

## A REPLY TO S SIDDHARTH'S 'AGAINST PHENOMENAL BONDING'

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#### **ABSTRACT**

In this journal S Siddharth has recently argued that the phenomenal bonding response to the subject summing argument for panpsychism is question begging, therefore we should reject constitutive forms of panpsychism. The argument specifically focuses on the proposals of Goff and Miller. In this reply, I show that the argument is unsound.

**Keywords**: panpsychism; combination problem; phenomenal bonding; subject summing; combinationism; S Siddharth.

#### Introduction

Philip Goff (2016; 2009a) has proposed a form of panpsychism called 'phenomenal bonding panpsychism':

**Phenomenal bonding panpsychism:** non-fundamental consciousness is constituted by fundamental microconsciousnesses and the phenomenal bonding relation that holds between them.

This view is supposed to avoid the subject-summing problem for panpsychism, which can be clearly stated in the following way: the existence of a group of n subjects does not give rise to a further, n+1 subject. The phenomenal bonding strategy is to admit that the mere existence of n subjects does not give rise to further subjects but suggest that the existence of those subjects and the *appropriate relations between* them may do. The appropriate relation that would bundle a group of micro-

subjects into a larger subject is the *phenomenal bonding relation*, hereafter the PB relation.<sup>1</sup>

According to phenomenal bonding panpsychism, animal subjects are composite subjects. They are subjects of experience that have proper parts, as an animal or a brain does, but, importantly, their proper parts are also subjects of experience. For example, according to the phenomenal bonding panpsychist, human animals are conscious subjects, their micro-level parts are conscious subjects, and so too are large undetached proper parts of their brains.

In addition to this, animal subjects share overlapping sets of experiences with their proper parts. In other words, according to the phenomenal bonding panpsychist, if you had some set of experiences {e1, e2, e3 ... e100}, then your proper parts also have subsets of those same token experiences (or the experiences which constitute them). Phenomenal bonding panpsychism is, therefore, a form of what Roelofs (2019) has called *combinationism*—the view that non-fundamental consciousness is grounded in, and explained by, combinations of fundamental consciousnesses and the real relations between them (Roelofs 2019, 6).

Whilst Goff holds that we must be mysterians about the PB relation and settle for a concept of phenomenal bonding that is merely role-playing, Gregory Miller (2017) has offered an improvement. Miller argues that we can have a positive not-merely-role-playing concept of the PB relation, i.e., a conception of the relation *over and above* the role it plays within the panpsychist theory. The positive conception that Miller proposes is the *co-consciousness* relation, i.e., the phenomenal unity relation in virtue of which sets of experiences have a conjoint phenomenology (Dainton 2000; Lockwood 1989).

In a recent article in this journal S Siddharth has argued against phenomenal bonding panpsychism. His argument is that Goff's version of phenomenal bonding panpsychism is question begging without a positive conception of the PB relation, i.e., without Miller's proposal, and that Miller's proposal fails.

Let's call his argument the *Begging the Question Argument*, and formalise it in the following way:

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<sup>&</sup>lt;sup>1</sup> Goff suggests that the PB relation should be the 'dual aspect' of some physical relation.

#### The Begging the Question Argument

- (1) If phenomenal bonding panpsychism is to be a nonquestion begging solution to the subject summing argument, then it requires a positive not-merely-roleplaying conception of the phenomenal bonding relation.
- (2) We cannot form a positive not-merely-role-playing conception of the phenomenal bonding relation.
- (3) Hence, phenomenal bonding panpsychism is a question begging response to the subject summing argument.

This argument is clearly valid, so the only way to respond is by questioning its two premises. Fortunately, both (1) and (2) are unjustified or false.

Below I will explain why this is the case. But we must first note two essential but unjustified assumptions underlying Siddharth's argument.

#### Two Assumptions: Not Shared and Not Justified

Let us clearly state two of the assumptions that Siddharth makes about conscious subjects and their experiences at the outset of his argument. This is important because these are two *very strong* assumptions about subjects which are essential to his justifications for both (1) and (2). Moreover, both are assumptions that directly conflict with phenomenal bonding panpsychism.

He states that we have "intuitions about the nature of subjects" (Siddharth 2021, 7) that inform us of two key features about them: the unity of subjects, and the privacy of their experiences. So, we have a 'unity intuition' and a 'privacy intuition'.

