjects argument against constitutive panpsychism holds.

My focus in this chapter will be on replying to arguments that try to maintain the generic simplicity thesis. The question, then, is how does (2) the generic simplicity thesis [G-ST] get its support?[105]

Firstly, I shall look at David Barnett's argument for the simplicity of subjects which is grounded in what he calls 'The Datum'. In effect the datum is a statement of putative subject-summing problem, and hence he argues for the simplicity of subjects based on the subject-summing problem. Secondly, I will look at Howard Robinson's argument for the simplicity of subjects grounded in the counterfactual identity of *persons*. Robinson argues that we, human subjects, are mereologically simple by reflecting on counterfactual stories regarding our conception and birth. Thirdly, I will look at an argument given by E.J. Lowe grounded in the failure of bodily parthood. Lowe argues, roughly speaking, that if one assumes (for the sake of *reductio*) that 'I' has parts, and that 'I' is not a part of one's body or an immaterial soul, then one must conclude that 'I' does not have parts. I

[104] N.B.: This would also then give us motivation to reject the second premise of the mereological argument in chapter 2.

[105] The idea has had a long pedigree, and along with the arguments presented here one may think that something in one's experience could ground [G-ST]. I have not here looked at these justifications. Thank you to Barry Dainton for highlighting this.

shall respond to each of these arguments in this order: Barnett's, Robinson's, Lowe's. Ultimately, I will show that none of the arguments are successful in showing that subjects are mereologically simple. If none of these arguments support the mereological simplicity of subjects of experience, then the constitutive panpsychist does not need to worry about the Simple Subjects Argument because its main premise will lack support (unless there are other arguments which lend support to the simplicity doctrine).

I shall note, however, that Lowe's argument cannot be endorsed by the nihilist panpsychist, only Robinson's and Barnett's can. Hence, Lowe's argument can only be used to support the simple subjects argument and not the argument for nihilism. It is still worthwhile considering this argument, for as Chalmers highlights:

> '[if] subjects are metaphysically and conceptually simple entities… constitutive panpsychism and constitutive panprotopsychism are false' (Chalmers, 2016a, pp. 40–1).

Let us turn to the task of defending constitutive panpsychism from the argument for mereological simplicity of subjects.

9.2 Barnett's Argument and 'The Datum'

In this section I shall look at David Barnett's argument for the mereological simplicity of subjects of experience. I will show that his argument is unsound. In two recent papers David Barnett (Barnett, 2010, 2008) has argued that you *qua* subject of experience are mereologically simple. Barnett's argument for this thesis is also quite simple: he merely argues that the generic simplicity thesis best explains the following:

> **The Datum:** 'for any pair of conscious beings, it is impossible for the pair itself to be conscious' (Barnett, 2010, p. 161).

The Datum is merely the combination problem taken to apply to *two* human subjects. We have what we may want to consider two putative subject-parts, but no subject-whole. We should then keep in mind that each consideration of The Datum is also a consideration of a putative subject combination problem.

To argue for simplicity, Barnett argues that the following fives theses fail to explain The Datum, and hence Simplicity must. The five theses are:

i) **Number:** pairs lack the sufficient number of parts to be conscious.
ii) **Relation:** pairs lack immediate parts capable of standing in the correct set of relations to one another (and their environment) to be conscious.

iii) **Nature:** pairs lack immediate parts of the correct nature.

iv) **Structure:** pairs incapable of experience because they are not structures.

v) **Combination:** are pairs of people incapable of experience because they lack a combination of number, nature, relation, and structure.

If each of these fails to account for the datum, then there is no other explanation than mereological simplicity. If there is no other explanation than the simplicity thesis, then subjects of experience are mereologically simple and, importantly, constitutive panpsychism is false. Barnett (Barnett, 2010) states the argument in the following way, I call it 'The Datum Argument for Simplicity:

The Datum Argument for Simplicity

1. The datum (For any pair of people, it is impossible for the pair itself to be conscious).
2. Something must explain the datum (There is at least one non-trivial feature that no pair of people could itself have, but which every conscious being must have).
3. If theses (i)-(v) do not explain the datum, then Simplicity explains the datum.
4. None of (i)-(v) explains the datum.
5. Hence, Simplicity explains the datum.
6. If simplicity explains the datum, then subjects are simples.
7. Therefore, conscious beings must be simple.

Premise (1) and (2) are underived, but questioning them will not be too fruitful, and the only other underived premises are (3) and (4). Premise (3) is apparently justified because the Generic Simplicity Thesis [G-ST] and the alternative explanations (i)-(v) are exhaustive of the possible explanations of the datum. Premise (4) is shown to be true by the considerations forwarded regarding each of the alternative thesis. If each fails, then simplicity must be what is left and the best. Hence simplicity must be true.

The constitutive panpsychist can respond by attacking premise (3) or (4). I shall show that Barnett's argument is unsound: it is it not true that none of (i) – (iv) fail to explain the datum.

9.2.1 Questioning Premise (4): The Failure to Include Russellian Relations

In order to attack premise (4) we can show that (i)-(v) can in fact explain the datum or show that Barnett has not shown that they cannot. If either can be done, then premise

(4) would be false and the simple argument would be unsound. I think we can: (i) note his lack of consideration for phenomenal bonding and Russellianism, or (ii) show that his attack on (v) is too weak.

Firstly, the panpsychist can respond by noting that in considering condition (ii) *relation*, Barnett only considers causal-dispositional relations.[106] He does not consider any additional relations that the panpsychist appeals to in their theory, and because the variety of panpsychism that we are here concerned with is phenomenal bonding panpsychism, the panpsychist does indeed have that alternative relation: phenomenal bonding. Hence, condition *(ii) relation* could account for The Datum, for the reason a pair of subjects does not compose a further subject of experience is because they are not related by phenomenal bonding. If they were related by phenomenal bonding, then they would indeed compose a subject of experience. As such, premise (4) of the simple argument is false and Barnett cannot conclude that subjects are simple.

Barnett cannot argue that this method trades on a lack of positive content, or an austere account of phenomenal bonding. I have already shown that, contra Goff, the panpsychist can form a concept of the phenomenal bonding relation: it is the co-consciousness relation. I have also shown, in some detail, how it works.

In addition to this, the non-phenomenal bonding Russellian panpsychist also has a response here. For they can claim, phenomenal bonding aside, that Barnett's consideration of the relevant relations is simply confined to their merely physicSal (Strawson, 2006b, 2006a) or extrinsic nature. If Barnett were to consider the deep, Russellian nature of these relations, then it may no longer be so obvious that none of (i) – (v) explain the datum. For his argument to be a success it would have to employ:

> **Relation*:** pairs lack immediate parts capable of standing in the correct set of *deep material relations* to one another (and their environment) to be conscious.

Because Barnett's argument only considers the potential relations in terms of their physical nature, the Russellian can rather easily avoid the problem.

Another way to attack premise (4) is by focusing on Barnett's criticism of thesis (v) *combination*. In effect Barnett is attempting to argue against, and, precisely, must argue against, the highly plausible datum that human animals are conscious composites. This is

[106] N.B.: this response could fall under logical space or possible explanations of the datum.

because if we're assuming combination explains the datum, we are able to modify the imagined scenario from simply two persons to a composite object like an animal.

To argue against composite subjects Barnett claims that we must (a) keep a strict notion of identity in mind and (b) keep the composite nature of the putative subject in mind. If we do this, then we find that 'the idea that [a] system of particles… might *itself* experience something… seems no less absurd than the idea that a galaxy of stars might itself experience something' (Barnett, 2010, p. 171). Barnett's argument relies, then, on the truth of the following conditional, which I call the 'composite presentation conditional':

> **Composite presentation conditional:** if something is presented to our mind as composite, then we find it absurd that it could be identical to a subject of experience.

How then can we respond?

In an earlier draft of this thesis I listed a small handful of ways to respond to this conditional. However, in the name of brevity we can simply note that Barnett does *nothing* to support the absurdity claim. Granted, he gives a helpful and illustrative intuition pump, but unless one already concedes the absurdity, then it is not persuasive. In short: the absurdity in Barnett's argument neither demonstrated or justified.

Barnett's argument is not a success, it is unsound. He fails to rule out (v) and undermine the plausible assumption that this human body is conscious. Moreover, his consideration of the type of relations between subjects means he overlooks the Russellian monists resources. He does not consider the deep nature of these relations.

How else can the defender of the mereological simplicity of subjects argue for this thesis? Another contemporary argument for the mereological simplicity of subjects is that forwarded by Howard Robinson (Robinson, 2016). If Robinson's argument is correct, then premise (2) of the Simple Subjects Argument against panpsychism can be supported, and hence constitutive panpsychism would be false.

Let us now move on to look at Robinson's argument for the mereological simplicity of subjects, I will show it to be unsound.

9.3 Robinson and The Counterfactual Identity of Persons

Howard Robinson has recently argued that subjects of experiences are mereologically simple by consideration of their counterfactual origins (Robinson, 2016, chap. 15).[107] He argues that the physical world of objects is composite and 'behaves' in a certain manner when we consider it under counterfactual modes of thought. Subjects of experience do not 'behave' this way we consider them under counterfactual modes of thought, and, hence, subjects must not be composite i.e. they are mereologically simple. I shall rehearse the argument for simplicity and respond on behalf of the constitutive panpsychist.

Robinson asks us to consider story about a subject who, like most human subjects, developed from an egg within their mother's womb. This subject, which Robinson calls Jones, developed from his mother's egg after that egg was fertilised by his father's sperm. After fertilisation, the egg develops over a certain number of weeks into a subject *in utero*, and after 36 weeks becomes a subject *ex utero*. This sort of story is what we may call an 'origin story', origin stories describe how a certain entity came in to existence. Origin stories can also be given for other non-human subjects (like animals) and physical objects like ships, chemical compounds, and atoms according to Robinson. Not only can we give actual origin stories for some entity, but we can also give counterfactual origin stories for that entity. With Jones in mind, we can consider a counterfactual origin story for him. Robinson's thought is that we can slowly alter the details of the counterfactual origin stories such that it becomes indeterminate whether it was the *same* sperm which fertilised the egg. Once it is indeterminate whether or not the sperm in our counterfactual origin story is the same sperm as in the one in the actual origin story, such indeterminacy will 'infect that of the resulting body' (Robinson, 2016, chap. 15) according to Robinson.

At the point at which it appears to be the case that it is indeterminate whether or not the body that develops from Jones' mother's egg and is born the same as Jones' or not, Robinson then asks us to consider whether Jones too exists or not. Robinson writes the following:

> 'suppose Jones, in reflective mood, asks himself 'if that had happened, would I have existed?" (Robinson, 2016, chap. 15).

[107] Page references for Robinson missing as taken from a pre-publication publishers proof copy – soon to be updated.

To this question Robinson believes there are, and can only be, three answers Jones could give. The three answers are:

a) I either would or would not, but I cannot tell (Robinson, 2016, chap. 15).
b) In some ways, or to some degree, I would have, and in some ways, or to some degree, I would not. The creature who would have existed would have had a kind of overlap of psychic constitution and personal identity with me, rather in the way there would be overlap in the case of any other physical object (Robinson, 2016, chap. 15).
c) There is no fact of the matter whether I would or would not have existed: it is just a mis-posed question. There is not even a factual answer in terms of overlap of constitution (Robinson, 2016, chap. 15).

By ruling out some of these responses, Robinson then positions himself to claim subjects of experience are mereologically simple. Robinson rules out (b) and (c) as possible responses, hence (a) is what we must say for subjects of experience. Robinson's claim is that this leads to their mereological simplicity.

How does Robinson get the mereological simplicity of subjects of experience from (a)? Although somewhat difficult to discern,[108] it seems to be because subjects of experience are 'true individuals', in other words: subjects of experience instantiate haecceities. We can define haecceity in the following way:

Haecceity $=_{def.}$ the property, P, of being identical with entity, X.

An example of a haecceity may be the haecceity that my coffee mug has (if it has one): my mug, M, instantiates the property, P, 'being identical with the mug, M'. Something which instantiates a haecceity, like my mug, is haecceistic. Subjects instantiate haecceities because they are mereologically simple, according to Robinson, and they are mereologically simple merely in virtue of being conscious. As Robinson states:

> 'Always questions of this sort can be generated for physical objects to show that there is no real or ultimate difference between qualitative similarity and real identity as particulars in their case. Only the inwardness of subjectivity can deliver the difference. It is not simply the simplicity and unity of the self that constitutes its existence as a true individual, but its nature as conscious, from which that unity derives' (Robinson, 2016, chap. 15)

[108] A sentiment shared by (Ball, 2016).

In short, because there is a determinate answer in every counterfactual scenario as to whether or not some subject S exists, subjects must be haecceity involving – in fact, self-consciousness or subjectivity is the only manner in which we can give the concept of haecceity 'empirical content' according to Robinson. The only things which are haecceity involving are things which are not composite in nature: mereological simples.

In other words, it seems that Robinson takes the following biconditional to be true:

> **Simplicity Biconditional:** Mereological Simplicity ↔ haecceity involving ↔ subject of experience.

This biconditional means that wherever we find mereological simples, we find that they have haecceities and are subjects. Moreover, wherever we find subjects, we find that they have haecceities and are mereologically simple. Likewise, whatever instantiates haecceities is a subject of experience and it is mereologically simple. In other words, these three cannot become dissociated.

We now know why Robinson thinks that subjects are mereologically simple, which means we can formalise Robinson's argument. I have chosen to formulate Robinson's argument in the following manner, I call it the 'haecceistic argument for the simplicity of subjects':

Haecceistic Argument for The Simplicity of Subjects

1. The question 'Would subject S have come into existence in counterfactual scenario CS?' has three possible answers:
    a. Either S would or would have not existed.
    b. The subject would be partially S and partially not S.
    c. It is indeterminate
2. Both answer 1b and 1c are not possible for subjects of experience.
3. 1a is the only possible answer (from 1 and 2)
4. If 1a is the only answer, then subjects must be haecceity involving (i.e. true individuals).
5. If subjects are haecceistic, then they are simple (from the simplicity biconditional)
6. Hence, subjects are simple.

How shall the constitutive panpsychist respond to Robinson's argument that subjects cannot be composite because they instantiate haecceities?

I shall not concern myself here with Robinson's argument against proposal (1.c) *it is indeterminate*. Rather, I want to focus on his rejection of (1.b) *the subject would be partially S and partially not S*, and premise (5) his intimate link between haecceities and simples. If either (5) is false, or (1.b) is true or not undermined, then the haecceistic argument is unsound. If the argument is unsound, the panpsychist will have successfully defended the composite nature of subjects.

I shall start with (5) and following this move on to (1.b).

9.3.1 Reject (5): Haecceities Must Belong to Mereological Simples?

In this subsection, I shall highlight why Robinson's argument is unsound: it is unmotivated and false. For Robinson's argument to be a success he must show that the following conditional is true:

(5) If subjects are haecceistic, then they are simple

The reason he believes that such a premise is true is because of the stronger simplicity biconditional above. This biconditional tells us that instantiating a haecceity is necessary and sufficient for being mereologically simple, which is also necessary and sufficient for being a subject of experience (and vice versa). The problem with Robinson's argument is:

(i) The biconditional is unmotivated and therefore the conditional is unmotivated.

Firstly, (i). Robinson gives us no reason to suppose that the simplicity biconditional is true. He may believe that he has shown that subjects instantiate haecceities, but he has not shown why instantiating a haecceity entails being mereologically simple in any way (or vice versa).[109]

Robinson may respond by saying that his argument shows that composite physical objects do not instantiate haecceities and that subjects (like us) do instantiate haecceities, so by virtue of this difference we can say that subjects are simple. But this response would miss the point. Robinson has not given us the connection between instantiating a haecceity

[109] It seems that Robinson puts his own biconditional on shaky grounds given he is not a panpsychist: 'none of the arguments that I have presented for treating the self as a simple individual are in any way undermined if physical simples are also individuals' (Robinson, 2016, chap. 15). Moreover, Gary Rosenkrantz proposes a parity principle which, in conjunction with Robinsons biconditional, would entail panpsychism also. Rosenkrantz principle is: 'Necessarily, if something has a haecceity, then everything has a haecceity' (Rosenkrantz, 1993, p. 13).

and being mereologically simple, or conversely being composite and lacking a haecceity, other than stipulating that there is one.

Again, one cannot reply by claiming that although the biconditional lacks motivation, this does not mean the conditional which it entails lack motivation. This could indeed be true, but without supplying the motivation for the conditional (i.e. (5)) this response does not work.

I take it that Robinsons argument for the mereological simplicity of subjects of experience is unsound. Hence the panpsychist can avoid the Simple Subjects Argument insofar as this argument for the generic simplicity thesis is concerned. I shall move on to consider another response to Robinson's argument for the simplicity of subjects – the more the merrier.

9.3.2 There is Nothing Wrong with the Partial Constitutive Overlap of Subjects

If, for the sake of argument, we put to one side the argument against the necessary link between instantiating a haecceity and being mereologically simple, then we need to show that another of Robinson's premises are false or unmotivated. In this section I will look at (1.b) and show that Robinson gives no non-question begging argument against the constitutive panpsychist in support of this premise.

For his argument to be a success Robinson must show that the following (along with 1.c) is false:

(1.b) the subject would be partially S and partially not S

The question is how does Robinson argue against (1.b)? What reason does he give to think it is false and how does Robinson go about criticising it? Robinson states the following, I shall quote him in full:

> The second answer parallels the response we would give in the case of bodies. But as an account of the subjective situation, it makes no sense. Call the creature that would have emerged from the slightly modified sperm, `Jones*'. Is the overlap suggestion that, just as, say 85% of Jones*'s body would have been identical with Jones' original body, and about 85% of his psychic life would have been Jones'? That it would have been like Jones' – indeed that Jones* might have had a psychic life 100% like Jones' – makes perfect sense, but that he might have been to that degree, the same psyche – that Jones '85% existed' – makes no sense. Take the case in which Jones and Jones* have exactly similar lives throughout: which 85% of the 100% similar mental events do they share? Nor does it make sense to suggest that Jones might have participated in the whole of Jones*'s psychic

> life, but in a rather ghostly only-85%-there manner. Clearly, the notion of overlap of numerically identical psychic parts cannot be applied in the way that overlap of actual bodily part constitution quite unproblematically can (Robinson, 2016, chap. 15)

What exactly is Robinson's argument against (1.b) here? The argument appears to be: we have two ways in which to make sense of the constitutive overlap of subjects, but each 'makes no sense', hence constitutive overlap of subjects in counterfactual scenarios is senseless.

The two ways to make sense of constitutive overlap both require a concept of experiential sharing, they are:

i. Some proper subset of the experiences that are had by/involve Jones* are also had by/involve Jones.
ii. Every experience that is had by/involves Jones* partially is had by/involves Jones.

In other words, either a proper subset of the experiences which Jones* has Jones also has, or either each experience had by Jones* is had also by Jones in a partial or apparently 'ghostly' way. Robinson thinks both of these ways do not make sense, and hence partial overlap of constitution does not make sense for subjects. We can formulate this argument in the following way, I label it the "Senseless' Constitutive Overlap Argument':

'**Senseless' Constitutive Overlap Argument:**

1. There are only two ways in which to make sense of the constitutive overlap of subjects as in (1.b):
    i. Some proper part of the experiences that are had by/involve Jones* are also had by/involve Jones.
    ii. Every experience that is had by/involves Jones* partially is had by/involves Jones.
2. Both (1.i) and (1.ii) are incoherent.
3. Hence, constitutive overlap of subjects does not make sense.

The problem with this argument is Robinson's support for premise (2): it merely consists in the claim that 'it doesn't make sense', he merely stipulates that both (1.i) and (1.ii) do not make sense without giving us a reason to think that they do not. As such, Robinson's argument is far from conclusive and cannot show the mereological simplicity of subjects:

his most important premise, the failure of constitutive overlap of subjects, is given no justification or defence.

The panpsychist therefore has a perfectly good response to Robinsons argument: Robinson himself fails to support a vital premise, and hence fails to support the simplicity of subjects. As such, the panpsychist is able to defend themselves from the Simple Subjects argument inasmuch as this argument has been rebuked.

The panpsychist need not stop here though, for we can ask: what reason *could* Robinson give to support premise (2), and, importantly, what reason could he give that did not beg the question against the constitutive phenomenal bonding panpsychist? I will argue that he cannot support (1.i) in a non-question begging manner, irrespective of (1.ii).

The constitutive panpsychist already accepts that the proper parts of a subject are themselves subjects overlapping with the whole and sharing experiences, moreover, this is precisely the idea I am here trying to defend.[110] If Robinson's claim is that we cannot have a subject with a subject as a proper part which is qualitatively identical to another subject in a counterfactual scenario, then he cannot claim this does not make sense *because subjects cannot be proper parts of subjects and cannot share experiences*. In effect the panpsychist is claiming precisely that this sort of constitutive overlap makes sense and what *needs to be made sense of*, in the absence of a reason otherwise Robinson can hardly dismiss (1.i) without begging the question.[111]

I take it that these considerations show that Robinson's argument against the constitutive overlap of subjects is unmotivated and insufficiently supported. As such, Robinson has failed to defend the argument for the mereological simplicity of subjects of experience. The panpsychist can defend themselves from the Simple Subjects Argument inasmuch as they can defend themselves from Robinson's 'Senseless Constitutive Overlap' argument.

