

# Real Acquaintance and Physicalism

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**Philip Goff**

## **I – Real acquaintance versus acquaintance physicalism**

In the old days physicalists refused to compromise. They not only denied the existence of mental *properties* over and above physical properties, but also of mental *concepts* over and above physical/functional concepts. For the old school physicalist mental properties are just physical properties we pick out in virtue of their functional role: the concept ‘pain’ picks out c-fibres firing as the state that plays ‘the pain role’ in humans. On such a view, zombies are inconceivable and Mary learns gains no new propositional knowledge when she sees red for the first time.<sup>1</sup>

Physicalists these days tend to be more conciliatory. Those physicalists who adopt the ‘phenomenal concepts strategy’ concede to the anti-physicalist that there is a special class of *phenomenal concepts*, formed when conscious states are conceived of in terms of what it’s like to have them, which bear no a priori association to physical or causal concepts. The existence of phenomenal concepts entails that zombies are conceivable, and that Mary gains new propositional knowledge.

Despite this concession regarding mental *concepts*, the phenomenal concepts strategist gives no ground on *ontology*. Although we have two very different kind of concept – physical/functional concepts on the one hand, phenomenal concepts on the other – each phenomenal concept co-refers with some physical/functional concept: the concept ‘what it’s like to feel pain’ picks out the very same state of the world as the concept ‘c-fibres firing.’ Because phenomenal concepts refer to physical states, zombies are impossible. And Mary’s new knowledge is just a matter of her gaining a new way of thinking about a property she already knew about under a physical description. Mary used to know that seeing red involves ‘physical property P,’ now she knows that seeing red involves ‘phenomenal quality Q,’ but ‘physical property P’ and ‘phenomenal property Q’ are just two ways of thinking about the same thing. In general, to adopt the phenomenal concepts strategy is to accept that there is an epistemic gap between the mental and the physical, but to account for it in terms of a dualism of concepts rather than of properties.<sup>2</sup>

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<sup>1</sup> Armstrong 1968, Dretske 1995, Harman 1990, Lewis 1966, 1970, 1994, Rey 1995.

<sup>2</sup> Black and Stalnaker 1999, Hill 1997, Hill and McLaughlin 1998, Levine 1983, Loar 1990, 2003, Papineau 1993 2002, Perry 2001.

All versions of the phenomenal concepts strategy agree with the anti-physicalist that there is no a priori association between phenomenal concepts and physical/functional concepts, and hence that the phenomenal facts are not a priori entailed by the physical facts. But a subclass of phenomenal concepts strategists want to go further, to have a view of the working of phenomenal concepts which more closely resembles that of the dualist. Specifically, these physicalists want to agree with the standard dualist position that we are 'acquainted' with our phenomenal qualities, that is, that we refer to the qualities of our experience in virtue of standing in some special, epistemically intimate relationship to those qualities. Call this kind of view 'acquaintance physicalism.'

There is a natural sense of the word 'acquaintance', according to which acquaintance affords the acquainted an understanding of the real nature of the thing with which she is acquainted. Call acquaintance so understood 'real acquaintance.' Something like real acquaintance was taken by the British Empiricists to hold between a mind and its ideas, and by the sense data theorists to hold between the self and its sense data. It is a familiar and intuitive idea in the history of philosophy that the mind is somehow 'so close' to the qualities of experience that their nature is 'laid bare' to the thinker.

On the face of it physicalism – at least the kind of physicalism adopted by proponents of the phenomenal concepts strategy, from now on 'PCS physicalism' – cannot consistently believe that we bear the *real* acquaintance to our phenomenal qualities. For physicalists take the real nature of phenomenal qualities to be physical or functional. If this were the case, then a really acquaintance with our phenomenal qualities would allow us to discern their real physical nature. Attending to pain would reveal it to consist of c-fibre stimulation. There would not be, contrary to what the PCS physicalist supposes, an epistemic gap between the physical and the phenomenal.

This much seems to be conceded by the acquaintance physicalists. Katalin Balog, who gives a detailed exposition and defence of a form of acquaintance physicalism, says that with respect to phenomenal qualities we have a 'direct, unmediated, substantial insight into their nature' (2012, 17). However, she also says that 'this kind direct insight...does not reveal anything about the metaphysical nature of phenomenality' (2012, 18). So whatever Balog means by 'substantial', it does not involve knowing the real nature of the object of thought. David Papineau, one of the original proponents of acquaintance physicalism (although he never actually used the word 'acquaintance' in expounding his view), makes it clear that there is no basic mode of thought which affords us an understanding of the real nature of the thing thought about:

No doubt there are ways of thinking of things that make certain essential properties *a priori* knowable. But I take such a priori knowledge to derive from (possibly implicit) compositionality in the relevant modes of thinking, and so not to be associated with the most basic ways in which thought makes contact with reality....When it comes to these basic points of contact, I find it hard to take seriously any alternative to the assumption that our atomic concepts are related to reality by facts external to our *a priori* grasp, such as causal or historical facts. (Papineau 2006: 102)

In place of real acquaintance, acquaintance physicalists give a *constitutional account* of a certain subclass of phenomenal concepts, according to which those phenomenal concepts refer to phenomenal qualities in virtue of being partly constituted by those qualities. When I am in agony, and I deploy a phenomenal concept to think about my agony, that concept, and the thought it is involved in, are literally constituted by the feeling of agony itself.<sup>3</sup>

We can understand this view by analogy with quotation marks. When we put quotation marks around a word, we create something that refers to a word by containing that word as a part. For example, the term 'dog' refers to a certain three letter word of the English language, and it does so by containing that word within itself. We can think of phenomenal concept as 'quoting' the phenomenal qualities they refer to, on the constitutional account. This model is not – at least not obviously – inconsistent with physicalism: the phenomenal quality 'quoted' may be a physical property, even though it is not revealed as such to the concept user.

Acquaintance physicalists do not give a constitutional account of all phenomenal concepts, but only of 'direct' phenomenal concepts: one deploys a direct phenomenal concept when one thinks about a given phenomenal quality by attending to it and thinking about it in terms of what it's like to have it.<sup>4</sup> Having formed a direct phenomenal concept of a certain kind of pain, I can then go on to judge that other people feel that way, or that I felt that way yesterday, and such judgements can clearly take place in the absence of pain (otherwise, one could not think that someone was in agony without feeling agony oneself). Indeed, arguably Mary in her black and white room has a concept of what it's like to see red in virtue of being in a linguistic community with people who have that concept.<sup>5</sup> But only a subject currently experiencing phenomenal quality Q can form a direct phenomenal concept of Q.

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<sup>3</sup> Papineau 2002, Balog 2012.

<sup>4</sup> The notion of a direct phenomenal concept comes from Chalmers 2003.

<sup>5</sup> As argued by Tye 2009.

Of course, we cannot refute physicalism by just defining a notion inconsistent with it and calling it 'real.' However, I think we have good reason to think that we are really acquainted with our phenomenal qualities, and that this in turn gives us good reason to think the conceptual dualism advocated by the phenomenal concepts strategists is inconsistent with a physicalist ontology. In the remainder of this paper I will (i) offer a detailed characterisation of real acquaintance, (ii) argue for the real instantiation of real acquaintance so characterised, (iii) present an argument against physicalism which starts from the premise that we are really acquainted with our phenomenal qualities.

