



The relation between subjects and their conscious experiences

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Abstract One of the most poorly understood features of consciousness is the relation between an experience and the subject of the experience. In this paper, I develop an ontology of consciousness on which experiences are events constituted by substances having properties at times. I use this to explain the relation between a subject and her experience.

Keywords Consciousness · Events · Ontology

1 Subjects and conscious experiences

The experiences currently being had by you are *yours* in some important sense. No one else has that particular relation with those very experiences, and you don't have that relation with anyone else's experiences. But what exactly is this relation? This paper will develop an ontology of conscious experience that answers this question.

In Sect. 2, I outline two claims about how we relate to our experiences, which form the data that the view developed in the paper will explain. I then (Sects. 3–4) propose a view on which experiences are events constituted by substances having properties at times, and I use this to explain the relation we bear to our experiences. I then show that this explanation is not available to someone who holds a rival view of the ontology of conscious events (Sect. 5). In Sect. 6–7 I respond to various objections.

The arguments of this paper have widespread consequences, both within the philosophy of mind, and for more general metaphysics. The special, intimate

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relation between a subject and her experiences is one of the most fundamental and immediately apparent features of consciousness, and yet it has received relatively little attention in the literature.¹ The result is that our understanding of conscious experience as a whole is limited. Furthermore, a great deal of work has concentrated on the metaphysical relation between consciousness and the physical world (Chalmers 2010). However, there has been much less work on the basic ontological structure of consciousness.² This paper takes the latter, much less researched, approach. The arguments of the paper are also considerably theoretically important for a variety of wider debates in philosophy of mind and metaphysics. For example, Martine Nida-Rümelin has recently argued (against mainstream assumption) that we have good reason to think that phenomenal properties are properties of *subjects*, and not properties of *experiences* (2017, 2018). As I will show below, the arguments of this paper give us additional reason to accept Nida-Rümelin's view, and to reject the mainstream picture. Finally, the arguments of this paper are relevant to theories of events. I will argue that Kim's property exemplification view of events has greater explanatory power than the Davidsonian picture when it comes to explaining the relation between a subject and her experiences. This, in turn, provides us with reason to accept Kim's view. In this way, the arguments of this paper have important consequences that ripple beyond philosophy of mind, and into metaphysics.

2 Two elements of the relation between subject and experience

In order to get the central issue in focus, I will provide two pieces of data, which the view developed over the rest of the paper will explain. Start with the claim that a particular experience cannot be had by a subject other than the one that in fact has it. To illustrate this, suppose I have an experience of the taste of lemon. Now suppose that in a counterfactual scenario, you had an experience of the taste of lemon, and I did not. Perhaps you could have had an experience that had exactly the same phenomenal character as mine. Nonetheless, it would not have been the very same experience as the one that I in fact had. For each particular experience, that very experience could not have been had by any subject other than the one that has it, even in counterfactual scenarios. This is the first element of the relation.³

There is also a second element. Though it seems to be the case that a particular experience cannot be had by a subject other than the one that in fact has it, the converse does not seem to be the case. Specifically, there is no experience such that a particular subject *must* always have it. Suppose I have an experience as of the taste

¹ For important exceptions see Strawson (2003), Lowe (1996) and Soteriou (2013). I do not have space to discuss all of these, but I will consider Strawson's view below.

² Again, there are some exceptions (Steward 1997; Soteriou 2013). Steward will be considered in Sect. 7. For some work applying ontology to the question of physicalism, see Carruth (2015) and Taylor (2017, 2018).

³ This has of course been noted before (e.g. Tye 1995, ch. 3).

of lemon. Nonetheless, counterfactually, I could have existed whilst having a completely different experience. This is the second element.

The interaction between these two elements is what makes the issue so difficult. Our explanation must keep the relation between the experience and the subject tight enough to account for the fact that an experience cannot be had by a subject other than the one that in fact has it (the first element). But it must not be *too tight*. It must not have the consequence that a subject *must* always have some particular token experience (it must not violate the second element).