Robinson argued that if we consider counterfactual scenarios and ask ourselves 'is that subject of experience me or not?', not only is the only answer either 'yes' or 'no', but we

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[110] Along with partial overlap (not just total).

[111] In addition to this I think we can note that Robinson's claim that Jones and Jones* can be qualitatively identical but numerically distinct would seem to be begging the question and unsupported by Robinson. Robinson does not give any reason why *this* scenario makes no sense, for his partial overlap considerations cannot apply here. At best he says that if we deny it, then we must explain it away the intuition. This is true but note two things: (i) it is far from obvious that the intuition that 'two 100% experientially identical subjects could be distinct' is shared (N.B.: there is *no* experiential difference, according to Robinson, so I cannot see on what grounds we could make the discrimination), (ii) explaining away the intuition is merely a requirement of rejecting Robinson's proposal, not a reason to think it is correct (moreover it depends upon the assumption that there is a shared intuition).

also get a notion of ourselves as subjects as haecceities. Moreover, because we have the impression of ourselves as haecceities we must therefore be mereologically simple, and hence we, subjects of experience, are mereologically simple. I have shown that this argument is unsound. Robinson does not give us a good reason to think that being haecceistic requires/entails being mereologically simple, and neither does he give a non-question begging argument that constitutive overlap of subjects is unacceptable for counterfactual scenarios.[112]

Let us now move on to look at Lowe's argument in favour of the mereological simplicity of subjects of experience.

9.4 Lowe's Argument from the Failure of Bodily Parthood

E.J. Lowe (Lowe, 2001, 2000) has also recently argued that you *qua* subject of experience are mereologically simple. Lowe does not do this by consideration of counterfactual identity or abduction from the combination problem, rather he starts with ostensibly agreed upon 'mereological principles' and putatively unassuming 'self/body principles' (Lowe, 2001, p. 139). He uses these principles to show that the self, i.e. the subject of experience, cannot have proper parts.

I will argue that the panpsychist can respond to Lowe's assumption that selves are not identical to proper parts of their bodies because he operates with an austere account of that proper part: an account of that proper part in terms of the standardly physical, not the Russellian *robust* concept. Let us then move on to the argument.

The self/body principles that Lowe proposes are as follows, they constitute the first four premises of his argument:

1. I exist and my body exists.
2. I am not identical with my body.
3. I am not identical with a proper part of my body.
4. I do not have any proper part which is not a proper part of my body.

The four mereological principles Lowe forwards are:

5. **Fusion:** If an object has some proper parts, then the mereological sum of those parts exists and is a proper or improper part of that object.

[112] Neither does he support the claim that qualitative identity of subjects is not sufficient for numerical identity aside from his statement that this is an intuition, that, I believe, is not held by all.

6. **Weak Supplementation:** If an object has a proper part, then it has another proper part which is not a proper part of that first part.
7. **Weak Extensionality:** No two objects which have proper parts have exactly the same proper parts at the same time.
8. **Transitivity:** The relation of proper parthood is transitive.

Finally, we assume for the sake of *reductio*:

9. I have some proper parts which are all the proper parts I have.

From these eight premises and the assumption that we have proper parts, Lowe then concludes:

10. I have no proper parts: I am an altogether simple entity.

Lowe's formal demonstration of the validity of his simplicity argument is 35 premises long, so like Lowe I shall give an informal proof of the argument. The informal proof runs something like the following (this 'informal' formulation is similar in style to that given in Olson (Olson, 2007) too).

First, we begin with our *reductio* assumption (9) that I have some proper parts and these are all the proper parts I have. In virtue of premise (4), all of the proper parts that I have must be proper parts of my body, on pain of admitting that I have a non-bodily part (contra 4). Following from premise (5), those parts have a mereological sum, call it S, which is itself a proper part of my body, or an improper part of my body, i.e. it is identical to it. Since we have assumed premise (9), that these proper parts are the only proper parts that I have, me and the mereological sum, S, have the same proper parts. Following from premise (7), me and the mereological sum, S, are identical because we have exactly the same proper parts. But, that mereological sum, S, is either identical to my body, i.e. it is an improper part or it, or it is a proper part of it, and from this it follows that either I am identical to a proper part of my body, or I am identical to my body. The first disjunct, that I am identical to a proper part of my body, is in contradiction to premise (3). The second disjunct, that I am identical with my body, is in contradiction to premise (2). Thus, it follows that the assumption that I have proper parts must be rejected. If I have no

proper parts, then it follows that I am mereologically simple. Hence, I am mereologically simple.[113]

Note that premise (3) is precisely why the nihilist panpsychist cannot employ Lowe's argument. If some form of identity panpsychism is true, then subjects never compose other subjects and we macro-subjects are identical to a mereological simple within our bodies (probably our brains).[114] This, however, is ruled out by premise (3), for a mereological simple is still a proper part of our bodies. Hence, this argument can only be used to support the simple subjects argument, and not the argument for nihilist panpsychism. Fortunately, this means that we have successfully defended constitutive panpsychism from the nihilist identity panpsychist arguments presented here. This means that from now onwards the constitutive panpsychist is merely defending their view from the simple subjects argument, showing only that constitutive panpsychism is not false.[115]

The question now is which, if any, of the premises of Lowe's argument can the constitutive phenomenal bonding panpsychist reject?

On pain of either denying a mereological principle that I do not yet want to deny, or explicitly committing oneself to one that I do not here want to explicitly commit to, I would like to focus on the four self/body principles instead. This is not to say, however, that one should not be willing to question the mereological principles, it may be incredibly fruitful to do so. Rather, it is simply to say that I want to *here* avoid these options and consider others.

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113 This informal version of the argument leaves out the need for premise (8) and premise (6). As Lowe highlights (Lowe, 2001, p. 155), the inclusion of premise (6) weak supplementation means it cannot be the case I have one proper part, which is a proper part of my body, along with my body having many other proper parts. If (6) were not included, then it would be possible, and in line with premises (2) and (3), for one to not be identical to one's body or a proper part of it (since an object is not identical with any of its proper parts). This possibility would allow Lowe's opponent to say that they were not mereologically simple, not identical to their body or a proper part of it, and that they had no proper part which was not a proper part of their body. Premise (8) transitivity means we can say that if the sum, S, is a proper or improper part of me, then any proper part of the sum is also a proper part of me. Without premise (8) included, then it would be possible to say that the sum, S, had proper parts that were not proper parts of me, whilst still maintaining that the sum was a proper or improper part of me. This would allow one to say that all and only my proper parts were proper parts of my body, in line with premise (4), that I was not identical with my body, in line with premise (2), and that I was not identical with a proper part of my body, in line with premise (3). In other words, without (8) premise (7) would lose its efficacy because my body or a proper part of it may have proper parts I did not, and we would not be able to show that I was identical to my body or a proper part of it contra (2) and (3).

114 Recall the definition of identity panpsychism from chapter 1.2.1

115 We have also – thanks to the anti-vagueness argument – established unrestricted phenomenal composition (the qualification being that one accepts the arguments).

Of these principles, I take it that the constitutive panpsychist should accept (1), they should accept that they and their bodies exist, and I take it that most panpsychists (constitutive or otherwise) do accept (1). I take it also that the constitutive panpsychist cannot reject (4), as Lowe states: 'It is not clear to me how this could be denied by anyone but a dualist' (Lowe, 2001, p. 143). This leaves open premises (2) and (3) for the panpsychist to reject, in the following sections I shall look at both of these options.

9.4.1 Can I be a Body or a Brain?

If Lowe's argument is to be successful, then he must give an adequate defence of:

(2) I am not identical to my body.

And

(3) I am not identical with a proper part of my body

In this section I want to consider the possibility of the Russellian panpsychist denying either of these. I want to suggest that the panpsychist need not accept Lowe's defence of (3) and may even be able to reject the defence of (2).

If one rejects (2), then, as Lowe highlights, one would be an 'Animalist'. The animalist accepts that they are identical to their bodies, but the animalist takes their body to be a certain sort of body: namely, the body of an animal of the species *homo sapiens*. Bailey defines the thesis of animalism as: 'we are animals' (Bailey, 2015, p. 867). Where we can read 'we' as referring to subjects like ourselves, 'animals' as referring to homo sapiens, and 'are' as identity. If one rejects (3), then one would be a 'brain theorist'. The brain theorist accepts that they are identical to their brains. Following Bailey's lead, we can define the thesis of brain theory as: 'we are brains', where 'we' refers to subjects like ourselves, 'are' is identity, and 'brains' refers to the organ contained within our skulls. Adopting either of these views, as I highlight in chapter 1, does not mean all subjects are either animals or brains, only the subjects that *we* are.

What reasons does Lowe give for thinking we are neither our brains or our bodies? That we seem to have different persistence conditions to both our brains and our bodies. Lowe believes that if one holds the view that one is one's body, one will end up holding the view that one is one's brain. Hence, animalism collapses into brain theory. This is because Lowe believes that we can survive a near-fatal accident where our body parts all cease

functioning except the brain. We can formulate his argument against animalism in the following manner (Lowe, 2001, p. 142):

Argument Against Animalism:

1) I can survive a horrific accident in which the functioning of my body is destroyed and all that is left is my brain.

2) If I survive the accident, then I am identical to my brain and not my body post-accident.

3) If I am identical to my brain post-accident, then I am identical to my brain pre-accident.

4) I am identical to my brain (brain theory)

One cannot adopt the conclusion according to Lowe, precisely because he believes we could survive the replacement of all of our organic neurons with silicone replacements. He states:

> 'Let us consider the possibility of denying premise 3 and maintaining that I am indeed identical with a proper part of my body, the most plausible candidate being my brain. My reason for rejecting this possibility is, once again, that it seems to me that I and my brain have different persistence-conditions – indeed, that I have different persistence-conditions from those of *any* proper part of my body. It seems perfectly conceivable, for instance, that I could go on having conscious thought throughout a process in which the organic matter of my brain was systematically replaced by inorganic matter, in which case my brain would eventually cease to exist but I would not. Of course, it may be remarked that in these circumstances there would be no time at which I would lack a brain but the significant point is that the brain I would end up with would not be identical with the brain I started with, which is enough to show that I could not be identical with either of them' (Lowe, 2001, p. 142)

I believe we can reconstruct this argument in the following manner:

Argument Against Brain Theory:

1) I am identical to my brain (brain theory)

2) I can survive an organic-to-silicone replacement therapy of all of the neurons in my brain.

3) If I survive the replacement therapy, then I am identical to my post-therapy silicone brain.

4) I am identical to my silicone brain (from 2 and 3)

5) My brain is not identical to my silicone brain.

6) I am not identical to my brain or my silicone brain.

How can the Russellian panpsychist respond to these arguments?

Animalism, for the most part, operates within the confines of contemporary materialism, or what has been previously called physicSalism (Strawson, 2016, 2006a), pure physicalism (Goff, 2017a), narrow physicalism (Chalmers, 2016a), or t-physicalism (Stoljar, 2001). Hence, the animalist is a materialist, or what Bailey calls a 'latter-day' animalist, because they think that animals are wholly material. The animalist does not, however, seem to question their concept of 'matter'. This allows for the Russellian panpsychist to say that they are animals, but that the matter of which animals are constituted has a deep nature which outstrips the typical physicalist description of that matter. Hence, we have a Russellian panpsychist form of animalism, one that it does not seem Lowe was explicitly considering.[116] Moreover, the Russellian monist can claim that they are identical with their brains, but that the matter of which brains are made outstrips the merely structural nature it is typically assumed to have. My claim in here not original. This is not a claim that the panpsychist does not already make. Goff, for instance, claims exactly this in his recent work:

> 'Of course, the mind and the brain seem like very different things, but the Russellian monist puts this down to the fact that from the outside we only get at the causal structure of the brain, while the mind is identical with the deep material entity underlying that structure' (Goff, 2017a, p. 203)

Hence, we have version of each view not explicitly considered by Lowe. This means that the Russellian animalist and brain theorist can say that denial of (2) and (3) could entail two readings of animalism or brain theory. If one denies (2), then one could accept either of the following:

(¬2) I am identical to my physicalist body

or,

(¬2*) I am identical to my Russellian body

Likewise, if one denies (3), then one could accept either of the following:

[116] Dainton (Dainton, 2016, p. 115) does note the possibility of animalists being panpsychists.

(¬3) I am identical to my physicalist brain

or,

(¬3*) I am identical to my Russellian brain

(¬2) and (¬3) involve conceptions of our bodies and brains according to the austere language of physics, the language that the standard physicalist must concern themselves with. This means the identity conditions of our bodies and brains on this account are those which the typical physicalist would give. (¬2*) and (¬3*) involve conceptions of our bodies and brains according to the full and robust language available to the Russellian monist. This means the identity conditions of this sort of body incorporate the *deep material nature* of the body and brain, and, hence, incorporate the intrinsic phenomenal properties that the panpsychist thinks such matter has. In other words, the Russellian identity conditions of a body will include the phenomenality of the subject-parts and subject-whole.

To paraphrase this distinction:

p-Body = body as construed by physicalists.

R-Body = body as construed by physicalists + the deep material nature of the body.

p-Brain = brain as construed by physicalists.

R-Brain = brain as construed by physicalists + the deep material nature of the brain.

This gives the Russellian panpsychist room to say that whilst Lowe's arguments may apply to the former readings, i.e. to p-bodies and p-brains, they do not apply to the Russellian readings, i.e. R-bodies and R-brains.

The problem, however, is that the argument against animalism still holds for the Russellian version of the view. Ultimately the argument shows that there are proper parts of bodies that are irrelevant to the persistence of an experiencing subject. One's torso is as inessential to the persistence of oneself as one's fingers are, one's braincase is as

inessential as one's gut. The fact that these inessential parts have an intrinsic phenomenal nature does not rescue them from being inessential parts.[117]

Things are different for the Russellian brain theory. For consider the modified version of the argument for Russellian brain theory.

Argument Against Russellian 'Brain Theory':

1*) I am identical my organic R-brain (Russellian brain theory)

2*) I can survive an organic-to-silicone replacement therapy of all of the neurons in my R-brain.

3*) If I survive the replacement therapy, then I am identical to my post-therapy silicone R-brain.

4*) I am identical my silicone R-brain (from 2 and 3)

5*) My organic R-brain is not identical to my silicone R-brain.

6*) I am not identical to my organic R-brain or my silicone R-brain.

How can the panpsychist respond?

The underived premises are (1*), (2*), (3*), and (5*). The panpsychist could try to reject (1*), (2*), or (5*), but I shall only look at rejecting (2*): claiming that, contrary to Lowe, I cannot survive the replacement of my neurons with silicone functional isomorphs.

Before looking at this option let us note something. Throughout Lowe's thought experiment, three things happen:

i) A phenomenal stream continues exactly as it is, unperturbed.
ii) The relevant high-level functional roles corresponding to that phenomenal stream continue exactly as they are.
iii) The material entities that realise the stream-corresponding functional role change at a non-fundamental material grain e.g. from organic matter to silicone.

Now, let us consider whether rejecting (2*) or (5*) is best for the panpsychist.

[117] I am here assuming that the claim 'the brain = the animal' is not a possibility.

9.4.1.1 Rejecting Silicone-Survival: Rejecting (2*)

The first method of response to this argument is to reject (2*). In rejecting (2*) we would be rejecting the claim that I would survive the replacement of all of my organic neurons with silicone functional isomorphs. This would mean the panpsychist would have to accept that they exist pre-treatment but not post-treatment.

This means that the panpsychist can say that the destruction of the brain (by replacement) consists in the destruction of ourselves. Why is this? Precisely because the identity conditions of my Russellian brain includes the deep material nature that the panpsychist is positing, such that if the brain is destroyed and replaced, then so too is the deep material nature destroyed and replaced. In essence the Russellian panpsychist would be claiming that there is something special about organic brains, whist also claiming that this is justified because the identity conditions for an organic brain are expanded to include their deep material nature. When the 'destruction of my brain, including its deep material nature' is focused upon, the panpsychist may claim that it is obvious that we should reject (2*).

Note that rejecting (2*) does not mean rejecting that a stream of consciousness continues, it is simply a rejection of the claim that the pre- and post-replacement conscious subjects are the same. The continuity of the stream of consciousness whilst the matter which constitutes it changes radically should not mean that we continue with the same subject of experience.

Moreover, rejecting (2*) still allows the panpsychist to accept Chalmers' principle of organisational invariance (Chalmers, 1995a, 1995b). Such a principle is concerned with the quality of the experience and not the *subject* of the experience. As Chalmers states:

> 'This principle states that any two systems with the same fine-grained *functional organization* will have qualitatively identical experiences. If the causal patterns of neural organization were duplicated in silicon, for example, with a silicon chip for every neuron and the same patterns of interaction, then the same experiences would arise' (Chalmers, 1995a).

As I read it, the two 'systems' could be two different subjects, and different *sorts* of subjects. They simply must have the same qualitative experiences. The panpsychist can fully reject (2*) and claim that we do not survive the neurone replacement treatment, whilst still holding on to organisational invariance, then.

Ultimately then, I am here suggesting that: (i) the panpsychist accept that they are a proper part of their body, in this case their brain; and (ii) reject the claim that if that proper part has its proper parts replaced at a certain non-arbitrary level, the subject survives.

9.4.1.1.1 A Note on Panpsychism and Organisational Invariance (O.I.).

Hedda Hassel Mørch has recently suggested that the Russellian panpsychist cannot accept organisational invariance. This is because Russellian panpsychism and Chalmers' principle of organisational invariance are indeed incompatible, such that if one were to change a brain from organic matter to silicone one would be obliged to say that the conscious states would either fade out (cease to exist) or have a different character. She states the following:

> 'If dispositions nomologically supervene on phenomenal properties, then there can't be things with the same phenomenal properties but different dispositions, given the same laws. But according to [organisational invariance], there *can* be things with the same phenomenal properties but different dispositions given the same laws, namely coarse-grained systems such as silicon and organic brains: at the coarse-grained level, they are functionally identical, but at the fine-grained, microphysical level, they have different dispositions corresponding to their different silicon and carbon constituents. It follows that Russellian panpsychism is false – some dispositions do not nomologically supervene on phenomenal properties' (Mørch, 2018, pp. 10–11)

In short, the 'same intrinsic phenomenal properties + laws of nature = the same dispositions'. However, organisational invariance tells us that 'the same intrinsic phenomenal properties + laws of nature ≠ the same dispositions'. Hence, a change in the dispositions, given Russellianism and consistency of laws, entails a change in intrinsic phenomenal properties. Hence, the Russellian panpsychist cannot accept organisational invariance.

Mørch suggests a response, that she thinks is not open to the panpsychist who is not willing to accept that subjects of experience can overlap (wholly or partially). However, given that the constitutive phenomenal bonding panpsychist as I have here construed them does accept that subjects overlap, then this response is open to the panpsychist. She writes the following:

> 'One might think this conflict can simply be resolved by saying that although silicon brains and organic brains have identical macrophenomenal properties, they have different microphenomenal properties. Silicon neurons (or molecules/atoms) would have silicon-type micro-experience, while the organic neurons (or molecules/carbon atoms) would have different carbon-type micro experience, while both constituting the same human macro-experience. The identical human macro-experiences nomologically determine identical coarse-grained macrophysical dispositions,

> but the different neuron (or molecule/atom) experiences will nomologically determine the different microphysical dispositions.
>
> But this is ruled out by [views] according to which consciousness never overlaps... Neurons (or molecules/atoms) can't have different experiences if they are excluded from having experiences of their own in the first place. Hence, [OI] is not compatible with Russellian panpsychism [and anti-overlap]' (Mørch, 2018, p. 11)

Mørch thus provides the response that our Russellian panpsychist can make precisely because they endorse the overlap of subjects of experience. The macro-phenomenal properties can be identical (and ground the identical dispositions), but the mid-level constituting phenomenal properties can be different and ground different dispositions. These constituting phenomenal properties can differ because they are not banished from existing, as one must say if one did not allow for the overlap of subjects and their experiences.

One may object to this proposal in the following way: if the experiential intrinsic nature of the micro-constituents of a biological brain are different from those of a silicon brain, then it is not obvious why the macro-states – which are created by bonding the micro-states – could have the same phenomenal character. Take the following example: anything you build from a set of blue Lego blocks is going to be blue, and anything created by sticking red Lego bricks together is going to be red. Will it not be similar in the experiential case?

Here the constitutive panpsychist can respond by claiming that this is simply begging the question. The point, the panpsychist can say, is that the functional properties of a brain-like structure will determine the quality of the experience, along with the constituting properties of the material from which the brain-like structure is made. If one really thought this objection was substantive, then it should apply to all physical objects: anything made of quarks should be a quark-thing, how could it have any other nature. But this is obviously false, there are laws of combination for the micro-entities, and in the panpsychist case organisational invariance will express a law of combination.

