

## ARE COMPOSITE SUBJECTS POSSIBLE? A CLARIFICATION OF THE SUBJECT COMBINATION PROBLEM FACING PANPSYCHISM

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### ABSTRACT

Panpsychism, the view that phenomenal consciousness is present at the fundamental physical level, faces the subject combination problem—the question of whether (and how) subjects of experience can combine. While various solutions to the problem have been proposed, these often seem to be based on a misunderstanding of the threat posed by the subject combination problem. An example is the exchange in this journal between Siddharth (2021) and Miller (2022). Siddharth argued that the phenomenal bonding solution failed to address the subject combination problem, while Miller responded that Siddharth had (among other things) misunderstood the problem that the phenomenal bonding solution was trying to solve. In this paper, I seek to clarify the real subject combination problem facing panpsychism, and on this basis, evaluate the various attempts at defending the possibility of subject composition.

**Keywords:** panpsychism; combination problem; subject composition; consciousness.

## Introduction

A spectre is haunting panpsychism—the spectre of the subject combination problem.

Panpsychism, the view that phenomenal consciousness—ontologically subjective and qualitative phenomena that have a ‘what-it-is-like’ feel associated with them<sup>1</sup>—is present at the fundamental physical level, has regained prominence in the past two decades as a viable middle-path between physicalism and dualism.<sup>2</sup> However, critics argue that panpsychism faces a ‘hard’ problem of its own, of explaining whether (and how) microphysical entities that are themselves bestowed with subjectivity—are subjects of experience—can combine to form subjects of macrophysical entities such as human beings.<sup>3</sup> Such composition, it is claimed, is unintelligible and impossible. The *subject combination problem*, as it has come to be known, thus threatens to derail panpsychism’s claim as a viable middle-path between physicalism and dualism.

In response, some panpsychists have argued that subjects can indeed compose, and proposed solutions to the subject combination problem (Goff 2016; Miller 2017; Roelofs 2019; Goff and Roelofs forthcoming). Siddharth (2021), in an article published in this journal, offered a critique of the *phenomenal bonding* (PB) solution proposed by Goff (2016) and Miller (2017), and argued that it failed to adequately address the problem. The PB solution was first proposed by Goff (2016), who contended that it was possible for subjects to enter into a relation that necessitated—brought into existence—a composite subject. The relation that fulfilled this role was the phenomenal bonding relation. While Goff conceded that we have no positive conception of the PB relation, Miller (2017) thought otherwise. He proposed that the *co-consciousness* relation—the relation “in virtue of which conscious experiences have a conjoint phenomenology or a conjoint what-it-is-like-ness” (Miller 2017, 548)—could play the role of the phenomenal bonding relation, and that we could form a positive

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<sup>1</sup> See Nagel (1974) for more on ‘what-it-is-like’ talk.

<sup>2</sup> For arguments in favour of panpsychism, see Chalmers (2016a), Goff (2017), Maxwell (1979), Mørch (2014), Rosenberg (2004), and Strawson (2006a, 2006b, 2016). See Freeman (2006), Brüntrup and Jaskolla (2016), Seager (2019), and Skrbina (2009) for discussions of various issues related to panpsychism. Panpsychists commonly distinguish between two versions of the view: *micropsychism*, wherein the microphysical entities (such as quarks, electron, etc.) are taken to be fundamental; and *cosmopsychism*, wherein the cosmos-as-a-whole is taken to be the fundamental entity. While it is only micropsychism that faces the subject combination problem strictly speaking, cosmopsychism faces an analogous problem—the de-combination problem (see Miller 2018a). In this paper, I focus only on the subject combination problem facing micropsychism, and hence use the term panpsychism to refer only to this version of the view.

<sup>3</sup> For instance, see James (1890), Coleman (2014), and Goff (2009). See Chalmers (2016b) for a comprehensive discussion of the combination problem.

conception of inter-subject co-consciousness based on our knowledge of intra-subject co-consciousness. Siddharth (2021) argued that the proponents of the PB solution were guilty of begging the question, and that Miller's proposal to form a positive conception of inter-subject co-consciousness did not work.

In response, Miller (2022) claimed that Siddharth's critique was off the mark for the following reasons:

1. Siddharth's critique was based on the intuition that subjects were ontologically unified and private; however, he gives no justification for these theses.
2. In arguing that the PB solution does not show how subject composition is possible, Siddharth commits the strawman fallacy; the proponents of PB were not addressing the *mereological problem* (the question of the possibility of composite subjects), but the *subject-summing-problem* (the question of the mechanism of composition). The mereological problem, nevertheless, has been addressed by others (Miller 2018b; Roelofs 2019; Goff and Roelofs forthcoming), claimed Miller.
3. Contra Siddharth, analogical extension can be used to form a positive conception of the PB solution.

The exchange between Siddharth and Miller highlights the need for a clarification of the threat posed by the subject combination problem to panpsychism, and on this basis, a comprehensive evaluation of the theories of subject composition that have been offered in response to the problem. These are what I seek to do in this paper.

I begin by showing that the real subject combination problem is the question of whether such composite subjects are possible in the first place (§1), followed by an examination of Miller's response to Siddharth (§2) where I argue that Siddharth's critique of the PB solution is correct. I then evaluate other attempts at addressing the mereological problem, and show that contra Miller's claim, they do not show that composite subjects are possible; given this, the phenomenal bonding solution (and other similar proposals) are either trivial, or guilty of begging the questions. I conclude by rearticulating the subject combination problem facing panpsychism in light of these discussions.