On the unity intuition, Siddharth claims that subjects seem to be a unity that cannot be divided into proper parts. He says, "subjects *seem* to be *ontological unities* (...) utterly indivisible" (Siddharth 2021, 7). Let's call the thesis which would correspond to the content of that intuition being veridical the *unity thesis*.

On the privacy intuition, Siddharth claims that subjects seem to have private experiences such that they cannot share token experiences. He says, "a subject's experience is private to that subject, and it seems unintelligible how another subject could access the same token experiential content as the first subject (...) two subjects cannot experience the same token experiential content" (Siddharth 2021, 7-8). As above, let's call the thesis

which would correspond to the content of that intuition being veridical the *privacy thesis*.

As you can see, the two theses are in direct conflict with phenomenal bonding panpsychism. Phenomenal bonding requires subjects to have proper parts, particularly proper parts which are other conscious subjects. The unity thesis rules this out: subjects do not have proper parts because they are utterly indivisible mereological simples. Phenomenal bonding also requires subjects share their experiences with their proper parts, which the privacy thesis rules out: two subjects cannot experience the same token experiential content.

As two theses about the essential features of subjects that will subsequently go on to support the rest of Siddharth's argument against phenomenal bonding, the unity and privacy theses must be well justified. The arguments Siddharth presents against phenomenal bonding panpsychism will only be as strong as the justifications for these theses.

Unfortunately, no justifications for the unity thesis or privacy thesis are given. Siddharth claims that we have an *intuition* about them but in his paper gives no reason for us—bystanders to the debate and phenomenal bonding panpsychists alike—to think that the intuitions are veridical.<sup>2</sup> He gives no reason to think that these intuitions in any way track the reality of what subjects—fundamental and non-fundamental—are like.<sup>3</sup>

With the lack of justification for these two essential theses noted, let's move on to look at the two premises of his argument: the claim that Goff's phenomenal bonding view is question begging without Miller's proposal, and the claim that Miller's proposal doesn't work. As I suggested, both of these claims are false or unjustified.

# Justifying (1) – Without a Positive Concept, Phenomenal Bonding is Question Begging

How does Siddharth justify premise (1):

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<sup>&</sup>lt;sup>2</sup> Importantly, later in Siddharth's argument the two theses gain the status of *a priori truths*, equivalent in nature to truths in Euclidian geometry.

<sup>&</sup>lt;sup>3</sup> Moreover, assuming the truth of these theses is not an innocuous assumption to make; both are very substantial claims. For instance, granting the unity thesis alone would rule out any view on which subjects are composite entities. We could not claim we are animals, brains, bundles of perceptions, unions of a mind and body, streams of consciousness across time, or sums of person-stages. Why give so much weight to an intuition that hasn't been fully justified?

(1) If phenomenal bonding panpsychism is to be a nonquestion begging solution to the subject summing argument, then it requires a positive not-merely-roleplaying conception of the phenomenal bonding relation.

#### He claims the following:

The thrust of the subject summing argument is (...) that the notion of a composite subject itself seems incoherent, and thus impossible, on account of the ontological unity and privacy of subjects. Given this, the subject summing argument ought to be understood as the problem of the unintelligibility, incoherence and thus, impossibility of relations such as the PB relation. By simply defining and stipulating the PB relation in terms of the role we want it to play, without either an argument for how subject combination is possible in the first place or a positive conception of the relation, Goff is assuming what ought to be argued for, and thus begging the question. (Siddharth 2021, 9-10)

As we can see, the justification for (1) is that the subject summing argument is about the impossibility of composite subjects, which means it's about the impossibility of phenomenal bonding relations, so the phenomenal bonding response is question begging.

Let's call this the *Impossibility of Composite Subjects Argument* and formalise it in the following way:

## Impossibility of Composite Subjects Argument

- 1) The subject summing argument is about the impossibility of composite subjects.
- 2) If the subject summing argument is about the impossibility of composite subjects, then it is also about the impossibility of the phenomenal bonding relation.
- 3) Hence, the subject summing argument is about the impossibility of the phenomenal bonding relation.
- 4) If the phenomenal bonding relation is defined in a roleplaying way and we haven't shown the relation is possible, or provided a positive concept of it, then as a response to the subject summing argument it is question begging.
- 5) Phenomenal bonding is defined in a role-playing way and we haven't shown the relation is possible.

6) Hence, without a positive conception of the phenomenal bonding relation phenomenal bonding is question begging as a response to the subject summing argument.

Unfortunately, this argument is unsound: both (1) and (4) are false or unjustified. Let's take them in that order.