Hence, the panpsychist can accept organisational invariance.

9.5 Conclusion

I have canvassed three arguments in favour of the mereological simplicity of conscious subjects, however I have found that none of the arguments can be used to successfully show that subjects are in fact mereologically simple. The Russellian phenomenal bonding

panpsychist can give robust responses to each of these arguments, defending themselves from both the simple subjects argument and the argument for panpsychist nihilism. F

What, however, have we learned from this? Or, what does it seem that the panpsychist is now committed to?

In light of our discussion of Robinson I believe the panpsychist is committed to the partial constitutive overlap of subjects in counterfactual scenarios, in the analogous manner that we are committed to saying the same about ancient ships or philosopher's desks: the panpsychist is committed to saying that 100% qualitative identity is necessary and sufficient for identity in counterfactual scenarios (just as it is for material objects assuming they do not instantiate haecceities). Also, in light of the discussion of Lowe I believe the panpsychist should also be committed to the idea that the conscious experiencing subject and the relevant proper part of their body (e.g. the brain) have much more intimately related persistence conditions, more so than his argument assumed. However, this is only when we consider the conscious subject and that proper part as two aspects of a deeper Russellian unity that we see this.

PART 3: MAKING SENSE OF SOME COMPOSITE PHENOMENOLOGY

10 Chapter 10: Incompatible Qualitative Characters and Holism

'the mere place at any moment of any visual phenomenon in the visual field, high or low, to the left or the right, gives it a different character… that character is affected by the whole'

(Sprigge, 1983, p. 219)

10.1 Introduction

In this chapter I want to look at constitutive panpsychism and the problem of incompatible qualitative characters. This is a problem raised by Pierfrancesco Basile (Basile, 2010, 2008) and William James (James, 1912). I will aim to defend the constitutive panpsychist from this argument forwarded by Basile and James. The importance of this problem is significant because it is precisely this aspect of the problem which made James confess that the combination problem was an impasse (James, 1912, p. 207).

In section 2 I will pose the problem to be addressed for the subject-to-subject proper parthood relations that the constitutive panpsychist proposes. This argument relies on one form of phenomenal holism, however there are more types available. In section 3 I will outline three types of phenomenal holism within the current literature: intrinsic nature holism, relational holism, and attentional holism. Here I am setting the stage for us to formulate two novel problems for the constitutive panpsychist grounded in those two forms of holism not employed by Basile and James.

After outlining these forms of holism, I will turn to address Basile's argument against the sort of subject-to-subject proper parthood relations needed by the constitutive panpsychist. I will show that his argument is invalid because it double counts a token experience – consequently showing this variety of phenomenal holism poses no threat for the constitutive panpsychist.

In section 5 I propose my first novel argument within this chapter. This is a more acute problem for the panpsychist and involves relational phenomenal holism. In short, this problem relies on the possibility of something similar to Leibniz's *living mirror* view – the

idea that each subject's experiences somehow reflect other subjects' experiences – and argues that the phenomenology involved generates an incoherence. I call this phenomenology 'betrayal phenomenology'. I respond to this argument in two ways: (1) by either accepting the relevant phenomenology, or (2) by showing that the phenomenology need only be had by certain of the subjects which undergo those experiences. This allows me to make a distinction between two types of panpsychism: betrayal panpsychism and anti-betrayal panpsychism. Ultimately the difference in these two types of panpsychism consist in what they take the phenomenology of s subject-part to be like.

After looking at relational holism I shall then turn to look at attentional holism and propose my second novel argument. This argument relies on the incoherence that may be generated if a subject-part is a proper part of a subject-whole with an 'attentional system', i.e. a set of experiences the members of which are structured into what we can intuitively call a 'focus' and 'background'. This argument, however, turns out to be invalid and I suggest that the panpsychist can simply accept any phenomenology entailed by attentional holism (or from accepting any attentional structures).

10.2 The Contrary Qualitative Natures Argument Against Subject Proper Parthood

Pierfrancesco Basile (Basile, 2010, 2008) raises a problem for the constitutive panpsychist, crediting it originally to Williams James (James, 1912) in *A Pluralistic Universe*. Basile believes that the experience sharing between part and whole which constitutive panpsychism requires is incompatible with the following two ostensibly plausible theses: 'phenomenal essentialism' and 'phenomenal holism'. In this section I shall outline how Basile argues that these theses are incompatible with constitutive panpsychism.

Basile defines the two theses in the following manner:

> **'Phenomenal Essentialism [PE]:** this is the view that, for an experience, to be is to feel a certain way… what the [experience] is 'in itself' – is wholly exhausted by the latter – its qualitative, felt dimension…
>
> **Phenomenal Holism [PH]:** this is the view that, within a person's total psychical whole, the nature of a single identifiable experience… is essentially determined by the other experiences occurring alongside it ' (Basile, 2010, p. 107).

For the sake of the argument I assume both theses to be true, however they can be questioned. All physicalists will deny phenomenal essentialism, for instance.

Basile and James' concern is that a given token experience which is experienced by both the human subject and a micro subject – strictly, James' concern is with cosmopsychism – will be felt differently by the part and the whole. As James state: it seems impossible that 'one and the same identical fact could experience itself so diversely' (James, 1912, p. 207). Basile interprets this claim: one 'experience cannot be numerically the same while being felt by two different feelers' (Basile, 2010, p. 109). In essence the idea is that because an experience is essentially how it feels, if it is felt differently by two different subjects then *ipso facto* it is a different experience.

I will call this argument the 'contrary qualitative natures' argument and I shall formulate it in the following manner:

The Contrary Qualitative Natures Argument:

1) **Constitutive panpsychism:** macro-subjects and their experiences are composed of micro-subjects and their experiences such that the subject-whole, S1 and subject-proper part, S2, share token experiences En.
2) The essential nature of some experience, E, is wholly exhausted by its qualitative feel (from [PE]).
3) The nature of a token experience, E, is determined by the experiences which it is unified with i.e. its 'phenomenal context' (from [PH]).
4) Therefore, the essential nature of a token experience, E, will be determined by two distinct phenomenal wholes if constitutive panpsychism is true (from 1, 2 and 3).
5) Therefore, a token shared experience, E, will differ in its essential properties, meaning it may not be the same numerically identical experience (from 2 and 4)
6) Hence, constitutive panpsychism is must be false (by *reductio*).

How then can the constitutive panpsychist respond to this argument? If the argument is valid, the only underived premises of the *reductio* are phenomenal holism, phenomenal essentialism, or constitutive panpsychism. The constitutive panpsychist must therefore seek to reject of reformulate these.

I shall move on to this task, however it is first worth noting that Basile's argument is question begging. The justification supplied for making the *reductio* apply to constitutive panpsychism begs the question against a fleshed-out theory of constitutive panpsychism.

Ultimately Basile's reason for dropping the panpsychism is that the other two principles seem the most likely to be true, and, as he says, on appearances the sharing required by panpsychism does not seem to be. Moreover, Basile begs the question against the constitutive panpsychist. To make his claim, Basile states the following:

> 'The most likely candidate is the idea that experiences can be shared. This seems reasonable enough; after all, the privacy of our experience – i.e. the fact that each of us is the only individual who can possibly know what his or her experiences feel like – is a commonplace of every-day life. Note that the point is not the *epistemological* one that we cannot *know* what another person's experience feels like, but *ontological*: experiences are such that they cannot be felt by more than one subject' (Basile, 2010, pp. 109–10)

This argument begs the question against the constitutive panpsychist insofar as it is assumed that on appearances sharing must be false. The advocate of the sharing thesis is arguing precisely that contrary to appearances, experiences can and are had by more than one subject: precisely those subjects which are related constitutively. So, claiming that sharing must be rejected on account of it *every-day-appearing to be the case that experiences are not shared* is begging the question, the proponents of sharing will surely insist that the epistemic appearance claim about the everyday does not entail the ontological one.

Moreover, a robust account of the experiential sharing by subject-parts and wholes would presumably try to save the appearance of 'one subject privacy' without being committed to it ontologically. That is, the sharing theorist will explain away why the privacy of one's experience seems to arise as an epistemic fact, but also why it appears to arise an ontological fact. A ready and obvious explanation of this fact is simply down to the discreteness of human subjects like us, along with our cognitive faculties.

Not only this, but if Basile's ultimate rejection is ontological privacy, as he in fact states, then this is explicitly begging the question. He is simply rejecting the thesis that experiences can be had by parts and wholes because 'experiences are such that they cannot be felt by more than one subject' (Basile, 2010, pp. 109–10).

The constitutive panpsychist can here rest assured that Basile does not justify the premises of his argument in a non-question begging manner. Alternatively, we can look past this to the underlying problem that still appears to remain. I will suggest that Basile's argument

is in fact invalid. Moreover, I will suggest that phenomenal holism and phenomenal essentialism are consistent with constitutive panpsychism.

In order to show this, I think the constitutive panpsychist can simply question Basile's premise that the experience shared will be felt differently by the distinct subjects, i.e. in different phenomenal wholes. Consequently, I want to suggest that on reflection there is no contradiction generated by the contrary nature's argument: a token experience can be shared by the subject-part and subject-whole.

In the following section I will look at three contemporary accounts of phenomenal holism [PH]:

a) Intrinsic Natures Holism (Basile, 2010, 2008; Sprigge, 1983).

b) Relational Holism (Dainton, 2010, 2008, 2000).

c) Attentional Holism (Chudnoff, 2013; Watzl, 2017, 2014).

I will suggest that the incompatible qualitative characters argument does not succeed on (a) intrinsic holism – the sort employed by Basile – however, another version of the argument can be formulated in terms of (b) and (c). Relational holism poses a more acute problem for the constitutive panpsychist one which may indeed force them to either drop phenomenal holism [PH] or phenomenal essentialism [PE]. Attentional holism does not form such an acute problem, but it does form an interesting obstacle to accommodate for the panpsychist.

I will first outline these forms of holism in brief, before looking at the arguments based on them. Let's move on.

10.3 Three Accounts of Phenomenal Holism

There are three significant accounts of phenomenal holism within the contemporary literature, reflecting important aspects of conscious experience:

1) The intrinsic phenomenal qualities of consciousness.
2) The relational phenomenal properties of consciousness.
3) The attentional structure of conscious experience.

Basile (Basile, 2010, 2008) adopts the former version for his argument against panpsychism. The relational version of holism is that adopted by Dainton (Dainton, 2010,

2000). Attentional holism is forwarded, or a variation thereof, by Watzl (Watzl, 2017, 2014) and Chudnoff (Chudnoff, 2013).

Let us turn to look at these forms of holism before constructing the arguments against panpsychism.

10.3.1 Intrinsic Phenomenal Holism

Consider the variety of phenomenal holism that Basile suggests. Basile's (Basile, 2010) formulation tells us that the phenomenal context an experience is instantiated in determines its *intrinsic* nature, i.e. its qualitative feel, where a phenomenal context is *the set of experiences which an experience is unified with* i.e. its co-conscious partners.

What this means is that some individual experience could not exist outside of the whole in which one finds it, it is metaphysically necessary that *this experience* (I am pointing to my experience of the screen) be instantiated in *this total experience* (I am pointing to my total experience). Why, because the very quality of the experience, say the *redness* of an experience of a tomato, is impacted by all the qualities of the other experiences co-conscious with that experience. Consider the following example of a visual experience of a flag (see Figure 18):

FIGURE 18 INTRINSIC PHENOMENAL IMPACT

The claim is simple, the very *blueness* of the triangular part of the flag would feel different if it were not for the very *yellowness* and *redness* of the other parts of the experience.

One may prefer to think of this as a modal constraint on the experiences: there is no possible world in which *this* token experience is instantiated, and its co-conscious partners are not; or, there is no possible world in which *this* total experience is instantiated and some of its experiential parts are not. This form of phenomenal holism [PH] is therefore

complete, as it applies to every part of every possible experiential whole, and metaphysically *necessary*. This form of holism may be referred to as 'intrinsic phenomenal holism' [I-PH].

10.3.2 Relational Phenomenal Holism

Dainton (Dainton, 2010) suggests another form of holism, in which the phenomenal context an experience finds itself does not affect its *intrinsic* nature, but instead affects its *extrinsic* nature.

On Dainton's account experiences have both local (intrinsic) phenomenal properties and global (relational) phenomenal properties. On this account, the phenomenal context of any given experience will not influence the intrinsic quality of the experience, instead the phenomenal context influences the relational phenomenal properties of a given experience. The relational phenomenal properties that a token experience has is the property of 'being co-conscious with' its co-conscious partners. This means a token experience, E1 (for example), will be fully described in the following way:

> E1: [X-type experience co-conscious with E2, co-conscious with E3, and co-conscious with E_x … E_n]

To make this idea intuitive, consider the following example of a visual experience of a dog (see Figure 19):

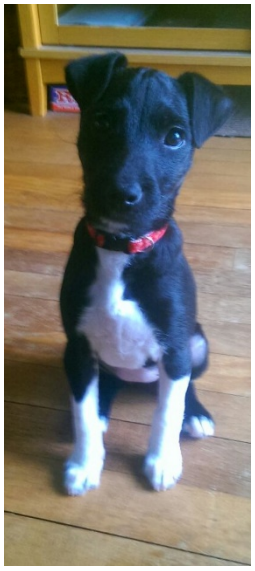

FIGURE 19 RELATIONAL PHENOMENAL IMPACT

In this example of a visual experience, the very *redness* of the dog's collar is not impacted by the *blackness* of their coat. But the red collar experience is impacted by the co-consciousness relation which holds between it and all other parts of this visual scene. The

experience of the red collar comes to have the relational phenomenal properties of *being co-conscious with a black coat* etc. This means the redness of that experience could occur alongside other experiences and would not be influenced, the redness would remain the same even if the dog were bright yellow.

However, since the co-consciousness relation is essential for composing phenomenal wholes, and pervasive of the wholes, Dainton's phenomenal holism is also necessary and complete. It thereby also places modal constraints on the parts. This form of holism we shall call 'relational phenomenal holism' [R-PH].[118]

10.3.3 Attentional Phenomenal Holism

Elijah Chudnoff and Sebastian Watzl have recently argued the that holistic nature of a subject's consciousness is not the sort which affects the intrinsic qualitative nature. Neither is any putative holism the product of the 'austerity of the proposed co-consciousness relation' (Watzl, 2014, p. 76) as Dainton proposes. Instead the pair are interested in the idea that *attention* is a feature of our consciousness that gives it a holistic character.

What do we mean by attention? James sheds light on this notion in the following quote:

> 'Every one knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others, and is a condition which has a real opposite in the confused, dazed, scatterbrained state which in French is called *distraction*, and *Zerstreutheit* in German' (James, 1890, pp. 403–4)

According to Watzl attention imposes a structure on a subject's consciousness due to 'peripherality' relations holding between the subject's experiences. Simply put, attention generates 'attention systems', which are sets of experiences related by peripherality relations into a structure of being *central, less central,* and *fringe*. The centre of consciousness is an experience which is not peripheral to any other, and the fringe of consciousness is those experiences which no other experiences are peripheral to. The rest of a subject's experiences will fall somewhere between these two. To make this idea intuitive, we can illustrate it with the following diagram (see Figure 20):

[118] There is the further issue of whether this form of holism applies to types of tokens, however this does not explicitly impact upon the issues here. I shall operate on a type level for ease and because Dainton thinks this version is more plausible (Dainton, 2008, 2000)

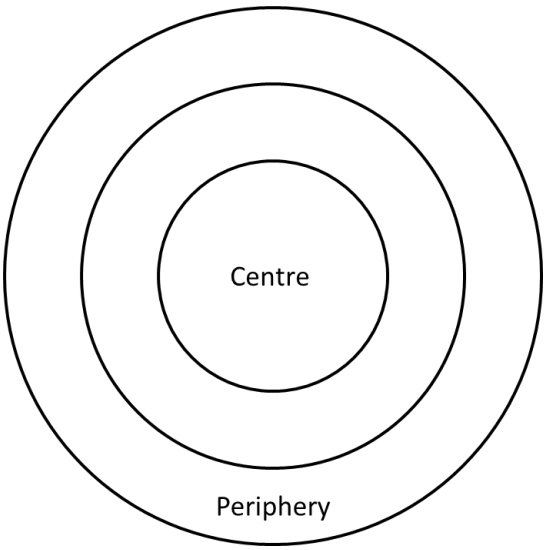

FIGURE 20 THE ATTENTIONAL STRUCTURE OF CONSCIOUSNESS

Within this structure, token experiences will 'fall' and be placed into more or less peripheral to the focus of attention. For any total experience, E1, its proper parts, E2-En, will be ordered by peripherality into an attentional system. For any arbitrary part, it will have a specific location within that attention system, and that location within the system can be specified by listing the peripherality relations it stands in.

Watzl, in fact, does not think that attention generates a form of holism, whereas Chudnoff does. Watzl only holds that attention generates a structure between the experiences, but that the position within this structure is not essential to the experience.

There is no need to motivate any of these accounts, or to see which of these accounts is most plausible. For the panpsychist merely needs to make their own position acquiesce with them. If there is no good motivation for any form of holism, then this is not a problem for the panpsychist. In fact, in the absence of plausible motivation for any account the panpsychist has more room to flourish, because without such motivation it would seem equally justified to drop the form of holism from our potential inconsistent triads in order to avoid any apparent incoherence.

Fortunately, the incoherence is only apparent, and I shall begin to show this in the following sections. Let us move on to this task.

10.4 Panpsychism and Intrinsic Natures Holism: Basile's Argument is Invalid

Let us consider the intrinsic nature variety of phenomenal holism [I-PH] endorsed by Basile. Basile's argument rests on the premise that the shared experience that is determined by two wholes, or by a part and a whole, is experienced differently in and by each. The idea is that the neuron and the brain must experience the intrinsic nature of their ostensibly shared experiences in a *fatally* different manner. But what is the motivation for this claim, why is it that the shared experience would feel different within each context?

To pump the intuition as to why it would feel different Basile gives the following example, and this example is illustrative of where Basile goes wrong:

> Imagine what it would be like to drink a cup of coffee in Naples as opposed to drinking it in Edinburgh: isn't it plausible to think that the different atmospheres of the two cities (the characteristically different colours, sounds, flavours etc. one experiences there) would make a difference to the coffee's taste? The two tastes, as they occur in the total states 'Coffee-in-Naples' and 'Coffee-in-Edinburgh', would seem to be different – qualitatively, and therefore also numerically – experiential occurrences (Basile, 2010, p. 108).

The problem with this example is that it begins by assuming a singular coffee experience, or at the least it intends to, but then double counts the experience in question, and thereby tacitly assumes that the experience is not one shared by part and whole. For example, Basile says 'two tastes', 'experiential occurrences'. James also falls prey to this mistake, when he asks us to 'to write down the all and the eaches as two distinct orders of witness' (James, 1912, p. 200).

There are not two experiences of coffee, and there are not two orders of witnessing, only one. By double counting the shared experience, it is inevitable that the experience would not be numerically self-identical, for one is not considering the same token shared experience, rather one is considering two different token experiences of the same type sequentially.

If we take care not to double count the shared experience, then the shared experience is not experienced differently in each context in which it is instantiated. In other words, it does not seem to be the case that allowing the intrinsic nature of an experience to be determined by two distinct but overlapping phenomenal contexts does result in the shared experience not being numerically self-identical. This criticism holds for cases of

partial overlap and total overlap – in other words, it holds for all the experiential structures discussed in chapter 6.

To illustrate this idea, consider the following diagram (see Figure 21):

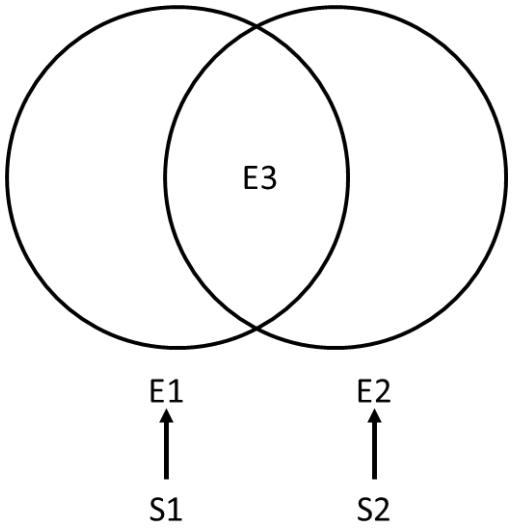

FIGURE 21 PARTIAL OVERLAP

Here we have a partial overlap scenario with two ostensible phenomenal contexts, E1 and E2, and one token experience that is shared by the two, E3: a token of a *red-type* experience.[119] Both the E1 context and the E2 context determine the intrinsic nature of E3, it is in virtue of being instantiated in E1 whilst also being simultaneously instantiated within E2 that E3 possess its distinctive *reddishness*. And because of this, in the absence of either of the contexts the intrinsic nature of E3, *that very reddishness*, would be different e.g. it may be an orange-type experience.