## II – An account of real acquaintance

(In this section I will assume my view is true in order to vividly characterise it. In the next section I shall argue that it is true).

Real acquaintance is a natural relation which a subject bears to each of its phenomenal qualities. It is a special kind of intimacy in virtue of which the following two facts obtain:

*Revelation* – A psychologically normal subject can come to know the real nature of one of her phenomenal qualities by attending to that quality.

*Phenomenal Certainty* – A psychologically normal subject is able to put herself into a situation in which, with respect to one of her phenomenal qualities, she is justified in being certain that that quality is instantiated (where to be certain that P is roughly to believe with a credence of 1 that P).

A bird is really acquainted with its phenomenal qualities, but, being unable to attend to them, has no grip on their nature, and is unable to form beliefs about its phenomenal qualities. At all times I am really acquainted with each of my phenomenal qualities, but most of the time I as it were 'look through' my phenomenal qualities to the features of the world they represent. When perceiving a red bus I attend not to what it's like to see red, but to the red quality of the bus itself. However, an advantage humans have over birds is that, with a slight mental effort, they are able to attend to and think about their experiences. Certain experiences, such as pain, anxiety, after images, are more apt for this kind of reflection. And when I attend to my phenomenal qualities, their real nature is directly revealed to me in such a way that I am justified in not entertaining the slightest doubt concerning their instantiation.

What is the 'real nature' of pain? It is clearly not the case that *all the properties* of pain are revealed to me when I attend to it. Pain might be instantiated a certain number of times in the world, but I am not aware of how many when I attend to my headache. A more plausible suggestion would be

that at all *necessary* properties of pain constitute its real nature. But even this is too much. Pain is necessarily such that  $100 \times 127 = 12,700$ , but it is not plausible that this is revealed to me when I attend to a throbbing in my shin.

Kit Fine distinguishes the modal conception of essence popular in contemporary metaphysics, according to which an essential property of X is a property X has in all possible worlds, from a definitional conception of essence, according to which an essential property of X is one that constitutes the *real definition* of X, that is, one that makes X the kind of thing it is.<sup>6</sup> Fine takes the notion of a real definition as primitive, but thinks it one we easily get a grip on by consideration of cases. In all possible worlds in which Socrates exists, he has the property of being either Socrates or the Eiffel Tower. But the property of being either Socrates or the Eiffel Tower does not plausibly contribute to making Socrates the kind of thing he is. The property of *being human* is a more plausible candidate. All properties that constitute the real definition of a thing are properties that a thing has necessarily, but the converse is not the case.

To make sense of the 'real nature' or 'essence' of pain, we need to be working with a Finean rather than a modal conception of essence. Pain is a property rather than an object, but it seems even more plausible in the case of properties that they have something like a real definition or nature. This is not to say that a property has some *other* property, which is its nature, as talk of properties 'having a real nature' might superficially suggest. Rather, regarding each property P, there is something to be understood regarding P, the understanding of which constitutes knowing what it is for P to be instantiated. Consider the property of sphericity. In knowing that for something to be spherical is for it to have all points on its surface equidistant from its centre, I know what it is for sphericity to be instantiated.

It is difficult to put the point unambiguously. With regards to any property one has a concept of, there is a sense in which one 'knows what it is for the property to be instantiated.' Suppose Jim has an indexical concept of the property of being gold. That indexical concept does not afford Jim an understanding of the real nature of that property. And yet there is a sense in which Jim can truly say, 'Of course I know what it is for something to be *that stuff*: it is for it to be *that stuff*', where he specifies by demonstration the condition an object must satisfy in order to count as gold.

However, perhaps even more so than in Fine's discussion of the real nature of objects, consideration of cases shows that there is a perfectly clear notion here. Suppose David and I are playing a fun game called 'Guess my favourite property.' I am trying to guess David's favourite property, which

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<sup>6</sup> Fine 1994.

turns out to be sphericity. Contrast my understanding of David's favourite property before he tells me what it is – when I can only think of it as 'David's favourite property' – and my understanding of David's favourite property after he tells me it's sphericity. There is a clear sense in which I go from *not knowing what the property in question is*, to *knowing what the property in question is*.

Now, when I'm still guessing I could always be clever and say, 'Of course I know which property we're talking about: it's *David's favourite property*.' If I use the phrase 'David's favourite property' as a rigid designator, then I am able to refer to the property in question (I pick it out in all possible worlds!). But it is only when I am able to think of it in geometrical terms that I grasp its nature, that I understand what it is for an object to have that property. The notion of a real nature is closely linked to the notion of a transparent concept that I have developed in other work; roughly a transparent concept is one that renders a priori accessible the real nature of its referent.<sup>7</sup>

Talk of 'knowing what it is for a property to be instantiated' suggests that properties are universals. But I take it that this kind of talk is consistent with nominalism at a more fundamental level of analysis. If we identify properties with sets of tropes, then we can say that real acquaintance with a pain trope affords an understanding of what it is for a certain trope to be a pain trope. Even the austere nominalist, who at a fundamental level of analysis quantifies only over particular objects, can arguably analyse this notion. She can say that a pained subject, in virtue of being pain-acquainted, is afforded an understanding of what it is for her to be pained.<sup>8</sup>

As long as there's something to be understood about an object that constitutes knowing what it is about an object that fits it to satisfy some predicate 'N', then we can give some kind of analysis of talk of 'the real nature of property N-ness' whatever our ultimate metaphysics. There are perhaps some very austere forms of concept nominalism, according to which reality just consists of characterless blobs, which predicates apply to only as a result of our interests. Blobby nominalism of this kind could provide no analysis of talk of the real nature of properties.<sup>9</sup> But blobby nominalism of this kind is not very plausible. Surely it is a mind-independent fact that the planet Earth is such as to satisfy the predicate 'roughly spherical,' and we can understand how the Earth can be such as to satisfy this predicate, even if its being so isn't a matter of the Earth's instantiating a certain universal.

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<sup>7</sup> Goff 2011, MS.

<sup>8</sup> One could give a meta-linguistic analysis of what it is in general to 'know what it is for a property to be instantiated.' I shall not attempt to do this here.

<sup>9</sup> Armstrong equates all forms of austere nominalism with blobby nominalism. However, if the austere nominalist takes it to be a fundamental fact about the world that objects are propertied, then, despite not believing in properties, she has a non-blobby picture of the world. Devitt (1980) and Lewis (1983) have argued contra Armstrong for the tenability of this kind of position. The austere nominalist who believes that objects are propertied has a more ideologically expansive view than the blobby austere nominalist, despite not having a more ontologically expansive view.

Our fundamental metaphysics will make a difference, though, to what kind of things we may take the objects of real acquaintance to be. If we take properties to be Aristotelian universals, then we can say that it is the in res universal of pain with which I am acquainted, and which I thereby understand the real nature of. But on other views, it seems we cannot be acquainted with the property itself. For the Platonist, the universal of pain is outside of space and time. The austere nominalist and the trope theorist either do not believe in the universal of pain, or identify it with the set of pained things/pain tropes. In all these cases, it is difficult to see how we could make sense of the subject bearing a natural relation to pain. But in each case I think there is a natural candidate for the object of acquaintance.