These two elements are based on our normal intuitive ways of individuating experiences and subjects. Such intuitive practices are fallible, and in certain situations, could be given up. However, I will assume that we would require at least some theoretical pressure to revise our practices in this way. After all, if we end up with the conclusion that the same experience that was had by me could have been had by you, or that I cannot exist without tasting lemon, then we would have to radically revise our normal ways of individuating experiences (and subjects). It is clear that such revision should not be entered into unless there is some good reason to do so.

I will set aside another issue at this point. This paper about the link between the subject and the experience, and is *not* intended as an account of the fundamental nature of the self. That is a separate question, which I do not have space to examine (Olson 2003; Baker 1999). The position of this paper is that we do not have to settle the fundamental nature of the self in order to make progress on the relation between the subject and her experiences.

3 Property exemplifications

Crucial to the current paper is the property-exemplification (PE) view of events, prominently associated with Jaegwon Kim (1973, 1976). For Kim, an event is a substance having a property over a time. The event of Vesuvius' eruption is some substance (Vesuvius) instantiating a property (erupting) over a particular time (24th–25th August, 79AD). We can represent events as $\langle x, P, t \rangle$ where x is the substance, P a property and t a time. Kim gives two conditions on eventhood (1976, p. 35). The first states that event $\langle x, P, t \rangle$ exists iff. x instantiates P at t . The other tells us under what conditions events are identical. Take event a , which is $\langle x, P, t \rangle$ and event b , which is $\langle y, Q, t' \rangle$. The identity condition states that $a = b$ iff. $x = y$, $P = Q$ and $t = t'$. So, on this account, events must share *all* three constituents in order to be identical.

Some clarifications. First, ordered sets are a useful way of representing events, but events aren't themselves sets (cf. Steward 1997, pp. 21–22). Second, by 'substance', Kim just means 'things like tables, chairs, atoms, living creatures, bits of stuff like water and bronze' (1976, p. 33), no specific ontology of substance is assumed. Note that objects (like chairs) and stuffs (like water) are both included. Third, though some events take place at instantaneous moments, most do not. The eruption of Vesuvius took place *over* a particular extended amount of time (24th–

25th August, 79AD). The PE account applies to both kinds of event. I will stick to the locution ‘over a time’ but I intend this to cover both.

Terminological note: some philosophers use ‘event’ to refer only to entities that have a particular temporal character. That is, to entities that *unfold*, or which take time to happen, which have temporal parts (Steward 2013; Soteriou 2013). For example, a picnic takes a certain amount of time to happen, and has temporal parts, whereas an object like a chair does not. A chair does not *take time* to happen, it simply endures *through* time.⁴ Kim’s use of the word ‘event’ is different. Some of Kim’s events (such as Vesuvius’ erupting) unfold. However, anything that is the instantiation of a property over a time is a PE event, and this will also include entities that do not unfold, such as a rock’s instantiation of the property of being 500 kg (Kim is explicit on this issue 1976, p. 33). Though Kim is happy to refer to entities that do not unfold as ‘events’, some would reserve the word ‘state’ for them. To avoid ambiguity, I do not use the term ‘event’ unmodified, but stick to ‘PE event’ instead, to refer to anything that is the instantiation of a property by a substance over a time, no matter what its temporal character is.

4 Conscious experiences as PE events

To recap the two elements of the relation: experiences cannot be had by subjects other than the ones that in fact have them (element 1). But the same subject could counterfactually have had a distinct experience from the one that she in fact had (element 2).

4.1 The view

Suppose we take conscious experiences to be PE events. They are substances instantiating properties at times. Two questions emerge. First, what are the properties in question? Second, what are the substances? The obvious answer to the first question is that the properties that partially constitute conscious experiences are phenomenal properties, properties in virtue of which experiences have phenomenal character. To answer the second question, suppose we identify the substance in question with the subject of the experience. If we do this, we now have the basic tools to explain the first element of the relation between subject and experience. Take an experience (e) which on this view is a PE event, such that (e)’s substance, property and time can be expressed as $\langle s, P, t \rangle$. We identify s (the substance of (e)) with the subject of the experience: the person having (e). By the identity condition given above, for PE events to be identical, they must have the same constituting substance, so it follows that if an experience has some subject that is distinct from s then it cannot be the same event as (e). This explains why (e) cannot have a distinct subject from the one that in fact has it.