In fact, our exposition so far shows that, given the assumptions of holism in hand, it is *necessary* that both contexts determine the intrinsic nature of the shared experience. If a phenomenal context is considered to be the set of co-conscious experiences which supposedly determine an experiences intrinsic phenomenal character, then it would be more appropriate to consider the scenario as *one* phenomenal context rather than two. This is evident in the case of total overlap, the sort that the panpsychist think holds between us (subject-wholes) and our subject-parts (see Figure 22):

[119] If we wanted we could suppose that E1 was a Naples-like context and E2 was an Edinburgh-like context.

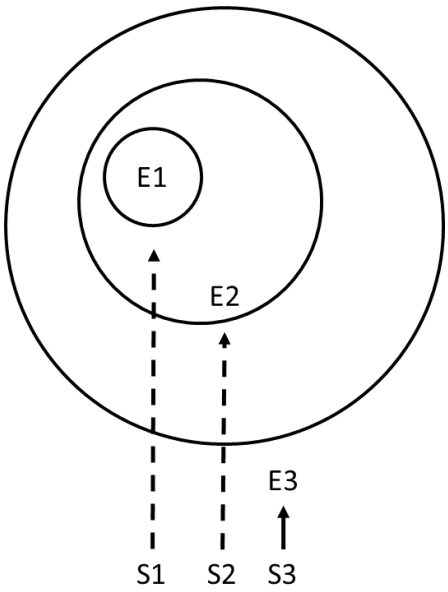

FIGURE 22 COMPLETE OVERLAP

In this scenario it is evident that context E1 is merely a proper part of the larger context E2, and that E2 is a proper part of E3. So, while on one understanding we may want to say that the intrinsic nature of E1 is determined by both E2 and E3 simultaneously, it would be equally, if not more, appropriate to say that the nature of E1 was determined simply by E3. Likewise, in the partial-overlap scenario above we would say that the nature of the E1 experience was determined by the larger context 'E1&E2'.[120]

Basile's argument is, therefore, invalid and the constitutive panpsychist can highlight this by noting the double counting of the experience which Basile makes. There is, therefore, no inconsistency between constitutive panpsychism, phenomenal essentialism, and intrinsic nature phenomenal holism.

I shall now move on to look at panpsychism and relational phenomenal holism. Again, there will be no inconsistency.

[120] And again, as in Basile's example, we would say that the intrinsic nature of the coffee experience, shared simultaneously by the two subjects, was determined by the larger context of 'Naples & Edinburgh'. Here Basile might say that this way of looking at it is begging the question – thanks to Garret Mindt for suggesting this addition. The problem, however, with this response is that the sharing theorist can give an argument from Basile's premises to the conclusion that it is one 'larger' phenomenal context. This argument would go from the definition of phenomenal context as 'the set of experiences S of which a token experience E is unified with' to the conclusion that the overlapping contexts of the subject-part and the subject-whole constitute the set of experience S of which the shared token experience E is unified with.

10.5 Panpsychism and Global Relations Holism

This form of Holism stipulates that the phenomenal context of an experience determines the relational phenomenal properties that it has and leaves the intrinsic nature of the experiences indifferent to such influence. In this section I will propose a novel argument against the constitutive panpsychist grounded in the relational phenomenal properties proposed by Dainton (Dainton, 2010, 2008).

Initially it may seem that in the partial and total overlap scenarios our E1 red-type experience, for instance, could exist independently of either its stipulated phenomena contexts. However, although the intrinsic nature goes unchanged, the essential nature of an experience is nevertheless determined by the relations it stands in according to relational holism. So, a full and proper phenomenological description of the F-type experience above would include not only its local 'reddish' phenomenal character, but also its co-conscious global phenomenal character on this account. Recall our specification of the nature of the E1 experience would come out as:

> E1: [red-type experience co-conscious with E2, co-conscious with E3, and co-conscious with E_x … E_n]

Dainton compares his idea to hyper-essentialism about physical objects: the idea that the essential nature of any given object is determined by an *exhaustive* list of all the relations to all other entities which it stands in (Dainton, 2010).

The token red-type experience E1 now includes a 'reference clause' to the other type-experiences that it is co-conscious with. Meaning the shared token experience, under a full description of its nature, now includes relational phenomenal properties that were previously not experienced by each subject (according to intrinsic phenomenal holism).

A novel problem emerges now we are also dealing with the additional 'global phenomenal properties', to use Dainton's phrase. This poses the question whether these additional extrinsic or relational properties *themselves* generate a contradiction?

I think that a contradiction can be generated and turned into an argument against the constitutive panpsychist. I call this the Disloyal Phenomenal Properties argument. I believe that it follows the spirit and structure of Basile's argument against constitutive panpsychism, however this argument is not invalid.

I formulate the argument in the following way:

Disloyal Phenomenal Properties

1) Shared experiences have relational phenomenal properties 'referring' to distinct phenomenal contexts (from sharing [ST] and relational holism [R-PH])
2) Each subject does not experience the relational phenomenal properties which 'refer' to distinct contexts (anti-betraying phenomenological assumption [ABA]).
3) Therefore, experiences can have relational phenomenal properties that are not experienced by each of their subjects (from 1 and 2)
4) Experiences cannot have properties that are not experienced by their subjects (phenomenal essentialism)
5) Therefore, experiences cannot be shared under relational holism (by *reductio*)

Premise (1) says that one subject experiences the phenomenal context E1, and an experience which is part of that context E3, but that we now correctly specify the nature of E3 as having the relational phenomenal properties of being co-conscious with the rest of E1 but also the context of E2. *Mutatis mutandis* for the subject of context E2. Consider the following diagram to make this idea intuitive (see Figure 23):

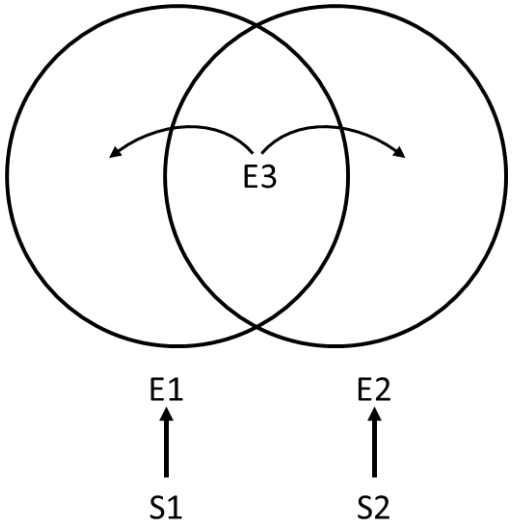

FIGURE 23 DISLOYAL PHENOMENAL PROPERTIES IN PARTIAL OVERLAP

This seems to suggest that from the perspective of the subject, S1, of the E1 context, the E3 red-type experience will now 'betray' its apparent owner and in some sense 'reflect' those experiences of the other context, E2, which subject S1 does not undergo. And from the perspective of the subject, S2, of the E2 context the E3 red-type experience will too betray its owner, and in some sense reflect the experience of the E1 context which that

subject, S2, does not itself undergo. This is in no way limited to our simple case of partial overlap, same holds in the case of total overlap (see Figure 24):

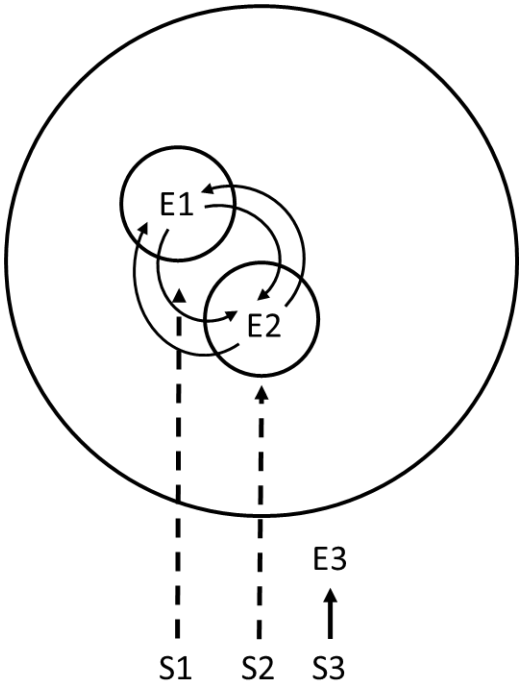

FIGURE 24 DISLOYAL PHENOMENAL PROPERTIES IN TOTAL OVERLAP

In this example any experience of a subject-part will reflect the experiences which it is co-conscious with, even though the subject-part in question does not undergo those experiences. In this example the experience E1 of the subject S1 will reflect the experience E2 of the subject S2. In fact, a fuller diagram would in fact highlight that E1 would reflect all of the other experiences that composed E3 and which subject S3 underwent. If the experience E3, had by subject S3, was in fact composed of, for example, 5 experiences including E1 itself, then E1 would reflect these 30 other experiences.

Premise (2), the 'ant-betraying assumption' [ABA], is the first new underived premise and is an assumption on behalf of maintaining the phenomenological plausibility of the scenario. As such it may not be true, and the constitutive panpsychist be able to question it. They may, for example, want to say that phenomenology of the 'reflected' experience may only seem suspect in certain scenarios. Premise (4) is supposed to be entailed by phenomenal essentialism, and because of this we get the contradiction needed constitutive panpsychism becomes incompatible with relational holism [R-PH].

How can the constitutive panpsychist respond to this argument? I believe the panpsychist can respond to this argument in two ways: (i) by questioning whether premise (4) is

entailed by the thesis of phenomenal essentialism, and (ii) questioning the anti-betraying assumption.

In the following sections I will look at whether phenomenal essentialism [PE] does entail the important premise (4), and consequently whether (3) and (4) really do contradict one another. If phenomenal essentialism [PE] does not entail premise (4), then, as with intrinsic nature holism [I-PH], the constitutive panpsychist has nothing to worry about.

I will also look at the potential benefit of simply accepting that such betrayal phenomenology exists – in essence, a thesis already accepted by Leibniz – and will make room for two types of panpsychism here: betrayal and anti-betrayal. Let us commence with this task.

10.5.1 Rejecting Premise (4): Phenomenal Essentialism and Collective Exhaustion

The 'disloyal phenomenal properties' argument against sharing relies on premise

> (4) that experiences cannot have properties that are not experienced by their subjects,

being equivalent to or entailed by phenomenal essentialism [PE]:

> '**Phenomenal Essentialism [PE]:** this is the view that, for an experience, to be is to feel a certain way… what the [experience] is 'in itself' – is wholly exhausted by the latter – its qualitative, felt dimension…' (Basile, 2010, p. 107)

However, if premise (4) is not equivalent to, or entailed by phenomenal essentialism [PE], then premise (3) will not contradict phenomenal essentialism [PE]. If premise (3) is allowed because it does not conflict with phenomenal essentialism [PE], this would allow the constitutive panpsychist to say that although the shared experience has these relational phenomenal properties, it need not be experienced as having the relational phenomenal properties by *each* of its subjects. No contradiction can then be derived.

The question is whether phenomenal essentialism [PE] does entail premise (4)? Whilst I do not think phenomenal essentialism does entail (4), I will argue that: if constitutive panpsychism is true, (4) will have two senses. The argument only works if one of these senses is demanded and not the other. I shall explain below.

If sharing is not true, then phenomenal essentialism would entail premise (4) that experiences cannot have properties that are not experienced by their subjects, which would contradict premise (3) that experiences can have relational phenomenal properties that are not experienced by each of their subjects. In short, the experience cannot have properties that both are and are not experienced by its subject.

If sharing is true, however, then phenomenal essentialism would still entail a version of premise (4), but it need not be in conflict with premise (3). This is because premise (4), which phenomenal essentialism is supposed to entail, equivocates between two readings which are uninteresting if sharing is false, but rather significant if sharing is true.

The two readings that phenomenal essentialism can entail are the following:

a) an experience cannot have properties that are not experienced by *all and each* of its subjects.
b) an experience cannot have properties that are not experienced by *all of* their subjects.

If sharing is false, then these two readings are equivalent. For if there is only ever one subject per experience, then 'each' and 'all' are equivalent: all the subjects of a token experience amount to *one* and is therefore always considered as an individual. Whereas, if sharing is true, then they are not equivalent. If *all* the subjects experience some properties of the experience, as in reading (b), it does not entail that *each* of the subjects must experience those properties considered as individuals, as in reading (a).[121]

The subjects considered as a group but not individuals exhaust the qualitative nature of the token shared experience, each of the subjects which has the experience can have a certain aspect of its qualitative feel, but each subject which has the experience need not have the *whole of* the feel. This seems to leave adequate room for the constitutive panpsychist to say that a shared token experience is wholly exhausted by its qualitative feel [PE], but nevertheless the respective subjects of the experience do not each, considered *individually*, exhaust that qualitative nature of the shared experience. Instead,

[121] An analogy may help: if a lonely but notorious gangster robs a bank, stealing money from the vault, the contents of the safety deposit boxes, and the private details of all the account holders, then each and all of the criminals involved get the loot. The contents of the bank are exhausted by each and all of the robbers considered as a collective, and considered as individuals. However, if an infamous gang robs a bank, then each and all of the criminals will not get the loot. Instead, they would all get the loot collectively, but get a portion of it each: the driver may get the account details, the gunman may get the money, and the boss may get the deposit boxes. The contents of the bank are exhausted by the gang collectively, but no individual member gets all the takings.

the qualitative nature of the experience is exhausted by all the subjects, considered *collectively*, that experience it, but each subject need not experience the nature of a token experience exhaustively.

Phenomenal essentialism [PE] may then entail premise (4), but if we read it as referring to *all possible subjects* of a shared experience as in reading (b), rather than *all and each* as in reading (a), then it is not in conflict with premise (3) which we read as referring to specific subjects. For although the nature of the shared token experience in our scenario would be described exhaustively as:

> E1: red-type experience co-conscious with E2 and co-conscious with E3, and co-conscious with E_x … E_n

We need not also say that each subject experiences it as such, instead it is exhausted by all its subjects in concert.

The question arises: when does a given subject experience the global relational phenomenal properties of one of its token experiences? One plausible answer would be the following: a subject, S, experiences the global relational phenomenal properties that hold between a given experience, E, and its co-conscious partners, E_x … E_n, *iff* (i) the subject, S, experiences E, and (ii) the subject, S, experiences E's co-conscious partner, E_x. In other words, when we can say that the subject experiences both relata of the relation (See chapter 6 above).

10.5.1.1 Why Reading (4b)? Why Collective Exhaustion?

The problem is that the panpsychist's interlocutor will rightly ask why it is that we should prefer the second reading (b) over the first reading (a)? That even though the second reading allows the sharing theorist to avoid the conclusion of the disloyal phenomenal properties argument and thereby show the truth and consistency of all three theses, the first reading may nevertheless be at most correct or, at the least, the *most intuitive* reading.

First the sharing theorist could respond to this by saying that phenomenal essentialism [PE], as formulated, does not imply subject specificity in the manner required by reading (a). That is, as formulated phenomenal essentialism is about the nature of the experience *in itself* and what *its nature* consists in. Phenomenal essentialism does not specify the relationship between a subject and the nature of its experiences. Therefore, solely considering phenomenal essentialism [PE], (a) is not the more appropriate or intuitive reading of premise 4.

Indeed, it may be the case that all the subjects of some shared experience must experience all the phenomenal properties of the experience, as reading (a) demands, but this would have to be a claim entailed by an epistemic thesis regarding the relationship between an experience and its subject. Such a reason seems independent of phenomenal essentialism [PE].

Second, the sharing theorist may ask what intuitions lie behind reading (a) and phenomenal essentialism, and then argue that reading (b) meets them. What are the intuitions then? There seem to be two. Firstly, the intuition behind (a) and phenomenal essentialism seems to be that there can be no unexperienced phenomenal properties, i.e. we can't have experiences without subjects. Secondly, the intuition may be that complex phenomenal properties of the sort entailed by relational phenomenal holism [R-PH] must be experienced *wholly by at least one subject*.

Reading (b) accommodates the intuition that there can be no unexperienced phenomenal properties and its purpose is to preserve it. Moreover, nothing about reading (b) suggests that there could not be one subject that does experience all the phenomenal properties associated with some experience, thereby saving this intuition. In fact, as I suggest above it seems like the following is a reasonable requirement: a subject, S, experiences the global relational phenomenal properties that hold between a given experience, E, and it's co-conscious partners, $E_x \ldots E_n$, *iff* (i) the subject, S, experiences E, and (ii) the subject, S, experiences E's co-conscious partner, E_x.

10.5.2 Rejecting (2): Why not Reject Anti-betraying?

One may agree with my previous argument but ask why we should not reject (2) the anti-betraying assumption? We may not need to play a complex game about the qualitative exhaustion of experiences by subjects as groups or as individuals, but instead we could dispose of the phenomenological claim. Instead of accepting the anti-betrayal phenomenology, we should just accept betrayal phenomenology in this context.

This objection thus suggests the panpsychist should accept the following thesis:

> **Betraying [B]:** Each subject-part does experience the relational phenomenal properties which 'refer' to the distinct phenomenal contexts of the other subject-parts.

To make this idea intuitive, consider the experiences of a subject-part that is a proper part of another, greater subject-whole. As we explained above, this subject-art, S1, will have

an experience, E1, which will reflect each experience which it is co-conscious with and which the subject, S1, does not itself experience. The following diagram should make this intuitive (see Figure 25):

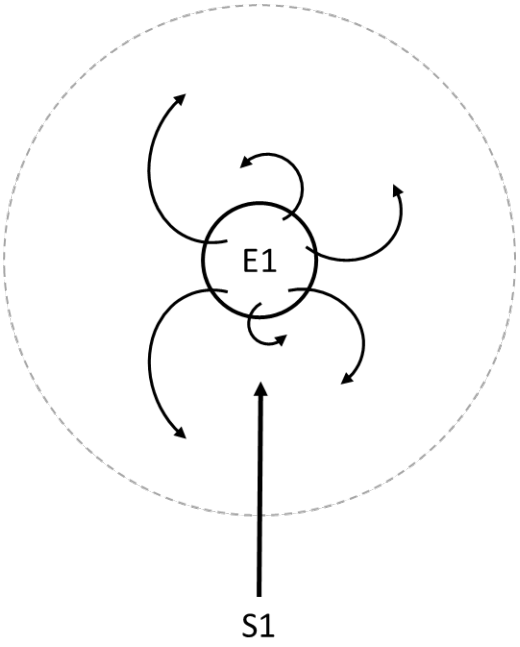

FIGURE 25 WHAT IT IS LIKE TO HAVE BETRAYING PHENOMENOLOGY

As was noted above, although the possibility of such phenomenology may seem *prima facie* odd in certain scenarios, it need not seem so odd in others.[122]

This idea also has historical precedence. Leibniz, for example, held something like this view for each simple soul which populated and constituted the cosmos. Leibniz's living mirror view is expressed simply in the following quote:

> 'Now this interconnection, or this accommodation of all created things to each other and of each to all the rest, means that each simple substance has relations which express all the others, and that consequently it is a perpetual living mirror of the universe' (Leibniz and Strickland, 2014, para. 56)

[122] One patient reported in Gazzaniga (Gazzaniga, 1985), was shown a particularly upsetting fire safety film exclusively to her right hemisphere. Reporting the event from the left hemisphere, she said she didn't know what it was she saw – 'I think just a white flash' – but confessed to feeling distinctly upset – 'I don't really know why but I'm kind of scared. I feel jumpy. I think maybe I don't like this room, or maybe it's you' (Gazzaniga, 1985, pp. 75–77 in Schechter 2014). The subject (hemisphere) in question seems to have access to the shared experience, some sort of fright, but it does not seem to be obvious that that experience 'reflects' its co-conscious partners of the other context. That being said, it may indeed do so. It may be harder for a subject to introspect such experiences and to discern whether their shared experiences are in fact 'betraying'.

In essence, we can understand Leibniz's living mirror thesis as the denial of anti-betrayal. In other words, the conjunction of relational phenomenal holism and constitutive panpsychism.

Historical precedence aside, the point is simply that the conjunction of constitutive panpsychism and the negation of the anti-betraying assumption is not incoherent. As such the constitutive panpsychist can avoid the argument. Not only this, but the lack of incoherence allows us to formulate two forms of constitutive panpsychism under relational holism:

(a) anti-betrayal panpsychism.

(b) betrayal panpsychism.

Both, at this juncture, are completely live options.

Our reasonable assumption made above (viz. the relata requirement: that both relata must be experienced by a subject in order for that subject to experience the relation (see 6.4.1.3)), supports anti-betraying panpsychism. For that, in essence, only requires subject-wholes which overlap other subjects to experience the holistic relations between the subject-parts precisely because they experience both each of the ostensible relations. Merely underlapping subject-parts need not experience the holistic relations between themselves, precisely because underlapping subject-parts do not experience each relate of the ostensible relations.

However, one may feel that the assumption is not reasonable. One may feel that, similar to Leibniz, that the holistic relations that hold between subject's experience must be felt by all the subjects of that experience. Even merely underlapping subject-parts must feel the relations that hold between themselves.