The Platonist can say that the subject is acquainted with the state of affairs of her instantiating the universal of pain, and thereby understands the real nature of that universal. The trope theorist can say that the subject is acquainted with a pain trope, and thereby understands what it is for a trope to be a pain trope. The austere nominalist can say that the subject is acquainted with itself at a time when it is pained, and in virtue of this acquaintance knows what it is for a subject to be pained. Unless the trope or the particular object (at a given time) in question is blobby, there will be a way of understanding how the trope/object is such as to satisfy the relevant predicate, and we may suppose that such understanding can come from a real acquaintance with the trope/particular object at a time.<sup>1011</sup>

The final point I want to make about real acquaintance is crucial. Real acquaintance is not *defined* as the relation that guarantees the *Revelation* and *Phenomenal Certainty*. The concept of real acquaintance is a primitive notion, but one that turns out to necessarily have these implications. One might suspect I was cooking up this notion, where it not so intuitive, and so familiar from the history of philosophy. One easily latches onto the idea that one is 'so close' to one's experiences that their nature is laid bare and their instantiation certain. This is not to say that such we really do stand in such a relation to our phenomenal qualities. My point is just that it is not plausible for my opponents to claim they haven't the slightest idea what I'm talking about.

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<sup>10</sup> To say that we are acquainted with 'a particular object at time t' is not to say that we are acquainted with t. We can say that by virtue of being acquainted with itself at a time when it is pained a subject can understand what it is for something to be pained, and by virtue of being acquainted with itself at a time when it is pleased a subject can understand what it is for something to be pleased. It doesn't matter that the subject is acquainted with something which is not essentially pained (or pleased, or whatever), just so long as it is an objective fact about the world that it is pained at the time of acquaintance (which wouldn't be the case if the subject were blobby).

<sup>11</sup> I am grateful to Mike Martin for prompting me to think more carefully about the metaphysics of real acquaintance.

### III – An argument for real acquaintance

Why should we believe that we are really acquainted with our phenomenal qualities? One reason is that we seem to be. The fact that there seems to be a table in front of me gives me some reason to believe that there is a table in front of me. The fact that I seem to stand a peculiar type of intimate relationship with my pain such that its nature is directly revealed to me in such a way that I can be rationally certain of its instantiation, gives me some reason to believe that I really do stand in that relationship with my pain.

There is a further to believe in real acquaintance: the hypothesis that I am really acquainted with my phenomenal qualities explains a couple of very plausible theses about our epistemic situation with regards to phenomenal qualities: *phenomenal certainty* and *phenomenal insight*:

*Phenomenal certainty* – A psychologically normal subject is able to put herself into a situation in which, with respect to one of her phenomenal qualities, she is justified in feeling certain that that quality is instantiated (where to be certain that P is roughly to believe with a credence of 1 that P).

*Phenomenal Insight* – We have rich a priori knowledge concerning our phenomenal qualities.

#### Phenomenal certainty

We have already across *Phenomenal Certainty* in characterising real acquaintance. But it is an incredibly plausible thesis in its own right. Consider the following case. Suppose I am in agony, having just had my leg cut off. I attend to my agony, think about it in terms of how it feels thereby forming a phenomenal concept of the agony, and then deploy that phenomena concept in judging that I am feeling *like that* ('*like that*' expresses the phenomenal concept). In normal circumstances, I can rule out any scenario in which that judgement is not true; I am justified in believing with total certainty that I feel *that way*.

This is not a kind of certainty we are capable of having regarding states of the external world. I have a justified belief that there is laptop in front of me. That belief has a very high level of justification. It has enough justification to count as knowledge. Nonetheless, I am not justified in being certain that there is a laptop in front of me, as there is a very small chance I am in The Matrix, and what seems like a visual experience of a laptop is in fact an elaborate hallucination created in my mind by evil computers.

I am not saying that every time we form a phenomenal concept, we achieve rational certainty that the concept is satisfied. And I'm not saying we never make mistakes about our conscious experience.

I'm just claiming that there are certain, quite familiar, circumstances in which such rational certainty is achieved regarding a judgement about phenomenal qualities, and that a normal human being is able to create such circumstances for herself.

It would be good to have a method for distinguishing the cases where certainty is reached from the cases where it isn't, and I am broadly sympathetic to that proposed by David Chalmers (2003). However, one doesn't need to do this work in order to accept *phenomenal certainty*. I take it as a datum that there are commonplace circumstances in which I have certainty regarding the instantiation of certain qualities in my conscious experience.

### Phenomenal insight

*Phenomenal insight* is the thesis that we have a priori knowledge of certain essential features of phenomenal states. Most uncontroversially, we can know a priori essential resemblances and differences between phenomenal qualities, for example, what it's like to see red is similar to what it's like to see orange. It is also plausible that we know a priori that pain is *ceteris paribus* a bad thing: I can move a priori from the fact that  $\phi$ ing will cause someone to feel *like that* to the fact that I have strong reason not to  $\phi$ . Another plausible example: we can know a priori the representational properties of phenomenal qualities, for example, the phenomenal concept formed when I attend to my visual experience of seeing a tomato characterises it as an experience as of a red, round thing. In order to avoid getting into more controversy that is necessary, I'll stick to the case of essential similarities and differences between phenomenal qualities.

One might agree that we have knowledge of essential similarities between our conscious states, but be reluctant to class this knowledge as a priori. One's reasoning might be that we know such facts through the *faculty* of introspection, which makes it natural to class this knowledge as a posteriori. According to this line of reasoning, introspective knowledge is a kind of sensory knowledge accumulated through an inner sense.

However, the fact that this knowledge comes from introspection does not entail that it is a posteriori, because introspection and phenomenal concepts are essentially bound up with each other. We form phenomenal concepts through introspecting our phenomenal qualities. We can't go from the fact that we know a truth about phenomenal qualities through introspection to the fact that that truth is a posteriori, as we may well use introspection to form the relevant phenomenal concepts, and thereby discern the truth from the concepts.

The way to decide whether these truths are a priori is to ask whether or not their negations are conceivable. If the negation of a given proposition is inconceivable, it follows that its falsity can be

ruled out by mere reflection of concepts. If both the truth and the falsity of a given proposition are conceivable, it follows that we are reliant on some faculty to work out which is the case, and hence the resulting knowledge is a posteriori. It is overwhelmingly plausible with regards to the propositions under consideration that their negations are inconceivable: we cannot conceive of a situation where phenomenal red is more similar to phenomenal green than it is to phenomenal orange. I conclude, therefore, that we have a priori knowledge in this case, and that *phenomenal insight* is true.

### **Real acquaintance, *phenomenal certainty* and *phenomenal insight***

Intuitively we stand in a peculiarly intimate relationship with our phenomenal qualities in virtue of which *phenomenal certainty and revelation* are true. Supposing that things are as they seem to be in this respect allows us to explain *phenomenal certainty* and *phenomenal insight*. It is of course part of the basic characterisation of real acquaintance that it grounds *phenomenal certainty*. And we can explain *phenomenal insight* by saying that, in virtue of a real acquaintance with phenomenal red and phenomenal orange, the subject understands the real nature of each of those qualities, and it is thereby apparent that the two qualities have a similar nature. This might be understood analogously to our knowledge that triangularity and trilaterality are necessarily co-extensive. I know what it is for an object to have three sides, I know what it is for an object to have three angles, and it is thereby apparent to me that those two properties must go together. (I am not saying that we are really acquainted with these geometrical properties; the cases are analogous only in the sense that in both cases we have knowledge grounded in an understanding of real natures.)