Firstly, on (1). The subject summing argument is not about the incoherence of composite subjects. The subject summing argument is about the lack of a transparent, a priori explanatory relationship between the fundamental level conscious facts, and the non-fundamental conscious facts. In other words, it is about an explanatory gap between the fundamental conscious facts and the non-fundamental conscious facts. That the subject summing argument is about an explanatory gap is widely recognised within the literature (Chalmers 2016; Goff 2009b). Siddharth references the two popular formulations of this argument, one by Chalmers and the other by Goff, both of which are clearly stated in these terms. Goff claims that the mere existence of n subjects does not necessitate the existence of a further n+1 subject precisely because we can conceive of the group of n subjects existing without the further subject. Likewise, Chalmers claims that because we can conceive of n subjects existing in the absence of any subjects, the existence of those subjects cannot necessitate the existence of a further subject.

Premise (1) is therefore false. Nevertheless, there are arguments within the literature that purport to show that composite subjectivity is incoherent. These mereological problems include:

- The incompatible contexts argument (Basile 2008; 2010; James 1912; Roelofs 2016).
- The privacy argument (Roelofs 2019, 57).
- Boundary argument (Miller 2018b; Roelofs 2019, 59; Rosenberg 2004, chap. 4).
- The exclusivity of perspectives argument (Coleman 2012; 2014)
- Overwhelming experience argument (Albahari 2019).
- Maximality of consciousness argument (Roelofs 2019).

All these arguments have the form of identifying a feature, F, of subjects or their experiences, and showing why that feature precludes the possibility of subjects and their experiences being composite. For example, Roelofs' privacy argument identifies *privacy* as that feature, and shows that subjects

with private experiences can't be composites. Likewise, Coleman's perspectives argument identifies *having a perspective* as that feature, because perspectives, for Coleman, exclude other perspectives, which precludes perspectives being proper parts of other perspectives.

If one wants to equate the mereological arguments with the subject summing argument, then that is a claim that would need substantial justification. Why, in other words, should we think the subject summing argument is in fact the unity or privacy arguments? Why should we think it is the boundary argument? Siddarth gives no justification for this claim.

Moreover, there are responses to the mereological arguments within the literature, responses presented by phenomenal bonding panpsychists. For instance, Roelofs (2019) responds extensively to the mereological problems above. Likewise, Miller (2018a), and Roelofs and Goff (forthcoming) also address several of the mereological problems above.

Other than the first premise of the argument being false, why does this matter?

Because, if as Siddharth claims, the conclusion of the subject summing argument was "PB relations are impossible", then it would be argumentatively weak—to the point of begging the question—to respond by merely asserting, "PB relations are possible". But, given the impossibility of PB relations is *not* the conclusion of the subject summing argument, it isn't a weak response. The conclusion of that argument is that there is an explanatory gap; the proposal of a PB relation to bridge that gap is not a weak response to *that* argument.

Moreover, for Siddharth to construe the phenomenal bonding panpsychist as proposing a solution to the incoherence of composite subjects by employing the PB relations response, is to strawman the phenomenal bonding response and ignore the existing literature that does offer appropriate responses to the mereological problems.

Goff's initial phenomenal bonding proposal was a proposal to bridge the ostensible gap between micro-conscious facts and human-level facts about consciousness. The proposal was not intended to be a solution to the potential problem of composites, but a solution to the problem of the explanatory gap. Because phenomenal bonding was not *intended* to be a response to the mereological problems, and because phenomenal bonding panpsychists do not respond to the mereological problems with the phenomenal bonding proposal, to construe the view as a response to those arguments is to strawman it. Moreover, it is to strawman the view in such

a way that it *makes* the response question begging: it is being framed as a response to a problem that if it were a response to, then it would be question begging.

Again, why does this matter? Because it shows us where the burden of proof lies within the dialectic and the literature. Phenomenal bonding panpsychists respond to the subject summing argument by proposing the PB relation, they claim this closes the explanatory gap between the fundamental and non-fundamental conscious facts and bundles microsubjects into large composite subjects. Presented with the incoherence of composite subjectivity objections of the sort mentioned above, they give (and should give) alternative responses.<sup>4</sup>

Lastly, Siddharth or their defender might respond by saying that it doesn't matter if the mereological problems are in fact the same problem as the subject summing problem, and it doesn't matter if phenomenal bonding has been presented as a response to those problems (making a strawman of it in the process). What matters is that those mereological problems rule out PB relations, and so the phenomenal bonding panpsychist needs to show that such relations are possible. In other words, the mereological problems show that composite subjects are incoherent, and phenomenal bonding panpsychists need to show that composite subjects aren't incoherent.<sup>5</sup>