## 1. Clarifying the subject combination problem

Let us begin with William James' influential articulation of the problem. It is worth repeating his oft-quoted passage here:

Take a hundred of them [feelings], shuffle them and pack them as close together as you can (whatever that may mean); still each remains the same feeling it always was, shut in its own skin, windowless, ignorant of what the other feelings are and mean. There would be a hundred-and-first feeling there, if, when a group or series of such feelings were set up, a consciousness belonging to the group as such should emerge. And this 101st feeling would be a totally new fact; the 100 original feelings might, by a curious physical law, be a signal for its creation, when they came together; but they would have no substantial identity with it, nor it with them, and one could never deduce the one from the others, or (in any intelligible sense) say that they evolved it. (James 1890, 160)

Here, James describes a “feeling” as “shut in its own skin, windowless”. A little later, he refers to feelings as the “most absolute breaches in nature” (James 1890, 226). This aspect of subjects has been cashed out and understood in various ways. As Siddharth (2021) notes, it intuitively seems that subjects are ontological unities, entities that are “fundamentally unified, utterly indivisible” (Strawson 2009, 378). Further, subjects seem to be such that a token experiential quality experienced by one subject cannot be experienced by another subject. Let us call these two aspects of a subject its ontological *unity* and *privacy*:

*Ontological Unity*: Subjects of experience are ontological unities, such that the unity/singleness is not just a matter of convention or abstraction.

*Ontological Privacy*: Subjects of experience are such that the token phenomenal quality experienced by one subject is not available to be experienced by another subject.

What justifies the conception of subjects as ontologically unified and private? I do not think there is a rigorous defence to be offered; nevertheless, I still think that these are intuitions that a panpsychist cannot reject.

To explain human consciousness—subjectivity and experientiality—panpsychists contend that consciousness ought to be present at the

fundamental, micro level. Given that the only subjects that humans have access to are their own, panpsychists (and others) take human subjectivity to be the paradigm of subjectivity *simpliciter*. However, as James pointed out and we just saw, human subjects *seem* to be characterised by ontological unity and privacy. That there is such a *seeming* is agreed upon by everybody.<sup>4</sup> Even proponents of subject composition do not deny that subjects seem to be ontologically unified and private, but only that the *seeming* is an accurate indicator of how subjects really are.

Given that human subjectivity is the only kind of subjectivity we have direct epistemic access to, intuitions that we form based on what we know about human subjects ought to hold primacy over other metaphysical intuitions and possibilities we may entertain, insofar as these other intuitions and possibilities apply to subjects (human or otherwise). This is not to say that unity-privacy intuitions cannot be rejected, but that the burden of proof is on those who want to reject them and conceive of subjects in ways that violate these intuitions. Let us call this the *epistemic primacy of human subjectivity* principle:

*Epistemic Primacy of Human Subjectivity (EPHS):* In discussions about the metaphysics of subjects-of-any-sort, intuitions that are based on how human subjects seem to be hold primacy over other metaphysical intuitions and possibilities that are incompatible with these intuitions, unless we have a positive conception of subjects that violate these intuitions.

In summary, the ontological unity-privacy intuitions form the bedrock of our conception of human subjects. This is the background against which the possibility of composition of subjects is rejected by James and others.

## 1.1 The general and the special questions

One can ask two kinds of questions about composition/combination of any entities, including subjects. First is the modal question, of whether composite subjects are possible at all. Following van Inwagen (1990),<sup>5</sup> let us refer to this as the *general* question.

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<sup>4</sup> For example, Barnett (2010, 161) takes the intuition, “Pairs of people themselves are incapable of experience” to be obvious and accepted by all almost everyone, including functionalists such as Putnam (1967); and further argues that the best explanation of this datum is that persons are simples. Barnett (2008) further demonstrates how this intuition elucidates various other intuitions in the philosophy of mind, offering a cohesive explanatory framework.

<sup>5</sup> Van Inwagen (1990) articulated the *general* and *special* questions of composition *simpliciter*, and not specifically of subjects.

*General subject composition question (GSCQ):* What is a composite subject?

Only if one is able to answer the GSCQ in a non-circular manner—i.e. without assuming that something such as parts and wholes exist<sup>6</sup>—can it be claimed that composite subjects are possible.

If one assumes that composite subjects are possible, one can ask a further question: how should the parts be related such that they compose a subject? What are the mechanisms through which subject composition occurs? Let us refer to this as the special question.<sup>7</sup>

*Special subject composition question (SSCQ):* If composite subjects are possible, how should micro-subjects be related so that they form a composite subject?

While one can give various answers to the SSCQ, these answers would be relevant only if subject composition is possible in the first place i.e. if we are able to define a composite subject in a non-circular manner. In this regard, the general question is more foundational than the special question.