The fact that the real acquaintance naturally and intuitively explains these facts about epistemic situation gives us reason to believe in it. Our reason to believe in real acquaintance is somewhat similar to our reason to believe in the external world. We are justified in believing in the external world because (i) there seems to be an external world, (ii) supposing that in this respect things are as they seem to be explains the structure and coherence of our experience. We are justified in believing that we are really acquainted with our phenomenal qualities because (i) we seem to be really acquainted with our phenomenal qualities, (ii) suppose that in this respect things are as they seem to be explains two extremely plausible theses concerning our relationship to our conscious experience: *phenomenal certainty* and *phenomenal insight*.

How strong these reasons to believe in real acquaintance are will depend on the prospects for an alternative explanation of *phenomenal certainty* and *phenomenal insight* (just as the strength of our reasons for believing in the external world depends on the prospects for alternative explanations of the structure and coherence of our experience, for example, idealism). If we have two equally good

explanations of *phenomenal certainty* and *phenomenal insight*, and only one of them is consistent with physicalism, then those who take themselves to have good reason to believe physicalism will take themselves to have good reason to favour the explanation consistent with physicalism. I will now argue that the prospects for the CPS physicalist providing such an explanation are bleak.

### **Can the physicalist explain *phenomenal certainty* and a *phenomenal insight*?**

I will try to show that there is a form of the phenomenal concepts strategy that can account for *phenomenal certainty* (or something like it), and that there is a form of the phenomenal concepts strategy that can account for *phenomenal insight*, but that there is no form of the phenomenal concepts strategy that can account for both *phenomenal certainty* and *phenomenal insight*. Indeed, I will give reasons for thinking that no form of PCS physicalism could account for both of these theses.

### **A physicalist account of *phenomenal certainty***

Proponents of acquaintance physicalism can account for the infallibility of certain phenomenal judgements. According to the acquaintance physicalist, a direct phenomenal concept of pain involves within its constitution the feeling of pain it refers to. Any subject judging that she is in pain by employing a direct phenomenal concept of pain must therefore be in pain: she must be feeling pain in order for that pain to constitute the direct phenomenal concept. Such a judgement, therefore, cannot fail to be true.<sup>12</sup>

I am not sure that this kind of infallibility can give us rational certainty. It is one thing to think that a judgement cannot fail to be true; it is another thing to think I can be *justified* in not entertaining any doubt about the judgement. To have rational certainty that p, a subject has to be in position to rule out any scenario where p fails to be the case. Merely having a belief that cannot fail to be true does not entail that a subject is able to do this. However, I shall set this worry on one side, and suppose that the acquaintance physicalist has the resources to account for *phenomenal certainty*.

Whilst acquaintance physicalism may be in a good position with respect to *phenomenal certainty*, the same cannot be said of *phenomenal insight*. There are broadly speaking two ways in which it can be a priori that a certain description D (non-trivially) truly applies to a certain referent R thought about under concept C. Firstly, it could be the case that in deploying C we pick out R as 'the actual D,' thus rendering it inconceivable that R thought of under C is not actually D. For example, we think about Julius as 'the actual inventor of the zip,' and thereby render it inconceivable that Julius is not the actual inventor of the zip.<sup>13</sup> Secondly, it might be that, in deploying C we pick out R in virtue of being really acquainted with R, and our real acquaintance with R makes it apparent to us that D truly

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<sup>12</sup> This account of infallibility is defended by Papineau (2002) and Balog (2012).

<sup>13</sup> Kripke 1980.

describes the real nature of R, or some fact that follows from the real nature of R. For example, I might be really acquainted with phenomenal red, and really acquainted with phenomenal orange, and through grasping the real nature of these qualities it is apparent to me that phenomenal red satisfies the description ‘has a similar nature to phenomenal orange.’

I can see no other way in which are substantive a priori knowledge concerning phenomenal qualities could be accounted for. Certainly we could not have such knowledge if the entity is thought of under a radically opaque concept, that is, a concept such that reference is wholly determined by facts which are not a priori accessible.<sup>14</sup> Some entity referred to under a radically opaque concept might be *associated* by thinkers with a certain description. For example, even if the reference of ‘John’ is determined by causal facts outside the head, it might be that speakers in our community associate the name ‘John’ with the description ‘a cad not to be trusted.’ However, because this description is not involved in reference-fixing, it will always be conceivable that it does not apply to John. This isn’t a case of a priori knowledge; it’s just a bad reputation.<sup>15</sup>

In order to account for our a priori knowledge of phenomenal qualities, phenomenal concepts would have to refer either by description or by real acquaintance. The acquaintance physicalist can take neither of these options. A phenomenal concept, on her view, picks out its referent not by description, but in virtue of being partly constituted by the referent. And this constitution relation between concept and quality cannot result in the subject’s having real acquaintance with the quality, as real acquaintance is inconsistent with PCS physicalism (I will argue for this more thoroughly below). Therefore, the acquaintance physicalist is unable to account for *phenomenal insight*.

### **A physicalist account of *phenomenal insight***

Most forms of the phenomenal concepts strategy seem to construe phenomenal concepts as radically opaque. It is causal connections, or facts about the natural functions or material constitution of phenomenal concepts, which hook the subject up to its phenomenal qualities, not descriptions which are a priori available to the subject. Janet Levin and Robert Schroer, however, have proposed theories of phenomenal concepts according to which they are hybrids of descriptive and radically opaque sub-concepts.<sup>16</sup>

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<sup>14</sup> In Goff 2011 and Goff MS I distinguish a range of concepts from transparent to radically opaque (I give a slightly different definition of ‘radically opaque’).

<sup>15</sup> Probably most names are not radically opaque, and contain some descriptive constraints on reference. For example, if it turns out that the entity that ‘John’ is casually connected to is not a person, then arguably ‘John’ fails to refer. However, such descriptive constrains on reference may not be enough to uniquely identify an object, and hence to wholly determine reference. Perhaps, then, names are a bit like the ‘hybrid concepts’ discussed below.

<sup>16</sup> Levin 2002, Schroer 2010.

Levin's view mingles elements of analytic functionalism and the phenomenal concepts strategy. The reference of a phenomenal concept is determined in two distinct ways. On the one hand, a phenomenal concept picks out a conscious state by characterising it in causal-functional terms and/or in terms of the similarities and differences between phenomenal qualities. On the other hand, a phenomenal concept picks out a state by being causally connected to that state in the right kind of way. This makes reference a little precarious, as both of these reference-fixing routes must be successful for the phenomenal concept to refer. If the phenomenal concept fails to be causally connected in the right way to anything, or if the thing the phenomenal concept is causally connected to doesn't have the relevant causal-functional/similarity properties, then reference fails.

Schroer thinks that phenomenal concepts are descriptive concepts that pick out conscious states in terms of their mode of composition from more basic phenomenal elements. The concept 'phenomenal orange 7', for example, characterises its referent as being composed of phenomenal red hue and phenomenal yellow hue, as well as some specific degree of phenomenal saturation and phenomenal lightness. But the sub-concepts referring to the phenomenal elements are radically opaque: reference to phenomenal elements is determined by causal facts outside of what is a priori accessible. For Schroer, the phenomenal elements turn out to refer to physical properties, and hence the conscious state out of which the phenomenal elements are composed turns out to be a composite physical state. Zombies are nonetheless conceivable, as there is no a priori information in the sub-concepts which would allow us to know that they refer to physical properties.