The anti-betraying panpsychist, or whoever else, may try employ the following argument to falsify (b):

1) Neither we nor any other subject we know of experiences or has experienced betraying phenomenology.
2) Therefore, betrayal sharing is false for us and the other subjects we know of.

Premise (1) of this argument, however, is false at worst, and question begging at best. Why? Because if betrayal phenomenology panpsychism is correct, then the

phenomenology would feel identical to your (our) experience now. The two accounts should deliver identical feeling experiences, but under different analysis.[123]

As I say, both views are live options and I see no reason that the constitutive panpsychist must choose. Let me now turn to look at a different type of phenomenal holism.

10.6 Panpsychism and Attentional Holism

The panpsychist can avoid any potential conflict arising from the previous two forms of phenomenal holism, but can they also do the same for attentional holism? I will suggest that they can: attentional structure is an inessential feature of subject's consciousnesses. Watzl's attentional systems only correspond to certain subjects, namely those with the relevant properly functioning neural architecture.

Recall that according to the attentional view a given token experience will stand in peripherality relations. The peripherality relation is irreflexive, anti-symmetrical, and transitive. This allows us to 'pin' any given experience to a node in a structure of these such relations. This node then determines how within or without of our attentional focus the experience is.

The problem for the panpsychist thus arises quite readily (if one cannot already predict it): any given experience of a panpsychist subject will be pinned to different locations in the attention systems of its respective subjects, such that it will be a fringe feeling for some subjects and a central feeling for others. So, for a given token experience E, it will be 'E-at-the-centre' and 'E-at-the-fringe', which, according to the attentional account, would be incoherent.

To highlight this, we can formulate the argument in the following schematic way:[124]

1) E = E-at-the-phenomenal-attentional-point-X-of-subject-part.
2) E = E-at-the-phenomenal-attentional-point-Y-of-subject-whole.
3) E-at-the-phenomenal-attentional-point-Y-subject-whole ≠ E-at-the-phenomenal-attentional-point-X-subject-part.

[123] Is there a way to settle this? I think the following quote from Dainton, the relations holism theorist, may help: 'Since we have stipulated that there is nothing else going on in the consciousness of the subject of [E1] and [E2] … it seems clear that the phenomenal feature we are seeking to characterise… must reside entirely in [E1] and [E2] themselves. There is simply no alternative.' (Dainton, 2008, p. 278). If one buys this account, then one will be a betrayal panpsychist. If one thinks this is wrong because one thinks there is an alternative, namely that the phenomenology resides in the experience [E3] composed of [E1] and [E2], then one will be an anti-betrayal panpsychist. This is because my reasonable assumption (the relata requirement) will hold on this account.

[124] I take this formulation from Basile (Basile, 2010, 2008).

4) Hence, E ≠ E.

Here points X denotes a point within the attentional system of a given subject-part, and Y denotes a similar such point within the attentional system of the subject-whole.

How then can the constitutive panpsychist respond to this argument? Well, as I suggested, I do not think that attention is a necessary feature of conscious subjects, and thus that all experience must form attentional systems. Because of this fact, the panpsychist can reject either (1) or (2), claiming instead that only certain subject-wholes (or subject-parts) have experiences structured into proprietary attentional systems.

I take it the *panpsychist* can reject the necessity of attentional systems for two reasons.

Firstly, I take it that most panpsychists do not think attention is necessary. Why? Because of the sheer number of different types of subject open to the panpsychist. To name one such type subject that plausibly does not have experiences which form a non-trivial attention system: micro-subjects. It seems reasonable to hold that the fundamental entities which are the panpsychists micro-subjects do not have the physical complexity to realise the sort of neural or cognitive architecture necessary and sufficient for the type of attention we are familiar with. Given that the panpsychist takes these two facts to be true, then they can quite easily reject the idea that attention is a necessary feature of consciousness.

This rejection of the necessity of attention to consciousness is not uncontroversial. However, most arguments in favour of this necessity claim suppose that the distribution of consciousness is limited in some sense and are based upon *a posteriori* discoveries about the subset of all material objects which we have pre-theoretically assumed to be the only subjects of experience (c.f. (Watzl, 2014) for references).

Secondly, I am able to sympathetically imagine what it would be like to undergo an experience that was not a proper part of an attentional system. In other words, I can imagine experiences that lack attentional features. Given this fact, it seems that we can reasonably suggest that attentional systems are not necessary structures of consciousness (see chapter 5 regarding phenomenal contrast arguments c.f. (Kriegel, 2007)). In order to imagine such a phenomenal state simply focus on the whiteness of the page in front of yourself. Now imagine the removal of each experience you are undergoing alongside your experience of whiteness until you are left with merely that whiteness. This, it seems, would falsify the necessity of attentional systems for consciousness.

10.6.1 Feeling Like the Focus or Fringe of Another Subject

One may at this point accept the rejection of the necessity of attentional systems for consciousness, thus avoiding an argument like the one above, but nevertheless question the coherence of the picture I am trying to paint. One may think that even if the subject-parts do not have attentional systems of their own and are only 'pinned' to a point within the subject-whole's attentional systems (of which they are proper parts), there may still be a problem.

One may feel that, for instance, a given subject-part cannot feel like it is in the phenomenal-attentional focus of another subject, or that it is at the fringe of another subject. I cannot see why this may not be the case. If the attentional system of a subject-whole can somehow impact and determine the character of a subject-part's experiences, then that is how the part will feel *for the part*. There is nothing wrong with this. Why should it be the case that for an attentionally structured conscious field, if we claim that some proper part of that field is also experienced by a subject who is a proper part of the subject which under goes the whole field, then we are making an incoherent claim?

Granted, such phenomenology may not be phenomenology that we recognise in a *typical* sense, precisely because we are subject-wholes which have structured attentional systems and so are not subject-parts of larger attentional systems, but this should not be a barrier to the coherence of the picture. However, with that being said, there is a sense in which we *do* recognise this phenomenology. We can take notice of the feeling of the fringes of our consciousness, and we can recognise that *this* is how subject-parts must feel. The type of experience a subject-part may have is not so alien after all, it is much more familiar than an echolocation experience of a bat (Nagel, 1974) for example.

One may then subsequently object by claiming that although phenomenology of this sort is possible, it is not *attentional phenomenology* (see 11.4.1 & 11.3 for a similar objection to the 'alignment proposal').

If this is true, then I think the panpsychist may not have anything to worry about. For the phenomenology will be exactly the same, it will simply not meet some other condition necessary for calling the phenomenology *attentional*. Moreover, it is hard to see what reason one could give to say the phenomenology of the subject-parts was not attentional

phenomenology, without it applying to only *some* subject-parts and not all.[125] One would therefore have to limit the scope of the objection.

10.7 Conclusion

If phenomenal holism is true, then the constitutive panpsychist can still make sense of their view. None of the arguments grounded in the potential incompatibility between constitutive panpsychism and phenomenal holism were such that we could not respond to them.

If the intrinsic phenomenal holism is true, then no incoherence is generated because subject-part and subject-whole overlap. Likewise, if relational phenomenal holism is true, then we can appeal to the collective exhaustion of phenomenal properties in order to counter the potential of 'betrayal phenomenology'. Alternatively, we can simply accept the fact that there is betrayal phenomenology for subject-parts. Both options are coherent, so other factors will have to determine which we should choose. Finally, even if some form of attentional holism is true, we showed that there is no incoherence generated by the overlap of subjects. Again, it led to subject-parts feeling like they may be the fringe (or other position in the attentional system of a subject-whole) of a subject-whole, but this was not incoherent, and the phenomenology was not particularly unfamiliar.

This is not the end of the story however. Other features of consciousness remain to be account for, and the panpsychist still needs to provide an account of them. In the final chapter I want to look at how it would be the case that the phenomenal bonding panpsychist could account for the subjectivity of consciousness, how parts and whole can share *subjective phenomenology*, and how it is that we come to *feel* like a single subject of experience (not a horde of micro-subjects).

[125] Presumably such a reason/condition would depend on one's additional commitments regarding the nature of attention, e.g. whether it guides actions (Wu, 2011) or whether it make information rationally accessible for a subject (Smithies, 2011). Some subject-parts will evidently meet these conditions, other evidently wont.

11 Chapter 11: Subjective Phenomenology of the Whole and of the Part

'There are some philosophers who imagine we are every moment intimately conscious of what we call our self… Unluckily all these positive assertions are contrary to that very experience'

(Hume, 2009, p. 393)

11.1 Introduction

Chalmers (Chalmers, 2016b) conflates two distinct concepts when formulating his version of the subject-summing problem for panpsychism. He states the problem comes from:

> 'their subjective character (they are always had by a subject)' (Chalmers, 2016b, p. 182).

Here Chalmers conflates:

> **Ownership:** for any experience, E, necessarily there is a subject, S, of that experience.
>
> **Subjectivity Observation:** conscious experiences have a 'subjective character'.

The first is a metaphysical claim, as we saw and justified in chapter 1, about the necessity of subjects of experience. The second is not a claim about subjects of experience, rather it is a claim about the way conscious experience *feels* or a claim about the 'content' of one's experience. It is a phenomenological claim based on the introspective observation of our experiences (much like the claim that there exists cognitive phenomenology (c.f. Bayne and Montague 2011), or that there exists moral phenomenology (c.f. Kriegel 2015, chap. 5)).

Here I will formulate a novel problem that has gone almost unnoticed in the panpsychist literature, grounded in (ii) the *subjective* character of phenomenal consciousness. I qualify the novelty of the problem with 'almost' because the seeds of this idea can be found in

Timothy Sprigge's *Vindication of Absolute Idealism* (Sprigge, 1983). Sprigge states the following regarding constitutive panpsychism:

> 'As to the idea of a compounding of consciousness which is not a fusion but a moment of experience composed of moments with a *distinct feeling of themselves* at that very time, difficult as the notions seems we shall gradually find cause to take it seriously. But even if it is a possibility or actuality in some cases, it is even more difficult to think of our own consciousness as a compound of this sort than a fusion. If there could be a unitary experience actually consisting of other unity experiences in relation to one another, *it would surely be experienced as a whole of wholes which feel themselves individually as such*. Yet surely one cannot find within one's conscious states, either such aspect of one as in introspectible at the time, or the whole of it as it is given more vaguely in retrospect, anything which gives itself as having thus its own sense of individual being' (Sprigge, 1983, p. 151 emphasis added)

What precisely is Sprigge here claiming? Sprigge is claiming that there are two problems that the constitutive panpsychist faces. The first is whether it is even possible that a subject-whole and its experiences could be composed of subject-parts and their experiences where both the subject-whole and subject-part have a 'distinct feeling of themselves'. The second is that even if this is possible, why is it that, as a matter fact, the composite whole is not experienced as a multitude of subjects 'which feel themselves individually as such'. That is, why when I introspect does it seem to be the case that there is one 'me' at the centre of my experiences, and not many of them scattered throughout my phenomenal field. In short:

Composite Problem: is it possible that subject-whole be made of subject parts where both whole and part *feel themselves* or are self-conscious?

Phenomenological Adequacy: why is it that normal macro-subjects do not appear to have parts which do indeed *feel themselves* in the manner that the whole does?

In order for us to see whether or not the constitutive panpsychist can address these challenges we must first get clear upon exactly what they are. I shall address the task of determining what the feeling of oneself is in sections (11.2). To do this I shall look at the recent phenomenological literature on for-me-ness and subjectivity. I shall adopt Marie Guillot's (Guillot, 2016) proposal that there are three distinct types of subjectivity that are discussed and that may exist.

Following this, in section (11.3), I shall commit myself to the second task of turning Sprigge's speculation into an argument against panpsychism. I will show, however, that the arguments that one could make would only be invalid. The mere conjunction of

constitutive panpsychism and subjectivity do not by themselves generate any incoherence, instead one must supply additional theses. Whilst there is no incoherence, the empirical adequacy problem remains; I confront this problem in section (11.4). To address it I offer a proposal which I call 'subjective alignment'. Like the previous problem, I find that there is no objection to alignment without further theses regarding the nature of subjectivity.

Following this, in section (11.5), I will go on to consider an additional thesis that can generate an incoherence for the constitutive panpsychist: haecceitism about subjectivity. Haecceitism about subjectivity comes in two forms: a weak form that does not pose a threat to the constitutive panpsychist, and a strong form which does allow for a valid argument to be made. The problem is that whilst the strong form allows for a valid argument, it is the least plausible of the two and has the least support.

Ultimately, I find that subjectivity is not a problem for the panpsychist, they can account for it just as well as any other theory. Both the composite subjectivity problem and the empirical adequacy problems can be met.

11.2 Three Types of Subjectivity

There's a lot of terminological confusion in the phenomenological literature (Guillot (Guillot, 2016) notes 13 different terms),[126] but theorists claim that they are all talking about the same thing (Kriegel and Zahavi, 2016). Putting the variations in terminology aside for a moment – although I shall return to them in a moment – the theorists like Zahavi or Kriegel all believe in the truth of the following thesis, what I call 'Naïve Subjectivity Essentialism Thesis':

> **Naïve Subjectivity Essentialism Thesis (N.S.E.):** necessarily, all and each phenomenally conscious experience E_1 – E_n of any subject S_n has (i) subjective character and (ii) qualitative character.

We shall call these theorists 'Strong Subjectivity Essentialists'. Subjectivity essentialists believe that subjectivity is an essential feature of phenomenal consciousness. There are no possible experiences without subjectivity and all experiences have (i) subjectivity and (ii) qualitivity: elephants, Martians, the politicians of Twin Earth, all have experiences which have (i) subjectivity and (ii) qualitivity without exception. Take any one of your

[126] (1) Subjectivity, (2) For-me-ness, (3) Me-ishness, (4) Me-ness, (5) Myness, (6) Mineness, (7) First-personal character, (8) First-personal givenness, (9) Non-reflective self-awareness, (10) Pre-reflective self-awareness, (11) Low-level self-consciousness, (12) The sense of self, (13) Sense of ownership (Guillot, 2016, p. 3)

token experiences at this moment, it has both (i) subjectivity and (ii) qualitivity – this goes for each and all of your experiences.[127]

What then does subjective character or subjectivity denote? I take it that subjectivity essentialists think that 'subjectivity' denotes something like (i) an invariant complementary feature alongside the qualitivity of our experiences, and (ii) minimal form of self-consciousness that accompanies all experiences. Joe Levine (Levine, 2001, pp. 6–7), Uriah Kriegel (Kriegel, 2009, p. 54), Dan Zahavi (Zahavi, 2010, p. 58), Ned Block (Block, 1995, p. 235), Shaun Gallagher & Dan Zahavi (Gallagher and Zahavi, 2015), Uriah Kriegel and Dan Zahavi (Kriegel and Zahavi, 2016) all agree with (i) and (ii). Here is a representative quite from Zahavi expressing both aspects:

> 'Imagine a situation where you first see a green apple and then see a yellow lemon. Then imagine that your visual perception of the yellow lemon is succeeded by a recollection of the yellow lemon… Whatever their type, whatever their object, there is something that the different experiences have in common. Not only is the first experience retained by the last experience, but the different experiences are all characterized by the same fundamental first personal character. They are all characterized by what might be called a dimension of for-me-ness or mineness' (Zahavi, 2010, p. 58)

The problem, however, is that there is a degree of confusion and conflation regarding subjectivity: it is not obvious that all theorists mean the same thing, or that there is only one type of property here. To this end, viz. resolving any confusion, Marie Guillot (Guillot, 2016) has recently made two important – and correct – claims regarding subjective phenomenology.

Firstly, she notes that amid the confusion in the terminology, the following tripartite distinction really captures the three phenomenal properties the theorists are talking about:

> **For-me-ness:** awareness of the experience.
>
> **Me-ness:** awareness of one's self.
>
> **Mineness:** awareness of one's experiences as one's own.

Each of these labels is supposed to capture something in the debate, something which other authors conflate. Guillot also provides a useful formalisation of each type of phenomenology that I shall adopt, this is something that I take corresponds to the

[127] I am assuming, therefore, that subjectivity does not merely apply to subject's total experiences.

character of the experience itself. There is a type of essentialism that corresponds to each of these types of subjective phenomenology.

The second important claim that Guillot makes is that these types of phenomenology are not conceptually equivalent and denote different properties. These properties have no *a priori* entailments between them, such that instantiating one does not necessitate instantiating any of the others. I shall not here rehearse the arguments that Guillot gives highlighting their distinctness, I shall simply take them to be distinct.

Before moving on to look at reformulating Sprigge's argument, let us look at what denying any form of essentialism entails.

I shall call those who deny any type of subjectivity essentialism 'Qualitivity Essentialists'. Qualitivity essentialists believe that subjective character is an inessential feature of phenomenal consciousness. There are subjects who have experiences that lack it: cats, Venusians, or the estate agents of Twin Earth. Qualitivity essentialists believe that all experiences have only (ii) qualitivity, they believe that consciousness is, essentially, *merely qualitative*. They accept the following thesis:

> **Naïve Qualitivity Essentialism Thesis (N.Q.E.):** necessarily, all and each phenomenally conscious experience E_1 – E_n of a subject S_n has (i) qualitative character.

The qualitivity essentialist need not deny the existence of subjectivity, merely that it is essential. Alternatively, they can accept a modified subjectivity thesis, one with limited scope:[128]

> **Naïve Functional Subjectivity Thesis (N.F.S.):** all and each phenomenally conscious experience E_1 – E_n of a *non-malfunctioning* subject S_n has (i) subjective character of type Z and (ii) qualitative character.
>
> **Naïve Reflective Subjectivity Thesis (N.R.S.):** all and each phenomenally conscious experience E_1 – E_n of a subject S_n has (i) subjective character of type Z and (ii) qualitative character when, and only when, S_n *reflects* upon each or all of her experiences E_1 – E_2.

[128] These theses are modified versions of two similar theses in Tom McClelland's paper 'Four Impediments to the Sense of Mineness' (McClelland, forthcoming). I thank Tom for allowing me to read the draft of this compelling paper.

> **Nonexistence Thesis:** there are no experiences of any subject, S, that has subjective character of type Z.

I shall call those theorists who accept the former thesis 'Functional Subjectivity Theorists' and those who accept the latter thesis 'Reflective Subjectivity Theorists'. The dimension of variation here is Z, through which we can modify each thesis to be about one of Guillot's three subjective phenomenal properties.

N.B.: it is worth noting a point regarding the dialectic before we move on. Each of the non-essentialist theses allow the panpsychist to make the following claim: micro-subjects plausibly lack the complexity to allow them to have the sorts of experiences that the subjectivity theorist believes in. Their experiential simplicity, which we derive from the physical simplicity, means that it is plausible to hold that micro-subjects do not have these sorts of phenomenology. They do not have for-me-ness, they do not have me-ness, and they do not have mine-ness all because they are simple entities (see chapter 10.6 for a similar method of denying that micro-subjects do not have the sufficient complexity required for attentional holism).[129] This is not to say that none of the issues in this chapter do not arise if we simply deny that micro-subjects have this phenomenology, precisely the opposite is true. The problem will arise, when formulated, for all subject-parts: large parts of subject-wholes will undoubtedly qualify for one of the above theses (reflective, functional, essential), and hence we will have subject-whole and subject-parts both undergoing the ostensible subjective phenomenology (if it exists).[130]

We first need to explain each notion in a bit more detail. Once we have done this we shall be in a position to return to Sprigge's two problems.

11.2.1 For-me-ness

For-me-ness is the label reserved for the simplest type of subjectivity that is discussed. It is a subject's awareness of her experiences. But, as Guillot notes, it can come in two variants.

Firstly there is 'special awareness' that a subject has of her experiences, 'merely in virtue of having the experience' (Guillot, 2016, p. 6). That is, the fact that experience are 'given

[129] Moreover, even the essentialist thesis *may* allow the panpsychist to plausibly claim that micro-subjects do not have this sort of phenomenology, precisely because those theorists who posit the existence of such essential phenomenology did not intend for it to apply to panpsychism (they had only humans in mind).
[130] This means that the constitutive panpsychist cannot simply remove the threat of this problem by denying that micro-subjects have such phenomenology.

to someone; it is for that someone' (Guillot, 2016, p. 6). This is called the Subject-Awareness view of for-me-ness.

Secondly, some authors see for-me-ness as the experience's awareness of itself. Whenever a subject has an experience, subjective character in this sense of for-me-ness, the experience also has an "'inner awareness", turned towards itself' (Guillot, 2016, p. 6). This view we shall call the State-Self-Awareness view.

On either view, the for-me-ness type of subjectivity does not involve any phenomenology of self-consciousness; it does not meet the second criteria above. For-me-ness is merely the type of awareness that one has of one's experiences which another subject does not have. For instance, it is that manner in which I am aware of my experiences which differs to the manner in which my partner is aware of my experiences. The subject of the experience does not enter into the experience; it is simply one of the two relata of the relation of phenomenal awareness.