That was a first pass at how the explanation works, but more detail is needed. On the PE view, a PE event is the very thing that it is in virtue of the particular substance, particular property and particular time that together make it up. These

⁴ On some views (Sider 2001), all entities have temporal parts. If this is the case, then none of the claims of this paper are endangered, it will just turn out that all PE events (like all entities) have temporal parts.

three elements *fix the identity* of the PE event.⁵ That is, the PE event is the particular thing that it is in virtue of these three elements.⁶

We can represent this as follows:

- (1) For any PE event (e), (e) is the very thing that it is in virtue of the particular substance, property and time that jointly constitute it.

Claim (1) generates a very particular sort of explanation of why PE events have the particular constituents that they do. The issues are abstract, so a concrete analogy with kinds will help.⁷ Take gold. Gold has atomic number 79.⁸ Furthermore, any substance that has some other atomic number would not be gold. Even in counterfactual situations, gold could not have had an atomic number that is different from the one it in fact has. What explains this? Why couldn't gold have some other atomic number? The reason is that something is gold in virtue of having atomic number 79. Having that atomic number is required for something to be gold in the first place. That is the explanation of why gold cannot have some other atomic number, even in counterfactual scenarios. Similarly, it is in virtue of the particular substance, particular property and particular time that a PE event is the very PE event that it is in the first place, rather than some other distinct PE event. This explains why a particular PE event cannot have a distinct substance from the one it in fact has. This is exactly analogous to the explanation for why gold cannot have a distinct atomic number from 79.

These are all general claims about PE events. To these, we now add two identity claims:

- (2) Conscious experiences are PE events.
- (3) The substance that partially constitutes conscious experiences is identical with the subject of the experience.

Together, (1–3) generate an explanation of the first element. Take experience (e) and subject *s* again. The reason that (e) could not have had a distinct subject from the one that actually has it is because (e) is the very thing that it is partly in virtue of the presence of that particular subject *s*. That particular subject is required

⁵ This is not exactly how Kim expresses the view, but it is implicit in much of his work. For example, the identity criterion given above clearly states that it is the substance, property and time that determine the identity of an event, and this is all that the claim about identity-fixing amounts to. .

⁶ These ideas have been extensively developed by those who hold a 'real definition' view of essence on which something's essence is that which fixes its identity. For further explanation of the notion, see Lowe (2006, pp. 198–200, 2008) and Fine (1994). Whilst the notion of identity-fixing is central to the explanations given in this paper, it is not required that we accept a view of essence which is built around this notion.

⁷ The analogy isn't perfect. With PE events we are talking about particular PE events, whereas with gold we are discussing kinds (what it is in virtue of which something falls under the kind 'gold'). See Lowe (2008) for more on these links.

⁸ This example assumes a variety of chemical essentialism, which is controversial. Nonetheless, I use it for illustration.

in order to make (e) the very thing that it is, and not another distinct thing; in precisely the same way that having atomic number 79 is required to make something gold, rather than some other distinct element. For this reason, if some subject other than *s* were present, then it wouldn't be (e), it would be some other experience. This is the explanation of the first element.

Turn to the second element. Counterfactually, a subject could have had a distinct experience from the one that they actually had. As explained, experience (e) depends on the presence of the particular subject *s* because *s* is one of the elements that makes the experience the very thing that it is. But the converse does not hold. The subject is not the very thing that it is in virtue of the experience. So, nothing precludes the same subject from existing when the PE event does not. That is to say, the identity-fixing relation only flows one way: (e) relies on *s* for it to be the very experience that it is. But *s* does not rely on (e) for *s* to be the very thing that it is. That is what explains the second element. This fact is explained in turn by a more general feature of PE events: that they rely on their particular substances, particular properties and particular times to be the very PE events that they are, but the substance does not rely on the PE event for it to be the very thing that it is. By way of illustration, Vesuvius' eruption is the particular thing that it is in virtue of its three elements. But Vesuvius is not the thing that it is in virtue of the PE event of the eruption. So, counterfactually, Vesuvius could have existed without ever undergoing that very particular eruption. So we have satisfied both elements of the relation. We have kept the relation tight enough but not too tight.