Both of these hybrid views can account for *phenomenal insight*, or at least our a priori knowledge of similarities and resemblances amongst phenomenal states. On Schroer's view it is stipulated by the description that determines the reference of 'phenomenal orange 7' that the state denoted involves phenomenal red hue, and it is stipulated by the description that determines reference of 'phenomenal red 8' that the state denoted involves phenomenal red hue. In virtue of this we can know a priori that these two qualities share a common element and thus resemble. On Levin's view the similarity is built directly into the descriptions.

However, neither view can account for *phenomenal certainty*. Suppose though introspection I am aware of a phenomenal quality which presents itself as falling under the concept 'phenomenal orange.' Assuming that quality is phenomenal orange, it is a priori that it resembles phenomenal red. But how do I know that that quality I am aware of is phenomenal orange? Neither Schroer nor Levin fill in the details, but presumably there must be some reliable sub-personal mechanism that gathers information about the quality, and ensures that I deploy the correct phenomenal concept, i.e. 'phenomenal orange' rather than 'phenomenal green', 'pain', or 'anxiety.'

This puts introspective beliefs about phenomenal qualities in the same epistemological boat as ordinary perceptual beliefs: reliant on the proper functioning of an information-gathering mechanism. My belief that there is a table in front of me is reliant for its truth on the proper functioning of my senses. Similarly, for Schorer and Levin, my judgement that I am experiencing phenomenal orange (as opposed to phenomenal green, pain, or anxiety) must be dependent on the proper functioning of some information-gathering mechanism involved in introspection. They are unable, therefore, to explain why the belief that I am not currently experiencing phenomenal orange is not subject to doubt in the way that my belief that there is a table in front of me is.

### **Physicalism can't account for both *phenomenal certainty* and *phenomenal insight***

In summary, we can offer the following argument against the possibility of a form of PCS physicalism which accounts for both *phenomenal certainty* and *phenomenal insight*:

1. We pick out qualities in our experience in one of the following ways (A) by being really acquainted with those qualities, (B) by description, (C) with radically opaque concepts, (D) with some hybrid of descriptive and radically opaque sub-concepts.
2. The PCS physicalist cannot go for option (A).
3. If the PCS physicalist goes for options (B) or (D) then she cannot account for *phenomenal certainty*.
4. If the PCS physicalist goes for option (C), then she cannot account for *phenomenal insight*.
5. Therefore, the physicalist cannot account for both *phenomenal certainty* and *phenomenal insight*.

### **Objection: Semi-acquaintance**

Real acquaintance is defined as an all or nothing matter, in the sense that the complete nature of the object of acquaintance is revealed to the subject of acquaintance. But is there not logical space for a kind of relation between thinker and property that yields the thinker a *partial* grasp of the nature of the property thought about? Perhaps the physicalist could explain *phenomenal certainty* and *phenomenal insight* in terms of a commitment to *semi-acquaintance*, defined as a special kind of intimacy between a subject and its phenomenal qualities in virtue of which the following two theses are true:

*Semi-Revelation* – A psychologically normal subject can come to know *some aspect* of the real nature of one of her phenomenal qualities by attending to that quality.

*Phenomenal Certainty* – A psychologically normal subject is able to put herself into a situation in which, with respect to one of her phenomenal qualities, she is justified in being certain that that quality is instantiated (where to be certain that P is roughly to believe with a credence of 1 that P).

Obviously such a relation would account for *phenomenal certainty*. And the proponent of semi-acquaintance could perhaps account for *phenomenal insight* in terms of the partial grasp of the nature of phenomenal qualities afforded to us by the obtaining of *semi-revelation*.

It is important to note that semi-acquaintance can be of help to the physicalist only if it is of a very specific kind. In many cases, an aspect of a physical property is a physical property. Suppose pain were the combination of c-fibre and d-fibre stimulation. If a semi-acquaintance with pain revealed to us that pain involved c-fibre stimulation, this would be enough to make it a priori that pain is physical, contrary to what the PCS physicalist supposes.

In order to maintain the conceptual independence of the phenomenal and the physical, the PCS physicalist would have to suppose that semi-acquaintance affords us an understanding of merely structural or functional properties of phenomenal qualities. We can note that the facts about phenomenology that Levin and Schroer think are a priori available are all of this kind. Schroer thinks we can know a priori certain facts about the internal structure of phenomenal qualities. Levin thinks that we can know a priori certain causal and resemblance facts concerning phenomenal qualities. By restricting our a priori knowledge of phenomenal qualities to facts about structure or causal roles, it remains opaque whether or not phenomenal qualities are physical.

It seems that for semi-acquaintance to help the PCS physicalist it would have to be *structural semi-acquaintance*, defined as a special kind of intimacy between subjects and their phenomenal qualities in virtue of which the following two theses are true:

*Structural Semi-Revelation* – A psychologically normal subject can come to know certain facts about the internal structure and/or causal role of that quality.

*Phenomenal Certainty* – A psychologically normal subject is able to put herself into a situation in which, with respect to one of her phenomenal qualities, she is justified in being certain that that quality is instantiated (where to be certain that P is roughly to believe with a credence of 1 that P).

I submit that we have no intuitive grip on the notion of semi-acquaintance (of which structural-acquaintance is a kind). We can of course stipulatively define the notion. But there is a kind of disunity between the two aspects of its characterisation, which can be appreciated by comparison with the notion of real acquaintance. The idea of real acquaintance is the idea of a certain kind of intimacy between a subject and each of its phenomenal qualities, in virtue of which (i) a normal subject can know the nature of those qualities, (ii) a normal subject can come to be rationally certain that those qualities are instantiated. The two aspects of the characterisation of real acquaintance are unified around this particular notion of intimacy.

I would ask the proponent of semi-revelation whether or not on her view, for any given subject S and an arbitrary one its phenomenal qualities Q, S is intimate with *the whole* of Q, or with only *one aspect* of Q, call it A. There are two possible answers to this question:

Option 1 – S is intimate only with A, and that's why she can only understand the nature of A, not the nature of the whole of Q. The problem with this option is that it's unclear how we can explain the fact that (in normal circumstances) S can be rationally certain that the whole of Q is instantiated, not merely that A is instantiated. A normal individual in agony can know for certain that she is in agony, not merely that some aspect of her agony is instantiated.

Options 2 – S is intimate with the whole of Q, and can thereby be rationally certain that the whole of Q is instantiated. The trouble with this option is that it's unclear why S can come to know only an aspect of Q, rather than the whole of Q.

There seems no non-arbitrary way of deciding which of the above options the proponent of semi-acquaintance ought to go for. And the fact that it's not clear how to spell out the details in this respect suggests that the notion of semi-acquaintance is cooked up rather than part of the way things pre-theoretically seem to be

There might be a concern that I am putting too much weight on what we intuitively have a grip on. But whilst the argument for real acquaintance must begin with how things intuitively are – intuitively I am epistemically intimate with my pain such that its nature is directly revealed to me in such a way that its instantiation is beyond rational doubt – it does not end there. There are very plausible theses about our epistemic situation, namely *phenomenal insight* and *phenomenal certainty* that are

straightforwardly explained by this intuitive way things seem to be; and this gives us strong reason to believe that, in this case, the way things intuitively seem to be is the way things really are.

