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# Does Cognitive Phenomenology Support Dualism?

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## Abstract

*Dualism* holds that experiences and physical states are distinct in that neither sort of state is identical with or grounded in the other. *Cognitive phenomenal realism* holds that cognitive experiences are irreducible to sensory experiences. While dualism and cognitive phenomenal realism are logically orthogonal and usually discussed separately, I argue that dualism's plausibility is sensitive to whether cognitive phenomenal realism is true. In particular, I argue that if cognitive phenomenal realism is true, then it bolsters the case for dualism via a cognitive knowledge argument that has several advantages over the standard sensory knowledge argument.

**Keywords:** dualism; cognitive phenomenology; the knowledge argument; Russellian monism; naive realism; phenomenal concepts; the phenomenal concept strategy; the ability hypothesis; palette problem

## 1. Introduction

I will argue that cognitive phenomenal realism bolsters the case for dualism about experience.

*Dualism* holds that experiences and physical states co-obtain and that they are distinct in that neither sort of state is identical with or grounded in the other.<sup>1</sup> I'll understand *physical* states broadly to include states canonically described by physics, functional states, quiddity-involving states, and states fully grounded in these states. *Cognitive phenomenal realism* (CPR) holds that there are cognitive experiences which are irreducible to non-cognitive sensory experiences.<sup>2</sup> Here, *cognitive experiences* are those that necessarily involve the deployment of concepts.<sup>3</sup> *Sensory experiences* are veridical and non-veridical perceptual experiences, along with their imaginative counterparts. For brevity, I hereafter use "cognitive experiences" for cognitive experiences that are irreducible to noncognitive sensory experiences and "sensory experiences" for noncognitive sensory experiences. Candidates for cognitive experiences include language perception, inner speech experience, intuitions, non-imagistic thought, mood experiences, tip-of-the-tongue experiences, inferential phenomenology, epistemic feelings such as curiosity and confusion, and cognitive attitude phenomenology such as the phenomenology of judging, hoping, and wondering.

<sup>1</sup> Advocates of dualism include Chalmers (1996), Fumerton (2013), Gertler (2007), Gibb (2015), Jackson (1982, 1986), Kim (2005), Robinson (2014), Saad (2018; 2019), and Zimmerman (2010).

<sup>2</sup> Advocates of CPR include Chudnoff (2013), Crane (2013), Horgan, Tienson, & Graham (2004), Kriegel (2011; 2015), Lennon (2022), Levine (2022), McClelland (2016), Mendelovici (2018), Montague (2016), Pitt (2004), Saad (2022), Siewert (1998), Smithies (2019), and Strawson (1994); cf. Chalmers (2012 pp. 274–5, 287).

<sup>3</sup> This characterization would need to be tweaked to avoid odd classifications on higher-order thought theories that take all experiences to necessarily involve the deployment of concepts. For ease of discussion, I set these theories aside.

Dualism and CPR are logically orthogonal. They also enjoy different motivations and face different objections. For instance, dualism is standardly motivated by epistemic arguments that try to leverage epistemic gaps between the physical and phenomenal into ontological gaps.<sup>4</sup> In contrast, CPR is motivated by cognitive phenomenology's promise to solve or help solve content determinacy puzzles concerning how mental content is as determinate as we pre-theoretically take it to be as opposed to radically indeterminate, phenomenal contrast cases, cognitive phenomenology's role in explaining self-knowledge, direct appeals to introspection of cognitive experience, and evidence concerning non-imagistic thinking from psychological and neuroimaging research on individuals with *aphantasia*.<sup>5</sup>

Dualism and CPR tend to be discussed in isolation from one another. My discussion will build on an instructive and rare exception to this tendency:<sup>6</sup> Goff's (2012) "Does Mary know I experience plus rather than quus? A new hard problem". Goff argues that cognitive phenomenology poses a distinctive and severe challenge for *physicalism*, the view that all facts are physical.<sup>7</sup> He presents the challenge through a cognitive variation of the standard sensory knowledge argument. It is a familiar point about the standard sensory knowledge argument that a modest extension of it yields the conclusion that dualism is true. As we will see, a modest extension of the cognitive knowledge argument also yields that conclusion.

In my view, the cognitive knowledge argument is underexplored. I also believe that Goff is ultimately right that it adds to the anti-physicalist upshot of the sensory knowledge argument. However, there is much that I would take issue with in Goff's discussion. And I think that no plausible case has yet been made that the cognitive knowledge argument adds anything to the sensory knowledge argument. In what follows, I will identify shortcomings in Goff's case and offer a way forward.

To forestall confusion, I should note some respects in which my aims here are modest. Although I will argue that cognitive phenomenology supports—that is, enhances the plausibility of—dualism, I do not claim that cognitive phenomenal realists must accept dualism: it is open to such theorists to remain neutral on whether dualism is true or to reject it in favor of physicalism.<sup>8</sup> Nor do I claim that physicalists should reject CPR. Just as the best physicalist response to the sensory knowledge argument might countenance sensory phenomenology, so too might the best physicalist response to the cognitive knowledge argument countenance cognitive phenomenology.

Here's the plan. Section 2 rehearses the sensory knowledge argument. Section 3 reconstructs Goff's cognitive knowledge argument. Section 4 offers an improved formulation of the cognitive knowledge argument. Section 5 explains why advantages that Goff claims for his argument are either not advantages or not tied to cognitive phenomenology. Section 6 argues that—for reasons Goff does not consider—the cognitive knowledge argument goes beyond the sensory knowledge argument in supporting dualism and that cognitive phenomenology underwrites this support. The added support will accrue from trouble that cognitive phenomenology makes for a range of

<sup>4</sup>See Chalmers (2010, Ch. 6).

<sup>5</sup>For overviews of arguments for cognitive phenomenology, see Bourget and Mendelovici (2019, §5), Chudnoff (2015), and Smithies (2013). For additional discussions of cognitive phenomenology and content determinacy puzzles, see, e.g., Graham, Horgan, and Tienson (2007), Horgan and Graham (2012), Pautz (2013). For some classic discussions of content determinacy puzzles, see Quine (1960), Davidson (1973), Lewis (1974; 1983; 1984), Putnam (1977), and Kripke (1982). For helpful discussions of empirical work on *aphantasia* and arguments that it supports the existence of cognitive phenomenology, see Kempel (2023) and Lennon (2023a).

<sup>6</sup>But others have discussed cognitive phenomenology in connection with repurposed variations of epistemic arguments for dualism—see Bayne (2022, 26–7), Carruthers and Veillet (2011), Fürst (2019), Goldman (1993), Kriegel (2011, pp. 93–94; 2015, p. 53), Pautz (2013), and McClelland (2016).

<sup>7</sup>I will mostly work with this rough and ready formulation of physicalism. However, it will be tweaked in §4 to handle complications involving negative facts and totality facts.