The response to this point, however, is twofold. Firstly, to here show that Siddharth's argument is unsound, it is sufficient to show that (1) (and (4)) are unjustified or false. That I have already done, and the burden of proof now lies with Siddharth. Second, as already mentioned above, there are responses to the mereological problems within the literature, responses that phenomenal bonding panpsychists take to be sound. It is not necessary, therefore, to here respond to the mereological arguments. It's simply enough to note that phenomenal bonding panpsychists do try to show that composite subjects are possible.

Second, on (4). This is false for the same reason that (1) is; namely, that the subject summing argument is not about the incoherence and impossibility composite subjects. Yet, it remains unjustified regardless of that point. To defend (4), Siddharth claims the following:

<sup>&</sup>lt;sup>4</sup> This is precisely the approach taken in Roelofs (2019), Miller (2018a), and Roelofs and Goff (forthcoming).

<sup>&</sup>lt;sup>5</sup> I'd like to thank an anonymous referee for suggesting and clearly articulating this point.

one can adopt such a method of defining relations in a brute manner to defend almost any unintelligible relation (...) by simply defining the phenomenal bonding relation such that it fulfils the role of subject composition, Goff is assuming what ought to be explained in the first place. (Siddharth 2021, 10)

But this justification fails. Siddharth is not in the position to legitimately claim that the PB relation is an unintelligible one. He has not justified why, aside from claiming we have two intuitions about subjects, such a relation is unintelligible. As we noted in the previous section, why should these two intuitions be given so much weight? Why should we think their content is in any way veridical?

## Justifying (2) – We can't form a positive concept of phenomenal bonding

What about for premise (2):

(2) We cannot form a positive not-merely-role-playing conception of the phenomenal bonding relation.

To justify premise (2), Siddharth argues against the proposal made by Miller (2017): co-consciousness is the PB relation and we can form a positive not-merely-role-playing concept of it by, at the least, a process called *analogical extension*. Analogical extension is a process whereby you take a concept that was formed in one context (a prototype context) and extend it to a new, different context (the target context). Miller's proposal is that *co-consciousness* can be analogically extended from the prototype context in which it holds between one subject's experiences, to the target context in which it holds between two or more distinct subjects' experiences. In other words, we extend the concept of co-consciousness from being an *intra-subjective* relation to an *inter-subjective* relation.<sup>6</sup>

Miller's claim is that such a process allows us to see that co-consciousness can satisfy the three necessary and jointly sufficient conditions on a prospective PB relation (see Miller 2017, 542, 546):

- It must be a phenomenal relation.
- It must hold between subjects qua subjects of experience.
- It must necessitate further distinct subjects.

<sup>6</sup> See Roelofs (2016) for a defence of the notion of between subject phenomenal unity, i.e., of coconsciousness as an inter-subjective relation. Because of this, the panpsychist no longer needs to be a mysertian about the PB relation (contra Goff (2016, 292-294)). Instead, they have a positive not-merely-role-playing conception (and Siddharth's argument would be unsound).

Let's call this the *anti-positive concept* argument and formulate it in the following way:

### Anti-positive Concept Argument

- 1) Miller's analogical extension fails to give us a positive notmerely-role-playing conception of the phenomenal bonding relation.
- 2) Hence, we cannot form a positive not-merely-role-playing conception of the phenomenal bonding relation.

As before, I do not think this argument works.

Firstly, the argument is invalid. For (2) to follow from (1), i.e., to show that we cannot form a positive not-merely-role-playing conception of the phenomenal bonding relation, Siddharth would have to do more than simply show that analogical extension fails. He would have to show that analogical extension fails and that it is the only method we have of forming a positive concept of the PB relation. In other words, he'd have to rule out other potential alternatives or show there cannot be an alternative.

Are there alternatives? Yes. Introspection is an alternative.<sup>7</sup>

If we think that phenomenal bonding is true, then introspection is sufficient to form a concept of inter-subjective co-consciousness (Miller 2017, n. 21). 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. Hence, if phenomenal bonding is true, then we can form a concept of inter

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<sup>&</sup>lt;sup>7</sup> It may also be possible to form a concept of inter-subjective co-consciousness empirically, i.e., by discovering that co-consciousness holds between two or more subjects. As Miller (2017, 554–55) suggests, this may be what we're finding in the data regarding split-brain patients and the sharing of phenomenal content by hemispheres.

subjective co-consciousness via introspecting the phenomenal unity that holds between the experiences of our proper parts.<sup>8</sup>

In support of (1), Siddarth gives two justifications:

- 1) That the analogical extension of the co-consciousness relation involves a change in the type of relata, and therefore fails to meet Miller's second condition of a positive phenomenal bonding relation.
- 2) That analogical extension allows us to form concepts of relations we know are *a priori* incoherent.