With this distinction in place, one can ask what needs to be done to show that subject composition is possible. One needs to provide a satisfactory answer to the GSCQ, of course. How would such a response look, though? To reject the unity-privacy intuitions, it is not enough that we identify these intuitions as the basis of the problem and simply reject them. We need to take into account EPHS and show how it is possible for subjects to compose despite what we know of human subjectivity. Neither would it suffice to describe subject composition in structural terms, as the question is not one of how subjects ought to be structured for composition to occur *if* composition is possible; but what composition *is*, and whether it is possible in the first place. A structural response would be acceptable only if the proposed structural arrangement makes it transparent to us how a subject can be understood as a composite, despite the unity-privacy intuition.

I cannot think of an adequate response to the GSCQ, and this underpins my belief that subject composition is not possible. James too can be

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<sup>6</sup> Per van Inwagen, a response to the General Composition Question is “to find a sentence containing no mereological terms that was necessarily extensionally equivalent to ‘the *x*s compose *y*’” (1990, 39)

<sup>7</sup> Vaidya (2022) refers to the general and special questions pertaining to subject de-combination—the question of how a ‘big’ subject can contain within it ‘smaller’ subjects—as the *modal* and *mechanical* aspects of the problem respectively.

understood as claiming that there is no non-circular, coherent answer to the GSCQ, and on this basis claiming that subject combination is not possible.

It is worth noting that van Inwagen (1990) himself opined that there is no satisfactory definition of composition *simpliciter* that does not refer to mereological terms such as ‘whole’, ‘part’ or ‘compose’, and hence that there is no non-trivial answer to the general composition question.<sup>8</sup> The idea of composition itself, thus, is problematic. I briefly take this up again in § 3.1.2.

## 1.2 Goff

Consider Goff’s (2016) version of the subject combination problem, the *no-summing-of-subjects-argument* (NSS):

1. Conceptual Isolation of Subjects: For any group of subjects, instantiating certain conscious states, it is conceivable that just those subjects with those conscious states exist in the absence of any further subject.
2. Transparency Conceivability Principle: For any proposition P, if (A) P involves only quantifiers, connectives, and predicates expressing transparent concepts, and (B) P is conceivably true upon ideal reflection, then P is meta-physically possibly true.
3. Phenomenal Transparency: Phenomenal concepts are transparent.
4. Metaphysical Isolation of Subjects: For any group of subjects, instantiating certain conscious states, it is possible that just those subjects with those states exist in the absence of any further subject (from 1, 2, and 3).
5. For any group of subjects, those subjects with those conscious states cannot account for the existence of a further subject (from 4).
6. Therefore, panpsychism is false (from 5). (Goff 2016, 291-2)

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<sup>8</sup> Why does a response to the special composition question not suffice as a response to the general question? Van Inwagen argues for this by showing how from two sentence of the following sort: a). “(There is a y such that the xs bear F to y) if and only if the xs are G” and b. “There is at most one y such that the xs bear F to y”, one cannot deduce a sentence of the form “The xs bear F to y if and only if  $\Phi$ ” unless  $\Phi$  contains both ‘F’ and the free variable ‘y’” (van Inwagen 1990, 39–40).

Here, Goff partially echoes James when he says (in premise 4) that subjects are metaphysically isolated, that it is possible that  $n$  subjects exist without further  $n+1^{\text{th}}$  subject existing. In contrast, Chalmers, in his *subject-summing-argument*, assumes the stronger premise that “It is *never* the case that the existence of a number of subjects with certain experiences necessitates the existence of a distinct subject” (2016, 86, emphasis added). Goff’s premise 4 is weaker as it does not rule out the possibility that the  $n+1^{\text{th}}$  could exist as a further, contingent fact of reality. Chalmers’ premise, on the other hand, excludes such a possibility. Goff himself, in his (2009) seems to adopt the stronger position, saying,

The existence of a group of subjects of experience,  $S_1 \dots S_N$ , instantiating certain phenomenal characters, *never necessitates* the existence of a subject of experience  $T$ , such that what it is like to be  $T$  is different from what it is like to be any of  $S_1 \dots S_N$ . (Goff 2009, 130, emphasis added).

However, he adopts the weaker premise in his (2016), and on this basis, concludes *only* that a group of subjects *cannot* account for the existence of a further subject (in premise 5).

What is the basis of Goff’s move from premise 5 to 6, though? Why does *Metaphysical Isolation of Subjects* (MIS) entail the falsity of constitutive panpsychism? Such an entailment will work only if MIS entails that further subjects are not possible. If this weren’t the case, MIS holds no demons—if a composite subject were possible, and if the problem were merely that we do not know the relations between subjects that lead to composition, there would be no reason to think that MIS entails the falsity of constitutive panpsychism. In other words, NSS works only if it is interpreted as arguing that we have no satisfactory response to the GSCQ (and not merely that we do not have a response to the SSCQ).

Goff seems to acknowledge that NSS is about the coherence, and hence the possibility, of composite subjects when he says, “When metaphysical possibility is so radically divorced from conceptual coherence (...) I start to lose my grip on what metaphysical possibility is supposed to be” (2016, 290). Here, he clearly recognises that it is the coherence of subject-summing (and hence the possibility) of subject-summing that is in question. This recognition is further evidenced in the line of response he adopts—he precisely questions the move from premise 4 to 5, asking why one should assume that the conceivability of  $n$  subjects existing by themselves without an  $n+1^{\text{th}}$  subject entails that the  $n+1^{\text{th}}$  is impossible. In other words, he claims that:

WeakP: It is conceivable that  $n$  subjects exist without necessitating an  $n+1^{\text{th}}$  subject

Does not entail:

StrongP: An  $n+1^{\text{th}}$  subject is impossible.

