

# In Defense of the Phenomenal Concept Strategy<sup>1</sup>

KATALIN BALOG

*Rutgers University – Newark*

Consciousness has resisted attempts to fathom its ultimate nature. **My direct aim in this paper is to rebut anti-physicalist arguments. But I also want to raise the possibility that understanding consciousness might be beyond our reach—and not for a lack of trying or ingenuity.**

A number of anti-physicalist arguments have been proposed during the last two decades that start from a premise about an *epistemic, conceptual or explanatory* gap between physical and phenomenal descriptions and conclude—on *a priori* grounds—that physicalism is false (Kripke, 1972; Nagel, 1974; Jackson, 1982; Robinson, 1993; Bealer, 1994; Chalmers, 1996, 2009; Levine, 2001, 2007; White, 2007; Nida-Rümelin, 2007). Phenomenal descriptions feature phenomenal concepts that refer to token phenomenal experiences or phenomenal properties, i.e., *qualia*. Phenomenal experience is characterized by the fact that there is something *it is like* to undergo it, something one can normally introspect, e.g., there is something it is like to feel my body against the chair I am sitting in. Anti-physicalists conclude that phenomenal facts—e.g., the fact that I feel the pressure of the chair against my body right now—are absent in a purely physical world.

Physicalists have come up with various different strategies to counter these arguments. The most promising physicalist line of defense, in my view, is based on the idea that these epistemic and conceptual gaps can be explained by appeal to the nature of phenomenal *concepts* rather than the nature of non-physical phenomenal properties. Phenomenal concepts, on this proposal, involve unique cognitive mechanisms, but none that could not be fully physically implemented. If this project is

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<sup>1</sup> I would like to thank David Chalmers, Tamar Gendler, Barry Loewer, Raymond Martin, Howard Robinson, and Gilad Tanay for helpful discussions and criticism.

successful, it amounts to a powerful reply to the anti-physicalist arguments. I will call this project—following Stoljar (2005)—the Phenomenal Concept Strategy (PCS).

David Chalmers (2007) has presented a Master Argument to show that the PCS—not just this or that version of it, but *any* version of it—fails. The basic idea is that there are *a priori* reasons to deny the possibility of the kind of phenomenal concepts this strategy requires, i.e., physicalistically respectable concepts that at the same time explain our epistemic situation<sup>2</sup> with respect to qualia. Chalmers argues that the phenomenal concepts posited by such theories are *either* not physicalistically explicable, *or* they cannot explain our epistemic situation with regard to qualia. If he is correct then the PCS fails. In response, I argue that his Master Argument does not provide any *new* reasons to reject the PCS, that is, any reasons that go beyond those presented in the original anti-physicalist arguments—which the PCS is designed to rebut. I also argue that, although the PCS shows that the physicalist is not rationally compelled to give up physicalism in the light of the anti-physicalist arguments, the anti-physicalist is not rationally compelled to give up the anti-physicalist argument in the light of the PCS either (see Balog, 2008). There is a symmetry between the two positions as far as *a priori* considerations are concerned.

## I. Physicalism and the Gaps

The debate between physicalism and anti-physicalism is a debate about fundamental ontology. According to *physicalism*, the world's fundamental ontology is physical. Contemporary physicalists typically hold that the best account of that ontology is provided by fundamental physics. Physics' best hypotheses about fundamental ontology is that it consists of elementary particles, strings and/or fields occupying a space-time structure, and possessing a limited number of quantitative properties (mass, charge, electromagnetic potential, and so on). Physics also claims that there are only a few fundamental dynamical and perhaps non-dynamical laws that govern the structure of space-time and the evolution of its occupants. It is not easy to say exactly what makes fundamental entities and properties "physical." But this isn't a problem since it suffices for our discussion that physicalism is understood as requiring that *fundamental* physical properties and entities and micro-systems composed of them are "non-mental." So if physicalism is true then micro-systems (e.g., individual molecules) do not possess intentionality or phenomenal consciousness (or proto intentionality and

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<sup>2</sup> "Epistemic situation" is used by Chalmers (2007) in a technical sense that I will explain later.

phenomenality). If physicalism is true and if intentionality and consciousness are instantiated then they are instantiated only in macroscopic systems *in virtue of* complex arrangements of fundamental properties and entities and their causal/nomological features; in actual reality, they are instantiated in biological individuals in virtue of brain states and processes.

Following Frank Jackson, I will assume that there is a fundamental vocabulary (although not necessarily in our language as it is currently) in which there is a complete fundamental true description of the world. This description specifies the total spatio-temporal distribution of fundamental entities, the totality of instantiations of fundamental properties and relations, and the fundamental laws. If physicalism is true then none of the elementary vocabulary refers to mental entities or properties. Jackson pointed out that a necessary condition for the truth of physicalism is that all positive truths,<sup>3</sup> including positive truths about phenomenal consciousness, are metaphysically necessitated by the complete physical truth.<sup>4</sup> Jackson calls this the *Physicalist Entailment Thesis*

$$(\text{Phys}) \forall T \Box(P \supset T).^5$$

It follows that if there are positive phenomenal truths—for example, that Mary knows what it is like to see red—that are not necessitated by the complete physical description of our world then physicalism is false.

Let  $Q$  be any positive phenomenal truth. The anti-physicalist arguments start from a premise that there is an epistemic gap between

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<sup>3</sup> A positive phenomenal statement says that a phenomenal property is instantiated; e.g., *Joe is feeling an itch*. Negative truths, like *There are no angels*, and global statements, like *Every gold cube has a volume smaller than one cubic centimeter*, are not metaphysically necessitated by the complete physical truth about the world  $P$  although they are necessitated by  $P$  and a clause that says that  $P$  is the whole fundamental truth. However, the phenomenal and physical truths we will be interested in are all positive truths so I will ignore this complication for the remainder of the paper.

<sup>4</sup> This formulation is based on Jackson (1993). The first precise formulation of physicalism along these lines is due to Lewis (1983). Subsequent discussions are variations on the same theme. Many philosophers, among them non-physicalists, accept this formulation as capturing a very important component of the intuitive idea of physicalism. But it doesn't express the full physicalist commitment—only a necessary condition—because it is apparently compatible with certain ontologies that are intuitively non-physicalist—e.g., with one in which there are fundamental mental as well as fundamental physical properties connected by “brute” necessary connections.

<sup>5</sup>  $\forall$  is a substitutional quantifier,  $T$  is a statement variable for true positive statements,  $\Box$  is the metaphysical necessity operator, and  $P$  is the complete fundamental physical truth, including the fundamental physical laws.

$P$  and  $Q$ . Chalmers (1996, 2009), for example, claims that there is a *conceptual* gap between  $P$  and  $Q$ . He claims that  $P \& \sim Q$  is *conceivable*,<sup>6</sup> i.e., that zombies—creatures that are our physical duplicates but lack some or all of our phenomenal experiences—are conceivable.<sup>7</sup> Chalmers uses this claim to argue that  $P \& \sim Q$  is *possible*, i.e., that phenomenal facts are not necessitated by the physical facts. If so, physicalism is false.