First, on reason (1). Siddharth argues that when it comes to the analogical extension of co-consciousness, the relata in the prototype and target contexts changes type. In the prototype context the relata are experiences, whereas in the target context the relata are subjects. Because of this, Miller fails to meet the second condition of a prospective PB relation and, "analogical extension cannot help us form a positive conception of co-consciousness between subjects" (Siddharth 2021, 12).

The problem, however, is that the second condition on a prospective PB relation is not that it's relata *must* be subjects. The claim is that for a relation to be the PB relation "it must *hold between* subjects *qua* subjects of experience" (Miller 2017, 542, 546, emphasis added), not that subjects must be the relata. Because of this, there is no shift in the relata, and the second condition on a prospective PB relation is still met.

Siddharth's helpful criticism allows us to make clear a distinction, between being *directly* and *indirectly* related. Let's say that a relation *directly* relates two entities when those entities are its relata. For example, two colours are directly related by the similarity relation; two events are directly related by temporal relations; two species of animal are related by predation.

Let's say that a relation *indirectly relates* two entities when those entities have aspects (in the broadest sense of that term) which are the relata of the

<sup>8</sup> Moreover, without considerations of phenomenal bonding panpsychism, similar reasoning can be

a larger conscious being. If so, then its highly plausible that just as there are many overlapping objects where my brain is roughly located, there are many overlapping conscious subjects. If so, then the unity between their experiences is an instance of inter-subjective co-consciousness.

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given to support the idea that introspection is sufficient to form a concept of inter-subjective coconsciousness. Subjects like animals are composite objects, and it seems like large proper parts of those animals are perfectly capable of being conscious. A human brain minus a few pieces of grey matter has everything required to be conscious, even if it's a proper part of a larger conscious being. Likewise, a dog missing one of its legs has everything required to be conscious even though it's a proper part of

relation, or are themselves an aspect of the relata of the relation. For example, two tins of paint are related by the similarity relation by having an aspect, i.e., their colours, which are the relata of the relation; two material objects are temporally related by being aspect of events, e.g., the sinking of the titanic and the building of the QE2, that are unfolding across time; two objects can be causally related by virtue of their properties, e.g., mass and velocity, being the relata of the relation.

Miller's condition should therefore be seen as the requirement that phenomenal bonding must, at the least, *indirectly* relate subjects. It must hold between subjects, but not necessarily have subjects as the relata. Intersubjective co-consciousness does exactly that: it relates two or more subjects by, at the least, relating their experiences.

Second, on reason (2). Siddharth argues by *reductio* that analogical extension, at least in this case, isn't a good method for forming a positive concept of the phenomenal bonding relation. Following Miller (2017, 554) he claims that analogical extension is only permissible if it doesn't lead to *a priori* incoherence. If it leads to *a priori* incoherent notions, then it's obviously an unacceptable process of concept formation. So, he claims, "given [the] ontological unity and privacy of subjects, positing coconsciousness relation between two subjects leads to contradictions (...) privacy and ontological unity of subjects would be false' (Siddharth 2021, 13).

But (as may be expected by now) this should not be convincing, neither for the phenomenal bonding panpsychist nor the bystander. The phenomenal bonding panpsychist already rejects the unity and privacy theses, so they shouldn't find it convincing at all. Siddharth's argument relies on the truth of two theses to generate a *reductio* of his interlocutor's position, but those theses are already taken to be false by his interlocutor. Moreover, as we noted earlier, Siddharth gives no justification for thinking the unity and privacy intuitions correspond to any true metaphysical theses, and the argument can only be as strong as those justifications.

#### Conclusion

The *begging the question argument* is unsound: both of its premises are false or unjustified. Because of this, we should still consider phenomenal bonding panpsychism to be a promising form of constitutive panpsychism.

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<sup>&</sup>lt;sup>9</sup> In order for the argument to be forceful, there must be good reasons to think the false theses must in fact be true.