However, he also recognises that only StrongP entails the falsity of panpsychism, not WeakP. Given this, he simply assumes that composite subjects are possible, thus side-stepping the GSCQ and answering only the SSCQ. Goff seems to justify this move by noting that since panpsychism is otherwise theoretically desirable and hence likely true, composition of subjects *has* to be possible. This now leaves him in a position where he is “pre-theoretically committed to composite objects of some sort” (Goff 2016, 299).

Given that Goff motivates the NSS through James’ articulation of the combination problem, simply claiming that WeakP does not entail StrongP and responding only to the SSCQ is too easy a move. It does not address the intuitions underlying James’ articulation—unity and privacy of subjects—but simply dismisses them. If such a move were acceptable, the question of subject combination would not be a ‘hard’ problem in the first place.

### 1.3 Summary

From this discussion, we can take away two key insights regarding the context of the subject combination problem (including the NSS):

- a. Given its Jamesian origin, the NSS is a ‘hard’ problem for panpsychists only if it is interpreted as arguing that composite subjects are impossible, and not just that we do not know the mechanisms of such composition. In other words, the relevant question posed by the subject combination problem (and NSS) is the GSCQ, not the SSCQ.
- b. Any response to the GSCQ will have to take into account the unity and privacy intuitions; given EPHS, rejection of these intuitions requires us to show how subjects, as known through human subjectivity, can be non-unified-private.

## 2. Miller's response to Siddharth

With this background, I now consider Miller's (2022) responses to Siddharth's (2021) rejection of the phenomenal bonding solution.

### 2.1 Unsubstantiated intuitions

Miller (2022) points out that Siddharth's (2021) critique is based on the unity-privacy intuitions, for which Siddharth gives no justification. Miller is correct in claiming this, for Siddharth indeed does not justify these intuitions, but only notes that they underlie the subject combination problem (including the NSS). However, as noted in § 1.1, the unity-privacy intuitions are based on how human subjects—the only subjects we have direct epistemic access to—seem to be for us. James too recognises this. In light of the Jamesian origins of the subject combination problem(s) including NSS, and EPHS, it is the rejection of the unity and privacy intuitions that requires justification. The burden of proof, thus, is on the proponents of the PB solution. In the absence of such justification, Siddharth's contention that the proponents of the PB solution beg the question is correct.

### 2.2 The strawman fallacy

Miller (2022) contends that the proponents of the PB solution were not addressing the mereological question of the possibility of composite subjects, but only the question of whether the existence of  $n$  subjects can necessitate a further subject (which he identifies with the NSS).

Miller is partly correct in that the NSS, as articulated by Goff (2016), reduces the question of possibility to the question of mechanism of composition (i.e. GSCQ to SSCQ). However, as shown in section § 1.2, this is not an acceptable move; Goff (2016) himself seems to recognise that James' articulation of the subject combination problem is the question of the possibility of composite subjects (i.e. the GSCQ), and that only this question was a problem for panpsychists. It was this acknowledgment that grounded Goff's response that WeakP does not entail StrongP. However, given the Jamesian origin of the subject combination problem, Goff's response is inadequate. It is either a trivial response as it does not address the elephant in the room (the alleged impossibility of subject composition) or begs the question against the real question of subject composition.

Given this, Miller's claim that "[t]he subject summing argument is not about the incoherence of composite subjects" but "the lack of a transparent, *a priori* explanatory relationship between the fundamental level conscious

facts, and the non-fundamental conscious facts” (2022, 10) does not hold water. Rather, in construing the NSS as an objection that is concerned merely with the relationship between the micro and macro conscious facts (i.e. the SSCQ) and not the question of the incoherence of composite subjects, it is Miller (and Goff 2016) who are guilty of the strawman fallacy.

My response here would be irrelevant if, as Miller (2022) claims, others (Roelofs 2019; Goff and Roelofs forthcoming; Miller 2018b) have already addressed the question of whether composite subjects are possible. I examine these views in §3, and show that contrary to what Miller claims, they do not establish the possibility of composite subjects.

### 2.3 Analogical extension

Siddharth (2021) had objected to Miller’s (2017) proposal that the co-consciousness relation could fulfil the role of the PB relation by pointing out that co-consciousness holds between qualities and not subjects; whereas, Miller (2017) had prescribed that for a relation to be the PB relation “it must hold between subjects qua subjects of experience” (Miller 2017, 542, 546). In response, Miller (2022) clarified that this prescription requires only that subjects should be related, directly or indirectly, by the PB relation, and not that subjects qua subjects must be the relata of the PB relation. Since the qualities related by the co-consciousness relation are the qualities of the respective subjects, Miller contends that co-consciousness relation indirectly relates the subjects.