4.2 Phenomenal properties and the explanatory role of consciousness

To summarise, on the picture I recommend, when one has an experience, one is modified in a certain way: one comes to have a certain property. One instantiates a property (e.g. the property of tasting a lemon) over a certain time, and this instantiation of the phenomenal property over the time constitutes a conscious experience. On this view, that is the fundamental ontological structure of all conscious experiences. The relation between the subject and the experience is now clear: the subject is a substance that instantiates a phenomenal property, and the experience is the event that is constituted by the subject's instantiating this property over a particular time.⁹ To be clear, this is an argument from explanatory power: we should accept this ontological view of conscious experience because it explains the relation between the experience and the subject.

Notice that, on the view recommended, phenomenal properties are properties instantiated by *subjects*, they are not instantiated by experiences themselves.¹⁰

⁹ Notice that we can easily distinguish between conscious experiences (such as my tasting lemon) and other PE events the subject participates in (such as my being 95 kg). They both share the same subject, but they involve different properties, so they're distinct PE events. Only the former involves *phenomenal* properties, so only the former is a conscious experience.

¹⁰ Strictly speaking, the explanation of the two elements given above does not *require* the claim that phenomenal properties are properties of the subject. It could be claimed that the experience is constituted by a subject instantiating some other (non-phenomenal) property at a time. However, this option is

Phenomenal properties partially *constitute* conscious experiences but such properties are not *instantiated* by these experiences. Phenomenal properties do not modify or characterise the experience itself. Rather, they modify the subject in a certain way, and this modification of the subject by a phenomenal property constitutes the conscious experience. This makes perfect sense within the PE framework. By analogy, it is Vesuvius that instantiates the property of erupting, and it is the eruption itself that is partially constituted by that property. The eruption itself does not instantiate the property of erupting.

This is an important point, because it affects some of the most basic explanatory roles that conscious experiences play. On this picture, it is *not* that the experience itself has some phenomenal properties, and then the subject is in some way put into contact with that conscious experience (including its phenomenal properties) and therefore comes to be in a certain conscious state. Rather, the primary source of explanation is that the phenomenal property modifies the subject in a certain way. The subject's instantiation of this phenomenal property (over a time) constitutes the conscious experience. So in a way, it is the subject's instantiating the phenomenal property that then explains the presence and nature of the conscious experience. It is not the conscious experience itself that is explaining why the subject is in a particular conscious state.

Of course, if we accept that the phenomenal property is a constituent of the experience, it follows by Kim's criterion of identity that an experience could not have had a distinct phenomenal property from the one it actually does. This seems right. Take the tasting of a lemon that I am having now. Suppose that in a counterfactual scenario, I had an experience of pain. It seems clear that this would not be the same experience.¹¹

These ideas have relevance in wider philosophy of mind. Martine Nida-Rümelin has pointed out that it has been assumed almost universally that phenomenal properties are properties of experiences (2017, 2018). Nida-Rümelin rejects this mainstream picture, arguing on epistemological grounds that phenomenal properties are properties of subjects. The arguments of this paper provide convergent reason to reject the widespread assumption, and to agree with Nida-Rümelin.¹²

Footnote 10 continued

implausible for three reasons. First, it leaves us without a way of slotting phenomenal properties into the picture. Second, it is hard to think what these other non-phenomenal properties that constitute the experience would be, and why they would be better candidates for this role than phenomenal properties. Third, this has the result that phenomenal properties do not partially fix the experience's identity, meaning that (counterfactually) an experience could have had completely different phenomenal properties and yet been the very same experience. This is very implausible.

