

# Consciousness, Revelation, and Confusion'

Are Constitutive Panpsychists Hoist  
by their Own Petard?

LUKE ROELOFS

[doi:10.48106/dial.v74.i1.04](https://doi.org/10.48106/dial.v74.i1.04)

Luke Roelofs. 2020. "Consciousness, Revelation, and  
Confusion." *Dialectica* 74(1): 1–0.  
[doi:10.48106/dial.v74.i1.04](https://doi.org/10.48106/dial.v74.i1.04).



1 Consciousness, Revelation,  
2 and Confusion’  
3 Are Constitutive Panpsychists Hoist  
4 by their Own Petard?  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18

LUKE ROELOFS

3 Critics have charged constitutive panpsychism with inconsistency.  
4 Panpsychists reject physicalism for its seeming inability to explain  
5 consciousness. In making this argument, they commit themselves  
6 to the idea of “revelation”: that we know, in some especially direct  
7 way, the nature of consciousness. Yet they then attribute properties to  
8 our consciousness—like being constituted out of trillions of simpler  
9 experiential parts—that conflict with how it seems introspectively. This  
10 seems to pose a dilemma: either revelation is false, and physicalism  
11 remains intact, or revelation is true, and constitutive panpsychists  
12 are hoist by their own petard. But this is too simplistic. Constitutive  
13 panpsychists can say that our minds contain innumerable phenomenal  
14 states that are “confused” with one another: immediately present to  
15 introspection only en masse, not individually. Accepting revelation  
16 does not require ignoring the attentional, conceptual, and interpretive  
17 limitations of introspection, and these familiar limitations remove the  
18 tension between panpsychism and revelation.

19 What is the relationship between being conscious and knowing about con-  
20 sciousness? In answering this question, constitutive panpsychists face a deli-  
21 cate balancing act: their own case against physicalism requires that being  
22 conscious reveals something of the metaphysics of consciousness, but the  
23 stronger they make this claim of revelation, the stronger becomes an objec-  
24 tion to their own view sometimes called “the revelation problem”. In this  
25 paper I argue that this balancing act, though delicate, is not impossible: there  
26 is a plausible, well-motivated “medium-strength” sort of revelation, strong

27 enough to bring down physicalism but weak enough to leave constitutive  
28 panpsychism standing.

29 In section 1, I lay out the background to the panpsychism-physicalism  
30 debate; in section 2, I distinguish six “revelation theses”; in section 3 I analyse  
31 the structure and varieties of the revelation problem; and in section 4 and  
32 section 5 I outline how to address this problem while retaining as much as  
33 possible of the theses discussed in section 2.

### 34 **Are Panpsychists Hoist by their Own Petard?**

35 Panpsychists think all the fundamental physical things are phenomenally  
36 conscious, where “fundamental physical things” is a placeholder for what-  
37 ever fundamental entities feature in the true physical theory (particles, fields,  
38 strings, spacetime, etc.). The “constitutive” part of “constitutive panpsychism”  
39 describes the relationship between macroexperiences (the experiences of  
40 humans and other animals) and the postulated microexperiences of the fun-  
41 damental physical entities.<sup>1</sup> This relationship should be something like the  
42 relationship between the physical features of human bodies (macrophysics)  
43 and the physical features of the fundamental entities (microphysics). That  
44 relationship (which we might call being constituted, being grounded, or be-  
45 ing nothing over and above) generates no “explanatory gap”: even when the  
46 details currently elude us, it seems clear that macrophysics is fully accounted  
47 for by microphysics. When you have the right particles, arranged in the right  
48 pattern, exerting the right forces on one another, and the right laws governing  
49 them, there is no further problem about how to get hands, chairs, planets,  
50 etc.: those “come for free” when the microphysical foundations are there.

51 The failure of consciousness to fit into this neat picture is the objection to  
52 physicalism that motivates most contemporary panpsychists. Whereas the  
53 distribution of and relations among subatomic particles seems to explain  
54 everything about my body, it leaves unexplained why there is anything it feels  
55 like to be me, and why it feels the particular way it does. In particular, even

---

1 Some panpsychists would not link “macro” and “micro” (terms conveying size) with “human-like” and “fundamental” in this way. In particular, “cosmopsychists” think that the fundamental physical entity is the cosmos as a whole, which is (obviously) bigger than a human being, not smaller (see Gaudry 2008; Jaskolla and Buck 2012; Shani 2015; Nagasawa and Wager 2017; Goff 2017). Though I am sympathetic to cosmopsychism, I do not believe that it changes the essential contours of the revelation problem, though it requires some re-formulating, as noted in footnotes 11 and 14. For now I will, for convenience, speak as though the fundamental physical entities are very small.

56 knowing the full story about the particles seems to be compatible with not  
57 knowing what the experiences are like (this is the “knowledge argument,” cf.  
58 Jackson 1982; Nemirow 1990; Ball 2009), and it seems that a world might have  
59 been physically identical and yet differed from ours in respect of conscious-  
60 ness (the “conceivability argument,” cf. Kripke 1980; Chalmers 2009). There  
61 is a vast literature on whether these are good reason to reject physicalism  
62 (see, e.g. Chalmers 1996; Dennett 2007; Stoljar 2006; Díaz-León 2011), but  
63 here I will assume that they are. What comes next? In particular, is constitu-  
64 tive panpsychism, often offered as an attractive non-physicalist alternative,  
65 defensible?

66 Constitutive panpsychism treats consciousness as a fundamental ingredi-  
67 ent of nature, but tries to treat it the same as other fundamental ingredients  
68 (mass, charge, spin, force, location, etc.). Just as those other fundamentals are  
69 widespread in nature, with human beings as simply one particular arrange-  
70 ment of them, so is consciousness: human experience is not metaphysically  
71 special, just a complicated combination of widespread components. Consti-  
72 tutive panpsychism thus retains the monistic spirit of physicalism despite  
73 recognising consciousness as fundamental. Importantly, non-constitutive ver-  
74 sions of panpsychism, on which human consciousness somehow “emerges  
75 from” or is “caused by” microconsciousness but not literally “made up of” it,  
76 do not secure this advantage. The macrophysical properties of the brain seem  
77 to be wholly constituted by the microphysical properties of its parts, so if its  
78 macroscopic consciousness is not similarly constituted by microconscious-  
79 ness, the hoped-for reconciliation of mind and matter falls apart.

80 This imposes an explanatory burden: constitutive explanations of human  
81 consciousness in terms of microconsciousness have to do better than physi-  
82 calist explanations. And one major line of criticism has been that they do not:  
83 there is just as much difficulty in explaining how many simple minds combine  
84 into complex minds as in explaining how mindless things generate minds.  
85 This broad objection is often called “the combination problem” (Seager 1995,  
86 280; Chalmers 2017; Roelofs 2019), and has received much discussion from  
87 both defenders and critics of panpsychism.

88 One specific strand of the combination problem is “the revelation prob-  
89 lem”: macroexperiences do not *seem* introspectively to be built up out of  
90 microexperiences. And constitutive panpsychists can’t just say: “Well they  
91 *are*, sometimes things aren’t what they seem.” That would license physicalists  
92 to likewise say: “Exactly! Consciousness *seems* distinct from purely physical  
93 facts, but it’s actually not.” If being conscious doesn’t reveal the true nature of

94 consciousness, the case against physicalism is weakened; if it does, then the  
 95 truth of constitutive panpsychism should be introspectively obvious, which it  
 96 is not.

97 This talk of “seeming” and “obviousness” is not the most precise way of  
 98 presenting things. Authors articulating the sense that there is a problem here  
 99 say things like:

100 [...] it is hard to see how smooth, structured macroscopic phe-  
 101 nomenology could be derived [from microexperiences isomor-  
 102 phic to microphysics]; we might expect some sort of “jagged,”  
 103 unstructured phenomenal collection instead. (Chalmers 1996,  
 104 306)

105 It is hard to see how [microexperiences] could somehow add  
 106 up to the phenomenal properties with which we are familiar—  
 107 properties with the specific, homogeneous character with which  
 108 we are all acquainted [...]. (Alter and Nagasawa 2012, 90–91)

109 [Revelation is] inconsistent [...] with my conscious experience  
 110 turning out to be, in and of itself, quite different from how it  
 111 appears to be in introspection: i.e. turning out to be constituted of  
 112 the experiential being of billions of micro subjects of experience  
 113 [...]. (Goff 2006, 57; cf. Lee 2019, 290–98)

114 Similar remarks were made by certain non-reductive mind-brain identity  
 115 theorists in the last century, writing about a perceived “grain problem”:

116 [Any experience’s] physiological substrate, presumably, is a highly  
 117 structured, not to say messy, concatenation of changes in elec-  
 118 trical potential within billions of neurons in the auditory cortex  
 119 [...]. How do all these microstructural discontinuities and inho-  
 120 mogeneities come to be *glossed over* [...]? (Lockwood 1993, 274)

121 How is it that the occurrence of a smooth, continuous expanse of  
 122 red in our visual experience can [...] involve particulate, discon-  
 123 tinuous affairs such as transfers of or interactions among large  
 124 numbers of electrons, ions, or the like? (Maxwell 1978, 398)

125 Indeed, Lewis makes a very similar argument, though he rejects the idea that  
 126 experience reveals its nature and so presents the argument as a *reductio* of  
 127 this idea:

128 If we know exactly what the qualia of our experiences are, they  
 129 can have no essential hidden structure - no “grain” - of which we  
 130 remain ignorant. If we didn’t know whether their hidden “grain”  
 131 ran this way or that, we wouldn’t know exactly what they were.  
 132 [...] if nothing essential about the qualia is hidden, then if they  
 133 seem simple, they are simple. (Lewis 1995, 142, fn. 14)

134 Although I think all the above quotations express a similar sort of concern,  
 135 they do so with different emphasis and framing, and the exact nature of the  
 136 problem involved is far from clear. In section 3 I try to identify the problems  
 137 more precisely, and in section 4 and section 5, I resolve them.