Miller’s clarification entails that it is enough if the PB relation holds between subjects qua experiential qualities, and not subjects qua subjects of experience as he had originally stipulated. This change aside, would a relation that holds between subjects indirectly, by relating their qualities, suffice to form a positive conception of the PB relation? The co-consciousness relation, by relating qualities, serves to phenomenally unify them for the subject experiencing these qualities. That is, it results in the phenomenology of unity—of experiencing the two qualities together—in the subject. All examples of co-consciousness that we are aware of are between qualities experienced by the same subject. In claiming that this relation (which we know of as only holding between intra-subject qualities), in addition to unifying the phenomenal qualities can also unify subjects *qua* subjects, Miller is conflating quality combination for subject combination—unless he also believes that qualitative unity metaphysically necessitates, i.e. brings about, the ontological unity of subjects. Such a necessitation, though, must be argued for. After all, if qualitative unity alone could bring about (and suffices as an explanation for) the unity of

subjects, subject-summing would not have been a problem in the first place and would follow merely from the fact that human subjects experience unified phenomenology.

Further, Miller offers introspection as a means of accessing inter-subject co-consciousness, saying:

Non-fundamental subjects, like humans and non-human animals, are composites with large proper parts that are also subjects. These proper parts undergo a subset of the experiences of the whole. Because of this, when a human subject introspects, it is thereby introspecting inter-subjective relations, viz. the relations that hold between the subjects that compose it. (Miller 2022, 14)

His claim that we can access inter-subject co-consciousness relation through introspection would be true only if a). subject composition is possible in the first place, and b). the token qualities related by co-consciousness in a human subject's experiences are also token qualities experienced by different micro-subjects. *If* these two are assumed to be true, co-consciousness could be considered for the PB role, as part of a response to the SSCQ (even then, the entailment identified in the previous paragraph will have to be justified). However, as noted in §1, the real question about subject composition is not the SSCQ but the GSCQ. The hypothesis that co-consciousness can serve the PB role does nothing to address the GSCQ, but simply assumes that composite subjects are possible (as Miller himself admits).

In summary, we see that all three of Miller's (2022) responses to Siddharth's (2021) critique of the PB solution fail to address the real issue. I now turn to see if the mereological question has been addressed elsewhere.

### **3. Responses to the mereological problem: Miller, Goff, and Roelofs**

Miller (2022) claims that the mereological problem—the question of whether subject composition is possible—has been addressed by Miller (2018b), Roelofs (2019), and Goff and Roelofs (forthcoming), thus paving the way for his positive conception of the PB relation. I take up each of these studies to examine if Miller's claim is correct.

### 3.1 Goff and Roelofs

Goff and Roelofs seek to defend the following thesis:

**Weak Sharing (WS):** A single experience may belong to multiple distinct subjects. (Goff and Roelofs forthcoming, 2)

They state explicitly what they mean by ‘defend’, saying:

*[w]hile we cannot positively establish the possibility or actuality of mental sharing, we hope to show that philosophers who have independent reasons to postulate it in particular cases need not hold back from doing so”. (Goff and Roelofs forthcoming, 1, emphasis added)*

Here, by definition, ‘distinct’ subjects are non-identical subjects that *overlap* (the ones that do not overlap are referred to as ‘discrete’). On such an understanding, a defence of WS is a defence of the view that *if* subjects *can* overlap, a single token experience could belong to overlapping subjects.

We thus see that in defending WS, Goff and Roelofs do not want to show that overlap of subjects (and hence their composition) is possible, but only that if overlap/composition of subjects were possible then sharing of phenomenal content is also possible.<sup>9</sup> That is, they do not seek to answer the GSCQ, but only the SSCQ.

That the question they seek to answer is the SSCQ is reiterated, explicitly or implicitly, multiple times in the course of their argument. They identify five arguments against phenomenal sharing and respond to these. In their responses, it is clear that they assume the possibility of overlapping subjects, and then go on to show that these arguments do not work. For example, their response to the *Privacy argument*—wherein critics note that experiences are accessible only by, and hence ‘private’ to their subjects—is to claim that privacy holds true only for discrete subjects, and not distinct subjects. This follows from the definition that distinct subjects are those that do not overlap; however, the very possibility of discrete subjects is not established. In effect, they have simply kept aside the intuition that subjects are always ontologically private, and instead adopted a weaker intuition.

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<sup>9</sup> Consider another statement where Goff and Roelofs explicitly state this: “So our aim is to defend the principle of Weak Sharing: *to the extent that two subjects overlap*—one containing the other as a proper part, or both sharing a single proper part—they may share particular experiences” (forthcoming, 3, emphasis added).

As another example, consider their application of WS to panpsychism. One of the panpsychist ontologies that they think WS allows for is what they call *hybrid panpsychism*, which consists of the following two theses:

- Step 1 – It is a basic law of nature that when micro-level subjects,  $M_1, M_2 \dots M_n$ , stand in certain physical relations to another, the resulting state of affairs causes a fundamental subject  $S$  to emerge, such that: (i)  $S$  is composed of all and only  $M_1, M_2 \dots M_n$ , and (ii)  $S$  shares all and only the phenomenal properties of  $M_1, M_2 \dots M_n$ . Call such a subject a ‘basic macro-level subject’.
- Step 2 – It is a basic law of nature that when a basic macro-level subject emerges, it causes numerous other co-located subjects to emerge, such that the phenomenal properties of those subjects are grounded by subsumption in the phenomenal properties of the basic macro-level subject. (Obviously both principles leave out a lot of detail that would need to be filled in on the basis of empirical investigation). (Goff and Roelofs forthcoming, 24)

Here, they do not show that the composition of  $M_1, M_2 \dots M_n$  into  $S$  is possible—they simply posit that such composition is enabled by a basic law of nature. Similarly, they do not show how it is possible for a macro-level subject to be co-located with numerous other subjects, but simply state that this is enabled by a basic law of nature.