$P \& \sim Q$  is supposedly different from all other instances of  $P \& \sim T$  which involve only non-phenomenal concepts, e.g., concepts like WATER, LIQUIDITY, etc., and even name concepts like CICERO. Chalmers (1996) claims that these concepts are associated *a priori* with descriptions (e.g., “transparent potable liquid...”, “the Roman orator who is at the origin of a causal chain culminating in this token”) and these connections are *sufficient* to obtain *a priori* entailments from  $P$  to all positive non-phenomenal statements of fact.<sup>8</sup> Of course, these are contentious claims about the semantics of WATER and CICERO. Block and Stalnaker (1999) and McLaughlin (2007), for example, argue that these entailments are not *a priori* even for positive non-phenomenal statements. However, one needs to subscribe to this semantics to take the conceivability argument seriously; so I am going along with this semantics for the sake of argument.

Levine (2001, ch. 3) formulates—though doesn’t endorse—another, related argument, the Gap Argument. It is based on the observation that no amount of knowledge about the physical facts (brain functioning and so on), and the physical and psycho-physical laws, is sufficient to explain why a particular brain state/process has a particular feel, e.g., feels giddy. Whatever causal/functional/physical information we have about the brain processes that underlie phenomenal

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<sup>6</sup> A statement  $S$  is conceivable iff it cannot be ruled out *a priori*. Chalmers (2002a) distinguishes between several different notions of conceivability, but, since these distinctions do not affect the arguments of this paper, I will stay with this basic definition.

<sup>7</sup> Many physicalists, me included, accept this. However, some physicalists deny it. They think that phenomenal concepts can be analyzed in terms of functional role or representational character. *Pain*, e.g., according to analytic functionalism, has a conceptual role that connects it (in the meaning-constituting way) with complex concepts like *typically caused by injury*, *typically causes avoidance behavior*, *typically causes saying “ouch”*, etc. Analytic functionalism or representationalism rebuts the anti-physicalist arguments by denying the conceptual, epistemic, and explanatory gaps between physical and phenomenal descriptions. Analytic functionalism/representationalism, of course, has to explain why there *seem* to be such epistemic gaps when in reality there aren’t. See also Kirk (2005) for an interesting argument against the conceivability of zombies whose grounds go beyond analytic functionalism.

<sup>8</sup> Chalmers and Jackson in (2001) are a little more cautious; they only assert that all positive statements are *a priori* derivable from the full *fundamental* description of the world, whether or not that involves fundamental mental facts as well.

experience—i.e., about the neurophysiological, functional, or representation features of phenomenal experience—the fact that such experience has a distinct phenomenal character might remain *unexplained*. In contrast, all facts about water (that it is transparent, potable, etc.) are explorable in terms of facts about H<sub>2</sub>O, together with physical and chemical laws. Nothing seems to be left out by such an explanation. Since we can't explain in the same way why a brain state feels giddy there is an explanatory gap between physical and phenomenal descriptions, i.e., there is an explanatory gap between *P* and *Q*. The problem is related to the conceivability of zombies, but it can be stated without appealing to conceivability, or any thesis linking conceivability and possibility, and so has the advantage that it doesn't rely on any substantial assumptions about concepts and conceptual truths. It only relies on a contrast between the *comprehensibility* of the hypothesis that phenomenal consciousness is non-physical and the *incomprehensibility* of corresponding hypotheses involving properties figuring in the other special sciences, e.g., that water is not H<sub>2</sub>O.<sup>9</sup>

Anti-physicalists argue that these epistemic gaps, together with some plausible—putatively *a priori*—principles imply that there is an ontological gap between the physical and the phenomenal. They hold that purely physical worlds are devoid of phenomenally conscious states and beings. Here is Chalmers' argument:<sup>10</sup>

*The Zombie Argument*

- 1)  $P \& \sim Q$  is conceivable.
- 2) If  $P \& \sim Q$  is conceivable then  $P \& \sim Q$  is metaphysically possible.
- 3) If  $P \& \sim Q$  is metaphysically possible then physicalism is false.<sup>11</sup>

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- 4) Physicalism is false.

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<sup>9</sup> Block and Stalnaker (1999) discuss the possibility of 'ghost water'—a non-physical kind that exists side by side with being composed of hydrogen and oxygen atoms and has all the same causal roles as the latter. Even if that is conceivable, one would suppose that "water" in this scenario would refer to *both* H<sub>2</sub>O and ghost water and *not* to ghost water alone. So one couldn't argue that in this case water would be identical with ghost water (and not H<sub>2</sub>O).

<sup>10</sup> Chalmers (2009) introduces some clarifications and emendations to this argument. None of them plays a role in the arguments that follows so I stay with this simple formulation.

<sup>11</sup> This follows directly from Phys: if  $P \& \sim Q$  is possible, it is not true that for all true positive statements *T*,  $\Box(P \supset T)$ .

The PCS is based on the core idea that the conceptual and epistemic gaps are due not to the nature of *qualia* but rather the nature of the *concepts* in terms of which we think about *qualia*. The key factor is that the explanation on offer is claimed to be *compatible with physicalism*. By providing a clear conception of how the key conceptual/epistemic facts—the conceivability of zombies, the explanatory gap, etc.—can hold in a purely physicalistic world the physicalist has demonstrated that the *a priori* premise of the anti-physicalist arguments linking the epistemic gaps to ontological gaps is conceivably false. Such a premise is—if true—*a priori* true, so if it is conceivable false, it is false. The PCS shows that the conceptual/epistemic gaps do not *a priori* require an anti-physicalist explanation. The PCS provides an alternative—physicalist—explanatory scheme for those facts.<sup>12</sup>

## II. The Phenomenal Concept Strategy

Phenomenal concepts have a number of unique features. The sense that there is something special about phenomenal concepts is very closely connected to features of the *epistemic* access they afford to *qualia*. When we deploy phenomenal concepts introspectively to some phenomenally conscious experience as it occurs, say a phenomenal experience of the color blue, we are said to be *acquainted*<sup>13</sup> with our experience. While philosophers have understood ‘acquaintance’ in various ways, it is generally taken to be a unique epistemological relation that relates a person to her own mental states *directly* and, according to some, in a way that reveals the *essence* of the referent. Such a relation has struck many philosophers as deeply puzzling. The version of the PCS I advocate—the constitutional account of phenomenal concepts (Hill and McLaughlin, 1999; Block, 2007; Papineau, 2002, 2007; Balog, 2011)—accounts for these features in a way compatible with physicalism.<sup>14</sup>

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<sup>12</sup> I will only directly address the conceivability of zombies and the explanatory gap; but it can be shown that the PCS addresses all the other conceptual/epistemic gaps and so all the other anti-physicalist arguments based on the existence of these gaps.

<sup>13</sup> The term ‘acquaintance’ was introduced in this context by Bertrand Russell. Russell (1910) developed his famous distinction between ‘knowledge by acquaintance and knowledge by description.’ He then went on, in his (1918/1919) lectures on logical atomism, to argue, in a Cartesian manner, that we are only ever acquainted with ‘sensibilia’; roughly, our phenomenal experiences.