There is a more straightforward reason why the physicalist is going to find it difficult to make use of semi-acquaintance, which arises when we appreciate that doing so would require giving a physicalistic account of the semi-acquaintance relation. The physicalist cannot just take semi-acquaintance to be a primitive relation; rather she must give some physicalist account of it, explaining it in more fundamental terms.

Given that semi-acquaintance is characterised in terms of *semi-revelation* and *phenomenal certainty*, giving a physicalist account of semi-acquaintance will involve giving a physicalist account of *semi-revelation* and *phenomenal certainty*. And for similar reasons to those discussed in detail above, it is hard to see how the physicalist could account for both *semi-revelation* and *phenomenal certainty*. She might explain *semi-revelation* with reference to some descriptivist account along the lines of Levin and Schroer; but that will leave her unable to explain *phenomenal certainty*. She might explain *phenomenal certainty* by giving some acquaintance physicalist model, along the lines of Balog and Papineau; but that will leave her unable to explain *semi-acquaintance*. Once we realise that the physicalist can't take the semi-acquaintance relation as primitive, we can see that it offers no help at all.

#### **(IV) – The acquaintance argument against physicalism**

Now that we have support for the thesis that we are really acquainted with our phenomenal qualities, I can turn to the argument against physicalism itself:

Premise 1 – We are really acquainted with our phenomenal qualities.

Premise 2 – If (i) we are really acquainted with our phenomenal qualities, and (ii) our phenomenal qualities had a real physical/functional nature, then (iii) the real physical/functional nature of our phenomenal qualities would be accessible through introspection.

Premise 3 – It is not the case that there is a real physical/functional nature of our phenomenal qualities accessible through introspection.

Conclusion – Our phenomenal qualities do not have a real physical/functional nature, and therefore physicalism is false.

Old school physicalists, such as analytic functionalists, may dispute premise 3, claiming it to be a priori that phenomenal qualities are certain causal role properties. I will not here argue against such views; my main target in this paper is PCS physicalism, which I take to be the view that (i) each

phenomenal quality has a real physical/functional nature, (ii) the nature of phenomenal concepts entails an epistemic gap between phenomenal qualities phenomenally conceived, and phenomenal qualities conceived of in terms of their real physical/functional nature. Such physicalists are committed to premise 3.

One view I certainly do not intend to argue against is Russellian monism. Galen Strawson calls himself a 'physicalist', but thinks that the real nature of fundamental physical entities is, at least in part, experiential. Physics characterises properties in terms of their causal role: negative charge is whatever property plays the negative charge role, mass is whatever property plays the mass role. According to Strawson, the properties which turn out to play those roles, and hence turn out to be negative charge and mass, are at least in part, experiential. These fundamental forms of experience come together in the brain to constitute the conscious experience we associate with organisms.<sup>17</sup>

Strawson can, and I think would, agree that we are really acquainted with our phenomenal qualities. When I attend to my pain, its real 'physical' nature (according to Strawson's use of the word 'physical') is revealed to me, as how pain feels just is its real 'physical' nature, the real nature of that property we pick out by its causal role when we think of it as 'c-fibres firing'. Strawson's panpsychism is a form of Russellian monism, which I take to be the view that the real nature of (at least some of) the properties denoted by fundamental physics are phenomenal or protophenomenal, where protophenomenal properties are properties which are not phenomenal but (in certain combinations) a priori entail the existence of phenomenal properties, without doing so merely in virtue of realising structural/functional properties.<sup>18</sup> Any Russellian monist who takes the real nature of c-fibres firing to be experiential, and chooses to call this nature 'physical', can also accept that we are really acquainted with the real 'physical' nature of c-fibres firing.

I take it that there is no privileged definition of 'physical' or 'physicalism' out there for us to discover. There are a number of ways in which we might define the word 'physicalism', and our choice should be shaped by pragmatic considerations. I prefer not to call Strawson's view 'physicalism', simply because the sides of the debate over the knowledge argument and the zombie conceivability argument don't line up nicely if we do. Those who draw metaphysical conclusions from the knowledge argument and the zombie conceivability argument thereby rule out more standard forms of physicalism, but do not thereby rule out Strawson-style 'physicalism' (although of course they may dislike Strawson-style physicalism for other reasons). It makes things easier to call those who draw such metaphysical conclusions 'anti-physicalists', and their opponents 'physicalists'.

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<sup>17</sup> Strawson 2003, 2006.

<sup>18</sup> For other examples of Russellian monists, see Russell 1927, Eddington 1928, Feigl 1958/67, Maxwell 1989, Strawson 1994, 2003, 2006, Chalmers 1996, Griffen 1998, Stoljar 2001.

I do not have space here to give a complete definition of physicalism, but I will stipulate that a ‘physical’ property, although it may be identical with a phenomenal property, has a real nature which can be grasped in non-phenomenal/proto-phenomenal terms (according to the above definition of ‘proto-phenomenal’). Someone who believes in properties the real nature of which can only be grasped in phenomenal/proto-phenomenal terms does not count as a ‘physicalist’ by my lights. This is a terminological choice; the substantive point is that my argument is not aimed at the Russellian monist.<sup>19</sup>

### Objection: Dual revelation

The PCS physicalist is most likely to respond to my argument by denying that we are really acquainted with our phenomenal qualities, but I have given considerable support to this premise of my argument. Their only other option as far as I can see is to deny premise 2 by accepting what I call ‘dual revelation’:

*Dual revelation:* For some property  $F$ , there are two conceptually distinct ways of knowing the real nature of  $F$  (i.e. knowing what it is for  $F$  to be instantiated).<sup>20</sup>

If the CPS physicalist accepts dual revelation with respect to phenomenal qualities, they can claim that the real nature of pain is available both from completed brain science and from introspection, even though there is no conceptual connection between these two ways of understanding its nature. They could then deny premise 2: the real physical/functional nature of pain is not introspectively accessible, even though the real phenomenal nature with which that physical/functional nature is identical is introspectively accessible.<sup>21</sup>

I find it difficult to make sense of dual revelation. Of course we can *refer* to a property in all sorts of ways: by description, by being causally connected to it, by possessing a concept the natural function of which is to track it. But it is quite another thing to suppose that we can *understand the nature* of a single property in two radically distinct ways. Certainly we don’t seem to be in a position of dual revelation with regards to the most uncontroversial cases of properties we have an understanding of the nature of. For an object to be spherical is for all points on its surface to be equidistant from its centre. For something to be a prime number is for it to be a number that can be divided only by itself

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<sup>19</sup> I give a full definition of ‘physicalism’ in Goff MS.

<sup>20</sup> In Goff 2011 I rather uncharitably called dual revelation ‘the Thesis of Dubious Intelligibility.’

<sup>21</sup> Nic Damnjanovic (2012) has explicitly defended the plausibility of this kind of PCS physicalism, and, in conversation, Ned Block seems sympathetic. Shortly prior to the final submission of this paper Esa Diaz-Leon (forthcoming) and J. H. Taylor (forthcoming) had interesting attempts to make sense of dual revelation accepted for publication. I look forward to responding to these papers in future work.

and two. There seems no way of specifying the essence of a sphere or a prime number in a radically different way, such that there is no possibility of deducing the radically new definition from the old one (or vice versa).