## 138 2 The Revelation Problem and the Revelation Thesis

139 Before examining the revelation problem for panpsychism, we need to exam-  
 140 ine the background idea of a “revelation thesis” connecting consciousness to  
 141 knowledge of consciousness. There are actually several different ideas under  
 142 the broad heading of “revelation”: I will distinguish a total of six distinct reve-  
 143 lation theses, resulting from a two-fold distinction permuted with a three-fold  
 144 distinction.

145 The two-fold distinction concerns whether the claim says (a) that the full  
 146 truth about consciousness will always be manifest (a “reality→appearance”  
 147 direction of implication), or (b) that what is manifest about consciousness is  
 148 always true (an “appearance→reality” direction of implication).<sup>2</sup> Claims of the  
 149 first sort rule out any aspect of consciousness being “hidden” from us, while  
 150 claims of the second sort rule out any sort of “illusion” about consciousness.

151 The three-fold distinction is about the topic of a revelation thesis - what  
 152 kind of reality it connects with what kind of appearance. Putting things for  
 153 now in reality→appearance terms, we can distinguish the claims:

---

2 Byrne and Hilbert (2007, 77), draw this distinction for colour properties: they “treat Revelation as equivalent to the conjunction of two theses [...] SELF-INTIMATION [and] INFALLIBILITY”, with the former being reality→appearance and the latter appearance→reality.

- 154 1. That someone having an experience<sup>3</sup> can know that they are presently  
155 having that token experience;
- 156 2. That someone having an experience can gain a special kind of under-  
157 standing of that phenomenal property;
- 158 3. That this understanding reveals “the complete nature” of a certain type  
159 of experience.

160 The first thesis is sometimes called “self-presentation” or “luminosity”, as  
161 distinguished from “revelation” (Stoljar 2006, 223). But in other discussions  
162 it is presented as an integral part of a broader idea called “revelation.” (e.g.  
163 Goff 2017, 109–10). The second thesis is sometimes put in terms of forming  
164 concepts, sometimes of special sorts (e.g. Chalmers 2003b; Goff 2017, 109–10)  
165 and sometimes just in terms of “understanding” (e.g. Stoljar 2006, 229). The  
166 third thesis is sometimes put in terms of knowing a phenomenal property’s  
167 “essence” or “nature”, or knowing all the essential or necessary truths about  
168 it.<sup>4</sup> Sometimes the term “revelation” or “revelation thesis” is used specifically  
169 for one of these theses, or for the set of them together, or for the conjunction  
170 of the second and third. But they are worth distinguishing because, as I will  
171 show, they support quite distinct revelation arguments against constitutive  
172 panpsychism, which need to be addressed in quite different ways.

173 Moreover, we can distinguish reality→appearance and appearance→real-  
174 ity directions of each of the three, yielding a total of six revelation theses  
175 (RT1–RT6), as follows:

| Topic | Reality → Appearance direction | Appearance → Reality direction |
|-------|--------------------------------|--------------------------------|
|-------|--------------------------------|--------------------------------|

3 Different authors speak variously of qualia, experiences, types of experience, and types of conscious state: for clarity I will in what follows speak of *phenomenal properties* as the things which phenomenal concepts capture, and whose natures they reveal, and of *experiences* as instantiations of phenomenal properties. To have an experience is to instantiate a phenomenal property, i.e. to be conscious.

4 Some example formulations: the special understanding of an experience type we gain from undergoing it “reveals the essence of Q [the experience type]: a property of Q such that, necessarily, Q has it and nothing else does” (Lewis 1995, 141–42); “for every essential truth T about E, [the subject] knows, or is in a position to know, T” (Stoljar 2006, 228); “the complete nature of the type to which [the experience] belongs is apparent to the concept user” (Goff 2017, 110). Cf. also colour-revelation theses: “If it is in the nature of the colors that p, then after careful reflection on color experience it seems to be in the nature of the colors that p” (Byrne and Hilbert 2007, 77); “The intrinsic nature of canary yellow is fully revealed” (Johnston 1992, 223). Cf. Lee (2019, 291–93), Liu (2019, 2020).

|                     |  |  |
|---------------------|--|--|
| Instantiation       | <b>Revelation Thesis 1:</b> If someone instantiates a phenomenal property, it will introspectively seem to them that they are instantiating that property. (Call this the “luminosity” thesis.)          | <b>Revelation Thesis 2:</b> If it introspectively seems to someone that they are instantiating a phenomenal property, then they really are instantiating that property. (Call this the “no illusions” thesis.)   |
| Understanding       | <b>Revelation Thesis 3:</b> If someone instantiates a phenomenal property, they will be in a position to form a pure phenomenal concept of it. (Call this the “understanding from experiencing” thesis.) | <b>Revelation Thesis 4:</b> If someone is in a position to form a pure phenomenal concept of a phenomenal property, they must be instantiating that property. (Call this the “no understanding without experiencing” thesis.)  |
| Knowledge of nature | <b>Revelation Thesis 5:</b> If someone has a pure phenomenal concept, reflection upon it can reveal the whole nature of the corresponding phenomenal property. (Call this the “self-intimation” thesis)  | <b>Revelation Thesis 6:</b> If someone’s reflection upon a pure phenomenal concept presents some feature as pertaining to the nature of the corresponding phenomenal property, that feature really does pertain to the nature of that property. (Call this the “infallibility” thesis) |

176 I think these six theses, though logically independent, form a fairly natural  
 177 natural package together, and I will refer to this package (i.e. the conjunction  
 178 RT<sub>1</sub>–RT<sub>6</sub>) as “the revelation approach”.<sup>5</sup> This package is particularly impor-  
 179 tant for undergirding modal arguments against physicalism, a role which it  
 180 is held to have both by its defenders and its critics (e.g. [Stoljar 2009, 2013](#);  
 181 [Damnjanovic 2012](#); [Liu 2019, 2020](#)). Lewis, for instance, attributes RT<sub>5</sub> and  
 182 RT<sub>6</sub> to Kripke, as a presupposition of the latter’s inference from the conceiv-  
 183 ability of pain without any associated brain state to their separate possibility

5 The component theses are often connected by the idea that subjects stand in a certain special relation of “acquaintance” to their experiences (see [Chalmers 2003b](#); [Goff 2015](#)): being directly acquainted with our experiences is what lets us know of their occurrence, and understand their properties in a way that fully reveals their nature. Acquaintance is often taken to be one species of a broader category of relations, called “awareness”, which likewise enable knowledge of various kinds, but which include more mediated forms of awareness like visual awareness, auditory awareness, etc. I am very happy to accept these claims about acquaintance and awareness, but they will not be distinctively important in the discussion that follows.

(Lewis 1995, 328, fn. 3). Goff (2017, 74–76, 96–106) likewise argues that the conceivability and knowledge arguments require that phenomenal concepts be “transparent”, effectively meaning that RT5 and RT6 must be true.<sup>6</sup> And Chalmers’ version of the conceivability and knowledge arguments relies on the premise that the primary and secondary intensions of phenomenal concepts are equivalent (Chalmers 2003a, 2009), which implies RT5 and RT6.<sup>7</sup>

Although RT5 and RT6 have the clearest role, the falsity of the other revelation theses would also leave the anti-physicalist arguments on a shaky footing. For instance, if RT3 were false, we could worry whether we possessed the pure phenomenal concepts whose “transparency” drove the arguments; if RT2 were false, we could worry that the properties these concepts expressed were not even instantiated (as argued by, e.g. Pereboom 2016, 2019); and RT4 is essential to the knowledge argument, which relies on the premise that someone who has never experienced colour cannot know what seeing colour is like.<sup>8</sup>

### 3 What is the Revelation Problem, Exactly?

So what exactly is the supposed problem for panpsychists? How is it distinct from other aspects of the combination problem? Fundamentally, it concerns a perceived incompatibility between three things:

- the way human consciousness appears in introspection;

---

6 The arguments might not require going all the way to RT5 and RT6. Stoljar (2006, 229–30) suggests that all that is strictly required is that we have a form of access to the natures of phenomenal properties that allows us to know at least something, if not everything, about these natures. Goff argues against such an intermediate position, saying that for any property whose nature we grasp only part of, we can “split” the property into two components, one with an unknown nature and one with a known nature. The arguments against physicalism can then be run just with respect to “that aspect of phenomenal properties whose nature we know”, and for that sub-property RT5 and RT6 will be true. In this paper I will suppose that Goff is right, and seek to defend RT5 and RT6 in their “whole nature” form.

7 A concept’s primary intension is available to reflection, while its secondary intension is the nature of the property that concept expresses, so the coincidence of these two intensions implies that the natures of the properties expressed by pure phenomenal concepts are available to reflection by those who possess the concepts.

8 The revelation approach also comes up in other places. RT1, the “luminosity” thesis, is sometimes appealed to as a distinguishing feature of consciousness (Rosenthal 1993, 359; Kriegel 2009; Strawson 2015, 9). Other philosophers draw on RT1 and RT2 to develop an epistemology of introspection (Chalmers 1996, 218–19; 2003b; Smithies 2019).

- the way human consciousness would be, if constitutive panpsychism were true;
- revelation: the idea that introspection gives special insight into the reality of consciousness.

The third element makes any discrepancy between the first and second seem fatal. Yet that third element is also something panpsychists cannot readily give up.

How should we spell out these core elements? I think there are actually three slightly different arguments to be made here, and then a fourth argument which engages with the debate on a different combination problem, the “palette problem”. Let us consider the pure revelation arguments first, which differ primarily in whether they rely on the appearance→reality or reality→appearance direction of implication: the first argument says, “Consciousness appears to be X, but panpsychism implies it is not really X,” while the second and third say, “Consciousness fails to appear to be X, but panpsychism implies it really is X.” The first focuses on some positive introspective appearance, and accuses constitutive panpsychists of treating that appearance as an “illusion”. The others focus simply on the *absence* of a certain appearance.

We can call the first argument the “no illusions” argument, since its third premise is RT<sub>2</sub>, the “no illusions” thesis:

1. If constitutive panpsychism is true, then human consciousness is always “particulate”.
2. Human consciousness (often) appears introspectively to be “smooth”.
3. Consciousness can’t appear a way that it’s not. (RT<sub>2</sub>)
4. Being “smooth” and being “particulate” are incompatible.
5. Human consciousness is (often) smooth. (from 2 and 3)
6. Human consciousness is (often) not particulate. (from 4 and 5)
7. Constitutive panpsychism is false. (from 1 and 6)

Obviously much turns on the meaning of the terms “particulate” and “smooth”, but despite the frequency with which they (and similar terms like “continuous” and “fragmented”) appear in statements of the problem, it is unclear how to define them, and consequently unclear how plausible premises 1, 2, and 4 are. This definitional question will be central to my discussion in the next section.