<sup>14</sup> Chalmers (2003) also proposed a version of the constitutional account; naturally, his account is not in the service of rebutting the anti-physicalist arguments. There are other proposals that fall under the general umbrella of the PCS. Not all of these proposals acknowledge the direct and substantial manner in which seem to grasp the essence of our own phenomenal states. They include recognitional accounts (Tye, 2003), demonstrative accounts (Levin, 2007; Perry, 2001), and information-theoretical accounts (Aydede & Güzeldere, 2005).

On the constitutional account, there is an intimate relation between phenomenal concepts and their referents; token experiences serve as modes of presentation of the phenomenal properties they instantiate.<sup>15</sup> In the case of most concepts, e.g., the concept WATER, it doesn't matter exactly what neural configurations constitute a particular token of WATER as long as the requisite causal/informational relations between it and water holds. But in the case of phenomenal concepts, e.g., the concept PAIN, constitution matters for reference, both in terms of reference fixing, and in terms of how the concept cognitively presents its reference. More precisely, on this view, every token of a phenomenal concept applied to current experience is (partly) constituted by *that token experience*, and this fact is crucial in determining the reference of the concept. Not only is it the case that a token experience that constitutes a token phenomenal concept instantiates the phenomenal property the concept refers to, but it is *because* the concept is so constituted that it so refers. There are, of course, applications of phenomenal concepts that are, on this theory, *not* constituted by token experiences; e.g., applications of phenomenal concepts to one's past or future experience, to other peoples' experiences, etc. But the canonical, first person, present tense applications are always so constituted and the other applications are dependent on the first-person applications.<sup>16</sup>

If this account is true it explains acquaintance with our experience in a manner that doesn't appeal to non-physicalistic metaphysics.<sup>17</sup> It similarly helps explain the epistemic gaps that the anti-physicalist arguments are based on. First of all, the constitutional account explains how we can grasp the essence of phenomenal properties even while this grasp is direct, that is, unmediated by physical or functional modes of presentation. **On this account, in the canonical applications of a phenomenal concept an instance of the referent is *literally* (physically) present in the concept, therefore there will be always something it is like to token the concept in those applications.**<sup>18</sup> Undergoing an experience that instantiates the referent reveals something essential

<sup>15</sup> In what follows I concentrate on phenomenal concepts that refer to phenomenal *properties*; but the account can be easily modified to apply to concepts that refer to *particular tokens* of phenomenal properties.

<sup>16</sup> Such "indirect" applications of phenomenal concepts stand in an intricate conceptual relation with the "direct", first person present tense applications. For an account, see (Balog 2011).

<sup>17</sup> I argue elsewhere (Balog 2011) that all the other unique features of our epistemic relation to phenomenal experience—incorrigibility, asymmetric access, transparency, fineness of grain, semantic stability, etc.—can be explained by the account as well.

<sup>18</sup> Levine (2006, 2007) is critical of this approach. He argues that it is impossible to explain *cognitive presence* by *physical presence*.



about the referent in a particularly vivid manner, namely, it reveals *what it is like to have it*. This means that phenomenal concepts provide grasp of the phenomenal properties they refer to in a way that reveals their essence. And because, according to the theory, tokens of phenomenal concepts present their referent as the property whose token they incorporate—and not via any functional or physical description—they will refer to phenomenal properties *directly*, as well as substantively.

The constitutional account can now be marshaled to account for the epistemic gaps that drive the conceivability arguments.

### *i) The Conceivability of Zombies*

*The Conceivability of Zombies* is explained by the *directness* of our phenomenal concepts which, under the constitutional account, is compatible with physicalism. The directness of phenomenal concepts follows, as observed above, from the fact that the reference of a phenomenal concept is determined by how it is constituted and *not* by any description that is associated *a priori* with the concept. We can see that phenomenal concepts on the constitutional account work quite differently from other concepts. Their directness ensures that the zombie-scenario cannot be ruled out *a priori*, and so is conceivable.<sup>19</sup> This explanation is perfectly compatible with a physicalist—as well as a dualist—metaphysics.

### *ii) The Explanatory Gap*

Recall that the explanatory gap problem is that no amount of knowledge about the physical facts (brain functioning and so on) is sufficient to explain why a particular brain state has a particular feel, e.g., feels giddy. This contrasts with the way that the properties of water, e.g., its transparency, liquidity, etc., can be explained by the fact that water is composed of H<sub>2</sub>O molecules together with physical and chemical laws. Once we have an explanation of why H<sub>2</sub>O behaves in watery ways we have an explanation of why water is H<sub>2</sub>O. Since we can't explain why a brain state feels giddy in neurophysiological terms, we can't close the physical-phenomenal gap. You can see why this is in the following

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<sup>19</sup> *Nota bene*: I am not denying that there are inferential links between thoughts involving direct phenomenal concepts that are individuating of them. I think it is quite plausible that there are conceptual links, even perhaps concept individuating conceptual links between direct phenomenal concepts such as we apply to our own occurrent phenomenal experience on the one hand, and indirect phenomenal concepts such as we apply to other people's phenomenal experiences. Perhaps there are links to other mental concepts as well. My point is that to the extent that these are *a priori* they are not of the sort that enables one to rule out *a priori* the zombie-scenario. The kicker for the physicalist is that this explanation of the conceivability of zombies is perfectly compatible with physicalism.



way. In the case of water and  $H_2O$ , the hypothesis that water is  $H_2O$  is quite natural in the light of all we know about  $H_2O$  and the laws that govern the behavior of  $H_2O$ —indeed, the hypothesis that water is not  $H_2O$  but is merely nomologically correlated with it doesn’t even make sense. In other words, the hypothesis that the processes involving  $H_2O$  molecules are only nomologically correlated to the non-physical and non-chemical processes involving water is a non-starter.<sup>20</sup> On the other hand, the hypothesis that a phenomenal state is identical with a certain neurophysiological/functional state of the brain is just as compatible with our evidence as the opposing view. The hypothesis—endorsed by certain dualists—that phenomenal states and brain states are merely nomologically correlated makes perfect sense.

The difference is that while in the case of water we do not have any special access to its nature and properties that is not based on physical or functional information,<sup>21</sup> in the case of phenomenality we think we do. We do seem to have a special insight into the ultimate nature of phenomenal experience; and that nature doesn’t seem captured or exhausted by any physical or functional description. As far as we know, that nature might elude any physical understanding. Notice that I stated the problem of the explanatory gap in a way that is independent of whether one subscribes to the semantic thesis discussed in the previous subsection that *all* but phenomenal terms have physical/functional analyses. It is significant that this can be done since it demonstrates that not all of the puzzles of consciousness will go away if we simply deny the semantic framework of the Zombie Argument. However, the constitutional account can explain why the explanatory gap arises, and it does so again in a way that is compatible with physicalism.