¹¹ What about small phenomenal differences? What if actually, I had a sharp taste of lemon, but counterfactually I had a mild one? Here I stick to my guns: the counterfactual experience is very similar indeed to the one I actually had, but it would not have been the very same experience.

¹² I do not have space to explore some of the wider consequences of the rejection of this assumption, but see Nida-Rümelin (2017, 2018) for extensive work on this.

4.3 Galen Strawson

Here it will be instructive to compare the picture of experience given above with Galen Strawson's view, as this is probably the most prominent alternative. Strawson's view of the self has been developed extensively across a long period (2003, 2009, 2017) and I certainly cannot engage with all of it. I restrict my focus to the portion of his work that is most relevant for this paper, which is his views on the relation between the subject and the experience.

Strawson's view is that the subject and the experience are numerically identical (2003).¹³ Obviously, this violates the way we normally think about subjects (and experiences). I do not normally think of myself as identical with a tasting of lemon, for example, and I do not think that I die every time an experience goes away. However, Strawson's account is intended to be extremely revisionary. Specifically, he claims that this is an account of what he calls 'thin subjects' (2003 and 2017, pp. 172–173), which he takes to be the most useful notion in the vicinity. For this reason, it is no good arguing that Strawson's account is incoherent, because Strawson is working with a concept of 'the 'subject' on which such incoherence doesn't arise. So I will not object to Strawson by claiming incoherence. Rather, my objection is that his revisionary concept of the self (and the resultant view of the relation between subject and experience) is not warranted.

Highly revisionary accounts of philosophically important concepts are sometimes perfectly legitimate. Such accounts should only be embraced if they explain the relevant data more successfully than a less revisionary account. Strawson's view doesn't meet this threshold. His view has the resources to explain *one* element of the intimacy claim (that experiences cannot be had by someone other than the person that actually has them). However, his view fails to explain the second element of the intimacy claim, which is that a subject can exist without having the particular experience that she in fact has. Indeed, his view does not merely fail to account for this, but is inconsistent with it. My own view can explain this element of the intimacy claim, as well as the first element, without having any of the extremely revisionary consequences of Strawson's position.

Of course, Strawson denies this second element of the relation, and claim that subjects cannot exist without the experience in question. However, the reasons he gives should be resisted. He points out that we can develop alternative ways of thinking about the subject, on which it follows that a subject cannot exist without having experiences, and that this concept can co-exist with other concepts of the subject (2003, pp. 154–157; 2017, p. 173). On such a picture of subjecthood, the second element of the intimacy claim will come out false. However, my objection is not that we *cannot* come up with an alternative concept of subjecthood (on which the second element of the intimacy claim is false) but rather that there is no strong theoretical reason to use this revisionary concept, because a non-revisionary one can do the work.

¹³ Strawson also claims that subjects are identical to the content of the experience (2003). I do not have space to assess this claim.

It is important to be clear about the criticism of Strawson. It is not that his view is incoherent, or too extreme to be believable. It is that my account explains the data in a non-revisionary way, and therefore undercuts the need for an extreme position such as Strawson's in the first place. As I stressed above, there is much work by Strawson that I do not have space to engage with, so I do not claim this to be a conclusive refutation of his view. I claim only that, specifically when accounting for the relation between subject and experience, the less revisionary account is to be preferred.

5 Rival views of events

The view that I have developed above makes crucial use of the PE account of events. It may be wondered whether we can get the same benefits using a rival view of events. By far the most prominent rival to the PE account is Davidson's picture of events. The Davidsonian view is still very widely accepted explicitly by metaphysicians of mind (Crane 2001, p. 38; Steward 1997, p. 37). Given the prominence of this position, it is important to examine whether it can also explain the relation between subject and experience. I will argue that it cannot.