Formalising this notion Guillot characterises the phenomenology as a relation R_1 between a subject s and one of her experiences x, giving it the form: $R_1(s, x)$. The theses regarding the prevalence of this phenomenology match those above.

11.2.2 Me-ness

Me-ness is the label reserved for the second type of subjective phenomenology discussed. Me-ness is the subject's awareness of themselves as opposed to just the experience they're undergoing. It is a minimal feeling of 'me' that is phenomenally conscious. This notion is distinct from the former because not only is the subject aware of her experience in having it, but she is also aware of herself in having the experience. In virtue of Me-ness phenomenology, being phenomenally conscious in this manner is also a way of being minimally self-conscious and hence meets the second criteria outlined above. This is what Block, likewise Zahavi and Gallagher, and Zahavi and Kriegel mean.

Formalising this type of subjective phenomenology Guillot characterises it as a relation R_2 of the form $R_2(s, s)$. The theses regarding this phenomenology match those above.

11.2.3 Mineness

Mineness is the label for the third construal of subjective phenomenology. Mineness is the awareness that the subject has of her experiences as being hers, or mine, or being owned by her – often this is what theorists discuss under the label 'ownership' (Klein, 2015). While the first type of subjectivity, for-me-ness, involved the manner in which a

subject was aware of her experience, this third type of subjectivity involves the subject's awareness of the very fact that she is in that manner aware of her experiences. That is, Mineness is the phenomenology characterised by the subject's awareness of herself standing in the for-me-ness relation. This type of subjective phenomenology does constitute a form of minimal self-consciousness.

Formalising the character of this type of subjective phenomenology Guillot states it is a relation R3 of awareness between a subject s and a fact viz. that she owns the current experience. Thus, we get $R_3(s,[R_1(s,x,)])$. The theses regarding the prevalence of this phenomenology match those above.

We now have three types of subjective phenomenology and four theses that can qualify the prevalence of each. We have For-me-ness, Me-ness, and Mineness and one can accept that these are types of phenomenology instantiated by all, properly functioning, reflecting, or none whatsoever subjects of experience. Importantly, one need not accept similar positions for each of the types of subjectivity. The lack of entailment between each means that one can be an essentialist about for-me-ness whilst being a functionalist about mineness. Likewise, one may think that Mineness is only a feature that results from subjects reflecting upon their experiences, whilst me-ness is part of all possible subjects' experiences.

Whatever one holds, however, one needs to give good reasons for its existence and relative prevalence. I shall not give a discussion of the motivations for accepting the relevant prevalence of each thesis except to note one thing. If subjects do have this phenomenology, then some form of functionalism or reflective theory appears to be correct given the scores of cases in which such phenomenology breaks down (Billon, 2016, 2013; Dainton, 2016; De Berardis et al., 2010; Guillot, 2016; Hoerl, 2001; Klein, 2015; Ramirez-Bermudez et al., 2010; Sierra, 2009; Simeon and Abugel, 2006).

11.3 Composite Subjectivity in Panpsychist Parts and Wholes

We now have the conceptual tools to return to Sprigge's quote and hopefully to expand upon it. Importantly we will now be able to answer the question of (i) whether Sprigge's speculation can be turned into an argument, and (ii) whether or not the panpsychist can respond to it.

We can expand Sprigge's claim to incorporate each type of Guillot's subjective phenomenal properties. The three composite problems are:

> **The Composite For-me-ness Problem:** part and whole cannot share experiences which have For-me-ness
>
> **The Composite Me-ness Problem:** part and whole cannot share experiences which have Me-ness.
>
> **The Composite Mineness Problem:** part and whole cannot share experiences which have Mineness.

In the following sections I will try to turn these problems into arguments against the constitutive panpsychist and respond on their behalf.

I will argue that we cannot formulate a composite for-me-ness argument for either the State-Self-Awareness view or for the Subject-Awareness view. I shall also argue that for the other two types of subjectivity, whilst we can generate an argument which seems *prima facie* plausible, it is nevertheless invalid. None of the types of subjectivity *alone* can generate a problem for the constitutive panpsychist that claims both subject-whole and subject-part must share token experiences.

To generate a valid argument against the constitutive panpsychist, what is needed is additional assumptions or theses regarding the nature of subjective phenomenology. After showing that the arguments do not pose a threat, I will go on to look at the additional theses required in section (5).

11.3.1 Composite For-me-ness Arguments

The for-me-ness problem will come in two forms because, as Guillot highlights, there are two understandings of this phenomenology: Subject-awareness views and State-self-awareness views (see section 11.2.1 above).

An argument cannot be made for the minimally committed State-Self-Awareness view alone. Because the experience is aware of itself, it does not matter which subject has the experience, for it will always be experienced as being aware of itself in this manner. The phenomenology of the experience is independent of what subject(s) has it.[131] Hence, whilst the token experience is shared by both subject-whole and subject-part, the phenomenology of the experience is not impacted by this sharing, and, hence a contradiction cannot be generated by considering its putatively different phenomenologies for different subjects.

[131] This is an important result for panpsychists like Galen Strawson who think that all experience, or all awareness, comports an awareness of that awareness.

A composite subjectivity argument cannot be generated for the Subject-Awareness view of for-me-ness either: that each subject which undergoes the experience is aware of that experience does not in itself generate any incoherence. Consider the shared token experience E_1 which has for-me-ness subjectivity, i.e. the subjects which undergo the experience have a 'special awareness' (Guillot, 2016, p. 6) of the experience. The subject-whole and subject-part are both aware of this experience, but unless E1 should *feel different* for the subject-whole and the subject-part, then there is no argument to be made.

11.3.2 Composite Me-ness Arguments

The me-ness problem asks whether it is coherent for a token experience, E1 (which is a proper part of a larger experience, E2), to be shared by subject-whole and subject-part, where that token experience, E1, has Me-ness type subjective phenomenology.

We can turn this problem into the following argument:

Composite Me-ness Argument:

1. If constitutive panpsychism is true, then macro-subjects and their experiences are composed of micro-subjects and their experiences such that the subject-whole S_{whole} and subject-proper part S_{part} share token experiences E_n.
2. Necessarily, all and each phenomenally conscious experience $E_1 – E_n$ of any subject S_1 has (i) Me-ness along with qualitivity (Me-ness Essentialism).
3. The token experience E_1 will be experienced by the subject-part S_{part} as one in which they are aware of themselves i.e. '$me_{(part)}$' (from 1 and 2).
4. The token experience E_1 will be experienced by the subject-whole S_{whole} as one in which they are aware of themselves i.e. '$me_{(whole)}$' (from 1 and 2).
5. $Me_{(part)} \neq me_{(whole)}$ (from 3 and 4)
6. Hence, constitutive panpsychism is false (from 1 and 6).

The argument is supposed to be quite simple. Both the subject-whole and the subject-part will experience their respective subjective phenomenology as an awareness of different 'me', and hence the token experience will be experienced differently by the subject-part and the subject-whole. A token experience cannot be experienced differently,

this would mean that it failed to be self-identical, which is incoherent. *Ipso facto*, one cannot be a constitutive panpsychist and hold that me-ness phenomenology is essential.

The problem is that the argument is invalid, premise (5) does not follow on from (3) and (4). Instead the inference from (3) and (4) should be to a premise like the following:

> (5a) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as having an awareness of '$me_{(part)}$ and $me_{(whole)}$' (by both subject-whole and subject-part).

To make this clear consider the following argument regarding the me-ness of an experience. This is the correct inference that should be made:

1. E_1 = [qualitivity & '$me_{(part)}$'].
2. E_1 = [qualitivity & '$me_{(whole)}$'].
3. Hence, E_1 = [qualitivity & '$me_{(part)}$ and $me_{(whole)}$'].

There is no incoherence here, and there is no reason to suppose that there should be.

The reason for the supposed validity of the arguments is because it is assumed that the Guillot types of subjectivity must be limited to *only one* subject appearing within the phenomenology of the experience. That is, the description of the experiences has been arbitrarily limited the number of subjects which may *enter into the phenomenology itself*. Once we allow or take seriously the idea of the sharing of token experiences by subject-parts and subject-wholes, we must allow for an expansion of the definitions to include all the subjects which are undergoing the experience.

If we allow for the expansion of the definitions to include additional subjects, then we will get the following 'sharing compatible' versions of Me-ness:

> **Sharing Compatible Me-ness:** $R_2\,(s_1, s_1 \,\&\, s_2 \ldots s_n)$.

As one can, this version of me-ness allows the subject S_1 of the experience E_1 to experience it as having an awareness of itself, S_1, but also as having an awareness of the other subjects, $S_2 - S_n$, which also have the experience. This means that the subject-part can have a subjective experience in which it is aware of itself, S_1, and the subject-whole, S_2. Also, the subject-whole can have a subjective experience in which it is aware of itself, S_1, and the subject-part, S_2.

This model can be seen as a progression of Leibniz's living mirror view (see chapter 10.5.2). As we saw, Leibniz held that each simple soul's experiences represented, in a dim manner, the experiences or contents of all of the other simple souls within the universe. I proposed above that we could understand the conjunction of relational holism and constitutive panpsychism (coupled with accepting the existence of the relevant betrayal phenomenology) as a version of this view. With the introduction of sharing compatible me-ness we can further the mirror view (or something like it): in addition to the potential betrayal phenomenology that each subject-part may undergo, the subject-part also undergoes an awareness of each of the other subjects that undergo one of the subject-part's shared token experiences.

One may object that once we expand the definition of Me-ness to allow for this sort of multiple-awareness of subjects, then we are no longer discussing *subjective phenomenology strictly speaking* (see chapter 10.6.1 for a similar objection to the compatibility of constitutive panpsychism and attentional holism). In other words, this characterisation of the Me-ness is somehow too liberal because it allows for types of experience that we would not, in typical circumstances at least, want to call subjectivity.

But why is it that we should limit the number of subjects which enter into subjective awareness to one? One may think that discrete subjects cannot, and this would be a fair reason. One may also think that we do not normally have additional subjects entering into our phenomenology, and this would be another fair reason. However, both of these reasons do not justify thinking that distinct and overlapping subjects cannot enter into the phenomenology of a given experience.[132] All they support, the panpsychist can say, is that we do not have this phenomenology (an issue to be dealt with using the alignment solution below (11.4.1).

Granted, the phenomenology is not a common one: in having the experience both the subject-whole and the subject-part will thereby be aware of themselves and one another. That is, both subject-whole and subject-part will have an experience in which they feel both 'me's' so to speak, and such an experience is undoubtedly far from our everyday lives. However, it is not logically inconsistent that the subjects have an experience which feels this way. Moreover, the mere claim that something, especially an experience, is 'out of the ordinary' should do nothing to shake our confidence in its possibility.

[132] They may also beg the question.

Finally, one may raise a potential concern like the following. It seems that there are all sorts of combinations for how this form of sharing subjectivity could go, take for example two *representative* alternatives: (i) it could be that we've got multiple subjects S1, S2, etc., who share a token experience, E, let's suppose, and who are also aware of themselves as subjects, but who are not aware of any of the other subjects who also experience E at the time in question; (ii) or there is the view that in the case of total overlap, the subject-whole is aware of the lesser subject-parts it includes, but they are not aware of it.[133]

The problem with these alternatives is that they are not viable precisely because they lead to the scenarios in which the token experience, E, is experienced differently by the subject-part and the subject-whole. Because the subject-part and subject-whole experience E differently, it will not be self-identical. The sharing compatible me-ness, and the assumptions that lead to it, require the subject-part and the subject-whole to experience the shared token experience in the same way.

This constitutes an answer to the Me-ness Problem and makes sense precisely of Sprigge's case: a composite consciousness with feelings of 'me' within it. To show some sort of incoherence an additional premise or assumption is needed, we need to give a reason *why* the inference should be to (5) and not (5a). As I suggested, the one way to do this is to adopt a strong form of haecceitism regarding subjectivity – I shall put this aside until the end of this chapter (see 11.5).

The panpsychist who endorses subjectivity still faces the composite mineness argument because, as we have seen, me-ness and mine-ness are distinct. In the following section I shall respond to the mineness argument in the same way, thus dealing with all three composite subjectivity arguments brought against the constitutive panpsychist who endorses subjectivity essentialism.

11.3.3 Composite Mineness Arguments

The mineness problem asks whether it is coherent for a token experience which has Mineness phenomenology to be shared by subject-part and subject-whole. The argument is structurally analogous to the previous one and it can be formalised in the following manner:

Composite Mineness Argument:

[133] Thank you to Barry Dainton for this objection and a helpful list of alternative ways in which the subject-wholes and subject-parts may enter into the phenomenology.

1. If constitutive panpsychism is true, then macro-subjects and their experiences are composed of micro-subjects and their experiences such that the subject-whole S_{whole} and subject-proper part S_{part} share token experiences E_n.
2. Necessarily, all and each phenomenally conscious experience $E_1 – E_n$ of any subject S_1 has (i) Mineness along with qualitivity (Mineness Essentialism).
3. The token experience E_1 will be experienced by the subject-part S_{part} as having an awareness of the experience being '$mine_{(part)}$' (from 1 and 2).
4. The token experience E_1 will be experienced by the subject-whole S_{whole} as having an awareness of the experience being '$mine_{(whole)}$' (from 1 and 2).
5. $Mine_{(part)} \neq mine_{(whole)}$ (from 3 and 4)
6. Hence, constitutive panpsychism is false (from 1 and 6).

This argument, like the last, is invalid, the inference from (3) and (4) should not be to (5) but rather the following:

> (5b) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as having an awareness of the experience being '$mine_{(part)}$ and $mine_{(whole)}$' (by both subject-whole and subject-part).

And again, this is made clear by the following argument:

1. E_1 = [qualitivity & '$mine_{(part)}$'].
2. E_1 = [qualitivity & '$mine_{(whole)}$'].
3. Hence, E_1 = [qualitivity & '$mine_{(part)}$ and $mine_{(whole)}$'].

Like above, there is no incoherence here, the phenomenology is just not immediately recognisable: in having the experience the subject-whole will thereby be aware of the experience as one of its own and one of the subject-part's, and, the subject-part will thereby be aware of the experience as one of its own and one of the subject-whole's.

Like the previous argument, the reason for which it appears to be valid is because we assumed that awareness of which subject the experience belongs to was delineated to only one subject. If we take seriously the sharing of token experiences by subject-whole and subject-part, then we should allow the awareness to have experiences in which the

experience feels as if it belongs to two subjects. In allowing this we would reformulate Guillot's mineness to the following:

Sharing Compatible Mineness: $R_3 (s_1, [R_1(s_1 \& s_2 \ldots s_n, x,)])$.

This version of Mineness allows for the subject S_1 of the experience E_1 to experience it as having an awareness of the experience belonging to itself S_1, but also as having an awareness of the experience as belonging to the other subjects, $S_2 – S_n$, which also have the experience. This means, just as above, we can substitute in the subject-whole or subject-part for the variables in this definition, thus giving the subject-wholes and subject-parts an awareness of one another's ownership of their shared token experiences. Again, like above (see chapter 10.5.2 & 11.3.2), we can see this as a progression of Leibniz's living mirror view. According to this development of the view, subject-parts are also aware of their co-conscious partners' (along with the subject-whole's) ownership of their respective experiences.

This answers our Mineness Problem and like the previous argument an additional premise will be needed in order to generate an incoherence. That is, some additional thesis is required to make the inference to (5) rather than (5b). As I have suggested, to do this one may adopt a strong form of haecceitism regarding subjectivity. Before looking at this option (see 11.5) I will now move on to look at the problem of phenomenological adequacy.

Avoiding the charge of incoherence is not always the only desired outcome. The panpsychist not only needs to show that their position is not incoherent, but also that it fits the data. The panpsychist needs their theory to be phenomenologically adequate: it currently is not. In the following section I shall move on to the questions of phenomenological adequacy.

11.4 Phenomenological Adequacy of Panpsychist Subjectivity

The panpsychist has been able to show the coherence of their view and the essentialist, functionalist, and reflective theories of subjectivity, but importantly they need to show that their theory is empirically adequate. That is, the panpsychist still needs to provide an answer to the following questions:

> **The Phenomenological Adequacy of Panpsychist For-me-ness:** why does normal macro-consciousness seem to only involve a single for-me-ness phenomenology?

The Phenomenological Adequacy of Panpsychist Me-ness: why do normal macro-subjects' macro-consciousness seem to only involve one 'me'?

The Phenomenological Adequacy of Panpsychist Mineness: why do normal macro-subjects' macro-experiences seem to be 'owned' by them?

This is not to say that the panpsychist must give some empirical account of the brain functioning or commit themselves to a certain neurophysiological theory of what is going on here. This is to say, rather, that the panpsychist needs to tell us *metaphysically speaking* what is going on when there is the sort of subjectivity present in typical cases.[134]

Why is this important?

Firstly, it is good that the theory will match our phenomenology, without doing so it would be a failed theory (see chapter 4 for Coleman's internal vs. bridging problems distinction).

Secondly, the sheer number of distinct subjects of experience which now compose me, according to the phenomenal bonding panpsychist, mean that my consciousness would be overrun with the phenomenology of the awareness of other subjects. Moreover, given that we have seen unrestricted composition looks likely to be true, the number of subjects which will enter into my phenomenology will be *unfathomably* vast: every subject that I overlap, and which overlaps me will enter into my phenomenology, such that I have a minimal awareness of this cosmic number of subjects.

In the following section I shall outline a proposal which I call 'alignment'.

11.4.1 The Alignment Solution

Other than shared token experiences being experienced as having an awareness of the subject-part and the subject-whole, i.e. experienced as '$me_{(part)}$ and $me_{(whole)}$' by both the subject-part and subject-whole, there are two further option for panpsychist who accepts a Me-ness thesis. The experience could be experienced by both the subject-part and the subject-whole as having an awareness of just one of the subjects. Hence, it seems like one or the other of the following could be true:

[134] Well, no more than the physicalist or substance dualist does. If we consider the substance dualists response, this may be illuminating. Imagine that a substance dualist is an essentialist, they shall say the following: whenever the is an immaterial substance, whether it is embodied or whether it is disembodied, it will instantiate for-me-ness, me-ness, and mineness. It is essential to its nature so is instantiated whenever such a substance exists, and typically this is caused by brain functions and a specific psycho-physical law.

(a) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as having an awareness of '$me_{(whole)}$' (by both subject-whole and subject-part).
(b) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as having an awareness of '$me_{(part)}$' (by both subject-whole and subject-part).

Likewise, other than the shared token experience of the subject-part and the subject-whole being experienced as having an awareness of that experience belonging to the subject-part and the subject-whole, i.e. '$mine_{(part)}$ and $mine_{(whole)}$' by both subject-part and subject-whole, there seems to be two further options for the panpsychist who accepts a Mineness thesis. The experience could be one in which its mineness was an awareness of just one of the subjects, hence it seems like one or the other of following could be true:

(a) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as '$mine_{(whole)}$' (by both subject-whole and subject-part).
(b) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as '$mine_{(part)}$' (by both subject-whole and subject-part).

For both Me-ness and Mineness, the option that would make the subjectivity panpsychist position empirically adequate would be (a).[135]

If when undergoing the token experience E_1 the subject-part(s) were to experience it as an awareness of the subject-whole, i.e. $me_{(whole)}$, and so too did the subject-whole, then there would be no contradiction in the nature of the experience. Both subjects would not experience that token experience in different ways, and hence we would not be able to claim that the token experience was not identical with itself. But, most importantly, if both subject-whole and subject-part were to experience the token experience, E, in the manner according to the (a) readings, then the phenomenology would match the ostensible day to day subjective phenomenology of normal subjects (according to Me-ness essentialists, functionalists, and reflective theorists).

Likewise, if when undergoing a token experience, E, the subject-part(s) were to experience it as an awareness of the experience as belonging to the subject-whole, i.e. $mine_{(whole)}$, and so too did the subject-whole experience it in this manner, then there would

[135] N.B.: the point is that the subject-part and subject-whole experience this token in the same way, otherwise no incoherence arguments could be avoided. This is an implicit assumption that I am making explicit here.

be no contradiction in the nature of the experience. And, importantly, if both subject-whole and subject-part were to experience it in this manner, then the phenomenology would match the phenomenology of normal subjects (according to the Mineness essentialist, functionalist, and reflective theorist).

My suggestion is that there is a process of 'alignment' that takes place in which both scenarios like that in (a) obtain. A process of alignment such that the shared experiences of the subject-parts and the subject-whole are experienced as having an awareness of only the whole and of the shared experiences and belonging to only the whole.

Like the previous theses above, my alignment speculation also comes in three forms. They are an essentialist thesis, a functionalist thesis, and a reflective thesis:

> **Parthood Alignment Thesis:** the subjective character of the token experiences $E_1 – E_n$ of a subject S will refer to a distinct subject iff: (i) subject S is a subject-proper part of a subject-whole S_{whole}
>
> **Functional Alignment Thesis:** the subjective character of the token experiences $E_1 – E_n$ of a subject S will refer to a distinct subject iff: (i) subject S is a subject-proper part of a subject-whole S_{whole} and (ii) the subject-whole S_{whole} is not malfunctioning.
>
> **Reflective Alignment Thesis:** the subjective character of the token experiences $E_1 – E_n$ of a subject S will refer to a distinct subject iff: (i) the subject S is a subject-proper part of a subject-whole S_{whole} and (ii) the subject-whole S_{whole} reflects upon each or all of the experiences $E_1 – E_n$.