<sup>8</sup>Defenses of CPR often maintain neutrality on this score—see Smithies (2019, pp. 8–9, 141) and Horgan (2011, p. 61); cf. Pautz (2013, p. 204).

responses to the sensory knowledge argument. The responses in question appeal to the phenomenal concept strategy, Russellian monism, and Edenic realism.

## 2. The Sensory Knowledge Argument

A familiar line of argument for dualism appeals to Jackson's (1982) Mary. Mary resides in a black-and-white room.<sup>9</sup> She knows all the physical facts about what's happening when people see ripe tomatoes, though she has never seen a red object. When Mary leaves the room and sees such an object, it's claimed, she comes to know further facts about experience. Since she knew all the physical facts beforehand, it's inferred that there are facts about experience that are not physical and hence that physicalism is false. It is a small step from there to conclude that dualism is true.<sup>10</sup> To take it, we need only assume that experiences do not ground physical states.<sup>11</sup>

This is a rendition of the knowledge argument. As is standard, it is cast in terms of sensory experience. There are advantages to running the argument in terms of sensory experiences rather than cognitive experiences. For instance, the existence of sensory experiences is relatively uncontroversial. We may have firmer intuitions about sensory experiences, as they tend to be more vivid and less elusive than cognitive experiences. However, dualists need not choose between sensory and cognitive knowledge arguments; they can use both. This invites the question: do dualists have anything to gain by running a cognitive knowledge argument in addition to the standard sensory knowledge argument?

## 3. Goff's Cognitive Knowledge Argument

As alluded to in the introduction, an answer can be found in Goff (2012), which develops a cognitive knowledge argument and contends that it poses a distinctive challenge for physicalism. I believe this answer is correct. However, I depart from Goff on the distinctive import of a cognitive knowledge argument. In order to assess what dualists have to gain by running a cognitive knowledge argument, it will be useful to start with Goff's proposal.

In Goff's argument, Mary is apprised of all the intrinsic physical facts about a subject's brain as he consciously perceives someone saying "plus". In accordance with CPR, the subject has associated cognitive phenomenology. In particular, he has cognitive-semantic phenomenology: he cognitively experiences "plus" to mean plus. Mary is tasked with using only the intrinsic physical information about the subject to discern what he experiences "plus" to mean. Intuitively, her attempts fall short. For instance, going only on that physical information, she is not able to adjudicate between the hypothesis that the subject experiences "plus" to mean plus and the hypothesis that the subject experiences "plus" to mean quus.<sup>12</sup> However, upon being granted access to the subject's cognitive-semantic phenomenology, Mary comes to know that the subject experiences "plus" to mean plus

<sup>9</sup>For discussion of the history of the argument, see Stoljar and Nagasawa (2004); cf. Robinson (1982). For an overview of the literature on the knowledge argument, see Nida-Rümelin and Donnchadh (2019). For discussion of how the knowledge argument overlaps with other standard arguments against physicalism and a unified (two-dimensional semantics) treatment of these arguments, see Chalmers (2010, pp. 192–205). While I believe that what I say about the knowledge argument naturally and unsurprisingly extends to other standard arguments for dualism, I'll leave this extension as an exercise.

<sup>10</sup>The argument is usually formulated to tell against physicalism rather than to support dualism. Nonetheless, it is widely recognized as one of the main candidate sources of support for dualism.

<sup>11</sup>N.B. While dualism also denies that physical states ground experiences, this does not need to be entered as an additional assumption: that physical states do not ground experiences follows from the nonphysicality of experiences and the adopted notion of the physical, which construes anything that is grounded in something physical as itself physical.

<sup>12</sup>"Quus" expresses an arithmetical function that assigns the same numbers to all pairs of numbers as addition, save for some pairs of very large numbers. How mental states can determinately have contents such as plus rather than suffering indeterminacy between contents such as plus and contents such as quus is one of the content determinacy puzzles alluded to in §1 as a motivation for countenancing cognitive phenomenology—see Kripke (1982).

rather than quus. Assuming that consciousness is in the head, the further fact that Mary learns is non-physical: after all, she initially knew all the intrinsic physical facts about the subject's brain without knowing what he experiences 'plus' to mean.

The argument can be regimented as follows:<sup>13</sup>

**G1.** Mary initially knows all the intrinsic physical facts about a subject.

**G2.** Consciousness is inside the head.

**G3.** So, if there is a physical fact about what the subject experiences 'plus' to mean, then Mary initially knows it. [from G1, G2].

**G4.** Mary does not initially know what the subject experiences 'plus' to mean.

**G5.** Upon gaining access to the subject's cognitive-semantic phenomenology, Mary learns that the subject (cognitively) experiences 'plus' to mean plus rather than quus.

**G6.** So, there is a non-physical cognitive phenomenal fact. [from G3, G4, G5].

G1 is a stipulation of the thought experiment. G2 is an undefended premise. I will revisit it in Sections 4–5. G1 and G2 entail G3. G4 is supported by the intuition that Mary could not leverage her knowledge of the intrinsic physical facts about the subject into knowledge of what the subject experiences 'plus' to mean. The remaining premise is G5. It encodes the argument's commitment to CPR. These premises jointly entail that there is a non-physical cognitive phenomenal fact and hence that physicalism is false. As with the sensory knowledge argument, dualism follows given the assumption that experiences do not ground physical states.

#### 4. An Improved Cognitive Knowledge Argument

This section will offer an improved formulation of the cognitive knowledge argument. I'll identify three contestable but dispensable assumptions in Goff's argument. After explaining why each assumption is contestable, I'll formulate the argument in a way that dispenses with all of them. I'll also modify the argument in order to make the contribution of cognitive phenomenology easier to isolate.

The first contestable assumption is G2, the claim that consciousness is inside the head. While this claim is often uncritically assumed or treated as if it were a priori, it is an empirical thesis.<sup>14</sup> We can vividly imagine how it could turn out to be false through, for example, a Cartesian exercise in which we imagine away our brains and suppose that we are living in a computer simulation. We can also see various ways in which G2 could be false by considering how various views of consciousness reject it. For instance, it is rejected by representationalist views on which experiences are states of bearing a representation relation to an abstract content such as a proposition or universal. On these views, experiences have one foot in Plato's heaven and are hence not (wholly) in the head, even if their concrete grounds lie therein. To accommodate these views, we could relax G2 to claim that either consciousness is in the head or else it is grounded in something therein.<sup>15</sup> However, even this relaxed assumption is highly controversial. It is rejected by:

<sup>13</sup>Goff (2012, p. 233) offers a different regimentation, one that is not couched in terms of knowledge. I instead opt for the regimentation that follows for ease of comparison with the sensory knowledge argument.