On Davidson's view, events are particulars that are individuated by their causes and effects (Davidson 1969, pp. 179; 1970), not their substances, properties and times. It may be suggested that we can accept this view, and then give the same explanation of intimacy as the one that I have given.¹⁴ It will be obvious from the discussion of the previous section that this won't work. The view developed in this paper requires that a particular event is the very event that it is partially in virtue of the *substance* of the event. It is only with *this* claim that we can get the relevant explanation. But on Davidson's picture, the substance of an event doesn't individuate the event. So the Davidsonian cannot give a similar explanation of intimacy. Her view does not have the explanatory resources that my own does. Here the Davidsonian has two options. The first is to try to explain intimacy using only the austere resources that her own view already affords. The second is to modify her view in some way. I take each in turn.

5.1 Causation

The Davidsonian accepts that what individuates each particular event is its particular causes and its particular effects. For this reason, on the Davidsonian view, if an event had different causes or effects then it would be a distinct event. The Davidsonian could propose that the subject of an experience *causes* her experiences (and that these experiences are themselves Davidsonian events). Thus, if counterfactually, an experience had a different subject from the one it in fact has, then it

¹⁴ Tye (1995, pp. 90–92) uses the Davidsonian view of events to explain our 'ownership' of our conscious experiences, which is similar to the first element of the relation that I outlined above. He does not consider issues connected to essence and explanation, as I have done. Further (as I shall argue in this section) the Davidsonian view ultimately fails to provide a satisfactory explanation of the first element of the relation (Tye's specific strategy is considered in Sect. 5.2).

would have had different causes, from which it follows by the Davidsonian view of events that it would have been a distinct event. This may be thought to explain the first element of the intimacy claim.

This proposal faces two problems. First, for it to work, it would have to be that I am the cause of *all* of my experiences. Perhaps this is plausible for some (when I decide to take a bite out of a lemon and thereby cause myself to taste lemon) but consider when I am sitting staring passively out of a window, and have an experience of a bird. It strains our notion of ‘cause’ to claim that I am part of the cause of this experience.

The second issue is that causation just isn’t a sufficiently intimate relation to capture what we are after. Let us grant to the Davidsonian for the sake of argument that I am part of the cause of all of my experiences. Now, suppose you prick me with a toothpick, and cause me to have a pain. Here, you are part of the cause of my pain: it is your pricking of me that causes the pain. It follows (by Davidson’s view) that we are both causes of the experience of pain. Thus, we both serve to individuate it (on the Davidsonian picture). So, on this view, my metaphysical relationship to my pain is no more close than *your* relationship to *my* pain. But one of the main points we started with is that we seem to have an intimate relationship with *our* conscious experiences, above that which other people have to our experiences. This has disappeared on the present proposal.

5.2 Modifying the view

The Davidsonian could modify her view by adding the claim that conscious experiences are Davidsonian events, *which have their substances necessarily*. Then, if the subject of the experience is identified with the substance of the Davidsonian event, it follows that an experience has the subject that it does necessarily, which explains at least the first element of the intimacy claim. There are a couple of ways that the Davidsonian could flesh out this suggestion. One is to claim that conscious experiences are exceptional: they are events that have their substances necessarily, whilst other events do not have this feature. Another is to claim that *all* events have their substances necessarily, and that conscious experiences are just one instance of this.¹⁵ However, both of these proposals will face problems.

One problem is that this view lacks explanatory power. The Davidsonian has no means by which to explain *why* a particular event has its particular substance necessarily. The PE view can explain this. As explained above, on the PE view, it is because the substance is part of what fixes the identity of a particular PE event: a particular PE event is the thing that it is in virtue of its substance (as well as its property and time). The Davidsonian does not claim that the substance of the event fixes its identity (to the Davidsonian, only the causes and effects do that) so she cannot give this explanation. Note how unsatisfying this Davidsonian explanation would be. We started with a necessary connection between an experience and the subject: that an experience necessarily cannot be had by a subject other than the one

¹⁵ This is the line taken by Tye (1995, ch. 3).

that has it. On the current Davidsonian proposal, we would solve this issue simply by accepting another brute necessary connection: a necessary connection between Davidsonian events and their substances. That is, we would have attempted to explain one necessary connection by just positing another brute one. The PE view doesn't do this, because it can give an explanation of the necessary connection between PE events and substances in terms of identity-fixing.