The second and third arguments (involving a “reality→appearance” implication) are both suggested in Chalmers’ formulation of what he calls “the revelation argument” (2017, 190). Chalmers notes that although constitutive

panpsychism holds consciousness to be “constituted by a vast array of microexperiences”, this vast array is not revealed to us in introspection. This poses a problem if we think both that introspection reveals the nature of consciousness, and that “whatever constitutes consciousness is part of its nature”.

I distinguish two arguments here because I think talk of “introspection” upon “consciousness” can be taken in two quite different ways. One is that introspection focused on *macroexperiences* doesn’t reveal that they are constituted by microexperiences. The other is that introspection focused on *microexperiences* isn’t even possible. The former appears to violate what I above called RT5, the “self-intimation” thesis: reflection upon a pure phenomenal concept reveals the whole nature of a phenomenal property. The latter appears to violate both what I above called RT3, the “understanding-from-experience” thesis, and RT1, the “self-presentation” thesis: having an experience should allow knowledge of its occurrence and a pure phenomenal concept of it.

Focusing on either macroexperiences or microexperiences yields the following two arguments, which I will call the “macroexperience-focused” and “microexperience-focused” argument. The first runs thus, with RT5 as third premise:

1. If constitutive panpsychism is true, each human experience (“macroexperience”) is constituted by a vast array of microexperiences.
2. A vast array of microexperiences is not revealed by reflection on macrophenomenal concepts (i.e. phenomenal concepts based on macroexperiences).
3. The nature of a phenomenal property is revealed by reflection on phenomenal concepts based on experiences of it. (RT5)
4. Whatever constitutes something is part of its nature.
5. The natures of macroexperiences do not involve vast arrays of microexperiences. (from 2 and 3)
6. Macroexperiences are not constituted by vast arrays of microexperiences. (from 4 and 5)
7. Constitutive panpsychism is false. (from 1 and 6)

Clearly, the soundness of this argument depends crucially on what is meant by talk of a property’s “nature”, since that will affect the meaning of premises 3 and 4; this question will be at the heart of my discussion in the next section.

275 The third (“microexperience-focused”) revelation argument runs thus, with  
276 a conjunction of RT<sub>1</sub> and RT<sub>3</sub> as its third premise:

- 277 1. If constitutive panpsychism is true, consciousness is constituted by a  
278 vast array of microexperiences.
- 279 2. We cannot know introspectively about microexperiences, nor form  
280 microphenomenal concepts (i.e. phenomenal concepts based on mi-  
281 croexperiences).
- 282 3. If a subject is having an experience, they can know introspectively that  
283 they are, and form phenomenal concepts based on it. (RT<sub>1</sub> and 3)
- 284 4. If experiences constitute a subject’s consciousness, that subject under-  
285 goes them.
- 286 5. We are not undergoing a vast array of microexperiences. (from 2 and 3)
- 287 6. Human consciousness is not constituted by a vast array of microexperi-  
288 ences. (from 4 and 5)
- 289 7. Constitutive panpsychism is false. (from 1 and 6)

290 Finally, there is an interaction between a revelation thesis, specifically RT<sub>5</sub>,  
291 and another aspect of the combination problem, the “palette problem”. How  
292 do the huge range of phenomenal qualities that humans experience arise from  
293 a fundamental base which appears to involve only a quite small number of  
294 fundamental properties? One solution is the “small palette hypothesis”: there  
295 are only a few basic phenomenal qualities, corresponding to the fundamental  
296 physical properties, which are somehow “blended” to generate a plethora  
297 of different qualities for different macroscopic creatures (see [Roelofs 2014](#);  
298 [Coleman 2015, 2017](#); [Chalmers 2017, 204–6](#)), whose pattern of similarities  
299 and differences are explained by their differing proportions of the basic ingre-  
300 dients. Some critics of the small palette hypothesis object that some of our  
301 phenomenal qualities are too heterogeneous to be blended out of a small set  
302 of common elements, because they are *completely* dissimilar, with nothing  
303 phenomenally in common. Goff ([2017, 195](#)), for instance, claims that, “Minty  
304 phenomenology and red phenomenology have nothing in common” (cf. a  
305 similar argument in [McGinn 2006, 96](#)). This line of criticism relies on RT<sub>5</sub>  
306 to rule out these qualities being similar in a way that we cannot recognise  
307 ([Goff 2017, 195–97](#)). Call this the “small-palette revelation argument”, the  
308 full structure of which is very similar to that of the macroexperience-focused  
309 revelation argument:

- 310 1. If the small palette hypothesis is true, then any two phenomenal quali-  
 311 ties experienced by humans have something phenomenal in common.  
 312 2. Reflection on some pairs of human experiences (e.g. red and minty)  
 313 does not reveal them to have anything phenomenal in common.  
 314 3. The nature of a phenomenal quality is revealed by reflection on phe-  
 315 nomenal concepts based on experiences of it. (RT5)  
 316 4. The natures of two things determine whether they have anything phe-  
 317 nomenal in common.  
 318 5. If a pair of phenomenal qualities has something phenomenal in com-  
 319 mon, reflection on phenomenal concepts based on experiences of them  
 320 will reveal this. (from 3 and 4)  
 321 6. Some pairs of human experiences have nothing phenomenal in com-  
 322 mon. (from 2 and 5)  
 323 7. The small palette hypothesis is false. (from 1 and 6)

324 All four arguments have a similar four-premise form: first, a supposed im-  
 325 plication of constitutive panpsychism (or small-palette forms of it); second,  
 326 an introspective datum; third, an epistemological thesis about introspection;  
 327 and fourth, a metaphysical claim, given which the other three premises entail  
 328 the falsity of constitutive panpsychism (or small-palette forms of it). But de-  
 329 spite their common form, I will argue that the arguments go wrong in quite  
 330 different ways.

#### 334 **4 Ways of Responding to the Revelation Arguments**

332 The challenge for constitutive panpsychists is to rebut the above four argu-  
 333 ments without abandoning the revelation approach, components of which  
 334 underpin all of them. I will show how to rebut each argument in turn, while  
 335 keeping the relevant revelation theses as strong as I can.

#### 4361 *The No-Illusions Revelation Argument*

337 Consider first the “no illusions” argument, which had the following four  
 338 premises:

- 339 1. If constitutive panpsychism is true, then human consciousness is always  
 340 “particulate”.  
 341 2. Human consciousness (often) appears introspectively to be “smooth”.

- 342 3. Consciousness can't appear a way that it's not.  
 343 4. Being "smooth" and being "particulate" are incompatible.

344 One option for constitutive panpsychists is to deny premise 1, based on defin-  
 345 ing "particulate" in such a way that a field-based ontology, or a substance-  
 346 monist ontology, or some other account of physical reality, renders it false that  
 347 the material world, and any consciousness isomorphic to it, is particulate (see  
 348 in particular Nagasawa and Wager 2017, 120–21). If the other three premises  
 349 (and constitutive panpsychism) are accepted, this implies that the kind of  
 350 consciousness we enjoy is incompatible with some physical theories (those  
 351 which make matter "particulate") and that we know introspectively that our  
 352 world is not any of those ways.

353 However, I think this approach is a mistake. Even if particles are not ulti-  
 354 mately real, Lockwood's point still holds: even the simplest experience in-  
 355 volves billions of neurones, ions, and neurotransmitters. Even if the space  
 356 containing two sodium ions is ultimately just a set of derivative aspects of the  
 357 one substance, there is still a striking difference in the electrical properties of  
 358 different regions of that space. To dismiss the problem because particles are  
 359 not in the fundamental ontology would be too easy. Consequently, I suggest  
 360 the following definition of "particulate":

361 *X is particulate* iff *X* comprises a very large but finite number of parts  
 362 which differ significantly (in some properties) and discontinuously  
 363 (on some dimension).

364 This definition makes the physical brain particulate whatever the fundamental  
 365 physics turns out to be. Of course this definition will only be as precise as  
 366 "very large" and "differ significantly and discontinuously". The vagueness of  
 367 such terms does not stop us from taking "a trillion or more" as a clear case of  
 368 "very large", and "the mass and charges differences between a water molecule,  
 369 a potassium ion, and a region of empty space between them" as a clear case  
 370 of "differ significantly and discontinuously".<sup>9</sup>

---

9 Note also that the definition requires only that the properties of the parts vary discontinuously in *some* dimension, i.e. on some natural way of ordering them, not on all: intuitively, the salient facts about brain parts like potassium ions are things like the abrupt drop in mass from inside the ion's nucleus to outside it, but this abrupt drop might vanish if we instead consider all parts of the brain in a list ordered by mass. But if we want to define "particulate" in a way that does justice to the no-illusions argument, the possibility of finding some dimension on which all variation is continuous should not disqualify the brain from being particulate.

371 That leaves three remaining options: deny premise 2 (i.e. contradict the  
 372 supposed introspective observation), deny premise 3 (i.e. reject this particular  
 373 revelation thesis), or deny premise 4 (i.e. deny that smoothness and particu-  
 374 larity are incompatible). But everything depends on what “smooth” means.  
 375 What is the feature of experience that is being reported by those who feel the  
 376 pull of this argument?

377 One option is to define “smooth” by ostension: consider some experiences  
 378 without discernible internal structure, what Lockwood (1993, 274) calls a  
 379 “phenomenally flawless” experience, and stipulate that “smooth” means the  
 380 noteworthy feature of those experiences. That would ensure the truth of  
 381 premise 2, but would make it hard to adjudicate the truth of premise 4. My  
 382 preference is to define “smooth” in such a way as to ensure the truth of premise  
 383 4, e.g:

384 *X is smooth* iff it is not particulate.