This view is similar to the one that James considers at the end of his oft-quoted passage (see §1), and is hence open to the question he poses: what makes it the case that  $S$  is composed of  $M_1, M_2 \dots M_n$ , and not a wholly distinct subject? Further, what makes it the case that the macro-level subject and other subjects that emerge (in step 2) are co-located? Even more pertinently, can a fundamental law of nature bring about something that is incoherent and unintelligible in the first place? As noted by Siddharth (2021), such a move can be used to justify any incoherent and unintelligible relation in a brute manner.

The point, as shown in §1, is the following: given EPHS, the ontological unity and privacy theses will have to be refuted, and not merely set-aside as a matter of definition as Goff and Roelofs have done. Failing this, the very notion of composite/overlapping/co-located subjects remains incoherent and unintelligible; and any attempt to show that subjects can compose, or experiences can be shared would end up begging the question.

### 3.1.1. Mereological nihilism

It is noteworthy that Goff and Roelofs (forthcoming) often allude to composition of physical entities to make the case for phenomenal sharing. The assumption here is that the composition of physical entities is not a problematic notion. James himself would have disagreed—he denied the possibility of physical composition. He contended that physical entities that we take to be composites—chairs, rocks, molecules, etc.—are composites only in relation to other entities, saying:

All the ‘combinations’ which we actually know are EFFECTS, wrought by the units said to be ‘combined’, UPON SOME ENTITY OTHER THAN THEMSELVES. Without this feature of a medium or vehicle, the notion of combination has no sense. (James 1890, 97, original emphasis)

Per James, a chair is a composite entity only to the extent that they appear as unified entities to humans. One can extend this and say that for our purposes, including our scientific practise, it makes sense to think of the chair as a single, unified, composite entity. However, to a creature that has a much, much stronger visual resolution than ours, paradigmatic solid entities (rocks, chairs, etc.) that appear to us as unified entities might appear merely as collections of multiple entities arranged in a relatively stable structure. The alleged composition of these simples, thus, is only in relation to our cognitive setup and interests.

Van Inwagen (1990), whose distinction between the general and special composition questions I earlier outlined, refers to such a view as *mereological nihilism*. He also claims that there is no non-circular response to the general composition question, which partly motivates his favourable evaluation of mereological nihilism.<sup>10</sup> He suggests ways in which everyday facts can be rearticulated in a nihilist-friendly language. For example, the statement ‘There is a chair five metres away’ ought to be understood as, ‘There are simples arranged *chairwise* five metres away’. Such articulation helps us reframe truth conditions for the veracity of everyday facts, and partly alleviate the counter-intuitiveness of the view. Further, it has been shown by Brenner (2018) that composites posited in scientific theories are not indispensable and can be replaced by nihilist-friendly variations of these theories. Often, scientists do not even consider alternate articulations

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<sup>10</sup> Van Inwagen, however, does not embrace full mereological nihilism; he makes an exception, claiming composition occurs only when simples are arranged to constitute a living organism. Similarly, Merricks (2001) argues that simples compose only when they form a subject of experience, and never otherwise.

of their theories that do not posit composites, mostly as a matter of habit and convenience.

I note all these not to make a case for mereological nihilism,<sup>11</sup> but to show that the very possibility and coherence of physical composition are questionable, and not something that can be taken for granted. Given this, alluding to physical composition in support of subject composition, as Goff and Roelofs do, does little to make subject composition more acceptable.

### 3.2 Roelofs

Roelofs' (2019) response to critics of subject composition is similar to Goff and Roelofs' (forthcoming). He identifies the intuitions of unity (which he calls *independence*) and privacy as the basis of the subject combination problem; in response, he argues that we could adopt the weaker versions of these intuitions, that subjects are independent and private *except in the case of overlapping subjects*. Roelofs characterises experiential overlap in terms of the following two theses:

Experience Inheritance (EI): Whenever a part of aggregate  $x$  undergoes an experience (instantiates an experiential property),  $x$  undergoes that same experience. (Roelofs 2019, 79)

Micro-Unity Hypothesis (MUH): The inner nature of one, some, or all of the fundamental physical relations is phenomenal unity; when two microsubjects are related in the relevant way, their experiences become unified, establishing a composite experience that subsumes them. (Roelofs 2019, 80)

These two theses tell us that *if* composite subjects exist, they derive their experiential content from the experiential content of its parts, and that microsubjects are related by some fundamental physical relation. However, by themselves, EI and MUH do not answer the question of what a composite subject *is* or whether composite/overlapping subjects are possible in the first place. In short, EI and MUH address the SSCQ, not the GSCQ.

It is noteworthy that Roelofs' account of composite subjectivity is based on a deflationary view of composition. He articulates this in terms of the following thesis:

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<sup>11</sup> It has often been noted that the biggest challenge facing mereological nihilism is in accommodating human consciousness (van Inwagen 1990; Merricks 2001; Markosian 2008). Panpsychism, by positing consciousness at the fundamental level, makes it easier to accept mereological nihilism. See Kadić (2024), Siddharth and Bhojraj (forthcoming) for a defence of mereological-nihilist-panpsychism.