The strength of the three theses are obvious. The parthood alignment thesis claims that whenever a subject is a subject-proper part of a subject-whole, then alignment occurs. That is, for some subject, S, being a subject-proper part is necessary and sufficient for the alignment of its subjective experiences to the subject-whole or which it is a subject-part.

The functional thesis claims that subject-proper parthood is a necessary condition, but that being a part of a properly functioning subject-whole is the jointly sufficient condition. That is, for some subject S being a subject-proper part of a subject whole is not enough. Instead, the subject-whole of which S is a subject-part must also not be malfunctioning. Hence, it is in virtue of the proper functioning of the whole that the experiences of the parts are experienced as having an awareness of the whole, and, or, having an awareness

of those experience belonging to the subject-whole. And, it is in virtue of this that the functional thesis is stronger that the essentialist thesis.

The reflective thesis is as strong as the functional thesis. Like the functional thesis, the reflective thesis demands that a further donation other than mere parthood be met for alignment to occur, i.e. subject-proper is merely necessary. The additional condition is that the subject-whole of which the subject-part S is a subject-part reflect upon the experiences shared by itself and the part. Hence, it is in virtue of being reflected upon by the subject whole that the parts experience their experiences as having an awareness of the subject-whole, and, or, having an awareness of those experiences belonging to the subject-whole.

The sharing compatible formulations of the for-me-ness, me-ness, and mineness properties will not help us here. They allowed for a conjunction of all of the subjects which undergo a given experience to enter into the experience. For alignment to work we do not want this conjunction. Thus, alignment compatible formalisations of the Guillot phenomenology would be:

Alignment Compatible For-me-ness: $R_1 (s, x)$.

Alignment Compatible Me-ness: $R_2 (s_1, s_1 \text{ v } s_2 \ldots s_n)$.

Alignment Compatible Mineness: $R_3 (s_1, [R_1(s_1 \text{ v } s_2 \ldots s_n, x,)])$.

By formalising subjectivity in this manner, i.e. with a disjunction of which subjects can be the objects of awareness, we can say that although the subject-parts' experiences 'point away' from them (so to speak), nevertheless the phenomenology involved is still subjective phenomenology. Alignment is then the process by which one of the subjects that are part of the disjunction of subjects comes to be the object of awareness of the subjective phenomenology. Alignment 'chooses' one of the subjects.

We can illustrate this idea somewhat intuitively with the following diagram of Me-ness alignment of the subjective aspect of experiences (see Figure 26):[136]

[136] Note that this diagram leaves out the qualitivity of the token experiences. This is simply for clarity of illustration.

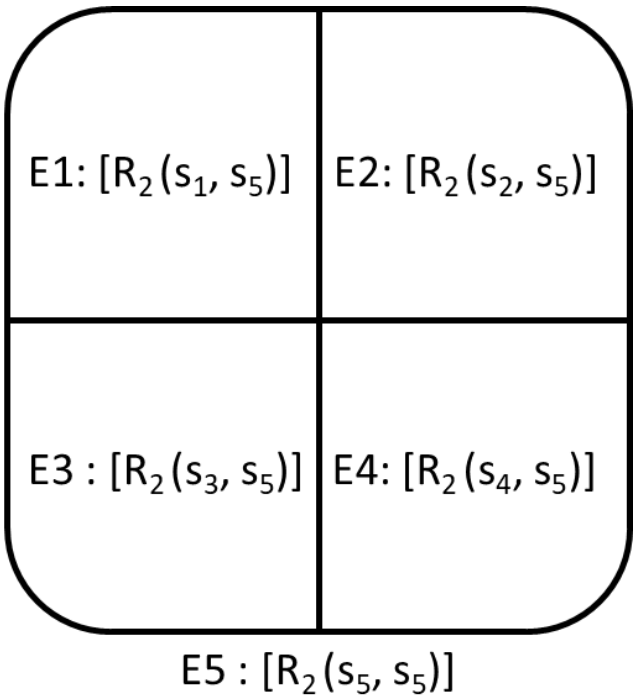

FIGURE 26 THE ME-NESS ALIGNMENT OF FOUR SUBJECT PARTS TO THEIR SUBJECT-WHOLE

In this example the constituted experience, E5, is composed of four experiences, E1-E4, had by their respective subjects S1-S5. The subjective aspect of the whole experience, E5, is constituted of the subjective aspects of the four parts, E1-E4, and their awarenesses of the subject-whole, S5. The constituent parts, E1-E4, of the whole, E5, have aligned their subjective aspects to the subject of the whole, S5, and by doing so constitute the subjective phenomenology of the whole itself.

The question, then, is on what grounds does the process of alignment 'choose' one subject over another? In other words, what mechanism is responsible for underlying the alignment of subject-parts to the subject-whole, and why does it pick out the subject-whole rather than any other subject?

What is the mechanism responsible for alignment? The mechanism responsible will be dependent upon the type of alignment thesis one adopts. It will be either the mechanism of *reflection*, the mechanism that underlies *proper functioning*, or will be a necessary mereological law. Given that I am not inclined to be an essentialist about subjective phenomenology (if it exists at all), I take the mechanism to be either a reflective or functional one. Moreover, given the argument from chapter 2 and the very real prospect of unrestricted phenomenal composition, this would remove the phenomenological adequacy of the alignment proposal: our subjectivity would align toward the cosmos, and

it is highly implausible that we are indeed aware of the cosmos in this manner. Hence, either a reflective of functional theses should be preferred.

Why does the mechanism pick out the subject-whole rather than any other subject? The least arbitrary answer to this question is that the mechanism picks out the subject-whole because the subject-whole is that subject which *has* the mechanism. In other words, it is the subject-whole that is functioning properly, so the mechanism picks our that subject. Likewise, the subject-whole is the subject which is reflecting upon its experiences and so the mechanism picks out that subject.

Again, one my try to object that the phenomenology involved in alignment is somehow weird or unfamiliar, subsequently claiming we should reject this proposal. However, this would be hasty.

First of all, the phenomenology for the subject-whole should not be 'weird' as far as the subjectivity theorist is concerned. The proposal is intended to capture the phenomenology of a macro-subject whole and, hence, as far as what-it's-like for the for the subject-whole nothing should be different. The experiences, should, all come with a subjective feeling of mineness and each should be accompanied by a feeling of 'me', and for the subject-whole that should be no different to what it is like to be you at this very moment. Secondly, although the parts may have experiences that are peculiar, in and of itself this does not count against the proposal. It did not count against any of the proposals above, viz. the sharing compatible formulations of the three types of subjectivity, and it should not count against this proposal here.

One may also try to object to the alignment proposal in the following way: if the subject-whole is nothing over and above the subject-parts, then when each part is aware of the subject-whole they are in fact aware of all of the subject parts. This would mean that our consciousness would become over populated with a vast number of awarenesses of subjects again: each subject would simply be aware of every other subject again.[137]

This is a very interesting argument and it would, if successful, be a concern for the constitutive panpsychist trying to endorse alignment. It is not, however, successful. In short, this response to the proposal equates 'nothing over and above' with 'identity'. The subject-whole is constituted by the subject-parts, and by being constituted by them is nothing over and above them. However, being constituted by the parts and thereby

[137] Thank you to Barry Dainton for this objection.

nothing over and above them is not to thereby be identical with the parts. Only if the subject-whole was identical with the subject-parts would the subject-parts thereby be aware of all the subject-parts, instead they are aware of the subject-whole.

Another objection to the alignment proposal may be that it is *ad hoc*, by which one means that the proposal (i) has no antecedent support and justification, or (ii) has no in principled reasoning behind it.

The problem with the *ad hoc* response is that alignment is not *ad hoc*. First of all, the alignment proposal is not somehow left-field or 'out there', strictly speaking it is just the application of the subjectivity theses to the composite subjects which constitutive panpsychism would posit. If one thinks that there's good reason to be a reflective mineness theorist, or a functional me-ness theorist, for reasons independent of one's position on consciousness, then accepting alignment is just what happens if you're a constitutive panpsychist. Secondly, this means that whatever support, justification, or in principled reasoning that can be brought to bear on the subjectivity theses can be brought to bear on the alignment theses.

Finally, someone may try to claim that the alignment proposal is incoherent, that is, just as the compositional problem claimed that sharing of subjective experience by subject-part and subject-whole is incoherent, so too is sharing under alignment. There are two ways this could be true: alignment is incoherent in and of itself, or in conjunction with the additional theses which would make the previous composite subjectivity arguments valid.

Firstly, one may claim that alignment is incoherent in and of itself because the alignment compatible definitions are no longer subjectivity, and that if alignment chooses only one of the subjects from the disjunction of subjects which undergo a token experience, then it is especially not subjectivity. In other words, not only is subjectivity limited to one subject,[138] it must also be limited to a *specific* one.

I am not confident that this response can work. According to the alignment theses a specific subject is involved: the subject-whole. One must therefore insist that the alignment compatible subjectivity is no longer subjectivity when it is an experience of an aligned subject-part. One would have to say that the specific subject within subjectivity would have to be the subject-part, subjectivity must be limited to single subject-parts. But

[138] As the objection to the Sharing Compatible Subjectivity theses went.

why is it that we should limit the number of subjects which enter into subjective awareness to one and why must they be subject parts?

In and of itself alignment does not seem to be incoherent: that a subject-whole and subject-part share a token experience which has subjective phenomenology in which *only* the subject-whole appears does not seem to be incoherent. We must look then to the additional theses that one can bring to bear upon subjectivity. In the next section I will look at haecceitism about subjective phenomenology to see if this can generate an incoherence.

N.B.: all of this is conditional on the truth and or plausibility of the subjectivity theses. One my reasonably be deflationist about this phenomenology (Dainton, 2016, 2008), in which case these problems will not arise. This would mean all the preceding speculations and arguments are not needed.[139]

11.5 Haecceitism About Subjective Phenomenology

One thesis which may be a candidate for generating the incoherence needed in the composite subjectivity arguments, and in objecting to the alignment proposal, may be that when subjects are aware of themselves in the manner purported by subjectivity theorists, they are in fact somehow aware of their own haecceity or have a 'haecceistic experience'.

Turausky (Turausky, 2014) thinks that subjectivity is 'haecceistic', that is when one instantiates subjective phenomenology one thereby instantiates a haecceity. Swinburne (Swinburne, 1995) also thinks that subjects of experience have haecceities and that they are aware of their haecceities as 'a datum of experience' (Swinburne, 1995, p. 397). And as we saw previously (chapter 9) Robinson also thinks, albeit in maybe a weaker sense, that our careful reflection on ourselves reveals our haecceity to ourselves (Robinson, 2016).

Below I shall briefly explain what haecceities or 'thisnesses' are. Following that I will show how this may be used to support the composite arguments against the panpsychist and to object to the alignment proposal. I shall make a distinction between *weak* and *identity* versions of subjectivity haecceitism and argue that only the identity version can support the composite subjectivity argument and rebut the alignment proposal. The weak version

[139] Thank you to Barry Dainton for pressing this point. I maintain that it is better to show the compatibility of subjectivity theory and panpsychism rather than simply rejecting subjectivity theory.

does not generate an incoherence, at least no more than the standard composite subjectivity arguments do. Following this I will present the argument in favour of the identity version of subjectivity haecceitism and respond to it. I shall argue that: (a) qualitative role swapping undermines the perfect twinning argument for haecceitism, and (b) that the strong version of subjectivity haecceitism is not the *best* version of subjectivity haecceitism. As such, we have no good reason to adopt the identity version of subjectivity haecceitism.

Because the argument in favour of identity subjectivity haecceitism is unsound the composite subjectivity argument that employs it as a premise is also unsound. Because the weak version of the thesis does not buttress the composite subjectivity argument, the constitutive panpsychist avoid the potential charge of incoherence.

11.5.1 Thisnesses

Haecceities, or 'Thisnesses', are special properties had by entities – subject or object – which individuate them in this world and across all possible worlds. Recall we earlier defined them in the following way:[140]

> **Haecceity** $=_{def.}$ the property, P, of being identical with entity X.

Thus, an example of a haecceity may be the haecceity that my Ikea chair has: the chair, C, instantiates the property, P, of being identical with the chair C.

Evidently the property 'being identical with X' is an odd one: it is unlike 'being polka-dotted', it is unlike 'having 1.3 kg in mass', and it is unlike 'the taste of coffee'. This is because haecceities are understood in contrast to these properties, properties which are labelled 'qualitative' – hence haecceities are labelled 'non-qualitative'. The distinction between qualitative and non-qualitative is an intuitively graspable one, but nevertheless one that is tricky to precisely delineate (Cowling, n.d.). For now, we can rely on the intuitive grasp and define the distinction in part by example:

> **Qualitative** $=_{def.}$ properties like or similar in some crucial respect to: (i) fundamental physical properties; (ii) spatial and temporal location, past-related or future-related properties; (iii) experiential properties, or intentional properties; (iv) value or normative properties.

[140] They can and often are paraphrased as the property 'being entity X'.

> **Non-qualitative** $=_{def.}$ properties that are (i) not Qualitative, or (ii) are not similar or like in some crucial respect Qualitative properties.

Not only are haecceities non-qualitative, but they are also not shareable, i.e. they are not multiply instantiable. The property 'weighing 1.3 kg' can be shared by many objects: a heap of sand can instantiate this property, an adult human brain can instantiate it, or 1.3 litres of water can instantiate 'weighing 1.3 kg'. The property 'being identical with Barrack Obama', however, is not like this, only the subject which is Barrack Obama can instantiate the property of 'being identical with Barrack Obama'. Likewise, with my Ikea chair (or my dog): only the chair can instantiate the property of 'being identical with the chair C'. Note that this non-shareable nature is a trans-world limitation, that is there is only one *possible* object which can instantiate a respective haecceity.

The motivation for posting haecceities is, in general, to individuate objects when Leibniz's Law seems to be *prima face* false for those objects. That is, to some it appears that there are instances in which two objects would falsify Leibniz's Law because they had all the same qualitative properties but were numerically distinct: Max Black's two iron sphere's in a near empty universe an example of this (Black, 1952). In order that we preserve the truth of the law, we must posit some property, a non-qualitative haecceity, that the two objects have which are not the same and, thus, make them numerically distinct.

Haecceities, then, are (i) non-qualitative, (ii) non-shareable properties that (iii) individuate the objects which instantiate them across all possible worlds and all counterfactual scenarios.

11.5.2 Using Haecceity to Support the Composite Subjectivity Arguments

If one thinks that subjectivity is *somehow* haecceistic, i.e. it somehow involves (i) non-qualitative, (ii) non-shareable, (iii) individuating properties, then one subscribes to the following 'Subjectivity Haecceitism' thesis:

> **Subjectivity Haecceitism:** Subjective character is somehow haecceistic.

'Somehow' is intentionally vague, this is because the manner in which one thinks subjectivity is haecceistic can vary. 'Somehow' opens up a region of logical space which different positions can occupy, and Turausky and Swinburne are representative of these positions.

Swinburne thinks that subjects instantiate haecceities and that subjects are aware of their haecceities. The haecceity that a subject has is the thing which the experience is *of* when the subject has a subjective experience, and hence the haecceity is a *distinct* property to the experience. In much the same manner that my experience of my chair is distinct to my chair itself, or that my awareness of my dog's smell is not itself my dog's odour. So, for Swinburne the property P had by the subject S of 'being identical with subject S' is the thing of which the subject S is aware of when she has a subjective experience. Swinburne is a representative of 'weak' subjectivity haecceitism:

> **Weak Subjectivity Haecceitism:** Subjective character involves awareness of a haecceity.

Turausky on the other hand does not think that the haecceity and the experience are distinct. Turausky thinks that when a subject has a subjective experience, it is the experience which is the haecceity. That is, he thinks that haecceities and subjective phenomenology are numerically identical. So, for Turausky the property P had by subject S of 'being identical with Subject S' is itself an experience. Hence, Turausky is a representative of 'Identity Subjectivity Haecceitism:

> **Identity Subjectivity Haecceitism:** Subjective character = a haecceity.

The two types of haecceitism about subjective phenomenology do not both make the composite subjectivity argument against panpsychism valid.[141] Identity Subjectivity Haecceitism does allow one to bolster the composite subjectivity arguments, but Weak subjectivity Haecceitism does not.

11.5.2.1 The Weak Subjectivity Haecceitism Argument Against Panpsychism

The weak argument is as follows, I use the Me-ness subjectivity as an illustrative example:[142]

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[141] The distinction in the 'weak' and 'identity' theses immediately raises a concern: Turausky and Swinburne do not operate with the Guillot distinction, so it is not obvious which type of subjectivity we should take them to mean. This causes an issue for Turausky: if one accepts Turausky's identity subjectivity haecceitism, then the three types of subjective phenomenology will be identical to their subject's haecceity and thereby identical to one another, which they are not. This means that Turausky must only accept one of the three types of subjective character as being haecceistic, i.e. being identical with a haecceity, and thereby only accept that one of the three types of subjectivity are in fact subjective. Swinburne does not have this issue. Although he does not use the Guillot distinction, we can plug haecceities into the picture and still preserve the account. For example, where Me-ness was a subject's awareness of herself it now becomes a subject's awareness of herself and *her haecceity*, likewise with mineness. Hence, we could formalise me-ness as R_2 (s, (s ∧ h), where h is the haecceity of the subject, i.e. the property of 'being identical with subject S.

[142] The same will apply to mineness; I omit it here to save on time and space.

Weak Me-ness Subjectivity Haecceitism Argument:

1. If constitutive panpsychism is true, then macro-subjects and their experiences are composed of micro-subjects and their experiences such that the subject-whole S_{whole} and subject-proper part S_{part} share token experiences E_n.
2. Necessarily, all and each phenomenally conscious experience $E_1 – E_n$ of any subject S_1 has (i) Me-ness along with qualitivity (Me-ness Essentialism).
3. Subjective character involves awareness of a haecceity (Weak Subjectivity Haecceitism).
4. The token experience E_1 will be experienced by the subject-part S_{part} as one in which they are aware of themselves and their haecceity i.e. '$me_{(part)}$ + being identical to $S_{(part)}$' (from 1, 2, and 3).
5. The token experience E_1 will be experienced by the subject-whole S_{whole} as one in which they are aware of themselves and their haecceity i.e. '$me_{(whole)}$ + being identical to $S_{(whole)}$' (from 1, 2, and 3).
6. $Me_{(part)}$ + being identical to $S_{part} \neq me_{(whole)}$ + being identical to S_{whole} (from 4 and 5).
7. Hence, constitutive panpsychism is false (from 1 and 6).

Like the previous iterations of the argument, the inference from premise (4) and (5) to the non-identity of the shared token experience in premise (6) is false. The correct inference should be to the following:

> (6a) The token experience E_1 had by $subject_{part}$ and $subject_{whole}$ is experienced as having an awareness of '$me_{(part)}$ + being identical to S_{part} and $me_{(whole)}$ + being identical to S_{whole}' (by both subject-whole and subject-part).

And again, we can highlight this with the same simple argument from above:

1. E_1 = [qualitivity & '$me_{(part)}$ + being identical to S_{part}']
2. E_1 = [qualitivity & '$me_{(whole)}$ + being identical to S_{whole}']
3. Hence, E_1 = [qualitivity & '$me_{(part)}$ + being identical to S_{part} and $me_{(whole)}$ + being identical to S_{whole}'].

One may scoff at this response, but there is no good reason to. The phenomenology involved will be peculiar and one may be inclined to think that because it involves the

awareness of haecceities that it must be incoherent. This is not so. The mere awareness of more than one property of the sort 'being identical to entity E' should not make that awareness one which is somehow metaphysically incoherent. To make this point clearer consider the previous arguments in which the object of awareness was just the subjects, the addition of the subjects' haecceities should not make for any additional problems. The awareness is simply of the subjects and now their identity across possible worlds and counterfactual scenarios, this in itself does not generate an incoherent experience.

One may not be satisfied with this response and still feel that the weak view would generate an incoherence. If so, then the qualitative role swapping argument in the following section I will show that even if subjects have haecceities we shouldn't expect them to be aware of them. Hence, I will be undermining weak subjectivity haecceitism and showing the argument to be unsound.