385 There are then a few different ways for something to be smooth: since being  
 386 particular requires parts, for instance, simple things would count as smooth  
 387 by default. Alternatively, something might be smooth if its parts do not differ  
 388 significantly in any respect, or do not differ discontinuously along any dimen-  
 389 sion. The panpsychist must then deny either premise 2 or premise 3: either  
 390 say that experience does not appear smooth, or say that it does but isn’t.<sup>10</sup>  
 391 At first glance, both options look difficult: premise 3 is, after all, part of the  
 392 Revelation Approach (RT<sub>2</sub>), and if premise 2 is false, why did anyone ever  
 393 advance the argument in the first place?

394 The way out lies in scrutinising the word “appears”, and drawing a dis-  
 395 tinction between illusions, strictly so-called, and easy misinterpretations.  
 396 Consider some non-mental examples: at first an act appears noble, an argu-  
 397 ment compelling, a speech beautiful, and yet then I find that upon giving  
 398 the matter more thought, this appearance vanishes, and I come to think I  
 399 was mistaken. The act now appears fanatical, the argument sophistical, the  
 400 speech saccharine; I think myself foolish for being gullible enough for the act,  
 401 argument, or speech to ever appear otherwise to me. I might say I was subject  
 402 to an “illusion”, but all this mean is that the act, argument, and speech were  
 403 such that they could be very readily misjudged.

---

10 Using the ostensive definition would just translate denial of premise 2 into denial of premise 4: either way, the claim is that there is no property incompatible with particularity that consciousness introspectively seems to have.

404 Contrast this with a white object seen under pure red light, or a straight  
405 stick seen half in water, or an ambitious Scottish nobleman hallucinating a  
406 dagger. The object appears red but isn't, the stick appears bent but isn't, and  
407 there appears to be a dagger, but there isn't. Here no reflection on the appear-  
408 ances will change them, and the subject cannot hold themselves rationally  
409 accountable for being subject to them (perhaps for forming beliefs based on  
410 them, but not for the appearances themselves). Here we have a stronger sense  
411 of "illusion": it is not that these perceptions are easy to misjudge, it is that  
412 their very content is false. Call this the "quasi-perceptual" sense of "appears",  
413 contrasting with the "ready-interpretation" sense (cf. [Stoljar 2013](#); [Kammerer](#)  
414 [2018](#)).

415 Premise 3 (RT<sub>2</sub>) is most plausible if read with the "quasi-perceptual" sense  
416 of "appears". Plausibly it makes no sense to think that my impression of my  
417 own experience is an "illusion" in this stronger sense: surely it would be the  
418 "impression" that deserves to be called my experience, since this is what I am  
419 immediately aware of. To think that consciousness might appear falsely in this  
420 way seems to involve forgetting that consciousness *is* how things appear to  
421 me (cf. [Liu 2020](#)). Or at least, this thought has some appeal, and panpsychists  
422 need not disagree with it.

423 But premise 3 is less plausible if understood in terms of the "ready-  
424 interpretation" sense of "appears", saying that if consciousness is readily  
425 interpreted as having some property, it must actually have that property. After  
426 all, which interpretations come readily depends on the subject's expectations,  
427 background assumptions, interpretive style, etc. An absolute principle, that  
428 no false interpretation could come readily to *anyone*, would be very close to  
429 saying, implausibly, that consciousness was never misinterpreted.

430 So we should read premise 3 as saying that consciousness cannot appear a  
431 way it's not, in the quasi-perceptual sense of "appear". For the argument to  
432 remain valid, premise 2 must also be read in terms of the quasi-perceptual  
433 sense of "appear", not the "ready-interpretation" sense. But now premise 2 is  
434 much more deniable. We can deny premise 2, in this strong sense, by taking  
435 the appearance of smoothness to be a matter of what interpretations come  
436 readily, and not of how things quasi-perceptually appear.

437 This is my preferred response to the "no illusions" argument: our consci-  
438 ousness really is particulate, not smooth, but it is readily misinterpreted as  
439 smooth. But this misinterpretation demands an explanation - what is it about  
440 the way consciousness *does* appear, which makes us judge it "smooth"?

441 One answer appeals to the difference between represented structure and  
 442 structured representations: that is, experience represents things as being  
 443 smooth, rather than itself being smooth (versions of this proposal appear in:  
 444 Clark 1989; Stoljar 2001). Critics have worried that experience itself really  
 445 does seem to display the relevant sort of smoothness (e.g. Alter and Nagasawa  
 446 2012, 91), and that representing a smooth expanse may be insufficient for  
 447 introspectively seeming, even in the weak sense, to be smooth (consider the  
 448 sentence “space is infinitely divisible”). Another answer is to say that many  
 449 experiences quasi-perceptually appear to have, and thus (by RT<sub>2</sub>) actually  
 450 have, some property similar to, but not identical to, “smoothness”. In section  
 451 5 I flesh out this approach.

#### 4.3.2 *The Macroexperience-Focused Revelation Argument*

453 Next, consider the macroexperience-focused argument, whose premises are:

- 454 1. If constitutive panpsychism is true, each human experience (“macroex-  
 455 perience”) is constituted by a vast array of microexperiences.
- 456 2. A vast array of microexperiences is not revealed by reflection on  
 457 macrophenomenal concepts (i.e. phenomenal concepts based on  
 458 macroexperiences).
- 459 3. The nature of a phenomenal property is revealed by reflection on phe-  
 460 nomenal concepts based on experiences of it.
- 461 4. Whatever constitutes something is part of its nature.

462 I see little prospect for denying premises 1 and 2,<sup>11</sup> and premise 3 is one of the  
 463 revelation theses I want to preserve. Chalmers, when he lays out the argument  
 464 of which this is a variant, advises panpsychists to attack premise 4: to drive a  
 465 wedge between something’s nature and what constitutes it. I agree that this is  
 466 the right tack, but everything turns on what kind of “nature” is in question,  
 467 which in turn depends on how we read premise 3, the self-intimation thesis.  
 468 I think there is a plausible and well-motivated sense of “knowing a nature”

---

11 It might look like cosmopsychists can wriggle out of premise 1. But this is illusory: the only way cosmopsychists can deny premise 1 is to commit to an analogous premise that supports a *harder* revelation argument. If they deny that the brain is constituted by neurons, ions, etc., they must instead accept a replacement premise 1\*: “If constitutive panpsychism is true, each human experience (‘macroexperience’) constitutes a vast array of microexperiences.” We then run the same argument, with premise 4 replaced by 4\*: “Whatever something constitutes is part of its nature.” And I think premise 4\* is noticeably *more* plausible than premise 4.

469 which explains why premise 4 is false, without undermining anti-physicalist  
 470 arguments.<sup>12</sup>

471 First consider this common gloss: knowing the nature of a property means  
 472 being in a position to know a priori every necessary truth about that prop-  
 473 erty.<sup>13</sup> If I know the nature of squareness, I am in a position to know a priori  
 474 every necessary truth about squareness (like what squares' internal angles  
 475 sum to, or what kinds of triangles they can be divided into), though not to  
 476 know contingent truths about it (like whether it is my sister's favourite shape).  
 477 Likewise if I know the nature of being water, I can know every necessary truth  
 478 about being water (like that water is a chemical compound, or its molecular  
 479 mass), though not every contingent truth about it (like whether it is instan-  
 480 tiated on Earth). This suggests that we know the natures of mathematical  
 481 properties, but do not automatically know the natures of chemical properties,  
 482 though perhaps we do now, given scientific progress. And those results seem  
 483 plausible.

484 But this gloss is inadequate. Consider someone who knew the nature of  
 485 squareness but not the nature of triangularity (if that were possible). They  
 486 would not be in a position to know a priori that every square can be divided into  
 487 four right-angled triangles. This suggests a refinement: knowing the nature  
 488 of some property means being in a position to know *a priori* all the necessary  
 489 truths about that property which involve only other properties whose natures  
 490 you also know. To put it another way, to know a priori a necessary truth  
 491 involving two properties, you need to know the natures of both: just knowing  
 492 the nature of one is not enough.<sup>14</sup> This implies, in particular, that knowing the  
 493 nature of a constituted property is not sufficient to know about its constitution  
 494 relationships to other properties, without also knowing the natures of those  
 495 other properties.

---

12 The argument discussed in Lee (2019) combines premises 3 and 4 into a single claim, "Structure Luminosity: If a subject introspects an experience, then that subject is in a position to know the phenomenal realizers of that experience" (2019, 292). Lee argues (in my view plausibly) that this is false, but does not clearly identify which elements of it remain true, and whether they are enough for anti-physicalist arguments.

13 I am abstracting away from difficulties of memory, attention, and general cognitive skills: in practice, many necessary truths might be just too complicated or subtle for a human mind to entertain, but that should not stop us from saying that someone is in a position to know them if all they would need to do so is an enhancement of their general cognitive skills.

14 This is not a retreat from the idea that the phenomenal property's "whole nature" is revealed. There is no part of its nature that is hidden: there are only hidden connections between its nature and other natures, and those connections are hidden for the simple reason that those other natures are hidden.

496 I think this provides a plausible reading of “knowing a property’s nature”,  
 497 and thereby of RT<sub>5</sub>, which does precisely what constitutive panpsychists need  
 498 it to do: substantiate their arguments against physicalism, without substanti-  
 499 ating the revelation argument against their own view. For on this reading  
 500 of “knowing a nature”, that we know the natures of macrophenomenal prop-  
 501 erties implies that for any other set of properties whose natures we know,  
 502 we are in a position to tell a priori whether those properties are sufficient to  
 503 constitute macrophenomenal properties. And the case against physicalism is  
 504 that physical properties do not seem a priori to constitute macrophenomenal  
 505 properties. Of course, this attack only works if we know the natures of phys-  
 506 ical properties (e.g. if we think of them as exhausted by what physics says  
 507 about them, as what Stoljar (2001) calls the “t-physical” properties, and what  
 508 Strawson (2006) calls “physical” properties). It will not work if we think of  
 509 physical properties as whatever properties physical things have which in fact  
 510 account for their satisfying the descriptions given by physics (what Stoljar  
 511 (2001) calls the “o-physical” properties). But that way out is no use to standard  
 512 physicalism, which needs physical properties to be well-understood: to say  
 513 that the reason the conceivability argument fails is that there is some mysteri-  
 514 ous hidden nature of the physical, which plays some crucial role in accounting  
 515 for consciousness, is to embrace the kind of “non-standard physicalism” (cf.  
 516 [Stoljar 2006](#)) that is no longer incompatible with panpsychism.