The constitutional account explains the gap by appealing to the direct and substantial grasp phenomenal concepts afford of their referent. When I focus on a phenomenal state, I have a “substantive” grasp of its nature. I grasp it in terms of *what it’s like* to be in that state. Because this grasp is substantive but at the same time independent of any causal or functional information (unlike in the case of WATER), information about the functioning of the brain simply won’t explain *what it’s like to be in that state*.

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<sup>20</sup> Block and Stalnaker (1999) discuss the possibility of ‘ghost water’—a non-physical kind that exists side by side with being composed of hydrogen and oxygen atoms and has all the same causal roles as the latter. Even if this is conceivable, one would want to say that in this case “water” would refer to *both*  $H_2O$  and ghost water and *not* to ghost water alone. So even this scenario doesn’t make sense of the hypothesis that water and  $H_2O$  are merely nomologically correlated.

<sup>21</sup> Except for water’s appearance properties, for example, that its surface looks shiny in a storm, that it presents itself in a particular way to the touch, etc. But I am not going to press this point here.

The PCS works like this. If we can explain the semantic/epistemic puzzles involving phenomenal consciousness by appeal to features of phenomenal concepts—in a manner compatible with physicalism—we have cast sufficient doubt on the crucial premises of the anti-physicalist arguments that link semantic/epistemic gaps with ontological gaps. However, Chalmers thinks that he has a further argument to rebut the PCS, in any of its forms.<sup>22</sup> I turn to this argument now.

### III. Chalmers' Criticism of the Phenomenal Concept Strategy

David Chalmers' (2007) Master Argument claims to establish that there are *a priori* reasons to rule out any account of phenomenal concepts that physicalistically explains the epistemic gaps between *P* and *Q*. He argues that phenomenal concepts are *either* not physicalistically explicable, *or* they “cannot explain our epistemic situation” with regard to qualia. To get this conclusion, Chalmers argues for the following two premises, providing the physicalist with a dilemma.

If  $P \& \sim C$  is conceivable, then *C* is not physically explicable.

If  $P \& \sim C$  is not conceivable, then *C* cannot explain our epistemic situation.

where *C* stands for the claim that we possess phenomenal concepts with the relevant key feature (e.g., being constituted by an instance of the referent) posited by a physicalist account of phenomenal concepts.

There are two issues that need clarification before evaluating the argument. One is the question of what vocabulary *C* should be couched in; the other is what is meant by “epistemic situation” in the argument. We will take up each of these issues in turn.

#### *The Content and Conceptualization of C*

To get a better handle on Chalmers' argument, we need to clarify an important issue here: *conceptualization*. Conceivability, in all its varieties, is a conceptual matter and so the evaluation of Chalmers' premises will depend on what conceptualization of *C* we have in mind. According to the physicalist, *C* can be conceptualized not only using *phenomenal language* ( $C_{phen}$ ) but, alternatively, it can be conceptualized using

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<sup>22</sup> In the rest of the paper, the PCS should be understood as relying on the constitutional account. This should not cause any problems since Chalmers' Master Argument doesn't depend on the details of the physicalist account. If I can defend this particular version of the PCS, I have rebutted the Master Argument.

*physical language* ( $C_{phys}$ ). Since Chalmers' argument is supposed to be a reductio of the PCS, and since this distinction is needed to lay out the physicalist position clearly, we can assume at the outset that both  $C_{phen}$  and  $C_{phys}$  exist. Of course, if physicalism is right, there are many possible non-phenomenal, "physical" conceptualizations of the same phenomenon (e.g.,  $C$  might be formulated as having concepts that are constituted by the same perceptual or sensory states that they refer to; or as being in a certain neuro-physiological, chemical, quantum-mechanical, etc., state). However, the issue of multiple possible physical conceptualizations of  $C$  will not make a difference in our discussion, as we will see shortly.

Using this apparatus, we get the following four premises:

- 1<sub>Phen</sub>) If  $P \& \sim C_{phen}$  is conceivable, then  $C_{phen}$  is not physically explicable.
- 1<sub>Phys</sub>) If  $P \& \sim C_{phys}$  is conceivable, then  $C_{phys}$  is not physically explicable.
- 2<sub>Phen</sub>) If  $P \& \sim C_{phen}$  is not conceivable, then  $C_{phen}$  cannot explain our epistemic situation.
- 2<sub>Phys</sub>) If  $P \& \sim C_{phys}$  is not conceivable, then  $C_{phys}$  cannot explain our epistemic situation.

Most physicalists would hold that two of the premises, 1<sub>Phys</sub> and 2<sub>Phen</sub> are vacuously true by virtue of having a false antecedent. Let's take 2<sub>Phen</sub> first:

- 2<sub>Phen</sub>) If  $P \& \sim C_{phen}$  is not conceivable, then  $C_{phen}$  cannot explain our epistemic situation.

Anybody who accepts the conceivability of zombies (as I do), will have to accept the conceivability of "phenomenal concept zombies" (i.e., creatures that are physically identical with us but have no phenomenal concepts) under phenomenal conceptualizations of phenomenal states and phenomenal concepts, and so count 2<sub>Phen</sub> as vacuously true. How about 1<sub>Phys</sub>?

- 1<sub>Phys</sub>) If  $P \& \sim C_{phys}$  is conceivable, then  $C_{phys}$  is not physically explicable.

If we take  $C_{phys}$  as given in fundamental physical language—and assuming  $C_{phys}$  is true—1<sub>Phys</sub> is vacuously true. According to the physicalist,

facts about phenomenal concepts are physical facts and so can be expressed in fundamental physical language. But because any true fundamental physical description of the world, e.g.,  $C_{phys}$ , is implied by the full *fundamental* physical description of the world  $P$ ,  $P \& \sim C_{phys}$  is evidently not conceivable. We have to keep in mind all along that the PCS is premised on the idea that zombies, and “phenomenal concept zombies” are conceivable *under phenomenal conceptualization* of phenomenal states and phenomenal concepts, but *not under physical* conceptualizations of the same phenomenal states and phenomenal concepts.

For non-fundamental physical (e.g., neurophysiological) formulations of  $C$ , there is a question as to whether  $P \& \sim C_{phys}$  is conceivable (see, e.g., Block and Stalnaker, 1999). But for now I'll grant that  $P \& \sim C_{phys}$  is not conceivable under any non-phenomenal conceptualization of  $C$ . If  $P \& \sim C_{phys}$ —where  $C_{phys}$  is, e.g., a neurophysiological truth—was conceivable, then, by Chalmers' principle linking conceivability and possibility,  $P \& \sim C_{phys}$  would be possible. This would be a reductio of the Chalmers' Zombie Argument—assuming that one doesn't want to be an anti-physicalist about neurophysiological properties—and would make the PCS unnecessary in the first place. So I'll take it that the antecedent of  $1_{phys}$  is false for any non-phenomenal conceptualization of  $C_{phys}$ . Since both  $1_{phys}$  and  $2_{phen}$  has a false antecedent, and so are true only vacuously, neither of them can be used to argue against the PCS.