The Davidsonian could at this point modify her picture in a very drastic way. She could claim that a particular event has its identity fixed in virtue of its particular causes, effects *and the substance in question*. This would allow the Davidsonian to give a similar explanation of at least the first element of the intimacy claim, that mirrors the one that I gave above in terms of identity-fixing. However, to take this line is essentially to give up on the Davidsonian view of events and to replace it with a different one. The Davidsonian view (on which events are individuated by their causes and effects only) would have been abandoned. Whatever explanatory virtues there are to this position would only be as a result of adopting one of the core claims from the PE view.

Even setting these issues aside, this drastically modified proposal still faces problems. By keeping causes and effects included amongst the elements that individuate an event, the Davidsonian view would retain the problem we encountered with the toothpick objection given above. That is, sometimes, other subjects are part of the cause of a conscious experience, so if we claim that the cause of a conscious experience is part of what individuates it, then it follows that *other* subjects can have as intimate a relationship to a conscious experience as the subject who in fact has it. To avoid this objection, the Davidsonian would have to abandon the claim that the causes and effects of a conscious experience are part of what fixes its identity (whether or not we also include the substance of the event). This is to abandon the last shreds of the Davidsonian picture.

6 Fine-grained worries

I have been attacking the Davidsonian picture. But an opponent may claim that my own view is subject to criticisms too. In the remainder of this paper, I'll consider objections and reply to them. First, I'll respond to objections based around the claim that the PE view is too fine-grained in certain ways (Sect. 6). Then I'll examine Helen Steward's view that PE events are problematic when deployed in the philosophy of mind (Sect. 7).

Objection 1: Suppose I have a *mild* headache that lasts from 11 a.m.–2 p.m. Obviously, it follows that I have a *headache* from 11am–2 pm. It is also obvious that I have a *pain* from 11 a.m.–2 p.m. On the PE view, these must be distinct events because they involve distinct properties, the property of 'mild-headacheness', 'headacheness' and 'painfulness'. But surely there is only one event (cf. Tye 1995, p. 91). The objection is that the PE view ends up over-counting events.

Reply We must distinguish between different properties and different descriptions of one property. Here we have three descriptions ('having a mild headache', 'having a headache', 'having a pain') but the advocate of the PE view can deny that these descriptions latch onto different properties of the subject. Rather, the PE event in question would be my instantiation of one property, which will be a maximally

determinate kind of mild headache. Crucially, there are at least three different ways of *correctly describing* my having of that one property, which differ in their determinateness. We have one determinate description ('mild headache') and two that are more determinable ('headache' and 'pain'), but they don't pick out distinct determinate and determinable properties. They all correctly describe the same PE event, with differing levels of precision. The crucial point about the present case is that the single most determinate property is itself sufficient to account for the truth of the differing descriptions, and because it is sufficient in this way, the postulation of additional determinable properties would be metaphysically otiose. If you accept this, the result is that we do not have three distinct properties, and so we do not have three distinct PE events.

Notice that I am not denying the existence of determinable properties. Rather, the claim is just that we should not postulate additional determinable properties above and beyond their determinates *unless we have good reason to do so*. Even a realist about determinables would agree to that. In this case, we do not have good reason to postulate such additional determinables because the determinate property is itself sufficient to account for the truth of the various descriptions. The fact that the determinate property can do this is what prevents us from needing to postulate determinable properties, in this particular case.¹⁶ Of course, it is completely consistent with what I have said that we do need to postulate some determinable properties, for some theoretical roles (Wilson 2012). The claim is just that the 'headache' example is not one of those cases.

Objection 2 Suppose I have an uninterrupted headache from 11 a.m.–2 p.m. It follows that I have an uninterrupted headache from 1 p.m. to 1.30 p.m. Since these occur at different times, they must be distinct events. But surely there is just one event here.