<sup>14</sup>See Pautz (2014, *passim*) and Dalbey and Saad (2022, §3).

<sup>15</sup>In passing, Goff (2012, p. 233) parenthetically hints at a formulation along these lines.

- Theoretical packages that combine any view on which experiences constitutively involve causation with an account of causation that treats its instances inside the head as constituted by extracranial factors (such as global regularities),<sup>16</sup>
- Sense data theories on which experiences consist in bearing an acquaintance relation to mental particulars outside the head and/or inside private mental spaces,<sup>17</sup>
- The naive realist view that veridical experiences consist in bearing an acquaintance relation to features in the environment,
- Tracking intentionalist forms of physicalism on which experiences are relational states that consist in brain states bearing “tracking” relations to features of the environment,<sup>18</sup> and
- Theoretical packages that combine tracking forms of dualism on which experiences have physical bases that incorporate tracking relations borne to features of the environment with the assumption that experiences are co-located with their physical bases.<sup>19</sup>

Indeed, the latter four sorts of view are sometimes motivated by the insufficiency of intrinsic physical facts for fixing facts about what subjects experience.<sup>20</sup> True, these views are often implicitly or explicitly restricted to sensory experience. So, we could try to accommodate them by restricting G2 to cognitive phenomenology. However, the accommodation afforded by such a restriction would be rather limited. For instance, assuming that the perceptual experience of “plus” meaning plus is in the head would block natural extensions of naive realist and tracking intentionalist views to cognitive-perceptual experiences of speech. It is also doubtful that such a restriction would be justified: if we are open to some forms of experience reaching outside the head, why not keep an open mind about the reach of cognitive experiences as well? Instead of pursuing this dialectic in hopes of finding a suitably weakened assumption about the location of cognitive experience or its grounds, I suggest it would be better to run the argument without relying on any premise concerning location.

The second contestable assumption is G5’s commitment to a kind of cognitive phenomenology that is controversial, even given CPR: G5 assumes not only that the subject has a cognitive experience, but that he cognitively experiences a meaning, namely plus. That the subject cognitively experiences a meaning fits with a popular version of CPR on which some cognitive experiences metaphysically suffice for some cognitive contents.<sup>21</sup> That the subject cognitively experiences a meaning (plus) of a sort that we’d pre-theoretically attribute also delivers on one of CPR’s motivations: its promise to resolve content determinacy puzzles. Even so, this kind of cognitive phenomenology is rejected by some versions of CPR. It is rejected by versions on which cognitive experiences *merely help* determine contents.<sup>22</sup> It is also rejected by versions on which subjects cognitively experience only *impoverished contents*, ones that must be taken in concert with other factors if they are to deliver meanings at the level of determinacy required to solve content determinacy puzzles.<sup>23</sup> And it is rejected by versions on which there is cognitive phenomenology that only characteristically involves a *non-content factor* such as attitudes to contents.<sup>24</sup> CPR also

<sup>16</sup>See Hawthorne (2004) and Lewis (1994, p. 425).

<sup>17</sup>See Jackson (1977); cf. Lee (2023) and references therein.

<sup>18</sup>Cf. Dreske (1995) and Tye (1995).

<sup>19</sup>For an argument that dualists should opt for a tracking form of dualism, see Saad (2024).

<sup>20</sup>E.g., see Pautz (2021, Chs. 1, 4, 5), Dalbey and Saad (2022), and Saad (2024).

<sup>21</sup>See, e.g., Montague (2016, p. 8), Pitt (2004), Smithies (2019, Ch. 4), Strawson (1994, p. 12), Graham, Horgan, and Tienson (2007).

<sup>22</sup>For philosophers who express more sympathy with CPR than with content-determining versions of it, see Chudnoff (2015, Ch. 6), Horgan and Tienson (2002, p. 526), Kriegel (2003, pp. 12–13), Levine (2018), and Pautz (2008, pp. 269–70).

<sup>23</sup>See Bourget (2018), Mendelovici (2018, Ch. 7), and Levine (2022, pp. 24–8).

<sup>24</sup>For proponents of attitudinal cognitive phenomenology, see, e.g., Bealer (2000), Crane (2013), Goldman (1993), Horgan and Tienson (2002), Jorba (2016), Lennon (2023b), and Shields (2011). N.B. while countenancing attitudinal cognitive phenomenology may commit one to the involved attitudes relating subjects to contents, it is a further question whether those

enjoys motivations (e.g. arguments from phenomenally contrasting attitudes)<sup>25</sup> that do not depend on cognitive phenomenology solving content determinacy puzzles. And CPR is immune to some objections (e.g. from failures of recombination)<sup>26</sup> to views on which subjects cognitively experience meanings.<sup>27</sup> These considerations suggest that, other things equal, the cognitive knowledge argument should be formulated in a way that remains neutral on the relationship between cognitive phenomenology and content determination.<sup>28</sup>

The third contestable assumption is G5's commitment to Mary learning a *negative* fact when she gains access to cognitive phenomenology: she is supposed to learn that the subject experiences 'plus' to mean plus *rather than quus*. This assumption raises delicate issues. It is a familiar point that physicalism should be formulated in a way that is compatible with certain negative facts that are non-physical and which do not follow from the totality of physical facts.<sup>29</sup> For instance, physicalism should be understood as compatible with the fact that there are no immaterial ghosts, even though this fact does not follow from the totality of physical facts. Similarly, physicalism should be understood as compatible with the absence of cognitive experiences of 'plus' meaning quus even if this does not follow from the totality of physical facts. Accordingly, we can adopt a standard remedy by taking physicalism to claim that the physical facts and a that's-all fact together entail all the facts about our world.<sup>30</sup> So understood, physicalism is fully compatible with Mary initially knowing all the physical facts while failing to know that the subject does not experience "plus" to mean quus. This threatens to deprive the negative component of G5 of argumentative work.

The negative component of G5 also raises a closely related complication. In supposing that access to the subject's cognitive phenomenology enables Mary to learn a negative fact about the subject, we are implicitly taking that access to involve more than just access to positive cognitive phenomenal facts: if Mary were given all the positive cognitive phenomenal facts but did not know that those were all of them, then she would not be able to rule out the hypothesis that the subject is, unbeknownst to her, experiencing 'plus' to mean quus. However, granting Mary a that's-all fact at the same time she gains access to positive cognitive phenomenal facts is illicit. It is illicit because a that's-all fact can be used in concert with the totality of physical facts to derive the host of negative non-physical facts that are compatible with physicalism. All parties may agree that Mary would be

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contents trace to cognitive phenomenology (Klausen, 2008, pp. 451–2; Pautz 2013, p. 203). For instance, one could deny this by holding that cognitive phenomenal attitudes' contents are non-phenomenal and inherited from linguistic or sensory-phenomenal vehicles.