11.5.2.2 The Identity Subjectivity Haecceitism Argument Against Panpsychism

The identity view of subjectivity haecceitism does generate the incoherence. We can formulate the argument in the following way:

Composite Identity Subjectivity Haecceitism Argument:

1. If constitutive panpsychism is true, then macro-subjects and their experiences are composed of micro-subjects and their experiences such that the subject-whole S_{whole} and subject-proper part S_{part} share token experiences E_n.
2. Necessarily, all and each phenomenally conscious experience $E_1 - E_n$ of any subject S_1 has subjective character along with qualitative character (Naïve Subjectivity Essentialism).
3. Subjective character = a haecceity (Identity Subjectivity Haecceitism).
4. The subjective character of token experience E_1 had by subject-part S_{part} = being identical with subject-part S_{part} (from 1, 2, and 3).
5. The subjective character of token experience E_1 had by subject-whole S_{whole} = being identical with subject-part S_{whole} (from 1, 2, and 3).
6. Hence, being identical with subject-part = being identical with subject-whole (from 4 and 5)
7. Subject-part ≠ subject-whole.
8. Hence, constitutive panpsychism is false.

The reasoning here is simple: haecceities cannot be shared, hence subject-whole and subject-part can't share the subjective experiences, and hence constitutive panpsychism is false. This is argument is valid and hence the constitutive panpsychist needs to respond to it.

The constitutive panpsychist may be inclined to respond to the argument as formulated by saying that haecceities are non-shareable but that 'non-shareable' plays on an equivocation of shareable that moves between token and type. Haecceities, the panpsychist may say, are not shareable in the sense that they are multiply instantiable in terms of their type, i.e. there cannot be more than one token instantiation of that type. However, their token instances can be shared because there is only still one instantiation of the property, only one token experience E_1 which both subjects share.

This response would fail. The argument shows that the token property P (which in this instance is an experience) 'of being identical with entity E' cannot be shared by two non-identical entities, even if those non-identical entities are mereologically related. The haecceity 'being identical with the part' cannot be instantiated by the whole if the whole ≠ the part. And, conversely the haecceity 'being identical with the whole' cannot be instantiated by the part ≠ the whole. On pain of denying that the whole and the part are not identical, token haecceities cannot be shared. Hence, on pain of denying that subject-wholes and subject-parts are not identical (premise (7)), token haecceity experiences cannot be shared.

The constitutive panpsychist should then argue against Identity Subjectivity Haecceitism. In the following sections I shall argue that Identity Subjectivity Haecceitism is false, I shall also cast doubt upon Weak Subjectivity Haecceitism.

11.5.3 Turausky's Twin Argument

Turausky (Turausky, 2014) argues that subjects have haecceistic experiences, and hence subjects thereby have haecceities and know their trans-word identity.

Turausky argument is simple, he asks you to consider a perfect duplicate of you: a twin which is (i) entirely physically identical to you, (ii) in a sufficiently identical environment, and that is entirely identical to you in terms of the (iii) *qualitivity* of your phenomenology. You and your twin would differ, he claims, in terms of the (iv) *subjectivity* of your phenomenology. In virtue of differing subjectively, you would be able to discern via introspection that you were *you* and by virtue of that discern that you were not your twin.

Likewise, your twin would be able to discern via introspection that it was *your twin* and not you. Perfect twins then are qualitatively indiscernible but subjectively discernible: there is 'individuative subjective phenomenology' (ISP) which is unique to each subject, and which allows perfect twins to discern their unique identity via introspection.[143]

The putative existence of individuative subjective phenomenology needs to be explained. To explain it Turausky claims that 'the best option' (Turausky, 2014, p. 259) is to 'insist that this subjective character be associated with some essential, individuative non-qualitative, non-duplicable property' (Turausky, 2014, p. 259). A property which, therefore, 'meet[s] all the criteria for being a *haecceity*' (Turausky, 2014, p. 259). Hence, Turausky claims that each subject has a haecceity and that haecceity is an experience, a 'phenomenal property shared by no other subject in this or any possible world' (Turausky, 2014, p. 259).

His argument has the following deductive form:

Subjectivity = Haecceity Argument:

1. There is an introspectible and discernible difference between you and your qualitatively indiscernible perfect twin.
2. This non-qualitative discernible difference is 'individuative subjective phenomenology' (ISP) (postulate).
3. Only the instantiation of a haecceity can account for (ISP) by being identical to it (Identity Subjectivity Haecceitism postulate).
4. Hence, subjects have haecceities and they experience them (from 1, 2 and 3).

Fortunately, the panpsychist has three underived premises which they can choose to reject. I shall not question (2). Instead I shall question (1) and (3).

To question (1) I shall look at qualitative role swapping. To question (3) I shall ask 'why does my haecceity feel like me?'.

If my responses are sound, then we will not have good reason to accept the truth of Identity Subjectivity Haecceitism (I.S.H.). If Identity Subjectivity Haecceitism (I.S.H.) is

[143] As Turausky states: 'Yet now, again, imagine that you happen to be Twin A: despite your third-personal phenomenal indistinguishability from Twin B, there will still remain, as Zahavi says, "a crucial and all-decisive difference" between you and your Perfect Twin, "a difference that would prevent any confusion" between you' (Turausky, 2014, p. 253).

false, then the strengthened composite subjectivity arguments against panpsychism will be unsound and the panpsychist will have avoided them.

11.5.3.1 Rejecting Premise (1): Qualitative Role Swapping

The example used of perfect twinning is a helpful one in many ways, but 'tests' for haecceities need not happen in this manner. One way to test, or, rather, to pump the intuition of haecceity is to consider 'Qualitative Role Swapping'. Qualitative role swapping is different to twinning cases. In twinning cases, we have two supposed qualitatively identical entities which differ in their haecceities *at a time*: we have qualitatively identical objects O_1 and O_2 existing at T_1 and differing in their haecceities H_1 and H_2. In Qualitative role swapping we have two qualitatively diverse entities that have the same haecceity at different times: we have qualitatively diverse objects O_1 and O_2, where at time T_1 object O_1 has the haecceity H_1, and at T_2 object O_2 has H_1.

Whilst the twinning case may give some the feeling that subjects are haecceistic in virtue of instantiating haecceity experiences (it certainly does not give all this feeling), I shall argue that qualitative role swapping does not. Importantly, this shows an incongruity between two logical, and potentially actual, possibilities entailed by accepting that subjects have haecceities which they are aware of. Simply put the argument has the resulting form:

1. If subjects have haecceities of which they are aware, then subjects should be able to introspect and discern them i.e. they should show up experientially.
2. Subjects cannot discern a change in their phenomenology in Qualitative Role Swapping cases.
3. Hence, subjects do not have haecceities of which they are aware.

The following scenario is one in which the haecceities of two subjects are swapped, but in which the subjects do not notice them. If subjects are to have haecceities in the form of experiences, or that having a haecceity is sufficient for having a haecceity experience, then the following case shows this to be false. I shall first give the qualitative role swapping case and following this diagnose twinning.

Reflect upon your phenomenology at this moment: the sight of the page and the text, the fringe feelings and your bodily sense-field, the background feeling of oneself and any occurrent cognitive phenomenology. Let us call this total state of consciousness, i.e. what it is like to be the subject which happens to be you at this moment 'Total-You-Experience' or 'T.Y.E.'. Simply put T.Y.E. is merely your phenomenal perspective at this moment, it

is your maximally unified set of experiences. In addition to this try to imagine what it would be like to be Barrack Obama at this moment, imagine what his 'Total-Obama-Experience' or 'T.O.E.' would be like.

Now, imagine that in all her wisdom, and for some unknown reason, God performs a qualitative role swap with you and Barack Obama. God takes Obama's haecceity (that property P of being identical with Obama O) and your haecceity (that property P of being identical with you Y) and swaps them around, such that the brain instantiating Total-You-Experience and located within what was formerly your body now instantiates Obama's haecceity and vice versa.[144] During the swapping process, however, neither stream of consciousness fails to continue, each moment of experience continues to flow into the next in precisely the way that it normally does in typical circumstances. Moreover, by virtue of her almighty power, God is able to make the swapping process instantaneous: at one moment the Obama haecceity is instantiated in Washington and at the next moment it is being instantiated somewhere thousands of kilometres away, likewise with your haecceity. Not only does she do this once, in fact God grows bored and begins to regularly swap these two haecceities every minute. Growing more bored, she subsequently goes on to swap them every second. To alleviate her boredom, God takes up other important tasks, but because of this her attention is divided and she begins to make mistakes. Firstly, she begins to successively swap your haecceity with the whole of the White House staff successively, instead of just Obama's. Secondly, she starts swapping all the haecceities of awake subjects. Thirdly, she forgets that she should only be swapping the haecceities of subjects which are awake and begins to swap sleeping subjects with wakeful subjects. That is, she begins to swap your haecceity not with Obamas, but with a sleeping child from Spain. Fourthly, she begins to swap the haecceities of not just asleep and awake subjects, but the haecceities of subjects of different species: she swaps your haecceity with your neighbor's cat, for instance. Fifthly, she begins to swap your haecceity with that of everyday inanimate objects like chairs or tables.

The question is whether there would be a change in phenomenology within Total-You-Experience from the moment T_1 preceding the swap and the moment T_2 immediately succeeding it? Likewise, would there be a change in the phenomenology of Total-Obama-Experience at that moment as a consequence of the haecceity swap? I am sceptical that there would be: would the total Obama experience now, in all seriousness, come to feel

[144] I say 'formerly your body' because by virtue of instantiating Obamas haecceity the body is now his.

that it is a chair, a cat, a Spanish child? I do not think so. Likewise, I do not think that the object instantiating the total you experience would come to feel that is was Obama, middle aged Scottish woman, or an egg.

If one thinks that the qualitative role swapping scenario that I have described is correct in that there would be no discernible phenomenal difference, then subjects do not have haecceities of which they are aware and do not instantiate *haecceity experiences*. Subjects may indeed instantiate haecceities, but they are not a part of their phenomenology in any way.

If one objects to this argument, then so be it: accept haecceities. The following argument is sufficient to undermine Turausky's twin argument.

11.5.3.2 Rejecting Premise (3): Why Does My Haecceity Feel Like Me

Turausky's argument highlights an apparent mental difference between two twins, an ostensible individuating difference, and states that only Identity Subjectivity Haecceitism (I.S.H.) can account for it, subsequently concluding that subjects have haecceities in the forms of subjective experiences. The problem, however, is the explanatory premise in Turausky's argument:

> (3) Only the instantiation of a haecceity can account for (ISP) by being identical to it (Identity Subjectivity Haecceitism postulate).

This premise is false. In short, it is false because it claims to be the *only* explanation, and it is false because it does not give an explanation. I shall explain both below.

If we take Turausky's argument as deductive, then we can see patently that premise (3) is false. All we need to falsify it is Weak Subjectivity Haecceitism (W.S.H.): this would explain the apparent existence of individuative subjective phenomenology.

But we can read Turausky's argument as abductive, i.e. with the explanatory premise being something like:

> (3') The *best* account of (ISP) is the instantiation of a haecceity of which it is identical to (Identity Subjectivity Haecceitism postulate)

However, even if we do this (3') is still false.

(3') is false because identity subjectivity haecceitism does not explain the phenomenology involved, but just explains the haecceistic difference between the two subjects (supposing that there is one). In other words, there is (a) putative real difference and (b) a putative

felt difference. I propose that Weak Subjectivity Haecceitism explains the phenomenology *better* than Identity Subjectivity Haecceitism, and thereby falsifies premise (3'). In other words, the weak view explains both (a) and (b), whereas the identity view explains only (a). I shall explain why below.

Weak Subjectivity Haecceitism (W.S.H.) gives one a *reason* to think that subjective phenomenology feels the way it does, i.e. that it feels like 'me' and no other subject. The reason the weak view gives for subjective phenomenology feeling like this is because a subject has a haecceity of which she is aware, i.e. she is aware of the haecceity 'being identical with subject S'. Because the subject is aware of the haecceity, it is the haecceity that is somehow the 'content' or 'object' of the experience. Hence, if one were to ask, 'why does subjectivity feel like an awareness of me and my trans-world identity', the response would be obvious: because you and your haecceity are the *objects* of the subjective experience. Consider the following analogy: if one were to ask what the reason is that your veridical chair perception has the content associated with a chair (4 legs, a certain shape etc.), a good reason would be because there is a mind-independent chair of which one is aware. The properties of the experience (i.e. its chair-shape-ness, red-ness, etc.) are somehow related to the object, and it is this relationship that explains why such an experience feels that way.[145]

Identity Subjectivity Haecceitism (I.S.H.) does not give one a *reason* to think that subjective phenomenology feels the way that it does, namely that it feels like 'me' and that it feels like 'my trans-world identity'. Identity Subjectivity Haecceitism gives us an explanation of the status of this ostensible individuative difference, but it leaves it open as to why the ostensible individuative difference *feels* the way it does. The claim that the haecceity = the experience does not give us a reason to think that the experience should feel like a haecceity at all, merely that the experience is a haecceity. In short, the claim that 'E_1 = haecceity' does not entail E_1 has he content 'being identical with subject S' or *feels* that way. Whereas the claim 'E_1 = awareness of a haecceity' does offer a reason that the experience should feel that way.

To make this criticism clearer, consider the following analogy about the qualitivity of my experiences: if one were to ask the question 'what is the reason that my veridical perceptions of coffee cups have the content that they do or have the qualitative feel they

[145] This analogy does not depend upon any theory of perception. It is not the whole explanation either, but it does take up a large part of the explanation.

do?', then a good answer would not be 'because the experiences are instantiations of universals'. That they are universals does nothing to *explain* why it is a veridical experience of a coffee cup has those qualities that it does. Likewise, if the reason were because my experience of a coffee cup is a particular, this would not give me a reason as to why it *felt* the way it did. In short, knowing that an aspect of my experience is either a non-shareable individuative property, a universal, or a particular trope does allow me to know what that aspect of my experience has the feel that it does.

Weak Subjectivity Haecceitism is a better explanation, it accounts for (a) the putative real difference between and the (b) putative felt difference by claiming that there is a real difference of which one is aware. Identity Subjectivity Haecceitism is the worse explanation because it accounts for (a) the putative real difference but not (b) the putative *felt* difference, it assumes the felt difference. As such, the abductive argument for Identity Subjectivity Haecceitism is false, and therefore the Composite Subjectivity Haecceitism argument against panpsychism is unsound.

11.6 Conclusion

The panpsychist does not face the charge of incoherence if they accept any of the essentialist, functionalist, or reflective theses regarding Guillot's (Guillot, 2016) three types of subjective phenomenology. Not only is no incoherence generated, but I also proposed a mechanism to account for the putative feeling of only a single subject within one's consciousness rather than a vast multitude: subjective alignment. Not only does this account for the phenomenology of subject-wholes like us, but it also sheds light upon what it must be like to be a subject-part.

Conclusion

I have argued that constitutive Russellian phenomenal bonding panpsychism is a viable theory and in doing so have ended up with a version of the theory in which the world is teeming with phenomenal consciousness. I have done this in the following way.

I first went about showing that constitutive Russellian panpsychism is a highly plausible theory, one which is the most simple and elegant solution to the place of consciousness in nature to date. To do so I first proposed the mereological argument for panpsychism, which I suggested was the heart of the anti-emergence argument. I argued that if subjects and their experiences exist as genuine proper parts of the material world – which I take it they do – then given a plausible thesis which I called 'mereological confinement', they must be proper parts of other subjects and their experiences. This generated a form of panpsychism in which the mereological structure of the world was a structure of conscious subjects being proper parts of one another: there is consciousness all the way up, and all the way down. This form of panpsychism meant it was imperative to solve the combination problem and make sense of subject-to-subject proper parthood relations.

Secondly, I argued that causal structuralism is false. Matter must have an intrinsic, categorical nature in addition to its extrinsic, dispositional nature. This is because without such properties, there is nothing to ground the dispositions and make them determinate. I then argued that phenomenal properties are best suited to play this role of being the categorical nature of matter, this is because phenomenal properties were the best candidate (they are positively conceivable and maximise elegance and simplicity). In short, I established constitutive Russellian panpsychism with the conjunction of the mereological argument and the powers regress argument.

The plausibility of constitutive Russellian panpsychism was threatened by the combination problem, which I distinguish into two aspects:

(i) under what conditions do some Xs combine to constitute some Y

(ii) how can some Y be understood as a composite of some Xs.

This meant to save constitutive Russellian panpsychism I wold have to show when certain subjects and their experiences combined, and how we could make sense of the resultant composite subject-wholes. Moreover, given the lemma of my mereological argument, the panpsychist was faced with the following task: making sense of subject-to-subject proper

parthood relations. In order to address I suggested I would (i) turn to the phenomenal bonding solution, and (ii) respond to the arguments showing that subject-to-subject proper parthood was incoherent.

To do this I first argued that the phenomenal bonding solution can avoid the subject-summing problem. The typical formulation of the subject-summing problem fails to include relations between the subjects, and if (as I suggested in chapter 1 and 5) constitutive panpsychism should include relations between the subjects, then the problem is avoided. I also argued that, contrary to Philip Goff, we can form a positive concept of this relation and hence our theory would not suffer from any associated mysterianism/noumenalism. In order to do this, I set out three conditions on a prospective phenomenal bonding relation and showed that these conditions can be met. Importantly I argued the phenomenal bonding relation = the co-consciousness relation, a relation we are quite familiar with from our own conscious lives.

Secondly, I argued that we should understand the phenomenal bonding relation as the intrinsic nature of some physical relation. I also argued that the boundary problem must be avoided by denying that subjects have bounded consciousnesses, instead of merely arguing that the co-consciousness relation is not transitive. None of the extant method are sufficient, although they may help. Along with rejecting boundedness, I suggested that we had no good grounds on which to accept it and that at best a relative notion could be accepted.

Third, I argued that Coleman's perspectives problem is not the problem it has been made out to be, it is not 'the real' combination problem, and that the constitutive panpsychist can avoid it. I argued that if one holds that subjects have perspectives that are defined in an 'exclusory' manner, then the problem can be avoided. It is unclear what grounds this exclusory nature to consciousness, and I argued that of the three possibilities only *sui generis exclusory phenomenal character* can ground the problem. Even then, however, it is not obvious that such a phenomenology exists, and if it were to exist could not be deflated into more recognisable phenomenology.

Fourthly, I argued that if the panpsychist accepts a linguistic account of vagueness, then they must accept unrestricted composition given the sharpness of consciousness. This means that any group of non-overlapping subjects compose a further subject because they are phenomenally bonded. To do this I employed a variant of the Sider-Lewis anti-

vagueness argument against restricted composition, along with showing that the metaphysical and epistemic accounts were not appealing.

Fifth, I turned to look at a problem for the panpsychist grounded in the mereological simplicity of conscious subjects. I defended the constitutive phenomenal bonding panpsychist from three argument showing that subjects are simple. I argued against Barnett, Robinson, and Lowe. Each of which could be responded to adequately because they each underestimated the tools at the Russellian panpsychist's disposal Barnett's argument did not include Russellian relations, and neither did it include phenomenal bonding. Robinson's argument rested upon a connection between mereological simplicity and haecceities that does not exist, and he also begged the question against the constitutive panpsychist: experiences can indeed be shared. Lowe's argument could be questioned by the Russellian, for they can possibly say that they are the deep material nature of their brain or body. By doing so I defended the idea that we are composites. Moreover, if one is convinced by the arguments for universalism, I will have thereby defended unrestricted composition.

I then tried to show how we can make sense of the composite phenomenology entailed by the sort of panpsychism here outlined. To do this I defended the claim that subject-parts and subject-whole share token experiences from the criticisms that it conflicts with some other, important premise we take to be true. By defending the constitutive panpsychism from the argument, I also thereby painted a picture of what some of the phenomenology of subject-parts would have to be like given the types of phenomenology of typica subject-wholes.

Firstly, I looked at the claim that this sort of panpsychism is in conflict with the holistic nature of our experiences, in which they mutually influence the character of one another. I looked at three types of holism and showed that panpsychism can readily accommodate each: intrinsic phenomenal holism, relational phenomenal holism, and attentional phenomenal holism. Whilst the first form of holism didn't have too much interesting to tell us about the phenomenology of subject-parts, the second two did. The conjunction of panpsychism and relational holism lead to the possibility of 'betrayal phenomenology': an experience that a subject-part has in which it feels in a dim and attenuated manner the content of its co-conscious partners' experiences. I suggested that this could be accounted for my accepting it as actual, or by endorsing the idea of the *collective exhaustion* of an experience by its subjects.

Secondly, I looked at the claim that each and all experiences have 'subjective character', which is sort of minimal self-consciousness phenomenology. I tried to formulate a novel argument against the panpsychist grounded in this phenomenology based upon a passage from Timothy Sprigge. I argued that even if it is true that subjects (like us) have this sort of phenomenology – which I doubt to be (but which is not important) – the panpsychist can accommodate this within their theory too; no incoherence was generated. In addition to this the consideration of this form of phenomenology shed light on what it may be like to be a subject-part within such a subject-whole, and I explained this (along with why we don't feel like a horde of subjects) by appeal to a mechanism I called 'subjective alignment'. The only way these suggestions could be shown to be incoherent – I suggested – was by holding a strong form of haecceitism about subjectivity: identity subjectivity haecceitism. Only if we think subjective experiences are *identical* to haecceities, then sharing of that experience by the subject-part and subject-whole would be incoherent. Precisely because haecceities cannot be shared. Unfortunately, such a strong thesis is unmotivated.

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