517 But why doesn’t knowing the natures of macrophenomenal properties  
 518 substantiate a parallel argument against constitutive panpsychism? Because  
 519 panpsychists do not claim that we know the natures of microphenomenal  
 520 properties, because we are not the microsubjects who instantiate those prop-  
 521 erties (though see the next subsection for some complications of this claim).  
 522 Without knowledge of the candidate constituting properties, we cannot de-  
 523 termine a priori their suitability to constitute macrophenomenal properties.  
 524 All the constitutive panpsychist is committed to is a conditional claim: *if*  
 525 we were able to grasp the natures of microphenomenal properties, then we  
 526 could, in principle, see a priori that, when properly arranged, they constitute  
 527 macrophenomenal properties.

### 4.2.3 *The Microexperience-Focused Revelation Argument*

529 Thirdly, consider the microexperience-focused revelation argument: why can’t  
 530 we introspect microexperiences like we can macroexperiences? The premises  
 531 of this argument are:

- 532 1. If constitutive panpsychism is true, consciousness is constituted by a  
533 vast array of microexperiences.
- 534 2. We cannot know introspectively about microexperiences, nor form  
535 microphenomenal concepts.
- 536 3. If a subject is having an experience, they can know introspectively that  
537 they are, and form phenomenal concepts based on it.
- 538 4. If experiences constitute a subject's consciousness, that subject under-  
539 goes them.

540 Again, I see little hope in denying premises 1 or 2,<sup>15</sup> which leaves three options:  
541 deny premise 3 (“we *are* undergoing microexperiences, but cannot introspect  
542 them”), deny premise 4 (“microexperiences constitute our consciousness, but  
543 we do not undergo them”), or show the argument to be invalid.

544 Goff's approach in his (2017, 189ff.) is to deny premise 4, to “loosen” the  
545 relation between microexperiences and macroexperiences, so that although  
546 microexperiences in some sense constitute (or “ground”, “compose”, or “form”)   
547 macroexperiences, the phenomenal character of the latter contains nothing  
548 of the former. The cost of this is that the constitution relation between mi-  
549 croexperiences and macroexperiences is thereby made more mysterious. If  
550 this relation were one in which both constituted and constituter were un-  
551 dergone by the same subject, it could be akin to familiar relations among  
552 macroexperiences. For instance, the relation between my total phenomenal  
553 field right now and the component experiences that it subsumes (sounds I'm  
554 hearing, colours I'm seeing, twinges of physical discomfort, etc.) is plausibly  
555 something like constitution. It would be nice if panpsychists could assimilate  
556 the microexperience-macroexperience relation to familiar relations like this,  
557 where a single subject undergoes all the experiences involved; without that  
558 link it is hard to see why microexperiences should really be said to “consti-  
559 tute” a macroexperience, as opposed to somehow giving rise to it as a distinct  
560 product.

561 I think the best approach is to say the argument is invalid *when premise 3 is*  
562 *qualified* in certain ways that are independently necessary to make it plau-  
563 sible. An unqualified form of premise 3 faces easy counterexamples: ferrets

---

15 Again, though one might think cosmopsychists can deny premise 1, there is no advantage to be gained thereby: the replacement premise 1\* - “If constitutive panpsychism is true, human consciousness constitutes a vast array of microexperiences” - will support a revised version of the argument, when paired with 4\* - “If experiences are constituted by a subject's consciousness, that subject undergoes them.” And again, 4\* seems to me even more plausible than 4.

564 undergo many experiences, but cannot form phenomenal concepts, or know  
 565 that they are having experiences. But plausibly this is not a counter-example  
 566 to what premise 3 was intended to say! The problem is not that ferrets' experi-  
 567 ences are somehow hidden from them, but just that they lack the conceptual  
 568 competence to recognise their experiences as such. A qualified version of  
 569 premise 3 would allow for this: it would say that certain kinds of knowledge  
 570 and concept-formation are possible whenever a subject undergoes an experi-  
 571 ence *and* meets various other conditions. Another plausible requirement  
 572 is attention: one must focus on an experience in order to introspect it, and if  
 573 one is unable to direct one's attention, introspection will be impossible.<sup>16</sup>

574 So let us consider a qualified reading of premise 3, that includes these  
 575 conditions: introspective knowledge is possible whenever a subject undergoes  
 576 an experience, *and* is capable of conceptualising it, *and* focuses their attention  
 577 on it. The argument has now become invalid: line 5 (“we are not undergoing a  
 578 vast array of microexperiences”) no longer follows from 2 and 3. There are two  
 579 reasons why we might be phenomenally undergoing microexperiences but be  
 580 unable to know them introspectively, compatibly with this weaker reading of  
 581 premise 3: if humans cannot conceive of experiences as such, or if they are  
 582 unable to attend to microexperiences. While the first of these options is clearly  
 583 false, the second is, I think, the best option for the constitutive panpsychist in  
 584 rebutting the microexperience-focused argument.

585 This implies that while microexperiences are phenomenally conscious for  
 586 us, they are not access-conscious for us. That is, microexperiences are pre-  
 587 sented to us, “right there”, characterising the phenomenal character of our  
 588 consciousness, but they are not presented in such a way that we can cogni-  
 589 tively select, access, and identify them. Our relationship to them is rather  
 590 like our relationship to elements of our experience that are very faint, which  
 591 require a lot of effort to focus on and distinguish from their surroundings,  
 592 and which it is correspondingly easier to distract us from. If something in  
 593 my peripheral vision is roughly the same colour as its surroundings, it would  
 594 be hard for me to notice it, and if I were distracted, exhausted, or inebriated  
 595 I might find attending to it all but impossible. Yet it is still part of my phe-  
 596 nomenology, not somehow hidden from me. The constitutive panpsychist,  
 597 I am suggesting, should claim that this near-impossibility of attending to  
 598 peripheral vision while distracted is intensified to a real practical impossibility

16 Goff's statement of revelation (2017, 109–10) mentions attention explicitly, and Chalmers appeals to inattention as a primary reason for thinking that his principles of “detectability” and “reliability” can only hold for the most part, not absolutely (Chalmers 1995, 326; 1996, 218–19).

599 with microexperiences. In section 5 I situate this impossibility claim within a  
 600 broader picture of how the mind is constituted by microexperiences, which  
 601 will help to motivate this response to the microexperience-focused argument.

#### 4.2.4 *The Small-Palette Revelation Argument*

603 Finally, consider the small-palette revelation argument, whose premises are:

- 604 1. If the small palette hypothesis is true, then any two phenomenal quali-  
 605 ties experienced by humans have something phenomenal in common.
- 606 2. Reflection on some pairs of human experiences does not reveal them to  
 607 have anything phenomenal in common.
- 608 3. The nature of a phenomenal quality is revealed by reflection on phe-  
 609 nomenal concepts based on experiences of it. (RT5)
- 610 4. The natures of two things determine whether they have anything phe-  
 611 nomenal in common.

612 Since this is not an argument against constitutive panpsychism per se, there  
 613 are technically five options for constitutive panpsychists in responding to it:  
 614 deny one of the premises, or accept the conclusion. Accepting the conclusion  
 615 would mean accepting a “large palette” version of constitutive panpsychism,  
 616 with all human and animal qualities present in the base even though that is  
 617 more than there are distinct physical roles to play (see, e.g. [Lewtas 2013](#)). The  
 618 downside is that this sacrifices the appealing parsimony, and isomorphism  
 619 with physics, that had seemed to set constitutive panpsychism apart from  
 620 traditional sorts of dualism. Denying premise 3 is also unattractive, since it  
 621 undermines the case for panpsychism over physicalism.

622 Denying premise 4 here (as Lee does, [2019, 300–301](#)) is harder than denying  
 623 premise 4 of the macroexperience-focused argument, that “what constitutes  
 624 something is part of its nature”. I denied the latter because knowing a prop-  
 625 erty’s nature is not enough to know necessary truths about it which involve  
 626 the nature of another property; we would have to know that other property’s  
 627 nature as well. But when it comes to comparing two qualities that we do  
 628 experience distinctly, it seems to follow that we should be able, in principle,  
 629 to discern every necessary truth about how those qualities relate, and that  
 630 should include their resemblance or common constituents.<sup>17</sup>

---

17 Could we find a more carefully qualified version of RT5, on which knowing the natures of two properties enables us to know whether one suffices to constitute the other, but not whether and

631 We might deny premise 4 in the same way we might deny premise 4 of the  
 632 microexperience-focused argument, by saying that although the basic qualities  
 633 constitute the macroqualities, they do not characterise them - the “blending”  
 634 leaves no trace of the ingredients at all. But this has the same downsides  
 635 discussed in the last subsection: if microqualities in no way characterise the  
 636 macroqualities, the form of constitution involved seems mysterious.

637 That leaves denying premise 1 or premise 2. Premise 1 might seem un-  
 638 deniable, due to the “interchangeability” of different neurons: experiences  
 639 of redness and of mintiness involve neurones made of all the same sorts of  
 640 subatomic particles, so how can one contain any ingredient missing from  
 641 the other? Any ingredient of the redness experience comes from electrons,  
 642 quarks, photons, etc., and those same things are all present in the physical  
 643 basis of a mintiness experience, so how could they not show up in the latter?  
 644 But this falsely assumes that each macroexperience should contain every in-  
 645 gredient present in its neural basis, as though each one were the independent  
 646 product of one discrete subset of neurones. It might instead be that several  
 647 macroexperiences are all grounded in the activity of the same neurones, being  
 648 just different aspects of the complex, differentiated experience produced by  
 649 those neurones.