<sup>25</sup>See also arguments from contrasts between the presence and absence of cognitive phenomenology. For an overview, see Chudnoff (2015, Ch. 2).

<sup>26</sup>See Pautz (2013, §3.2).

<sup>27</sup>CPR also avoids a cluster of challenges to views on which cognitive phenomenology is just what's needed to solve content determinacy puzzles. Some of these challenges concern how cognitive phenomenology solves these puzzles (Bayne, 2020, §7.5.2; Kripke, 1982, Ch. 2; Strawson, 2009, p. 354). Others concern how cognitive phenomenology solves the puzzles while respecting certain constraints such as not collapsing into rival solutions, not succumbing to variations of these puzzles, and accounting for mild forms of cognitive indeterminacy, e.g. of the sort infecting thoughts about addition that are indeterminate between a function just defined on the reals and a function that is defined on the reals and more besides (see Bayne (2020, §7.5.2), Kripke (1982, Ch. 2), and Pautz (2013, §3.1); cf. Conway (1974), Lewis (1984, pp. 223, 228; 1994, p. 414), and Russell (1918, §1)). Finally, there is the objection that thought content seems much richer than cognitive phenomenal content, even granting that there is cognitive phenomenology (see Bourget (2018) and Pautz (2008, pp. 269–70)).

<sup>28</sup>One way other things could turn out not to be equal would be if applications of the cognitive knowledge argument required cognitive phenomenology to make particular kinds of contributions to determining content. However, as we will see in §6, the uses to which I will put the cognitive knowledge argument in supporting dualism do not impose such requirements—though, wielding the cognitive knowledge argument against the phenomenal concept strategy will require that phenomenal concepts be associated with some or other sort of cognitive phenomenology. (My thanks to a reviewer for raising this issue.)

<sup>29</sup>See Chalmers (2010, p. 143) and Lewis (1983, p. 363).

<sup>30</sup>Cf. *ibid.* This remedy can instead be put in terms of physicalism claiming that a minimal physical duplicate of our world is a duplicate simpliciter.

able to gather from the physical facts and the that's-all fact that there are no immaterial ghosts and that the subject does not experience 'plus' to mean quus.

To finesse the two issues raised by the negative component of G5, we could restrict the argument to positive cognitive phenomenal facts. However, residual content indeterminacy or the elusiveness of cognitive phenomenology may make it difficult to specify in relatively uncontroversial terms exactly what positive knowledge Mary gains. This difficulty could be sidestepped by formulating the argument using a general cognitive phenomenal fact such as the fact that the subject has cognitive phenomenology. But, for dialectical purposes, it would be useful to formulate the argument in a way that also allows Mary to learn a specific negative cognitive phenomenal fact that is at odds with physicalism. To that end, we can let Mary reason throughout with the supposition that the positive facts she is reasoning with are all of the positive facts. Mary could initially use this supposition in concert with physical facts to infer that the subject is not experiencing 'plus' to mean quus. Any such negative facts derived just from physical facts and the that's-all supposition will be compatible with physicalism. However, it is plausible that there are also further negative facts that Mary could infer upon gaining access to the positive cognitive phenomenal facts. For instance, consider the fact that the subject has a cognitive experience that lacks a quus content. Intuitively, Mary would be unable to infer this fact just from the physical facts and the that's-all supposition. Yet she could presumably derive it from the that's-all supposition and access to the subject's cognitive phenomenology. Such further facts would be incompatible with physicalism, as they would not follow just from the physical facts and the that's-all supposition.

In sum, I will resolve the issues raised by G5's negative component by (1) stipulating that Mary has access to a that's-all supposition before and after gaining access to the subject's cognitive phenomenology and (2) replacing G5 with the claim that upon gaining access to cognitive phenomenology, Mary learns a further (positive or negative) cognitive phenomenal fact.<sup>31</sup>

Before detaching these contestable assumptions from the cognitive knowledge argument, I will first note an additional desideratum: the argument should isolate cognitive phenomenology's contribution to Mary's new knowledge in a way that cleanly separates it from sensory phenomenal contributions to that knowledge. Goff's argument does not satisfy this desideratum because his argument construes the new knowledge as an addition to a stock of physical knowledge, not a knowledge base that includes both physical facts and facts about sensory phenomenology. Thus, that argument could be sound in virtue of cognitive phenomenology qualifying as non-physical by reducing to a combination of physical states and non-physical sensory experiences. In that case, cognitive phenomenology's contribution to Mary's new knowledge would be parasitic on sensory phenomenology's contribution. Since Goff's argument leaves this possibility open, it does not respect the noted desideratum. To improve the argument on this score, we can supplement Mary's initial physical knowledge with knowledge of any non-physical sensory phenomenal facts. This will ensure that cognitive phenomenology does distinctive work in generating any new knowledge Mary gains.<sup>32</sup>

To dispense with the three controversial assumptions and satisfy this desideratum, we can now formulate the argument as follows:

**P1.** Mary initially knows all the physical and sensory phenomenal facts about the subject with cognitive phenomenology.

<sup>31</sup>Cf. Lewis (1988, pp. 84–5, 87–90; 1994, p. 413).

<sup>32</sup>Alternatively, we could stipulate that Mary has cognitive experiences but not sensory experiences—cf. Kriegel (2011, pp. 93–94). While this would yield a simpler cognitive knowledge argument, the advantage of allowing Mary to know sensory phenomenal facts in addition to physical facts is that this is compatible with the version of CPR on which cognitive experiences require sensory experiences even though cognitive experiences are not reducible to sensory experiences. This version of CPR is worth accommodating in part because it is immune to objections from the inconceivability of cognitive experiences that are unaccompanied by sensory experiences—see Pautz (2011, §3.4).

**P2.** Upon gaining access to the subject's cognitive phenomenology, Mary learns a further, cognitive phenomenal fact about the subject.

**C.** So, there is a cognitive phenomenal fact about the subject that is distinct from the physical and sensory phenomenal facts about the subject.

For brevity, I'll take it as read in what follows that the further cognitive phenomenal facts at issue in the argument are those that are distinct from both the physical and sensory phenomenal facts. Replacing G1 with P1 expands Mary's physical knowledge from the meager intrinsic stock afforded in Goff's argument to the more encompassing stock she is allowed in standard presentations of the sensory knowledge argument. It thereby avoids courting controversy with views on which consciousness spills outside the head and into the realm of abstracta, private mental spaces, or the external world. Replacing G1 with P1 also equips Mary with knowledge of sensory phenomenal facts, thus enabling the argument to isolate the contribution of cognitive phenomenology. Stipulating that Mary knew all the intrinsic physical facts about a subject already presupposed that Mary's capacity to know vastly exceeds that of actual humans. P1's stipulation of an even stronger capacity seems not to introduce any further difficulties that are relevant to the argument.