To accept dual revelation is to accept that the world is, at least in some respects, radically unintelligible; there are some necessary connections which even a complete understanding of the world would not render intelligible. If there are such brute identities between, say, physical and mental properties, an omnipotent being with a complete understanding of the essence of pain and c-fibres firing would be surprised that she were not able to create one without the other.

I hasten to stress that I am not a supporter of the Chalmers/Jackson Canberra plan,<sup>22</sup> according to which all facts are a priori derivable from the fundamental facts. It may be that our ordinary descriptions of the world are littered with radically opaque concepts; blind pointers which afford no understanding of the nature of the features they denote. In this case, our ordinary sentences may be made true by the real nature of the world, without having any conceptual connection with that real nature. If phenomenal concepts were radically opaque, then I would have no objection to PCS physicalism. But the idea that there could be brute necessary connections even between descriptions which render transparent real natures is to suppose that the world as it is in and of itself is in certain respects unintelligible.

It will not be possible to build a completely satisfactory case for this thesis here,<sup>23</sup> but I suspect that any metaphysical or scientific investigation of the world is reliant on the assumption that reality is not radically unintelligible in the way that dual revelation would imply. Metaphysical and scientific hypotheses must not just fit the evidence, but must fit the evidence in a theoretically satisfying way. However, to the extent that reality can be radically unintelligible, anything goes, and our ability to constrain metaphysical and scientific theories with respect to theoretical virtues and vices is severely limited.

Consider the following example. Suppose I'm in a spooky forest, trying to decide whether or not I should believe in the spirit of the woodland, i.e. that beneficent spirit that lives in the trees and wishes them well. Imagine that I have some very weak reason to believe in the spirit of the woodland, perhaps some old wizened fellow wandered out of the forest and croaked in a mysterious voice, 'Oooo there's a spirit of the woodland in there me laddie.' The stranger's testimony, we can suppose, gives me a very weak reason to believe in the spirit of the woodland.

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<sup>22</sup> Chalmers and Jackson 2001, Chalmers 2012.

<sup>23</sup> I expand on my defence of this thesis in Goff MS.

It is natural to think that this very weak reason is counterbalancing by the Ockhamist imperative not to add to our ontology without good reason. But if dual revelation is an option, I can believe in the woodland spirit without adding to my ontology, by identifying it with the bark of the trees. Of course there is no a priori connection between the scientific essence of bark, described as such, and the spirit of the woodland, described as a mental thing that cares about the forest and wishes it well. But I can claim that these are just two conceptually distinct ways of grasping the essence of a single thing. Without the constraint that identity statements couched in transparent (i.e. real nature revealing) concepts must be intelligible, it's hard to see what I'm doing wrong.

Wouldn't this be to believe that there is more to the nature of bark; that as well as its scientific essence it has certain mental properties? No; the suggestion is that the scientific essence *just is* the mentally defined essence: we have two different ways of understanding exactly the same nature. Of course I don't think this theory makes sense, because I don't think dual revelation makes sense. But if dual revelation is an option then there seems to be no way of using Ockham's razor to rule out the view.

It's not going to stop there. Dual revelation opens the door to all sorts of metaphysical indulgence that Ockham's razor can't touch:

1. Suppose we think the normative force of genuine reasons cannot be captured in a naturalistic vocabulary. No worries, simply assert a brute identity between normative force and some natural property, e.g. identify *not to be doneness* with pain. We might even believe in real fire and brimstone moral properties, such as sin and evil, but just identify them with natural properties.<sup>24</sup>
2. Suppose I believe in a world of quiddities, the nature of which can be completely captured in completely non-causal terms, but I'm worried that without real powers the continuing regularity of the world is just a massive cosmic coincidence.<sup>25</sup> No worries, just take the utterly non-causal quiddity descriptions, and your favourite full-blooded powers description, and claim that these are just two radically different ways of understanding the same properties.<sup>26</sup>

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<sup>24</sup> I am not ruling out the view that ethical properties are identical with natural properties. My point is just that the naturalist needs to do some work to make such identities intelligible, as is done for example in Frank Jackson's 1998 defence of ethical naturalism.

<sup>25</sup> This sort of worry is defended in Strawson 1987.

<sup>26</sup> Taylor (forthcoming) turns this specific comparison against me, arguing that the Heil/Martin (Heil & Martin 1998, Martin 2007) view that categorical and dispositional properties are identical is both plausible and consistent with dual revelation.

3. Suppose you really want to believe in your guardian angel, ever near, loving you deeply. No worries; just identify her with your bedspread.<sup>27</sup>

In all these cases, there is a strong intuition that there's some cheating going on; ontology is being smuggled in without the proper price being paid for it. Perhaps the following analogy with tax avoidance is helpful. In tax avoidance, as opposed to evasion, one is sticking to the exact letter of the law whilst brazenly breaking its spirit. In the above cases the exact letter of Ockham's razor may be being respected, but its spirit is not.

It is not that there will be no constraint from theoretical virtues once we commit to dual revelation. It will still be the case, for example, that the theory of evolution fits the empirical data better than a literal interpretation of Genesis. However, there will be unlimited possibility for 'adding' numerous whacky entities to the world, by identifying their essences with the essences of things we already believe in. Rational investigation of the world relies on the assumption that the world is minimally intelligible.

## V – Conclusion

We are really acquainted with the qualities of our experience. When I attend to the reddish quality in my experience, the real nature of that quality is apparent to me. Nothing less than a commitment to real acquaintance can explain both my certainty that I am experiencing a reddish quality, and my phenomenal insight into certain essential features of that quality, for example, that it is similar to the orange-ish quality I am also experiencing. If that reddish quality had a real physical nature, then that real physical nature would be apparent to me in attending to the quality. But it isn't, so it doesn't.<sup>28</sup>

## References

Armstrong, D.1968. *A Materialist Theory of Mind*, London: Routledge and Kegan Paul.

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<sup>27</sup> As far as I know no one in the literature has defended this specific identity.

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- Balog, K. 2012. 'Acquaintance and the mind-body problem', in *New Perspectives on Type Identity: The Mental and the Physical*, Hill, C. and Gozzano, S. (eds.), Cambridge: Cambridge University Press.
- Block, N. and R. Stalnaker, 1999. Conceptual Analysis, Dualism and the Explanatory Gap, *Philosophical Review* 108:1, 1-46.
- Braddon-Mitchell, D. 2003. Qualia and Analytical Conditionals, *Journal of Philosophy* 100:3, 111-35.
- Chalmers, D. J. 1996. *The Conscious Mind: Towards a Fundamental Theory*, Oxford: Oxford University Press.
- Chalmers, D. J. 2002. Consciousness and its Place in Nature, in *Philosophy of Mind: Classical and Contemporary Readings*, ed. D. J. Chalmers, Oxford, New York: Oxford University Press, 247-72.
- Chalmers, D. 2003. 'The content and epistemology of phenomenal belief,' in Q. Smith and A. Jokic, (Eds.) *Consciousness: New Philosophical Perspectives*, New York: Oxford University Press, 220-272.
- Chalmers, D. J. 2009. The Two-Dimensional Argument Against Materialism, in *Oxford Handbook of the Philosophy of Mind*, ed. B. McLaughlin, Oxford: Oxford University Press, 313-339.
- Chalmers, D. and Jackson, F. 2001. 'Conceptual analysis and reductive explanation', *Philosophical Review*, 110, 315-61.
- Chalmers, D. J. 2012. *Constructing the World*, Oxford: Oxford University Press.
- Dennett, D. 1991. *Consciousness Explained*, Boston: Little, Brown.
- Damnjanovic, N. 2012. 'Revelation and physicalism,' *Dialectica* 66: 1, 69-91.
- Devitt, M. 1980. "'Ostrich nominalism" or "Mirage realism"?', *Pacific Philosophical Quarterly*, 61, 433-9.
- Diaz-Leon, E. Forthcoming. 'Do *a posteriori* physicalists get our phenomenal concepts wrong?' *Ratio*.
- Dretske, F. 1994. If You Can't Make One, You Don't Know How it Works, in *Midwest Studies in Philosophy* 19:1, 468-82.
- Dretske, F. 1995. *Naturalising the Mind*, Cambridge: MIT Press.
- Eddington, A. 1928. *The Nature of the Physical World*, New York: Macmillan.
- Feigl, H. 1967. *The "Mental" and the "Physical": the Essay and a Postscript*, Minneapolis: University of Minnesota Press.