On the other hand,  $1_{phen}$  and  $2_{phys}$  have true antecedents, and they both have a consequent that appears damaging for physicalism; the physicalist needs to address them seriously. My strategy is to embrace the apparently damaging consequents; I will argue that they are quite acceptable for the physicalist. Let's take  $2_{phys}$  first. Here is the anti-physicalist argument for the apparently damaging claim that  $C_{phys}$  cannot explain our epistemic situation.

$2_{phys}$ ) If  $P \& \sim C_{phys}$  is not conceivable, then  $C_{phys}$  cannot explain our epistemic situation.

$P \& \sim C_{phys}$  is not conceivable

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$C_{phys}$  cannot explain our epistemic situation.

I believe that  $C$  has to be cast in phenomenal terms for it to explain our epistemic situation, i.e., I think that only  $C_{phen}$  explains our epistemic situation.

I also accept the following argument to the effect that  $C_{Phen}$  is not physically explicable:

1<sub>Phen</sub>) If  $P \& \sim C_{Phen}$  is conceivable, then  $C_{Phen}$  is not physically explicable.

$P \& \sim C_{Phen}$  is conceivable

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$C_{Phen}$  is not physically explicable.

In other words, I accept that only  $C_{Phen}$  can explain our epistemic situation, but  $C_{Phen}$  is not physically explicable. I will devote the last section of this paper to arguing that that this combination of views is *not* a threat for physicalism.

Chalmers, by contrast, thinks that accepting the claim that  $C$  is not physically explicable—under any conceptualization of  $C$ —would be the kiss of death for physicalism. In the light of this, he suggests that physicalists should cast  $C$  in non-phenomenal terms, to avoid having to assert the conceivability of  $P \& \sim C$  and—via premise 1—the consequent that  $C$  is not physically explicable. He holds out some hope for the physicalist to be able challenge 2 by offering both a special, topic neutral conceptualization of  $C$  and a topic-neutral characterization of our epistemic situation. I will start by explaining why I don't think this can work for the physicalist.

Chalmers recommends that the physicalist cast her account of our epistemic situation with respect to phenomenal states not in *phenomenal*, but in “*quasi-phenomenal*” terms. “Quasi-phenomenal” can be analyzed *topic neutrally*—in the sense that its analysis won't include phenomenal terms—presumably in a psychological/epistemic vocabulary. They are, e.g., described as special demonstratives, or concepts whose tokens are constituted by an instance of their referent. The physicalist might be able to argue then, according to Chalmers, that  $P \& \sim C^*$ , where  $C^*$  is the statement that we possess the relevant quasi-phenomenal concepts, is not conceivable. Quasi-phenomenal concepts include, but possibly are not exhausted by, phenomenal concepts.<sup>23</sup>

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<sup>23</sup> In this way  $C^*$  differs in content from both  $C_{Phen}$  and  $C_{Phys}$  which—on the assumption that physicalism is true—refers to phenomenal concepts in a purely physical vocabulary. Whereas  $C^*$  pinpoints the relevant psychological feature as possessing quasi-phenomenal concepts,  $C_{Phys}$  describes the relevant psychological features as possessing *phenomenal* concepts of certain sort, only describes them in physical, rather than phenomenal terms.

The physicalist appealing to  $C^*$  would be able to avoid the first horn of the dilemma, since, on this interpretation, premise 1\* is vacuously true. But she would have to find a way to deny 2\*, since 2\*, together with the claim that  $P \& \sim C^*$  is not conceivable, leads to the undesirable consequence that  $C^*$  cannot explain our epistemic situation:

2\*) If  $P \& \sim C^*$  is not conceivable, then  $C^*$  cannot explain our epistemic situation.

$P \& \sim C^*$  is not conceivable

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$C^*$  cannot explain our epistemic situation.

To avoid this consequence, the physicalist would also have to spell out our “*epistemic situation* with respect to phenomenal states” in topic neutral terms in the hopes that  $C^*$ —having been cast in similarly topic-neutral terms—will be able to explain it. Before we continue, we need to clarify the notion of “epistemic situation” Chalmers appeals to.

The key to understanding the role of “epistemic situation” in Chalmers’ argument is to understand his account of *sameness* of epistemic situation. Chalmers says that two thinkers are in the same epistemic situation with respect to their corresponding sets of beliefs iff

- i) the truth-values of their corresponding beliefs are the same; and
- ii) the epistemic status of their corresponding beliefs match.

“Epistemic status” includes factors like whether a belief is justified or not, but Chalmers clearly also ties it to whether a belief provides one with “cognitively significant”, “substantial” knowledge, like, e.g., Mary’s belief about what it is like to see red does.

I contend that Chalmers’ suggestion that the physicalist employ quasi-phenomenal concepts to explain our epistemic situation is not helpful—at least for a physicalist who accepts, like I do, Chalmers’ characterization of the substantiality of phenomenal beliefs and who understands this substantiality to be a feature of our acquaintance with phenomenal properties. On this understanding, the substantiality of phenomenal beliefs comes from the fact that via phenomenal concepts we are acquainted with phenomenal properties: we grasp them directly

and in a way that appears to reveal their essence.<sup>24</sup> The constitutional account explains this by suggesting that an experience instantiating the phenomenal property **q** serves as mode of presentation of a particular token of the phenomenal concept  $C_q$  *by being constitutive of the relevant token of  $C_q$* .

There is a delicate issue regarding the nature of acquaintance here. If phenomenal properties are, as the physicalist claims, physical or functional properties, then there is a clear sense in which acquaintance *doesn't* reveal their nature. According to the constitutional account of phenomenal concepts, phenomenal judgments don't reveal their referent *as* physical or functional, for the reason that they don't analyze their referent in physical/functional terms. In this sense, contrary to the dualist view, they *don't* reveal the nature of their referent. In another sense, however, they do. In the canonical, introspective applications of phenomenal concepts, the very phenomenal (i.e., physical or functional) property that is being introspected serves as its own phenomenal mode of presentation.<sup>25</sup> To avoid this equivocation, perhaps it would be better for the physicalist to analyze acquaintance and the substantiality of phenomenal belief in terms of the phenomenal *presence* of the introspected properties in phenomenal judgments; and not in terms of our direct grasp of the *essence* of phenomenal properties. This is a characterization of acquaintance that physicalists and dualists can agree about.

The physicalist explanation of the substantial grasp of **q** via  $C_q$  crucially involves the fact that there is *something it is like* to have an instance of **q**. This means that the constitutional account couldn't be cast in physical or quasi-phenomenal terms and still explain our epistemic situation.  $C^*$  and  $C_{phys}$  are both explanatorily inadequate. There is an explanatory gap between  $C^*$  and  $C_{phys}$ —involving topic neutral/physical descriptions of our phenomenal concepts—on the one hand, and  $E$ —a statement describing our epistemic situation in terms of “acquaintance”, “substantial knowledge”, etc.—on the other. Neither a neurophysiological, nor a mere “architectural” description of phenomenal concepts—e.g., that they are constituted by instances of the referent—can explain the key features of acquaintance and the substantial manner in which we think of phenomenal properties.