650 Consider a bar magnet, whose macroscopic behaviour displays a “north  
 651 pole” and “south pole”. The north pole does not arise from one half of the  
 652 magnet, and the south pole from the other half: both macroscopic features  
 653 arise from very same microscopic physical things, because those things are  
 654 themselves internally differentiated and their different aspects add up to what  
 655 looks, from a macroscopic perspective, like two different things. It would be  
 656 a mistake to say “since all the particles generating the magnet’s north pole  
 657 also have south poles, why don’t their south poles show up in the magnet’s  
 658 north pole?” Perhaps mintiness and redness are likewise different aspects of  
 659 the same complex experience, itself arising from the combination of a great  
 660 many internally differentiated microexperiences, combining in different ways  
 661 depending on such things as firing rates and degrees of neural synchrony. Then  
 662 they might have nothing phenomenal in common, despite being constituted  
 663 by the same things.

664 However, there are limitations to this response. It might allow for a few  
 665 completely dissimilar pairs to be compatible with the SPH, but not that many -

---

how they resemble each other? Maybe, but this feels ad hoc to me; I see no plausible way to motivate it.

666 if there are a hundred completely dissimilar qualities experienced by humans,  
 667 saying that they arise from the way that internally differentiated aspects of  
 668 microexperiences are combined starts to load microexperiences with too much  
 669 structure for us to retain the SPH. To keep the palette small, there shouldn't be  
 670 too many completely dissimilar pairs of qualities, which is why this response  
 671 to the argument works best when combined with another: denying premise 2.

672 Denying premise 2 means denying that redness and mintiness have abso-  
 673 lutely nothing at all in common. After all, our ability to recognise two things  
 674 as akin to one another is usually enhanced by our ability to recognise and  
 675 attend to the features they share, and if we never experience their shared fea-  
 676 tures in isolation, we may take them to be entirely unlike even if they are not.  
 677 Sometimes, of course, two qualities seem inarticulately alike even without an  
 678 identifiable shared feature; this is why we routinely describe qualities of one  
 679 modality using terms drawn from another (warm, harsh, sweet, soft, loud,  
 680 etc.). The SPH and RT5 can both be retained as long as idealised scrutiny of  
 681 these inchoate likenesses would reveal a system of qualitative connections  
 682 over our entire experiential range. This view is defended by Coleman:

683 [...] just as it's possible to move across the colour spectrum in tiny,  
 684 almost undetectable steps, it must be possible to move from tastes  
 685 to sounds, sounds to colors, and so on, via equally tiny steps. Tip-  
 686 toeing between modalities already seems *conceivable* in certain  
 687 cases, perhaps even actual. We know that what we experience as  
 688 "taste" is really some kind of fusion of qualia sourced from the  
 689 nose and from the tongue [...]. To address qualitative incommen-  
 690 surability we must stretch to conceiving of such continuities as  
 691 the rule rather than the exception. (Coleman 2017, 264, emphasis  
 692 in original; cf. Coleman 2015; Hartshorne 1934, 35ff.)

693 This claim does not seem to me obviously false, but it is at least dubitable.  
 694 Consequently, the revelation approach may be most threatening to consti-  
 695 tutive panpsychists not through any of the three pure revelation arguments,  
 696 but through intensifying the palette problem. Accepting revelation pushes  
 697 constitutive panpsychists towards either a large-palette solution like Lew-  
 698 tas's, or towards Coleman's very bold and ambitious form of the small-palette  
 699 hypothesis.

## 5 Confusion and Revelation

Identifying a premise of an argument that might be false is often not, by itself, an effective way to persuade critics. For all that I have said so far, this “medium-strength” version of revelation, interpreted and qualified so as to undermine arguments against panpsychism while substantiating arguments against physicalism, might be technically consistent but ad hoc and unmotivated, a dingy corner of logical space which panpsychists can awkwardly retreat to. But in fact, these qualified revelation theses flow from a reasonable picture of the limits of human self-knowledge, on which the introspective ignorance that constitutive panpsychism implies differs only in degree from familiar forms of introspective ignorance.

It is commonplace to say that when two experiences become phenomenally unified, they form a composite experience which subsumes them: they still exist, and are still undergone by the subject, but they are now “undergone together”. We easily recognise this when we can discern introspectively not just the composite experience but also its components: but what if the discernibility of the component experiences is not an automatic consequence of the composite experience being composite? We might consider the idea that it depends instead on having the right structure of informational relations among the components.<sup>18</sup> Perhaps if these relations make the subject’s overall dynamics differentially sensitive to multiple distinct features of the experience, the composite experience will be characterised by contrast among those features: they will stand out as distinct things. If not, those features will be present in the composite experience in an undifferentiated way, as a single element whose phenomenal quality is a seamless blend of its components. In short: the component experiences all go in together, but the way they are present in the composite experience depends on how they are organised.

What explains why experiences should compose in this way is a further question, which I cannot here address (though see [Roelofs 2016; 2019, 123–25, 166–70](#)). But suppose some conditional like this were true: when distinct experiences are unified, they can be distinguished by the subject only if they have the right informational structure. Although the human brain is an exquisitely structured processor of information, it has limits. The overall dynamics of the brain can perhaps be sensitive to whether a neurone fires, but not (as far as we know) to which ions in that neurone played which roles in its firing. Since

<sup>18</sup> This is a long-standing idea among panpsychists, though spelling it out in detail is not simple. See [Chalmers \(1996\)](#), 284–292; [Chalmers \(2017\)](#), 209–210; [Gabora \(2002\)](#); [Roelofs \(2019\)](#), 171–176.

735 individual events at the microscopic level are informationally inaccessible,  
 736 they will be experienced by the whole in a blended way. They each make a  
 737 minute difference to the quality of some element of the whole's experience,  
 738 but they do not stand out as distinct elements of it. To use a term made famous  
 739 by Leibniz, they are "confused" with one another, the way that the sounds of  
 740 each bit of water striking the shore are "confused" in the roar of the sea.<sup>19</sup>

741 I have elsewhere elaborated more fully on the idea of confusion as I un-  
 742 derstand it (2019, 126–29), but the essential idea is captured in the following  
 743 definition:

744 Two experiences are *confused* with each other, relative to a subject,  
 745 iff that subject cannot distinguish them by attending to one without  
 746 simultaneously attending to the other.<sup>20</sup>

747 It is important to emphasise that confusion is not a matter of a subject "per-  
 748 ceiving" things outside themselves so poorly that they cannot distinguish the  
 749 parts of that outside thing. Confusion is a matter of how the subject's own  
 750 states are related, not a relation between them and something external. For  
 751 example, someone viewing a pointillist painting, for whom the many dots  
 752 of paint "blur together", is not thereby subject to confusion, if they simply  
 753 have a single experience that is the product of many external objects. A better  
 754 example would be someone with an untrained palate, who drinks coffee and  
 755 experiences (let us stipulate) the same diversity of taste and flavour experi-  
 756 ences as a practiced connoisseur but experiences them together as a single  
 757 blended flavour, without being able to pick out the bitterness from the aroma,  
 758 etc.

759 Confusion may depend on circumstances. When we are tired, distracted, or  
 760 drunk we often cannot distinguish things which we could under better condi-  
 761 tions. Then our experiences are confused only relative to those circumstances.  
 762 Confusion can also depend on a subject's conceptual repertoire: sometimes  
 763 we cannot distinguish two things using their present concepts, but would  
 764 be able to if we learnt new ones. Call confusion which can be removed by

---

19 This idea of the mind as comprising a vast number of "little perceptions", most of which cannot be distinguished from one another by the subject, is arguably present in several early modern writers as well as Leibniz, in particular Spinoza, Wolff, and Kant. For discussion see Wilson (1980), Thiel (2011), Liang (2017), and Indregard (2018). To use a more modern phrasing from Andrew Lee (2019), they make up the non-introspectible "microstructure of experience".

20 In the primary instance confusion is defined over tokens, but we can easily define a secondary sense in which two types are confused for a subject when any token of those types onto which a given subject could direct a given operation would be confused with a token of the other type.

765 adjusting the subject's bodily surroundings or condition, or improving their  
 766 conceptual repertoire, or in some similarly mild way, "shallow confusion", and  
 767 call confusion which persists even into ideal conditions, "robust confusion".

768 In between shallow and robust is confusion which persists until the subject  
 769 becomes distinctly acquainted with a token of the same type as the confused  
 770 elements. For example, suppose the sensory component of pain is robustly  
 771 confused with the unpleasant affect pain involves, except for subjects who  
 772 have experienced "pain asymbolia", the rare condition of feeling pain with-  
 773 out finding it at all unpleasant (cf. Grahek 2007; Klein 2015). If they regain  
 774 normal pain experiences, they might find themselves newly able to attend  
 775 to its sensory element in isolation. If this were to happen, we might say that  
 776 their original confusion was "nearly-robust": removable only by somehow  
 777 acquainting them with (a token of the same type as) one of the confused  
 778 elements on its own.<sup>21</sup>

779 When confusion is shallow, we have an easy way to tell that we suffer  
 780 from it: we remove it and contrast the resulting distinction with the earlier  
 781 confusion. With sufficiently robust confusion, we would not have such means  
 782 of recognising it; we could not tell that we were confused. And if we suffered  
 783 from confusion that was "nearly-robust", it would be undetectable, except  
 784 by means of independent acquaintance with elements of the same type as  
 785 the confused ones. We could, that is, be subject to a lot of confusion without  
 786 being able to tell, introspectively. And if constitutive panpsychism is true - in  
 787 particular, if micro-experiences corresponding to all the physical details of our  
 788 brains were somehow present in our consciousness - then we should expect  
 789 just that: all the experiences of our microparts would be confused relative to  
 790 us. Call this the Radical Confusion Hypothesis.

791 Confusion is defined functionally, but that does not imply that confusion is  
 792 a purely functional fact that makes no phenomenal difference. My suggestion  
 793 is that undergoing two confused experiences feels different to undergoing  
 794 two distinguishable experiences, even if those experiences are the same in all  
 795 intrinsic respects. When the components of an experience are distinguishable  
 796 by the subject, they are phenomenally present as discernible, separate, parts -  
 797 there is an experience of phenomenal contrast, of things standing out against  
 798 other things. But when they are confused, they are present qualitatively, as  
 799 contributions to the total quality of the experience they blend into.

---

21 In other work (2019, 128–29), I also distinguish between "strong" and "weak", and "symmetrical" and "asymmetrical" confusion, but this does not substantially affect the argument so I omit it here for simplicity.