- Fine, K. 1994. 'Essence and modality', *Philosophical Perspectives* 8: 1-16.
- Goff, P. 2011. 'A Posteriori Physicalists Get Our Phenomenal Concepts Wrong,' *Australasian Journal of Philosophy* 89: 2, 191-209.
- Goff, P. MS. *Panpsychism: The Elegant Solution to the Mind-Body Problem*.
- Griffen, D. R. 1998. *Unsnarling the World-Knot: Consciousness, Freedom, and the Mind-body Problem*. Minneapolis: University of Minnesota Press.
- Harman, G. 1990. The Intrinsic Quality of Experience, *Philosophical Perspectives* 4: 31-52
- Hawthorne, J. 2002. Advice for Physicalists, *Philosophical Studies* 109:1, 17-52.
- Hill, C. 1997. Imaginability, Conceivability, Possibility and the Mind-Body Problem, *Philosophical Studies*, 87:1, 61-85.
- Hill, C. and B. McLaughlin 1999. There are Fewer Things in Reality than are Dreamt of in Chalmers's Philosophy, *Philosophy and Phenomenological Research*, 59:2, 445-54.
- Jackson, F. 1998. *From Metaphysics to Ethics: A Defence of Conceptual Analysis*, Clarendon Press: Oxford.
- Kripke, S. 1980. *Naming and Necessity*, Oxford: Blackwell.
- Ladyman, J. and D. Ross (with D. Spurrett and J. Collier) 2007. *Every Thing Must Go: Metaphysics Naturalised*, Oxford: Oxford University Press.
- Lewis, D. 1994. Reduction of Mind, in *Companion to the Philosophy of Mind*, (ed.) S. Guttenplan, Oxford: Blackwell, 412-31.
- Lewis, D. 1995. Should a Materialist Believe in Qualia?, *Australasian Journal of Philosophy*, 73:1, 412-31.
- Lewis, D. 1966. An Argument for the Identity Theory, *Journal of Philosophy*, 63:1, 17-25.
- Lewis, D. 1970. How to Define Theoretical Terms, *Journal of Philosophy* 67:13, 427-46.
- Lewis, D. 1980. Mad Pain and Martian Pain, in *Readings in the Philosophy of Psychology, Vol. I*, Block B. (ed.), Harvard: Harvard University Press, 216-222.
- Lewis, D. 1983. 'New Work for a Theory of Universals,' *Australasian Journal of Philosophy* 61.

Levin, J. 2002. 'Is conceptual analyses needed for the reduction of qualitative states?', *Philosophical and Phenomenological Research* 64:3, 571-91.

Levine, J. 1983. Materialism and Qualia: the Explanatory Gap, *Pacific Philosophical Quarterly*, 64:9, 354-61.

Loar, B.1990. Phenomenal States, in *Philosophical Perspectives*, 4: 81-108.

Loar, B. 2003. Qualia, Properties, Modality, *Philosophical Issues*, 13:1, 113-29.

Lockwood, M. 1989. *Mind, Brain and the Quantum*, Oxford: Oxford University press.

Lycan, W.G. 1996. *Consciousness and Experience*, Cambridge, Mass: MIT Press.

Martin, C. B. 2007. *The Mind in Nature*, New York: Oxford University Press.

Martin, C. B. and Heil, J. 1998. 'Rules and powers,' *Nous*, 32 (S12), 283-312.

Maxwell, G. 1979. Rigid Designators and Mind-Brain Identity, in *Perception and Cognition* ed. C. W. Savage, Minneapolis: University of Minnesota Press, 365-404

Millikan, R. G. 1984. *Language, Thought, and Other Biological Categories*, Cambridge, Mass: Bradford Books/MIT Press.

Nida-Rümelin, M. 2007. Grasping Phenomenal Properties, in *Phenomenal Concepts and Phenomenal Knowledge*, ed. T. Alter & S. Walter, New York: Oxford University Press, 307-336.

Papineau, D. 1993. Physicalism, Consciousness, and the Antipathetic Fallacy, *Australasian Journal of Philosophy*, 71:2, 169-83.

Papineau, D. 2002. *Thinking about Consciousness*, Clarendon Press: Oxford.

Papineau, D. 2006. Comments on Galen Strawson, *Journal of Consciousness Studies*, 13: 6, 100-9.

Papineau, D. 2007. Phenomenal Concepts and Perceptual Concepts, in *Phenomenal Concepts and Phenomenal Knowledge*, ed. T. Alter & S. Walter, New York: Oxford University Press, 307-36.

Perry, J. 2001. *Knowledge, Possibility and Consciousness*, Cambridge, Mass: MIT Press.

Rey, G. 1995. Towards a projectivist account of conscious experience, in *Conscious Experience*, ed. T. Metzinger, Paderborn: Ferdinand Schöningh, 123-42.

Russell, B. 1927. *The Analysis of Matter*. London: Kegan Paul.

- Schroer, R. 2010. 'Where's the beef? Phenomenal concepts as both demonstrative and substantial, *Australasian Journal of Philosophy* 88: 3, 505-22.
- Stalnaker, R. 2002. What is it Like to be a Zombie?, in *Conceivability and Possibility*, ed. T. S. Gendler & J. Hawthorne, Oxford: Oxford University Press, 385-400.
- Stoljar, D. 2001. Two Conceptions of the Physical, *Philosophy and Phenomenological Research*, 62:2, 253-81.
- Strawson, G. 1987. 'Realism and Causation,' *The Philosophical Quarterly* 37.
- Strawson, G. 1994. *Mental Reality*, Cambridge, Mass, London, England: MIT Press.
- Strawson, G. 2003. Real Materialism, in *Chomsky and his Critics*, ed. L. Anthony and N. Hornstein, Oxford: Blackwell, 48-88.
- Strawson, G. 2006. Realistic Monism: Why Physicalism Entails Panpsychism, in *Consciousness and its Place in Nature*, ed. Anthony Freeman, Exeter: Imprint Academic, 3-31.
- Taylor, J. H. Forthcoming. 'Physicalism and Phenomenal Concepts: Bringing Ontology and Philosophy of Mind Together,' *Philosophia*.
- Tye, M. 2009 *Consciousness Revisited*, Cambridge MA, London: MIT.
- Van Fraassen, B.C. 2006. Structure: Its Shadow and Substance, *The British Journal for the Philosophy of Science*, 57:2, 275-307.