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<sup>24</sup> Not all physicalists think that we are acquainted with phenomenal properties in this way. Levin (2007), e.g., suggests that physicalists “should reject the claim that phenomenal concepts require some sort of “presence” of, or “acquaintance” with [...] the quality denoted, since this claim is backed only by the intuitions that they have already explained away.” (p.15)

<sup>25</sup> Ned Block (in conversation) puts this point by saying that acquaintance doesn't reveal the essence of phenomenal properties *under all their conceptualizations*.



This explanatory gap mirrors the original explanatory gap between phenomenal and physical descriptions. Just as the original explanatory gap renders anti-physicalism about phenomenal experience reasonable, and even plausible, this new explanatory gap between  $C_{phys}$  (and  $C^*$ ) and  $E$ —and the lack of a similar gap involving  $C_{phen}$ —renders the view that phenomenal concepts involve acquaintance with irreducibly non-physical phenomenal states a perfectly reasonable, and even plausible one. In contrast, as we have seen, the hypothesis that water is an irreducibly non-physical substance—and not  $H_2O$ —strikes one as non-sensical given what we know about  $H_2O$  and water.

As a consequence, Chalmers' suggestion to couch  $C$  in quasi-phenomenal terms is not of any help to the physicalist. I think the physicalist can stick to her guns and insist that  $C$  has to be cast in phenomenal terms—as  $C_{phen}$ —to explain our epistemic situation. Chalmers argues—by premise 2 and by affirming that phenomenal concepts zombies are conceivable, i.e., that  $P \& \sim C_{phen}$  is conceivable—that  $C_{phen}$  is not physically explicable. I agree that  $C_{phen}$  is not physically explicable, in the same sense in which  $E$  is not explicable by  $C_{phys}$ , or a phenomenal statement  $Q$  is not explicable by any physical statement  $P$ . The reason this is so is that in all these cases there is an *explanatory gap*. I will devote the rest of the paper to showing that, though there is an explanatory gap between  $C_{phen}$  and any physical statement  $P$ , this doesn't pose a challenge to the physicalist over and above the original explanatory gap between  $Q$  and  $P$ . I also argue that, moreover, the constitutional account of phenomenal concepts succeeds in disarming both explanatory gaps at the same time.

#### IV. In Defense of the Phenomenal Concept Strategy<sup>26</sup>

The notion of “explicability” involved in the claim that  $C_{phen}$  is not physically explicable is closely tied to conceivability—i.e., to the fact that  $P \& \sim C_{phen}$  is conceivable—and the explanatory gap. Chalmers argues like this:

Here [...] we are assuming nothing about the relationship between conceivability and possibility. It may be that creatures satisfying  $P \& \sim C$  are metaphysically impossible. We are simply assuming a connection between conceivability and explanation. More precisely, we are assuming a connection between conceivability and a certain sort of reductive explanation, the sort that is relevant here: explanation that makes transparent why some high-level truth obtains, given that

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<sup>26</sup> Papineau (2007) and Carruthers & Veillet (2007) both offer interesting defenses of the PCS in the face of Chalmers' Master Argument; they pursue rather different tacks from the one I am going to follow in this section.

certain low-level truths obtain [...] for now, I will take the connection between conceivability and explanation for granted. (pp. 174–5)

It seems that for Chalmers the connection between conceivability and explanation is straightforwardly *a priori*. But, as we have seen, even those who reject the connection between conceivability and explanation on general grounds (Block and Stalnaker, 1999; McLaughlin, 2007) have to admit that there is a clear sense in which  $C_{Phen}$  is not explicable by  $P$ —the sense that connects explanation with “non-gappiness”. I will not adjudicate between these two views. I will assume that explanation requires *at least* non-gappiness; and leave the question open if it is also connected with conceivability in the above manner. In any case, Chalmers’ Master Argument, couched in terms of conceivability, can be reformulated in terms of non-gappy explanation:

- 1<sub>Gap</sub>) If there is an explanatory gap between  $P$  and  $C$  then  $C$  is not physically explicable.
- 2<sub>Gap</sub>) If there is no explanatory gap between  $P$  and  $C$  then  $C$  cannot explain our epistemic situation.

As before, these conditionals break down into two sub-principles depending on whether they feature  $C_{Phys}$  or  $C_{Phen}$ . On the reading of “explicability” I have just suggested, 1<sub>Gap</sub> is a straightforward tautology; it can be used to argue for the claim that  $C_{Phen}$  is not physically explicable. 2<sub>Gap</sub> is also very plausible and it can be used to argue that  $C_{Phys}$  cannot explain our epistemic situation. I will call the kind of explanation figuring in these conditionals—tied, via conceptual necessity to non-gappiness<sup>27</sup>—*perspicuous* explanation. In what follows I will focus on this—less controversial, and so stronger—formulation of Chalmers’ Master Argument. Everything I say about it applies—*mutatis mutandis*—to the more controversial formulation Chalmers originally proposed.

Here is my answer to the Master Argument. Yes, it is correct both that  $C_{Phen}$  is not physically explicable and that  $C_{Phys}$  cannot explain our epistemic situation—but this is perfectly compatible with physicalism! What I concede here—what the Master Argument succeeds at

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<sup>27</sup> Non-gappiness constitutes a conceptually necessary (but perhaps not sufficient) condition of what Chalmers calls “reductive” explanation. A full definition of reductive explanation is not needed here anyway; all that is relevant, from the point of view of the arguments in this paper, is the connection between explanation and non-gappiness.

showing—is merely the existence of some epistemic gaps—not the existence of an ontological gap. A further step is needed to conclude that physicalism is false; and this further step can be resisted. To see this, notice that whether a fact A perspicuously explains a fact B might depend on the conceptualization of the facts in question. As far as the notion of perspicuous explanation is concerned, it is an open question whether it is possible, for some facts A and B, and some conceptualizations of A  $A_1$  and  $A_2$ , that B is perspicuously explained by A under conceptualization  $A_1$ , but not under conceptualization  $A_2$  (the same considerations apply with respect to different conceptualizations of B as well). The physicalist thinks that this is exactly the situation with respect to the fact that P, the fact that C, and the fact that E under their different conceptualizations.  $P$  doesn't perspicuously explain  $C_{phen}$  but it *does* perspicuously explain  $C_{phys}$ ! Similarly,  $C_{phys}$  doesn't perspicuously explain  $E$ , but  $C_{phen}$  does. And  $C_{phen}$  and  $C_{phys}$ , according to the physicalist, express the same fact. To rebut the anti-physicalist, the proponent of the PCS merely has to argue that this is *conceivable*. If it is conceivable then the fact that  $P$  doesn't perspicuously explain  $C_{phen}$  doesn't *a priori* entail that  $C_{phen}$  is not physical.