*Substantive Indiscernibility of Parts and Aggregate* (SI): For every property had by some part of an aggregate, that aggregate has a corresponding property, and for every property had by an aggregate, one or more of its parts have (individually or collectively) a corresponding property. (Roelofs 2019, 84)

Such a view has also been called *Composition as Identity* (CAI) by others. David Lewis (1991) characterises it as follows:

I say that composition—the relation of part to whole, or, better, the many-one relation of many parts to their fusion—is like identity. The ‘are’ of composition is, so to speak, the plural form of the ‘is’ of identity. Call this the Thesis of Composition as Identity. (Lewis 1991, 82)

According to Lewis, the composite is not a substantial ontological addition to the world; and descriptions of the same region of the world in terms of parts or wholes are just different ways of describing the same reality. In other words, composition is *ontologically innocent*:

Mereology is ontologically innocent. To be sure, if we accept mereology, we are committed to the existence of all manner of mereological fusions. But given a prior commitment to cats, say, a commitment to cat-fusions is not a further commitment. The fusion is nothing over and above the cats that compose it. It just is them. They just are it. Take them together or take them separately, the cats are the same portion of Reality either way. Commit yourself to their existence all together or one at a time, it’s the same commitment either way. If you draw up an inventory of Reality according to your scheme of things, it would be double counting to list the cats and then also list their fusion. In general, if you are already committed to some things, you incur no further commitment when you affirm the existence of their fusion. The new commitment is redundant, given the old one. (Lewis 1991, 81-2)

On the basis of such a deflationary view of composition, Roelofs (2019) contends that composite subject are just structured arrangements of microsubjects. On this view, the existence of a human subject follows *a priori* from the existence of microsubjects that are arranged *humanwise*. EI thus becomes an *a priori* truth about composite experiences (see Roelofs 2019, 107–8).

The problem with CAI is that it is not clear whether it is any different from mereological nihilism. If CAI is ontologically innocent, in what way is the composite a ‘real’ entity, and not a mere epistemic posit? No doubt the epistemic posit holds special significance for humans; nevertheless, as James contended, such a posit is relational—in relation to us, humans. Rather than entailing mereological universalism (as Lewis contends), ontologically innocent CAI seems to entail mereological nihilism.<sup>12</sup> Importantly, if CAI entails mereological nihilism, and composites are ontologically innocent epistemological posits, EI cannot follow as an *a priori* truth about composite experiences, for there exist no composites in the first place.

We thus see that Roelofs fails to show that composite subjects are possible. He does not refute the unity-privacy intuitions, but simply adopts weaker versions of these intuitions. As noted earlier, the point of the subject combination problem (and the NSS) is that, given EPHS, the unity-privacy theses must be refuted and not merely set aside; any theory of subject composition that fails to address this issue is either trivial or guilty of begging the question. Further, the notion of composition that underlies Roelofs’ proposal—the composition as identity view—threatens to reduce composition to an epistemological notion, and hence fails to illuminate whether composite subjects are metaphysically possible.

### 3.3 Miller

In his comprehensive study defending constitutive panpsychism, Miller (2018b) considers and responds to various versions of the combination problem, of which two are relevant to our purpose here: a). response to Coleman’s (2014) claim that subjects are perspectival, which by definition excludes other perspectives, and b). response to Barnett’s (2010) contention that persons (and subjects) are simples.

Miller identifies Coleman as claiming that 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” (2018b, 120). What might ground Coleman’s claim that a perspective is exclusory this way? Miller again considers various options, one of which is that Coleman assumes a “two-level account” of consciousness, according to which perspectives have “pure awareness” which “is an exclusory structural feature” (2018b, 126). The details of the two-level account of consciousness are not relevant for our purpose here; what is relevant is Miller’s response to the possibility that exclusion is a structural feature of pure awareness. Consider Miller’s characterisation of

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<sup>12</sup> See Calosi (2016) for a more rigorous argument for the claim that CAI entails mereological nihilism.

such a structural feature, and his reasons why it does not rule out subject composition:

On (2) [the view that exclusion is a structural feature] 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 an 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? 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?

If (2) does not offer an (partially) illuminating explanation of exclusion, then I will take it that (2) is not responsible for exclusion. (Miller 2018b, 127-8)

This passage is illuminating, for it gets to the heart of my disagreement with Miller (and perhaps the other constitutive panpsychists). Miller is correct in his characterisation of the structural feature—subjects *qua* subjects (or pure awareness), as we intuitively understand them, are such that they exclude other subjects, thus ruling out any overlap between them. This is what I understand James as saying when he calls them the “most absolute breaches in nature”. Everyone, including the constitutive panpsychists, seems to agree that subjects at least seem to be this way for us. Whether there is a further justification for this or not is a further question. Miller here then goes on to say that in the absence of such further justification—as response to the question of “What is it about the awareness itself that grounds and explains why a subject's perspective is exclusory?”—he thinks the intuition can be ignored. I, on the other hand and as noted in § 1, think that this intuition cannot be ignored. Rather, it has primacy over any other metaphysical intuition or possibility we may entertain, unless we have an independent, positive conception of a composite subject that violates these intuitions. Given the near-universal acknowledgement (even if not acceptance) of the unity-privacy intuition,

and with no basis to overturn it, I do not believe that simply setting it aside is acceptable.