Of course, opponents of CPR will deny P2. But conditional on CPR, P2 is supported by the intuition that Mary would initially be ignorant of some cognitive phenomenal facts despite knowing all of the physical and sensory facts about the subject. To generate the intuition, one can use whatever one regards as the most compelling candidates for further cognitive phenomenal facts. These could be facts about experienced thought contents. They could be about content facts that cognitive phenomenology determines or helps determine. They could be about what attitudes a subject takes. They could be about other facts concerning the character of cognitive phenomenology. The facts could be positive. Or they could be negative, provided that they are negative facts that do not follow from the totality of physical and sensory phenomenal facts and a that's-all fact. Again, once it is granted that Mary learns a non-physical cognitive phenomenal fact that refutes physicalism, a modest extension of the argument yields dualism.

For ease of exposition, I will continue to consider the case of Mary learning that a subject experiences "plus" to mean plus. However, it should be borne in mind that this case carries with it tendentious assumptions that are not essential to the argument and that the example could be varied to fit whatever one regards as the most plausible candidate for cognitive phenomenology.<sup>33</sup>

## 5. Illusory Cognitive Advantages

In the previous section, I offered an improved formulation of the cognitive knowledge argument. My next task is to consider whether CPR generates support for dualism via the cognitive knowledge argument that goes beyond any such support generated by the sensory knowledge argument. To that end, I will consider a range of candidate advantages that Goff claims for the cognitive knowledge argument. I will argue that the proposed cognitive advantages do not hold up on reflection. Later in the paper, I will identify some more promising candidates for cognitive advantages that Goff (2012) does not consider.

To start, consider a well-known response to the sensory knowledge argument: while Mary learns something when she leaves the room, she does not learn a fact. Instead, she learns a new ability (e.g. to recognize, imagine, and/or discriminate a certain type of experience)—in learning what it is like to see red, she gains know-how rather than propositional knowledge. This is the *ability hypothesis*.<sup>34</sup>

<sup>33</sup>I expect there will be significant variation in what people regard as the best candidate.

<sup>34</sup>See Cath (2009), Lewis (1988), Nanay (2009), and Nemirow (1980).



Goff (2012, p. 231) acknowledges that the ability hypothesis can also be used against the cognitive knowledge argument. But he contends that the response is less plausible when wielded against his argument than when wielded against the sensory knowledge argument. To support this contention, he notes that it is more plausible on his argument that Mary's new knowledge eliminates genuine possibilities (e.g. that the subject experiences "plus" to mean quus) and hence that she learns a new fact.

I agree with Goff that it is more plausible in his argument that Mary learns a new fact than in the standard sensory knowledge argument. However, this virtue of his argument can be explained independently of its appeal to cognitive experiences. There are two such explanations.

First, the Mary of the standard sensory knowledge argument initially knows the physical facts without restriction. In contrast, Goff restricts Mary's initial knowledge base to *intrinsic* physical facts. Because the knowledge of Goff's Mary is more restricted, to begin with, more facts remain for her to come to know. Specifically, this restriction allows Mary to come to know a new fact that is physical but not intrinsic. That Mary comes to know such a fact is a natural prediction of externalist forms of physicalism on which phenomenology reaches outside the head. The restriction thus makes it more plausible that Mary comes to know a new fact.<sup>35</sup> However, this has nothing to do with cognitive phenomenology: we can just as easily, and with the same effect, formulate a version of the sensory knowledge argument in which Mary's initial knowledge is restricted to intrinsic physical facts.

Second, unlike standard presentations of the sensory knowledge argument, Goff describes what Mary comes to know in contrastive terms: she learns that the subject experiences 'plus' to mean plus *rather* than quus. Describing her knowledge in contrastive terms highlights what sorts of possibilities it excludes. This in turn makes it more plausible that she learns a new fact. Again, this has nothing to do with cognitive experiences. Sensory knowledge arguments can be run just as easily in contrastive terms, describing Mary's new knowledge in terms of her learning that what it's like for people to see tomatoes involves their experiencing certain qualities rather than others. Upon formulating the sensory knowledge argument in contrastive terms, it is no less intuitive that Mary's new sensory phenomenal knowledge eliminates genuine possibilities than that her cognitive phenomenal knowledge does so. For instance, Mary learns that the phenomenology of experiencing ripe tomatoes involves a phenomenal color quality that is neither phenomenal black nor phenomenal white.

A moral to be drawn is that a fair comparison between the cognitive and sensory knowledge arguments requires that they be put on a par with respect to these restrictive and contrastive bells and whistles. There are different ways to enforce parity. In line with my improved formulation of the cognitive knowledge argument, I will enforce parity by assuming that in both arguments Mary initially knows all the physical facts (not just intrinsic ones) and that both arguments maintain that Mary's new phenomenal knowledge is at odds with physicalism while remaining neutral on whether that knowledge is of positive or negative facts.

Once the arguments are put on a par, nothing remains of the cognitive advantages that Goff claimed with respect to the ability hypothesis. However, there is a more promising suggestion in the vicinity, namely that the cognitive knowledge argument is more resistant to the ability hypothesis because cognitive phenomenology is—as its proponents often admit—more elusive than sensory phenomenology.<sup>36</sup> Consequently, by way of comparison with the abilities that go along with knowing what it is like to have a sensory experience as of (say) red, knowing what it's like for a subject to have certain cognitive experiences can be expected to bring with it fewer imaginative,

<sup>35</sup>At the same time, the restriction makes it less plausible that that fact is non-physical. Hence, this distinctive virtue of Goff's argument is balanced by a distinctive vice.

<sup>36</sup>See Bourget (2017), Chudnoff (2015, Ch. 1), Horgan (2011, pp. 76–7), Levine (2022, p. 12, fn3), Mendelovici (2018, §7.2.4), Siewert (1998, pp. 305–6), and Strawson (1994, pp. 10–12, 212); cf. Bayne (2021).

discriminative, and recognitional abilities. This in turn makes it less plausible that knowing what it's like to have cognitive experiences brings with it the ability with respect to those experiences that constitutes knowing what it's like to have an experience according to the ability hypothesis.<sup>37</sup> For instance, Mary may well learn what it is like to cognitively experience 'plus' meaning plus and yet (like me) find herself unable to recognize cognitive phenomenal similarities and discriminate any cognitive phenomenal differences between that experience and cognitive experiences of "minus" meaning minus; or she might (also like me) find herself unable to imaginatively combine the cognitive phenomenology featured in the experience of "plus" meaning plus with other experienced strings of characters or sounds. In contrast, it is natural to suppose that, upon learning what it's like to see red, Mary gains a rich suite of abilities, such as an ability to recognize phenomenal color similarities between experiencing red circles and experiencing red triangles, an ability to discriminate phenomenal color similarities between experiences as of red objects and experiences as of black objects, and an ability to imagine what it would be like to experience any of a wide range of objects as red.