800 How would the Radical Confusion Hypothesis help with the four revelation  
801 arguments? Recall that in response to the “no illusions” argument, I denied  
802 premise 2: that human consciousness positively appears introspectively to be  
803 “smooth” (there defined as “not particulate”). I maintained that this is false if  
804 “appears introspectively” is read in a strong, quasi-perceptual sense; it is true  
805 only if “appears introspectively” is read in a weaker sense, as meaning “it is  
806 easy and natural to interpret experience this way”.

807 Now I can say *why* this misinterpretation is easy and natural: because many  
808 human experiences display something close to “smoothness”, namely, all  
809 their component experiences are nearly-robustly confused with each other,  
810 distinguishable only by a subject who already knows what to look for. A  
811 subject who lacks any distinct acquaintance with the ingredients will be  
812 unable to distinguish them or discern their internal structure. We might say  
813 that experiences all of whose components are confused with one another are  
814 “pseudo-smooth”, and it is true (and introspectively obvious!) that many of  
815 our experiences are pseudo-smooth. But to infer genuine smoothness from  
816 pseudo-smoothness is a metaphysical over-interpretation which goes beyond  
817 the introspective deliverances: it is inferring absence of structure from the  
818 failure of structure to be manifest in a certain way (it is thus very similar to  
819 the “headless woman illusion” discussed by Armstrong (1968), where not  
820 seeing someone’s head gives us the vivid but false impression that they have  
821 no head). The noticeable quality that some experiences have, which prompted  
822 the “no illusions” argument, is just what radical confusion feels like.

823 Second, in response to the macroexperience-focused argument I denied  
824 premise 4, that whatever constitutes something is part of the “nature” that  
825 is revealed to us by pure phenomenal concepts. I suggested that a priori  
826 reflection tells us only those necessary truths that involve *only* properties  
827 whose nature we know - such as whether one could constitute the other. But  
828 just knowing the nature of one property does not tell all the things that could  
829 constitute it, nor what constitutes a particular instance of it.

830 I can now elaborate on this distancing of constitution from “nature”.  
831 Macroexperiences are composite experiences composed of many microexperi-  
832 ences confused with one another. Their phenomenal character is determined  
833 by combining the phenomenal characters of those component experiences,  
834 which they subsume in fundamentally the same way that a person’s total  
835 experience at any one time subsumes the partial experiences they are having  
836 at that time. But just as two composites might end up sharing certain  
837 properties despite being constituted by different sets of parts, and despite

838 their properties being mere combinations of the properties of their parts, two  
 839 composite experiences might have the same phenomenal character, despite  
 840 being constituted by different sets of microexperiences. The particular parts  
 841 might be essential to the particular macroexperience, but not to the property  
 842 that it is an instance of.

843 I also said, in response to the small-palette revelation argument, that dis-  
 844 tinct macroexperiences might arise from the same neural basis: we need not  
 845 assume that each distinguishable element of our consciousness contains the  
 846 entire phenomenal nature of one discrete subset of physical entities. The  
 847 radical confusion hypothesis reinforces this point: it says that which expe-  
 848 riences phenomenally contrast or phenomenally blend with one another  
 849 in human experience reflects the informational structure of the brain, so a  
 850 single macroexperience might not correspond to any discrete section of the  
 851 underlying physical substrate. Instead, it will correspond to a set of features  
 852 of the substrate such that information about them collectively is extracted  
 853 and used by the brain, but information about them individually is not. Thus  
 854 different macroexperiences based in the same brain area might have different,  
 855 even non-overlapping sets of phenomenal ingredients, because they reflect  
 856 different features of the same microexperiences.

857 Finally, in response to the microexperience-focused argument I suggested  
 858 that our ignorance of microexperiences is compatible with our undergoing  
 859 them, if we cannot attend to them. Now I can add that our inability to attend  
 860 to microexperiences is part-and-parcel of their being confused for us. Their  
 861 radical confusion is explained by the limitations discussed above on how  
 862 much information about microscopic brain events can be extracted by the rest  
 863 of the brain.<sup>22</sup> Because radically confused experiences cannot be distinctly  
 864 attended to, we cannot know them or their natures, even though the experi-  
 865 ences “present themselves” in the sense that if their subject could attend to  
 866 them they could know them and their natures by introspection.

867 An opponent might object that even though attending to particular experi-  
 868 ences can be harder or easier, depending on, e.g. architectural facts about the  
 869 brain, it cannot be *strictly impossible* for me to attend to an experience, if it  
 870 is really is an experience I am undergoing. I reply that distinctly attending  
 871 to microexperiences is *not* strictly impossible, just impossible in practice (as  
 872 as discussed in Lee 2019, 296–97). They are manifest in our consciousness, but

---

22 This allows for a limited sense in which microexperiences *are* accessible: namely that they can be accessed only by acts which are also accessing many other microexperiences at the same time. They cannot be *individually* accessed, but they can be accessed *collectively*.

873 incredibly difficult to pick out. After all, it is very difficult for the large-scale  
874 dynamics of our brain to be sensitive to changes in a single particle, but there  
875 is no in-principle impossibility in there being such sensitivity, perhaps using  
876 advanced technology or strange altered states of consciousness.<sup>23</sup>

## 876 6 Conclusions

878 The idea of “revelation”, that having an experience provides a special insight  
879 into its nature, is a key weapon in the armoury of anti-physicalists. But for  
880 constitutive panpsychists there is a risk it will blow up in their faces. I have  
881 argued, however, that a suitably-qualified form of the revelation approach can  
882 bring down physicalism while leaving panpsychism standing: a form which  
883 reconciles the profound fallibility of the human mind’s self-knowledge with  
884 the perfect transparency of its access to its itself. Although nothing does or  
885 could “conceal” our own experiences from us, we are nevertheless limited  
886 in our ability to attend to their elements, prone to misinterpret them, and  
887 consequently unable to tell introspectively just how composite they might  
888 really be.\*

889 Luke Roelofs  
890 New York University  
891 luke.mf.roelofs@gmail.com

## 892 References

- 893 ALTER, Torin, and Yujin NAGASAWA. 2012. “What Is Russellian Monism?” *Journal of*  
894 *Consciousness Studies* 19 (9–10): 67–95.
- 895 ARMSTRONG, David M. 1968. “The Headless Woman Illusion and the Defence of  
896 Materialism.” *Analysis* 29 (2): 48–49. doi:10.1093/analys/29.2.48.

---

23 Note that there need not be any sharp boundary between “the simplest experiential element that we can distinguish” and “the most complex experiential element that is radically confused.” For different people, under different conditions, different distinctions among one’s internal states and processes may be possible. Radically confused experiences are not a qualitatively distinct sort of experience from distinguishable ones, any more than “places I can walk to in ten minutes” are a sharply separate set of places from those I can walk to in ten minutes; my walking ability, like my introspective discernment, waxes and wanes as I change and as conditions change.

\* This paper expands on ideas presented over pages 132–137 of Roelofs (2019). Their further development owes a great deal to audiences at the Australian National University and the CEU’s workshop “Russellian Monism: Time for the Details” in Budapest.

- 897 BALL, Derek. 2009. "There Are No Phenomenal Concepts." *Mind* 118 (472): 935–62.  
898 doi:10.1093/mind/fzp134.
- 899 BRADDON-MITCHELL, David, and Robert NOLA, eds. 2009. *Conceptual Analysis and*  
900 *Philosophical Naturalism*. Cambridge, Massachusetts: The MIT Press.
- 901 BYRNE, Alex, and David R. HILBERT. 2007. "Color Primitivism." *Erkenntnis* 66 (1–2):  
902 73–105. doi:10.1007/s10670-006-9028-8.
- 903 CHALMERS, David J. 1995. "Absent Qualia, Fading Qualia, Dancing Qualia." In *Con-*  
904 *scious Experience*, edited by Thomas Metzinger, 309–29. Paderborn: Ferdinand  
905 Schöningh.
- 906 ———. 1996. *The Conscious Mind: In Search of a Fundamental Theory*. Oxford: Oxford  
907 University Press.
- 908 ———. 2003a. "Consciousness and Its Place in Nature." In *The Blackwell Guide to*  
909 *the Philosophy of Mind*, edited by Stephen P. Stich and Ted A. Warfield, 102–42.  
910 Blackwell Philosophy Guides. Oxford: Basil Blackwell Publishers.
- 911 ———. 2003b. "The Content and Epistemology of Phenomenal Belief." In *Conscious-*  
912 *ness: New Philosophical Perspectives*, edited by Aleksandar Jokić and Quentin  
913 Smith, 220–72. Oxford: Oxford University Press.
- 914 ———. 2009. "The Two-Dimensional Argument Against Materialism." In *The Oxford*  
915 *Handbook of Philosophy of Mind*, edited by Brian P. McLaughlin, Ansgar Becker-  
916 mann, and Sven Walter, 313–37. Oxford Handbooks. Oxford: Oxford University  
917 Press.
- 918 ———. 2017. "The Combination Problem for Panpsychism." In *Panpsychism. Contem-*  
919 *porary Perspectives*, edited by Godehard Brüntrup and Ludwig Jaskolla, 179–214.  
920 Oxford: Oxford University Press.
- 921 CLARK, Andy. 1989. "The Particulate Instantiation of Homogeneous Pink." *Synthese*  
922 80 (2): 277–304. doi:10.1007/bf00869488.
- 923 COLEMAN, Sam. 2015. "Neuro-Cosmology." In *Phenomenal Qualities. Sense, Perception,*  
924 *and Consciousness*, edited by Paul Coates and Sam Coleman, 66–102. Oxford:  
925 Oxford University Press.
- 926 ———. 2017. "Panpsychism and Neutral Monism: How to Make up One's Mind."  
927 In *Panpsychism. Contemporary Perspectives*, edited by Godehard Brüntrup and  
928 Ludwig Jaskolla, 249–82. Oxford: Oxford University Press.
- 929 DAMJANOVIC, Nic. 2012. "Revelation and Physicalism." *Dialectica* 66 (1): 69–91.  
930 doi:10.1111/j.1746-8361.2012.01290.x.
- 931 DENNETT, Daniel C. 2007. "What RoboMary Knows." In *Phenomenal Concepts and*  
932 *Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, edited by  
933 Torin Alter and Sven Walter, 15–31. Oxford: Oxford University Press.
- 934 DÍAZ-LEÓN, Esa. 2011. "Reductive Explanation, Concepts, and A Priori Entailment."  
935 *Philosophical Studies* 155 (1): 99–116. doi:10.1007/s11098-010-9560-x.
- 936 GABORA, Liane. 2002. "Amplifying Phenomenal Information: Toward a Fundamental  
937 Theory of Consciousness." *Journal of Consciousness Studies* 9 (8): 3–29.