The heart of the physicalist position is that there is no *a priori* reason to rule such a situation out—no *a priori* reason, that is, except the putatively *a priori* anti-physicalist principles. But the PCS explains why the anti-physicalist principles are mistaken. They are mistaken because they presuppose that epistemic gaps always indicate ontological gaps.<sup>28</sup> They do not take into account the special way in which we think about our phenomenal experiences. Even if the world is entirely physical, as a consequence of the unique cognitive profile of phenomenal concepts the puzzling epistemic gaps still have to arise. The anti-physicalist's mistake is overreaction.

At this point the anti-physicalist might object that the scenario invoked by the physicalist is indeed *inconceivable* since the lack of a perspicuous explanation *does a priori* entail an ontological gap between the facts involved. But this argument relies on the original principles that the PCS is designed to rebut. Invoking them again—this time arguing that *phenomenal concept facts* do not metaphysically supervene on the physical—doesn't *add* anything to the original anti-physicalist argument which concluded that *phenomenal facts* do not metaphysically supervene on the physical. As a matter of fact, it merely begs the

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<sup>28</sup> The principle at issue connects, on Chalmers' account, a *conceptual* gap to an ontological gap. On the version I am currently discussing, it connects the *explanatory* gap to an ontological gap. There are other—supposedly *a priori*—principles connecting some epistemic gap with an ontological gap; but I cannot discuss them here.

question. On the constitutional account of phenomenal concepts, *both* explanatory gaps—the one involving  $P$  and  $Q$ , the other involving  $P$  and  $C_{Phen}$ —arise in virtue of the peculiar nature of phenomenal concepts. The physicalist argues that if the conceivability of a physicalist account of phenomenal concepts is granted the falsity of the anti-physicalist principles—those same principles that are supposed to rule that conceivability out—can be satisfactorily accounted for. Invoking the inconceivability of a physicalist account of phenomenal concepts through a reliance on the correctness of the anti-physicalist principles—the *very principles PCS is rebutting*—is far from being a refutation of the PCS. It is a mere refusal to meet the argument on its own ground.

Of course, physicalism would remain puzzling and downright incomprehensible if a perspicuous physicalist explanation of the epistemic gaps themselves was not possible. The crucial element of the PCS is that it provides just such an explanation. It offers the next best thing to a perspicuous explanation of  $Q$  in terms of  $P$ , namely, it offers a perspicuous explanation of why we can't have one. The proponent of the PCS turns things around by showing that a purely physical world where the epistemic gaps are explained by the nature of phenomenal concepts—rather than by the nature of phenomenality *itself*—is conceivable. All that is needed to show this is that there is no *a priori* reason to rule out the existence of a purely physical world where  $\mathbf{q} = \mathbf{b}$ ,<sup>29</sup> and where the constitutional account of phenomenal concepts holds.<sup>30</sup>

Chalmers (2007) charges that the explanatory scheme outlined above is circular. But there is nothing viciously circular about the explanation I sketched above. It is true, to rebut the anti-physicalist arguments one has to *assume* that the anti-physicalist principles are false—and so do not make physicalism about phenomenal experience and phenomenal concepts inconceivable. But this doesn't make the PCS defective—after all, the strategy is based on an *explanation* of why the anti-physicalist principles are mistaken.<sup>31</sup>

Chalmers claims that, on this scheme, *no progress* can be made by following the PCS since the issue of whether the new gap—i.e., the one involving  $C^{Phen}$  and  $P$ —is compatible with physicalism can be raised with the same force as with respect to the original explanatory gap.

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<sup>29</sup>  $\mathbf{q}$  is a phenomenal property, and  $\mathbf{b}$  is a physical or functional property.

<sup>30</sup> Presumably, a full explanation requires a general theory of concepts and representation, and an account of mental processes. I will keep these out of consideration since these things have to be in place for a full explanation irrespective of one's ontological views.

<sup>31</sup> Descartes used a similar overall argumentative structure—the Cartesian Circle. As some commentators have pointed it out, circularity by itself doesn't make an argument defective (e.g., Loewer, 1981).

The ontological implications of the gap between  $C^{Phen}$  and  $P$  have to be denied which comes much to the same thing as denying the ontological implications of the original gap between  $C$  and  $P$ . What Chalmers overlooks is that the PCS provides a *physicalistic explanation* of the conceptual/epistemic gaps (including the new gap involving phenomenal *concept* descriptions) and so explains how the anti-physicalist principles can be false despite their intuitive appeal—which amounts to more than a mere denial.

In fact, and this is a key point, Chalmers engages in the same kind of circular argumentation against the physicalist that he accuses the physicalist of engaging in. He rebuts the PCS by first *assuming* that the contested principles are true.

This is a stalemate. Each side can unseat the other side's core assumption if they are permitted to make their own core assumption. The anti-physicalist appeals to the anti-physicalist principles, the physicalist appeals to the conceivability of a purely physical world with phenomenality. Both can show that, once granted that one core assumption, their view is consistent and can rebut challenges from the other side. Neither side can, without begging the question against the opponent, show that the other's position is untenable. Where you end up depends on what you take as your starting point. And, as far as I can see, neither side has a privileged start. What this means is that the physicalist can resist the Master Argument. The Master Argument is no more able to refute the PCS than the physicalist is able to refute the anti-physicalist principles. This is a stalemate, as far as this dialectic goes, but a stalemate is enough to make physicalism a viable option.

The situation, however, is puzzling. One would have thought that when it comes to *a priorities*, like the anti-physicalist principles, or the conceivability of physicalism with respect to phenomenality, there are *a priori* ways to justify or refute them. This doesn't seem to be the case here. Both claims seem to be self-justificatory; but they are incompatible with each other. I know of no principles *outside* the physicalist and anti-physicalist systems that could settle the issue. What we have here is a puzzling symmetry between the two incompatible positions.<sup>32</sup>

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<sup>32</sup> There are some instances of statements which if true (false) must be *a priori* true (false) but where we lack non-question-begging *a priori* ways of deciding the issue. For example, mathematical realists typically think that Cantor's Continuum Hypothesis is an instance. But the case at hand seems as though it should be *a priori* decidable by us since it doesn't involve the complexity of the mathematical case. In the face of this kind of stand off one can be tempted to the view that there is no fact of the matter (i.e., the relevant statements are neither true nor false) or that the dispute is terminological (i.e., the statements are deploying concepts with different meanings). But we have seen that the conceivability of physicalism has consequences for ontology—for whether physicalism or anti-physicalism is true—and this doesn't seem to be terminological.

As I have argued elsewhere (Balog 2008) there is no good reason to think that empirical evidence can break the tie either. If there is a way to break the stalemate it is by comparing the two grand metaphysical/explanatory systems in which each position is embedded. The only way empirically equivalent and internally consistent theories can be compared with each other is by considerations of simplicity and overall explanatory strength. In the case at hand we need to look at the competing accounts of metaphysical necessity, mental causation, meaning, the nature of physical properties and consciousness, what fundamental laws exist, etc.<sup>33</sup>

This is not the place to adjudicate the issue. The conclusion that we can draw from the foregoing discussion of the PCS and Chalmers' Master Argument is that there are no *a priori* ways to decide between the two metaphysical frameworks—except considerations having to do with the overall simplicity and explanatoriness of the respective metaphysical frameworks.<sup>34</sup> This is where the ontology wars will be decided, if at all.