Miller (2018b) makes a similar move in his response to Barnett (2010), who argues that the simplicity of subjects of experience is the best explanation of the datum that it is impossible for any pair of people to be conscious. Miller responds by claiming that the simplicity of subjects is not the best explanation of the datum, and that the datum could be better explained if we accepted that: a). a pair of people do not bear the right sort of relations, such as the phenomenal bonding relation or some other physical relation *qua* their ‘deep’, intrinsic nature; and a pair of subjects that does bear such relations could be conscious, and b). human beings are conscious composites.

In § 2, and the preceding sub-sections of this section, we have seen that phenomenal bonding, and other relations fail to provide a positive conception of composite subjects. For this reason, option a). of Miller’s response is a non-starter. More interesting is Miller’s response to Barnett ruling out the possibility that humans are conscious composites. Miller accuses Barnett of assuming the following without justification:

**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. (Miller 2018b, 162)

And sets it aside, saying:

How then can we respond? (...) [W]e 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 is neither demonstrated or (sic) justified. (Miller 2018b, 162)

Similar to his response to Coleman (2014), Miller claims that the intuition that subjects cannot compose need not be accepted without further justification. I disagree. Given the failure of the PB and other proposed solutions, the unity-privacy intuition, and EPHS, the incoherence and impossibility of composite subjects ought to be accepted. The burden of proof is thus on those who want to claim that composite subjects are possible. In the absence of such proof, they end up begging the question.

### 3.4 Summary

In his response to Siddharth's (2021) critique of the PB solution, Miller (2022) claimed that the PB solution was not intended to show that composite subjects are possible, and that this possibility had been established by others (Miller 2018b; Roelofs 2019; Goff and Roelofs forthcoming). In this section, I have shown that these studies fail to show that composite subjects are possible. In such a scenario, the PB solution is either trivial, or guilty of begging the question against the real subject combination problem.

## 4. Rearticulating the subject combination problem

Based on the discussions in the previous sections, I propose that the subject combination problem facing panpsychism ought to be understood as the following argument:

- I. *Ontological Unity-Privacy Intuition*: It seems to us that human subjects of experience, in their very being, are ontological unities such that their experiential content cannot be shared with another subject.
- II. *Epistemic Primacy of Human Subjectivity (EPHS)*: In discussions about the metaphysics of subjects-of-any-sort, intuitions that are based on how human subjects *seem* to hold primacy over other metaphysical intuitions and possibilities that are incompatible with these intuitions, unless we have a positive conception of subjects that violate these intuitions.
- III. We have no transparent conception of a subject that is not ontologically unified and private.

From I, II and III,

- IV. Subjects-of-any-sort (or just 'subjects') are ontologically unified and private.

Further,

- V. *Composite Subject*: A composite subject is such that its subjectivity and experiential qualities are constituted by the microsubjects that compose them.

From IV and V

VI. Composite subjects are impossible, or it can never be the case that subjects compose.

Any response to the question of subject combination will have to address this argument i.e. reject at least one of I, II, III or V. Premise I seems to be acceptable to constitutive panpsychists. Premise V too is straightforward and follows from our intuitive (and circular) definition of composition. Some constitutive panpsychists (Goff 2016; Roelofs 2019; Goff and Roelofs forthcoming) can be understood as rejecting EPHS (premise II), and hence IV and VI. My response to their views in the earlier sections has been that they do not offer any justification for their rejection of EPHS; hence, their responses are either trivial (for it does not address the real issue), or guilty of begging the question. Miller (2017, 2022) can be understood as rejecting III and claiming that the co-consciousness relation fulfils the PB role, and on this basis forming a transparent conception of a subject that violates the unity-privacy intuition. My response here has been that contrary to what Miller claims, we cannot form a positive conception of an inter-subject co-consciousness relation without begging the question.

It seems to me that ultimately, one's position in this debate depends on what one thinks of the unity-privacy intuitions. Miller (2018b) is correct in noting that those who appeal to these intuitions do not say much to illuminate them. To the extent that my denial of subject composition is based on unsubstantiated intuitions, my response is also open to accusations of begging the question.

Nevertheless, I think the deniers of subject composition are on firmer ground. The unity-privacy intuitions are based on what we seem to know of the only kind of subjects we have direct access to—human subjects—and hence have priority over mere abstract possibilities. Any attempts to deny these intuitions and EPHS is faced with the question: on what basis? To me, it is not clear if entities that violate unity-privacy can even be called 'subjects'—such entities would be no different from the mysterious 'proto-phenomenal', 'neutral' quiddities<sup>13</sup> and non-subjective experiential qualities<sup>14</sup> that some Russellian monists posit. One could of course take the Kantian route and contend that our unity-privacy intuitions do not tell us anything about how subjects really are (Kant 1781/1998, A351-54). This would be acceptable if one were to claim that knowledge of the real nature of subjects are beyond our reach, not when one wants to defend the possibility of real composite subjects.

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<sup>13</sup> See Chalmers (2016a) for more on protophenomenal properties.

<sup>14</sup> See Coleman (2012).

For these reasons, if one is a realist about our knowledge of subjects (and experiences), one ought to accept that composite subjects are not possible, however attractive panpsychism is independent of the subject combination problem.

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