- 938 GAUDRY, Justin. 2008. "Does Physicalism Entail Cosmopsychism?" <https://panexperientialism.blogspot.com/2008/05/does-physicalism-entail-cosmopsychism.html>.
- 939
- 940 GOFF, Philip. 2006. "Experiences Don't Sum." *Journal of Consciousness Studies* 13
- 941 (10–11): 53–61.
- 942 ———. 2015. "Real Acquaintance and Physicalism." In *Phenomenal Qualities. Sense,*
- 943 *Perception, and Consciousness*, edited by Paul Coates and Sam Coleman, 121–45.
- 944 Oxford: Oxford University Press.
- 945 ———. 2017. *Consciousness and Fundamental Reality*. Oxford: Oxford University
- 946 Press.
- 947 GRAHEK, Nikola. 2007. *Feeling Pain and Being in Pain*. 2nd ed. Cambridge, Mas-
- 948 sachusetts: The MIT Press.
- 949 HARTSHORNE, Charles. 1934. *The Philosophy and Psychology of Sensation*. Chicago,
- 950 Illinois: University of Chicago Press.
- 951 INDREGARD, Jonas Jervell. 2018. "Consciousness as Inner Sensation: Crusius and
- 952 Kant." *Ergo* 5 (7): 173–201. doi:10.3998/ergo.12405314.0005.007.
- 953 JACKSON, Frank. 1982. "Epiphenomenal Qualia." *The Philosophical Quarterly* 32 (127):
- 954 127–36. doi:10.2307/2960077.
- 955 JASKOLLA, Ludwig, and Alexander J. BUCK. 2012. "Does Panexperiential Holism Solve
- 956 the Combination Problem?" *Journal of Consciousness Studies* 19 (9–10): 190–99.
- 957 JOHNSTON, Mark. 1992. "How to Speak of the Colors." *Philosophical Studies* 68 (3):
- 958 221–63. doi:10.1007/bf00694847.
- 959 KAMMERER, François. 2018. "Can You Believe It? Illusionism and the
- 960 Illusion Meta-Problem." *Philosophical Psychology* 31 (1): 44–67.
- 961 doi:10.1080/09515089.2017.1388361.
- 962 KLEIN, Colin. 2015. "What Pain Asymbolia Really Shows." *Mind* 124 (494): 493–516.
- 963 doi:10.1093/mind/fzu185.
- 964 KRIEGEL, Uriah. 2009. *Subjective Consciousness: A Self-Representational Theory*. New
- 965 York: Oxford University Press.
- 966 KRIPKE, Saul A. 1980. *Naming and Necessity*. Oxford: Basil Blackwell Publishers.
- 967 LEE, Andrew. 2019. "The Microstructure of Experience." *Journal of the American*
- 968 *Philosophical Association* 5 (3): 286–305. doi:10.1017/apa.2019.4.
- 969 LEWIS, David. 1995. "Should a Materialist Believe in Qualia?" *Australasian Journal of*
- 970 *Philosophy* 73 (1): 140–44. doi:10.1080/00048409512346451.
- 971 LEWTAS, Patrick Kuehner. 2013. "What Is It Like to Be a Quark?" *Journal of Conscious-*
- 972 *ness Studies* 20 (9–10): 39–64.
- 973 LIANG, Yibin. 2017. "Kant on Consciousness, Obscure Representations and Cognitive
- 974 Availability." *The Philosophical Forum* 48 (7): 345–68. doi:10.1111/phil.12169.
- 975 LIU, Michelle. 2019. "Phenomenal Experience and the Thesis of Revelation." In *Per-*
- 976 *ception, Cognition and Aesthetics*, edited by Dena Shottenkirk, Manuel Curado,
- 977 and Steven S. Gouveia, 227–51. *Routledge Studies in Contemporary Philosophy*
- 978 119. New York: Taylor & Francis.

- 979 ———. 2020. "Explaining the Intuition of Revelation." *Journal of Consciousness Studies*  
980 27 (5–6): 99–107.
- 981 LOCKWOOD, Michael. 1993. "The Grain Problem." In *Objections to Physicalism*, edited  
982 by Howard Robinson, 271–92. Oxford: Oxford University Press.
- 983 MAXWELL, Grover. 1978. "Rigid Designators and Mind-Brain Identity." In *Minnesota*  
984 *Studies in the Philosophy of Science, Volume IX: Perception and Cognition: Issues in*  
985 *the Foundations of Psychology*, edited by C. Wade Savage, 365–404. Minneapolis,  
986 Minnesota: University of Minnesota Press.
- 987 MCGINN, Colin. 2006. "Hard Questions: Comments on Galen Strawson." *Journal of*  
988 *Consciousness Studies* 13 (10–11): 90–99.
- 989 NAGASAWA, Yujin, and Kai WAGER. 2017. "Panpsychism and Priority Cosmopsychism."  
990 In *Panpsychism. Contemporary Perspectives*, edited by Godehard Brüntrup and  
991 Ludwig Jaskolla, 113–29. Oxford: Oxford University Press.
- 992 NEMIROV, Lawrence. 1990. "Physicalism and the Cognitive Role of Acquaintance." In  
993 *Mind and Cognition*, edited by William G. Lycan, 490–99. Oxford: Basil Blackwell  
994 Publishers.
- 995 PEREBOOM, Derk. 2016. "Illusionism and Anti-Functionalism about Phenomenal  
996 Consciousness." *Journal of Consciousness Studies* 23 (11–12): 172–85.
- 997 ———. 2019. "Russellian Monism, Introspective Inaccuracy, and the Illusion Meta-  
998 Problem of Consciousness." *Journal of Consciousness Studies* 26 (9–10): 182–93.
- 999 ROELOFS, Luke. 2014. "Phenomenal Blending and the Palette Problem." *Thought* 3  
1000 (1): 59–70. doi:[10.1002/tht3.113](https://doi.org/10.1002/tht3.113).
- 1001 ———. 2016. "The Unity of Consciousness, Within Subjects and Between Subjects."  
1002 *Philosophical Studies* 173 (12): 3199–3221. doi:[10.1007/s11098-016-0658-7](https://doi.org/10.1007/s11098-016-0658-7).
- 1003 ———. 2019. *Combining Minds: How to Think about Composite Subjectivity*. Oxford:  
1004 Oxford University Press.
- 1005 ROSENTHAL, David M. 1993. "State Consciousness and Transitive Consciousness."  
1006 *Consciousness and Cognition* 2: 355–63. doi:[10.1006/ccog.1993.1029](https://doi.org/10.1006/ccog.1993.1029).
- 1007 SEAGER, William E. 1995. "Consciousness, Information and Panpsychism." *Journal of*  
1008 *Consciousness Studies* 2 (3): 272–88.
- 1009 SHANI, Itay. 2015. "Cosmopsychism: A Holistic Approach to the Metaphysics of Expe-  
1010 rience." *Philosophical Papers* 44 (3): 389–437. doi:[10.1080/05568641.2015.1106709](https://doi.org/10.1080/05568641.2015.1106709).
- 1011 SHOTTENKIRK, Dena, Manuel CURADO, and Steven S. GOUVEIA, eds. 2019. *Perception,*  
1012 *Cognition and Aesthetics*. Routledge Studies in Contemporary Philosophy 119. New  
1013 York: Taylor & Francis.
- 1014 SMITHIES, Declan. 2019. *The Epistemic Role of Consciousness*. Oxford: Oxford Univer-  
1015 sity Press.
- 1016 STOLJAR, Daniel. 2001. "Two Conceptions of the Physical." *Philosophy and Phenomeno-*  
1017 *logical Research* 62 (2): 253–81. doi:[10.1111/j.1933-1592.2001.tb00056.x](https://doi.org/10.1111/j.1933-1592.2001.tb00056.x).
- 1018 ———. 2006. *Ignorance and Imagination*. Oxford: Oxford University Press.

- 1019 ———. 2009. “The Argument from Revelation.” In *Conceptual Analysis and Philo-*  
1020 *sophical Naturalism*, edited by David Braddon-Mitchell and Robert Nola, 113–38.  
1021 Cambridge, Massachusetts: The MIT Press.
- 1022 ———. 2013. “Qualitative Inaccuracy and Unconceived Alternatives.” *Philosophy and*  
1023 *Phenomenological Research* 86 (3): 745–52. doi:[10.1111/phpr.12030](https://doi.org/10.1111/phpr.12030).
- 1024 STRAWSON, Galen. 2006. “Realistic Monism: Why Physicalism Entails  
1025 Panpsychism.” *Journal of Consciousness Studies* 13 (10–11): 3–31.  
1026 doi:[10.1093/acprof:oso/9780199267422.003.0003](https://doi.org/10.1093/acprof:oso/9780199267422.003.0003).
- 1027 ———. 2015. “Self-Intimation.” *Phenomenology and the Cognitive Sciences* 14: 1–31.  
1028 doi:[10.1007/s11097-013-9339-6](https://doi.org/10.1007/s11097-013-9339-6).
- 1029 THIEL, Udo. 2011. *The Early Modern Subject. Self-Consciousness and Personal Identity*  
1030 *from Descartes to Hume*. Oxford: Oxford University Press.
- 1031 WILSON, Margaret Dauler. 1980. “Objects, Ideas, and ‘Minds’: Comments on Spinoza’s  
1032 Theory of Mind.” In *The Philosophy of Baruch Spinoza*, edited by Richard Kenning-  
1033 ton, 103–20. *Studies in Philosophy and the History of Philosophy* 7. Washington,  
1034 District of Columbia: The Catholic University of America Press.