On reflection, however, this cognitive advantage is probabilistically screened off by a fatal problem for the ability hypothesis. The problem is that the intuition that Mary learns something new remains even under the supposition that she initially has all of the relevant abilities.<sup>38</sup> To see this, start by noticing that Mary does not merely learn what it is like to have a certain sensory or cognitive experience. Instead, she learns about the physical circumstances under which subjects have those types of experiences. In the cognitive case, Mary does not merely learn what it is like to experience 'plus' to mean plus. She also learns that a subject in a certain physical condition has that type of cognitive experience. In the sensory case, Mary does not merely learn what phenomenal redness is like. She also learns that seeing tomatoes produces instances of phenomenal redness. Even granting that Mary's knowledge of what it is like is know-how, her new knowledge of physical-phenomenal correlations is evidently propositional and therefore not explained by the ability hypothesis.

To shore up the sensory and cognitive knowledge arguments in response to the ability hypothesis, we can suppose that Mary initially has the relevant types of cognitive and sensory experience. She thereby gains the associated abilities. From the outset, she is able to entertain the hypotheses that tomatoes induce phenomenally red experiences and that the subject is experiencing "plus" to mean plus. Still, it remains intuitive that Mary would not initially know that seeing tomatoes induces phenomenally red experiences and that she would come to know this only after leaving the room. Similarly, only after gaining access to the subject's cognitive phenomenology would Mary learn that he experiences "plus" to mean plus. Since she evidently gains new knowledge despite having had the relevant abilities beforehand, the ability hypothesis leaves Mary's new propositional knowledge unexplained. Thus, while the cognitive argument poses a distinctive difficulty for the ability hypothesis, that cognitive advantage evaporates on further reflection as the ability hypothesis fails against the cognitive and sensory knowledge argument for reasons that are not specific to cognitive phenomenology.

Another well-known response to the sensory knowledge argument claims that Mary's new knowledge is of an 'old' fact, that is a physical fact she knew before leaving the room. This is the *old*

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<sup>37</sup>For several reasons, how much cognitive phenomenology's elusiveness tells against the ability hypothesis is unclear. First, it is unclear which set of imaginative, recognitional, and discriminatory abilities the proponent of the ability hypothesis should say constitutes knowing what it's like. Second, it is unclear to what extent the elusiveness of cognitive phenomenology tells against the possession of the relevant types of abilities. To my knowledge, those who have described cognitive phenomenology as elusive have not discussed how its elusiveness bears on the relevant set of abilities, though proponents of cognitive phenomenology often take its opponents to have cognitive phenomenology that they persistently fail to recognize and distinguish from sensory phenomenology. Third, substantial interpersonal variation in the elusiveness of cognitive phenomenology suggests there may not be a uniform answer to how much cognitive phenomenology's elusiveness tells against the ability hypothesis.

<sup>38</sup>See Nida-Rümelin (1998); cf. Jackson (1986, p. 292).

*fact view*. Again, Goff maintains that this response is less plausible when extended to his argument, as he contends that it is more plausible that Mary's knowledge of cognitive phenomenology eliminates genuine possibilities. However, as we saw above, this asymmetry can be explained by an incidental feature of Goff's argument—its contrastive nature—that is not tied to cognitive phenomenology. As before, this plausibility asymmetry disappears under a fair comparison of the two arguments.

## 6. Where the Cognitive Advantages Really Lie

I'll now argue that the cognitive knowledge argument goes beyond the sensory knowledge argument in supporting dualism in several respects, each tied to cognitive phenomenology.

The first cognitive advantage concerns what is probably the most popular version of the old fact view, the *phenomenal concept strategy*.<sup>39</sup> The phenomenal concept strategy defends physicalism by holding that Mary's new knowledge consists in her representing a physical fact under a *phenomenal concept*, a concept of experience with a special feature that is physically explainable and which enables phenomenal concepts to explain Mary's new knowledge, as well as epistemic gaps between the physical and phenomenal more generally. This two-part explanation is supposed to show that Mary's new knowledge is to be expected on physicalism and hence that it does not support dualism. The strategy has been implemented in different ways. For instance, implementations vary with respect to whether phenomenal concepts are supposed to be special because they are inferentially isolated, recognitional, indexical, quotational, or perceptual. These differences will not be important here, as I will focus on a general problem that the cognitive knowledge argument poses for the phenomenal concept strategy. Crucially, a successful implementation of the strategy must simultaneously accomplish three tasks: it must show that phenomenal concepts can be explained in physical terms, that phenomenal concepts explain physical-phenomenal epistemic gaps, and that the resulting explanation defeats the gaps' support for dualism by rendering those gaps to be expected on physicalism.<sup>40</sup>

The cognitive knowledge argument makes these tasks harder by threatening the physicalistic credentials of phenomenal concepts. For given that there are cognitive experiences, Mary presumably has such an experience when she consciously expresses her new knowledge of phenomenal redness. And, if there are cognitive experiences, it is plausible that they help individuate the concepts underlying them.<sup>41</sup> For instance, if a subject exhibits cognitive phenomenology of 'plus' meaning plus, it is plausible that their concept of plus is partly individuated by cognitive phenomenology. Similarly, if a subject's cognitive phenomenology helps fix the reference of the subject's thoughts about phenomenal redness, it is plausible that their concept of phenomenal redness is partly individuated by cognitive phenomenology. And if there is a cognitive phenomenology of judgment, it is plausible that concepts generally qualify as concepts partly in virtue of their dispositions to produce such phenomenology. But any cognitive phenomenology that helps individuate phenomenal concepts can be plugged into the cognitive knowledge argument to support the non-physicality of such phenomenology and those concepts.

To illustrate how this leads to trouble for the phenomenal concept strategy, suppose that Mary expresses her new sensory knowledge by consciously judging that tomatoes cause instances of phenomenal redness. The phenomenal concept strategist will claim that, courtesy of a special

<sup>39</sup>For overviews, see Chalmers (2010, pp. 305–12), Diaz-Leon (2016, §2), and Sundström (2011). For a perceptual version of the phenomenal concept strategy, see Papineau (2007).

<sup>40</sup>See Chalmers (2010, Ch. §10) for an argument that no version of the phenomenal concept strategy can simultaneously accomplish the first two tasks.