There is room still for dissent and Siddharth's case against phenomenal bonding can be supported and further elaborated. However, that support must come in the form of justifying the key assumptions about the mereological simplicity of subjects and the privacy of their experiences, and developing those theses into arguments against constitutive forms of panpsychism. If strong defences of these theses can be given, then the phenomenal bonding panpsychist should be worried.

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#### **REFERENCES**

- Albahari, Miri. 2019. "Beyond Cosmopsychism and the Great I Am: How the World Might Be Grounded in Universal 'Advaitic' Consciousness." In *The Routledge Handbook of Panpsychism*, edited by William Seager, 119-130. New York: Routledge.
- Basile, Pierfrancesco. 2008. "Is Mental Composition Impossible in Principle?" *Chromatikon: Annales de La Philosophie En Procès/Yearbook of Philosophy in Process* 4: 21–25.
- ———. 2010. "It Must Be True But How Can It Be? Some Remarks on Panpsychism and Mental Composition." *Royal Institute of Philosophy Supplement* 67 (October): 93–112. https://doi.org/10.1017/S1358246110000044.
- Chalmers, David J. 2016. "The Combination Problem for Panpsychism." In *Panpsychism: Contemporary Perspectives*, edited by Godehard Bruntrup and Ludwig Jaskolla, 179–214. Oxford: Oxford University Press.
- Coleman, Sam. 2012. "Mental Chemistry: Combination for Panpsychists." *Dialectica* 66 (1): 137–66. https://doi.org/10.1111/j.1746-8361.2012.01293.x.
- ———. 2014. "The Real Combination Problem: Panpsychism, Micro-Subjects, and Emergence." *Erkenntnis* 79 (1): 19–44. https://doi.org/10.1007/s10670-013-9431-x.
- Dainton, Barry. 2000. *Stream of Consciousness: Unity and Continuity in Conscious Experience*. International Library of Philosophy. London and New York: Routledge.

- Goff, Philip. 2009a. "Can the Panpsychist Get around the Combination Problem?" In *Mind That Abides: Panpsychism in the New Millennium.*, edited by David Skrbina and David (Ed) Skrbina, 129–35. Amsterdam, Netherlands: John Benjamins Publishing Company.
- ——. 2009b. "Why Panpsychism Doesn't Help Us Explain Consciousness." *Dialectica* 63 (3): 289–311. https://doi.org/10.1111/j.1746-8361.2009.01196.x.
- ———. 2016. "The Phenomenal Bonding Solution to the Combination Problem." In *Panpsychism: Contemporary Perspectives*, by Godehard Bruntrup and Ludwig Jaskolla. Oxford: Oxford University Press.
- James, William. 1912. *A Pluralistic Universe*. Hibbert Lectures. London: London, 1912.
- Lockwood, Michael. 1989. *Mind, Brain, and the Quantum*. Oxford University Press.
- Miller, Gregory. 2017. "Forming a Positive Concept of the Phenomenal Bonding Relation for Constitutive Panpsychism." *Dialectica* 71 (4): 541–62. https://doi.org/10.1111/1746-8361.12207.
- ———. 2018a. The Combination Problem for Panpsychism: A Constitutive Russellian Solution An Investigation into Phenomenal Bonding Panpsychism and Composite Subjects of Experience. Liverpool: University of Liverpool, PhD thesis.
- ——. 2018b. "Can Subjects Be Proper Parts of Subjects? The De-Combination Problem." *Ratio* 31 (2): 137–54. https://doi.org/10.1111/rati.12166.
- Roelofs, Luke. 2016. "The Unity of Consciousness, within Subjects and between Subjects." *Philosophical Studies*, March, 1–23. https://doi.org/10.1007/s11098-016-0658-7.
- ——. 2019. Combining Minds: How to Think about Composite Subjectivity. Philosophy of Mind Series. New York: Oxford University Press.
- Roelofs, Luke, and Philip Goff. forthcoming. "In Defence of Phenomenal Sharing." In *The Phenomenology of Self-Awareness and Conscious Subjects*, edited by Martine Nida-Rümelin, Donnchadh O'Conaill, and Julien Bugnon. Routledge.
- Rosenberg, Gregg. 2004. A Place for Consciousness: Probing the Deep Structure of the Natural World. Philosophy of Mind Series. Oxford and New York: Oxford University Press.
- Siddharth, S. 2021. "Against Phenomenal Bonding." *European Journal of Analytic Philosophy* 17 (1): (D1)5-12. https://doi.org/10.31820/ejap.17.1.3