### References

- Aydede, M. & Güzeldere, G. 2005. "Cognitive Architecture, Concepts, and Introspection: An Information-Theoretic Solution to the Problem of Phenomenal Consciousness", *Noûs* 39(2), 197–255.
- Balog, K., 2008. "Illuminati, Zombies and Metaphysical Gridlock" (MS).
- 2011. "Acquaintance and the Mind-Body Problem", in *The Mental, the Physical*, ed. by Christopher Hill and Simone Gozzano, Cambridge University Press.
- Bealer, G. 1994. "Mental Properties," *Journal of Philosophy* 91, 185–208.
- Block, Ned & Stalnaker, Robert. 1999. "Conceptual Analysis, dualism, and the explanatory gap", *Philosophical Review* 108, 1–46.
- Block, N. 2007. "Max Black's Objection to Mind-Body Identity", in T. Alter and S. Walter (eds.) *Phenomenal Concepts and Phenomenal*

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<sup>33</sup> On the physicalist side, there are arguments in favor of physicalism that appeal to mental causation and the causal closure of physics (Loewer 1995), (Papineau 1995). Loewer and Papineau argue that the anti-physicalist is forced into adopting one of these implausible positions: epiphenomenalism, causal overdetermination, or denial of the causal closure of physics. Hill and McLaughlin (1999), and McLaughlin (2007) argue more generally that there are powerful reasons to prefer physicalism as an overall explanatory metaphysics over dualism. See also Melnyk (2003) for discussion of a history of successful reduction of higher level properties to lower level ones. On the anti-physicalist side, Chalmers, e.g., argues (2002a, 2002b) that the CP Principle—and with it, dualism—is required to give a satisfying account of modality.

<sup>34</sup> I am not going to decide whether the terminology "*a priori*" properly describes such considerations. Nothing rides on the terminology.

- Knowledge: New Essays on Consciousness and Physicalism*, Oxford University Press.
- Carruthers, P. and Veillet, B. 2007. "The Phenomenal Concept Strategy", *Journal of Consciousness Studies* 14.
- Chalmers, D. 1996. *The Conscious Mind*, New York: Oxford University Press.
- Chalmers, D. and Jackson, F. 2001. "Conceptual Analysis and Reductive Explanation", *Philosophical Review* 110, 315–61.
- Chalmers, D. 2002a. "Does Conceivability Entail Possibility?" Published in (T. Gendler and J. Hawthorne, eds) *Conceivability and Possibility*, Oxford University Press, pp. 145–200.
- 2002b. "Consciousness and its Place in Nature". In (D. Chalmers, ed) *Philosophy of Mind: Classical and Contemporary Readings* (Oxford University Press, 2002). Also in (S. Stich & F., Warfield, eds) *Blackwell Guide to Philosophy of Mind*. Blackwell, 2003. Reprinted (abridged) in (W. Lycan & J. Prinz, eds) *Mind and Cognition: A Reader* (Blackwell, 2007).
- 2003. "The Content and Epistemology of Phenomenal Belief", in Q. Smith and A. Jokic (eds), *Consciousness: New Philosophical Perspectives*, Oxford University Press.
- 2007. "Phenomenal Concepts and the Explanatory Gap," in T. Alter and S. Walter (eds) *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and physicalism*, Oxford University Press.
- 2009. "The Two-Dimensional Argument Against Materialism", in B. McLaughlin (ed.) *The Oxford Handbook of the Philosophy of Mind*.
- Hill, C. and McLaughlin, B. 1999. "There are Fewer Things Than Are Dreamt of in Chalmers' Philosophy", *Philosophy and Phenomenological Research* 59, 445–454.
- Jackson, F. 1982. "Epiphenomenal Qualia," *Philosophical Quarterly* 32, 127–36.
- 1993. "Armchair Metaphysics". In *Philosophy in Mind*, ed. M. Michael and John O'Leary-Hawthorne. Dordrecht: Kluwer.
- Kirk, R. 2005. *Zombies and Consciousness*, Oxford University Press.
- Kripke, S. 1972. *Naming and Necessity*. Cambridge: Harvard University Press.
- Levin, J. 2007. "What is a Phenomenal Concept?," in T. Alter and S. Walter (eds) *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, Oxford University Press.
- Levine, J. 2001. *Purple Haze*, Oxford University Press.
- 2006. "Conscious Awareness and (Self-)Representation", in *Self-Representational Approaches to Consciousness*, Uriah Kriegel and Kenneth Williford (eds.), MIT/Bradford.



- 2007. “Phenomenal Concepts and the Materialist Constraint”, in T. Alter and S. Walter (eds) *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, Oxford University Press.
- Lewis, D. 1983. “New Work for a Theory of Universals”, *Australasian Journal of Philosophy* 61, 343–77.
- Loewer, B. 1981. “Descartes’ Skeptical and Antiskeptical Arguments”, *Philosophical Studies* 39, 163–182.
- 1995. “An Argument for Strong Supervenience”, in (E. Savellos and U. Yalcin, eds.) *Supervenience: New Essays*. Cambridge University Press.
- Melnyk, A. 2003. *A Physicalist Manifesto: Thoroughly Modern Materialism*, Cambridge University Press, Cambridge.
- Nagel, T. 1974. “What Is It Like to Be a Bat?” *Philosophical Review* 83, 435–50.
- Nida-Rümelin, M. 2007. “Grasping Phenomenal Properties”, in T. Alter and S. Walter (eds) *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, Oxford University Press.
- Papineau, D. 1995. “Arguments for Supervenience and Physical Realization”, in (E. Savellos and U. Yalcin, eds.) *Supervenience: New Essays*. Cambridge University Press.
- 2002. *Thinking about Consciousness*, Oxford University Press.
- 2007. “Phenomenal and Perceptual Concepts”, in T. Alter and S. Walter (eds) *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, Oxford University Press.
- Perry, J. 2001. *Knowledge, Possibility and Consciousness*. MIT Press.
- Robinson, H. 1993. “The Anti-materialist Strategy and the Knowledge Argument”, in *Objections to Physicalism*, ed. Howard Robinson. Oxford: Oxford University Press.
- Russell, B. 1910. “Knowledge by Acquaintance and Knowledge by Description”, *Proceedings of the Aristotelian Society* 11, 108–128. Reprinted in: Russell, *Mysticism and Logic*, London: Allen and Unwin, 1963, 152–167.
- Tye, M. 2003. “A Theory of Phenomenal Concepts”, in Anthony O’Hear (ed.), *Minds and Persons*. Cambridge University Press.
- Stoljar, D. 2005. “Physicalism and Phenomenal Concepts”, *Mind and Language* 20(2), 296–302.
- White, S. 2007. “The Argument for the Semantic Premise”, in T. Alter and S. Walter (eds) *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*, Oxford University Press.