<sup>41</sup>For argument that beliefs are individuated by their cognitive-phenomenal dispositions and that conceptual representation is grounded in consciousness, see Smithies (2019, Chs. 2, 4).

feature, Mary's concept PHENOMENAL REDNESS<sup>42</sup> explains her new knowledge and that that concept itself admits of a physical explanation. Now, prior to considering the cognitive knowledge argument, it might have seemed plausible that PHENOMENAL REDNESS admits of a physical explanation. One reason for this is that some candidate special features of phenomenal concepts seem amenable to physical-functional explanation: for instance, there is not obviously any epistemic gap between the physical facts and having an isolated inferential role.<sup>43</sup> Another is that one might have thought that explaining concepts is generally an 'easy' problem that cognitive science can in principle solve without appealing to consciousness.<sup>44</sup> However, upon conditioning on CPR and considering the cognitive knowledge argument, it becomes much less plausible that PHENOMENAL REDNESS is physically explainable. For one, even granting that proposed special features of phenomenal concepts admit of physical explanation, it becomes clear upon conditioning on CPR that those are not the only aspects of PHENOMENAL REDNESS that require physical explanation: the phenomenal concept strategist must also explain the cognitive-phenomenal aspects of that concept. Similarly, by suggesting that cognitive phenomenology plays a role in individuating concepts, CPR casts doubt on the general availability of cognitive science explanations of concepts that do not appeal to consciousness. Further, at this juncture, the cognitive knowledge argument suggests that the cognitive-phenomenal aspects of PHENOMENAL REDNESS are non-physical and hence that a physical explanation of PHENOMENAL REDNESS will not be forthcoming.<sup>45</sup>

This leaves room for the phenomenal concept strategist to seek an explanation of PHENOMENAL REDNESS that physically explains the special feature she attributes to it while also resisting the suggestion that the cognitive-phenomenal aspects of that concept are non-physical. To accomplish the latter task, the most natural option for the phenomenal concept strategist is to apply her strategy again, in this case, to show that our phenomenal concepts of those cognitive-phenomenal aspects can be physically explained and that those concepts succumb to physical explanation. (Invoking a rival physicalist treatment of this gap would risk putting the phenomenal concept strategy out of a job.)<sup>46</sup> For instance, suppose that Mary's new knowledge of phenomenal redness is accompanied by cognitive phenomenology of judgment. Then that instance of cognitive phenomenology can be plugged into the cognitive knowledge argument. The phenomenal concept strategist can respond that when Mary gains new knowledge of that cognitive phenomenology of judgment, her new knowledge of it is explained by a concept, PHENOMENAL JUDGMENT, that itself admits of physical explanation. However, in contrast to the initial prospects for explaining PHENOMENAL REDNESS in the sensory case, there is a dearth of theory-neutral grounds for optimism about a physical explanation of PHENOMENAL JUDGMENT. For one, the cognitive phenomenal aspects of PHENOMENAL JUDGMENT can be plugged into the cognitive knowledge

<sup>42</sup>I follow the convention of using all-caps expressions to denote concepts.

<sup>43</sup>An exception may be found in versions of the phenomenal concept strategy that identify the special feature of phenomenal concepts with their being partially constituted by their referents.

<sup>44</sup>The phenomenal concept strategy emerged in a context in which consciousness and mental entities such as concepts were widely taken to be entities that could be treated separately—for discussion of this separatist outlook, see, e.g., Chalmers (1996, Ch. 1), Horgan & Tienson (2002), and Smithies (2019, Ch. 1). For an approach to explaining phenomenal concepts in non-phenomenal terms, see Chalmers (2010, p. 314).

<sup>45</sup>On certain accounts of phenomenal concepts, the sensory and cognitive phenomenal knowledge arguments provide a related but distinct reason for thinking that phenomenal concepts are non-physical. In particular, on accounts that construe phenomenal concepts as partly constituted by their referents, those knowledge arguments respectively entail the non-physicality of phenomenal concepts of sensory and cognitive experiences. (For such accounts of (sensory) phenomenal concepts, see, e.g., Chalmers (1996, Ch. 5) and Papineau (2002, Ch. 4).) This gives phenomenal concept strategists grounds for favoring an alternative (e.g. recognitional) account of phenomenal concepts on which they are not partly constituted by their referents. However, even granting such an account, the cognitive knowledge argument would still call into question the physicalistic credentials of phenomenal concepts by suggesting that their cognitive phenomenal aspects are non-physical.

<sup>46</sup>Cf. Chalmers (2010, p. 322).

argument to yield support for the hypothesis that the concept is non-physical. For another, in this case, it is immediately clear that the phenomenal concept strategist cannot rest content to physically explain the explanatorily-amenable special feature she attributes to PHENOMENAL JUDGMENT in order to explain Mary's new knowledge of judgment phenomenology. For she must also physically explain that concept's cognitive-phenomenal aspects, which belong to the (cognitive) family of features whose physical status is contested by the argument.

In this fashion, the cognitive knowledge argument deprives the phenomenal concept strategy of much of its motivation and explanatory promise. This is not because the cognitive knowledge argument is immune to the strategy while the sensory knowledge argument is not: as we have seen, the cognitive knowledge argument casts doubt on the strategy's application to both arguments.<sup>47</sup> There also remains the option of salvaging the strategy by reducing its ambitions. For example, rather than seeking to show that physical-phenomenal epistemic gaps *fail to support* dualism by showing that they are to be *expected* on physicalism, she might merely seek to show that the gaps *fail to conclusively refute* physicalism by showing that, by helping themselves to physicalist assumptions, physicalists can offer a *consistent* explanation of physical-phenomenal epistemic gaps.<sup>48</sup> In my view, the cognitive knowledge argument has little force against such modest uses of the phenomenal concept strategy. At the same time, these uses of the strategy are fully compatible with my claim that the cognitive knowledge argument goes beyond the sensory knowledge argument in supporting dualism.

There is another popular response to the sensory knowledge argument that Goff (2012) does not consider. According to it, the intuition that Mary learns something new rests on an impoverished conception of the physical and hence of her initial state of knowledge. That intuition would, the response maintains, disappear with a more adequate conception of the physical. To give this response teeth, something must be said about how our conception of Mary's physical knowledge is impoverished. This need can be met in two ways.

The first appeals to *Russellian monism*, which holds that the qualities presented in experience are instantiated in our heads and grounded in quiddities, that is categorical properties that occupy the structural-dynamical roles described by the true physics of our world. For instance, a Russellian monist would account for your experience as of blue by supposing that there is a bluish quality in your head that is grounded in quiddities located therein. The Russellian monist can answer the sensory knowledge argument by claiming that we only think that Mary learns something new because we imagine—contrary to the stipulations of the case, given the presence of quiddities in our world—that Mary is ignorant of the quiddities that ground the fact about experience she learns when she leaves the room.<sup>49</sup>

The second response appeals to *Edenic realism*, which holds that the qualities we encounter in experience are distributed outside the head more or less as they seem to be. On this view, although science does not describe those qualities, they pervade the external world. Encounters with their instances somehow help explain subjects' experiences of them. For instance, maybe it is by perceiving these qualities that we come to experience them.<sup>50</sup> Or perhaps it is by being in states

<sup>47</sup>The subtlety of the dialectic here should not be a surprise, given the subtlety of the dialectic surrounding the phenomenal concept strategy independently of the cognitive knowledge argument—see Chalmers (2010, Ch. 10), Balog (2012), and Alter (2023, §9.3.1).

<sup>48</sup>Cf. Chalmers (2010, p. 322), Sundström (2011, p. 269), and Balog (2012).

<sup>49</sup>E.g., see Alter and Nagasawa (2012, p. 85), Chalmers (2010, p. 135), Strawson (2019), and Stoljar (2001). In response, dualists could maintain that even supposing that Mary initially knows the relevant quiddistic facts and that this puts her in a position to know about certain qualities that figure in sensory experience, she would remain ignorant of facts about the phenomenal *awareness* of those qualities (cf. Chalmers, 2015, pp. 273–274; Nagel, 1974, fn10; Saad, 2016, p. 2358, §3.2). In response to this argument, Russellian monists could opt for a deflationary, physicalist account of awareness (Coleman, 2012; Chalmers, 2016, §7.6.4; cf. Cutter, 2018, pp. 43–44) or retreat to an austere (Russellian) form of dualism on which sensory qualities admit of quiddistic explanation and awareness is the only non-physical aspect of experience.

<sup>50</sup>See Brewer (2011), Allen (2016), and Campbell (1993); cf. Chalmers (2010, Ch. 12).

that track them.<sup>51</sup> In any case, the Edenic realist response to the sensory knowledge argument is that we only think Mary learns something new because we falsely suppose that the world is a non-Edenic one devoid of qualities.<sup>52</sup>

Admittedly, Russellian monism and Edenic realism require expansive ontological commitments relative to those of austere forms of physicalism that countenance only structure and dynamics. But both enjoy independent motivation. Russellian monism holds distinctive promise in its ability to, in a single theoretical stroke, ground both experience and the structure revealed by science. Edenic realism respects appearances and common sense. Both offer *prima facie* plausible defeaters of the intuition that Mary would learn something new.

There are reasons to think each response is less appealing as an account of why Mary initially suffers ignorance of cognitive phenomenal facts. An Edenic realist response to the cognitive knowledge argument would take the character of cognitive experience to be present in the environment. However, whereas it is easy to imagine an environment with red-as-we-experience-it spread across surfaces of objects, it is not clear what it would be for objects in the environment to exhibit a cognitive phenomenal content such as an addition function. Nor is it clear what it would be for objects in the environment to exhibit a cognitive phenomenal attitude such as hope or fear or a cognitive phenomenal feeling of grammaticality, confusion, or understanding. More generally, for any plausible hypothesis about the character of cognitive phenomenal experiences, it is unclear what it would be for any object in the environment to exhibit that character. Thus, extending the Edenic realist response to the cognitive knowledge argument risks a collapse into unintelligibility.

A Russellian monist response to the cognitive knowledge argument risks such a collapse as well.<sup>53</sup> We ordinarily conceive of the qualities presented in experience as instantiated by objects in the environment. The Russellian monist relocates these qualities, moving them from the environment to the brain. While this may fly in the face of common sense, it is a form of intra-category relocation from one sort of macroscopic object to another. We can get a grip on it by starting with the commonsense conception and imaginatively modifying the distribution of qualities. Again, it is not clear what it would be for the character of cognitive experience to be present in the environment. So, we cannot make sense of its presence in the brain through a variation of the just-described exercise. Nor does there seem to be an independent way of getting a grip on what it would be for such character to be present in the brain.

The moral is not that Edenic realism and Russellian monism should be rejected because they lack an intelligible account of how cognitive phenomenology fits into the physical world. Rival views share that vice. Instead, the moral is that while the Edenic and Russellian hypotheses can undermine the sensory knowledge argument by offering intelligible accounts of how pre-release Mary could be privy to putatively post-release knowledge of sensory experience, these hypotheses offer no such account in the cognitive case; hence they cannot be used to undermine the cognitive knowledge argument.

Cognitive experiences pose a further difficulty for Russellian monism. The difficulty arises in connection with the *palette problem* for Russellian monism. The problem is that of accounting for the diverse range of experiences using only a limited stock of quiddities.<sup>54</sup> This problem arises for Russellian monism whether or not there are cognitive experiences. But cognitive experiences exacerbate the problem. They require a quiddistic explanation of additional experiences. Perhaps this demand could be easily met if the task were to extend a quiddistic explanation of, say, known shades of phenomenal blue to a new shade of phenomenal blue. But we lack an intelligible model for how to extend a quiddistic explanation of sensory experiences to cognitive experiences. Moreover,

<sup>51</sup>Cf. Cutter (2018, p. 50).

<sup>52</sup>Cf. Allen (2016, p. 181), Broad (1925), and Byrne (2006, p. 241).

<sup>53</sup>These risks echo the *esse percipi* problem that pain poses for response-independent views of sensory qualities (Bradley, 2021; Pautz, 2021 Ch. 4; Berkeley, 1713).

<sup>54</sup>See Chalmers (2016).

the class of cognitive experiences seems less apt for a systematic explanation in terms of a small number of quiddities than sensory experiences—witness the fact that whereas we know how to model some modalities of sensory experience with low-dimensional quality spaces,<sup>55</sup> cognitive experiences seem comparatively resistant to such modeling. Thus, even if we waive intelligibility concerns, cognitive experiences suggest that solving the palette problem for Russellian monism would require an unsystematic and therefore costly solution. Admittedly, dualists face a related problem of giving a systematic explanation of the diverse range of experiences, given only physical states and a simple set of psychophysical laws.<sup>56</sup> However, this problem is not similarly pressing, as dualists are not constrained to solve this problem with quiddities and there are various dualist solutions on offer.<sup>57</sup> Thus, dualists who opt for CPR can press this acute manifestation of the palette problem against both Russellian monism and the Russellian monist response to the sensory knowledge argument.

## 7. Conclusion

Mary's new sensory knowledge seems to support dualism. In hopes of escaping dualism, we could try to explain away this appearance by claiming that pre-release Mary knows more than we might have thought, as she knows about the quiddistic or Edenic basis of experience. Or we could claim that her new knowledge merely consists in her coming to know an old fact under a phenomenal concept. However, these responses do not extend without loss of plausibility to cases where Mary comes to know about cognitive experience. CPR thus breathes new life into dualism.

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<sup>55</sup>See, e.g., Lee (2021).

<sup>56</sup>Cf. Mendelovici (2019) and Chalmers (1996: pp. 213–214).

<sup>57</sup>See Bourget (2019), Cutter & Crummett (forthcoming, fn11), and Saad (2023; forthcoming).

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