Reply Strictly speaking, there are two events here. The intuition that we are somehow double counting stems from the fact that one of them is a temporal part of the other. By analogy, imagine a statue, and the part of that statue that represents the figure's left foot. Are these distinct things? Of course. But one of them is a proper part of the other, which is why we feel that somehow we are double counting. In a similar way, the headache from 1 p.m. to 1.30 p.m. is clearly a distinct thing from the headache from 11 a.m. to 2 p.m., but the feeling that we are double counting is explained by the fact that one is a temporal part of the other.

¹⁶ Some have claimed that the multiple realizability of mental states, and various considerations connected to mental causation, give us good reason to postulate determinable mental properties (Shoemaker 2007; Yablo 1992). On such a view, several distinct determinate neural properties, N_1 , N_2 , N_3 would each be sufficient to realize the same determinable mental property M . Full discussion of these issues would take us too far afield, but I will note two things. First, there are other rival views of the relation between the mental and the neural that dispense with determinable mental properties, and instead make use of higher level mental *descriptions* of low-level properties. These work in a similar way to the response I offered to the headache example given above (Heil 1999). So, it is clear that the opponent of determinable mental properties has resources to resist these views. Second, even if we do accept the existence of these determinable mental properties, this is not a problem for the view proposed in this paper. On the view that embraces determinable mental properties, there would indeed be two events: my instantiation of M , and my instantiation of one of its neural realisers. Unlike in the headache case, these are clearly very different states of affairs, and thus (unlike the headache case) there can be no objection based on the intuition that we are somehow double-counting PE events. Thanks to an anonymous referee for pushing me on this.

7 Helen Steward's Objections to PE events in the Philosophy of Mind

In the course of an inspiring book about the ontology of mind, Helen Steward (1997) argues that the PE framework is in various respects suboptimal for the philosophy of mind. Here, I consider and respond to her arguments. She (drawing on Feldman 1980) claims that token identity theory (TID) is the view that mental events (including conscious experiences) are identical with physical events. She further claims that TID is compatible with the claim that some mental event is identical with a physical event, and that event has both physical and mental properties, *which are not identical to each other*. But this is not possible on the PE account, because 'if events are to be identical, they must be exemplifications of the same property' so that 'if a mental event is to be identified with a physical event... it would seem that the mental property... would have to be identifiable with the physical property' (Steward 1997, p. 28). She concludes that [t]here does not seem to be any logical space, on Kim's view of events, for the token identity theory' (1997, p.29).

Notice, however, that there isn't an incompatibility so long as we distinguish between properties instantiated by substances and by events. Take a PE event (call it ϕ) which is the instantiation of P, by s at t: $\langle s, P, t \rangle$. Nothing in our view precludes the possibility that ϕ (the PE event itself) could instantiate properties that aren't properties instantiated by s (its substance). ϕ itself could instantiate distinct mental and physical properties, M and B. Note that, since these are properties instantiated by ϕ , not the substance s, they do not individuate ϕ (they don't fix its identity). Crucially, it is when *the substance* instantiates distinct properties that we have distinct events, not when the *event itself* does so. So it is possible for ϕ (one single event) itself to instantiate M and B, where M and B are distinct. Thus, the PE view is compatible with TID as Steward understands it (the view that physical and mental events could be identical, yet instantiate distinct mental and physical properties). I will not pursue this position any further, because as I pointed out above, I favour a view on which phenomenal properties are instantiated by subjects, not experiences, which this position fits uncomfortably with. Nonetheless, it is important to note that the PE account is not flatly inconsistent with TID, as Steward claims.

There is also a more straightforward response to Steward available, which is to alter our formulation of TID so that the supposed incompatibility with the PE view disappears. Suppose a subject s instantiates a physical property A at t, and s also instantiates a mental property C at t, and $A \neq C$. In this case (given the PE account) it is true that the event $\langle s, A, t \rangle$ is not identical to $\langle s, C, t \rangle$. We can tweak TID, so that instead of being the view that the very same event could have distinct mental and physical properties, it would be the view that the same subject can instantiate physical properties, and also non-physical mental properties. Nothing of theoretical importance to debates over physicalism or identity theory would be lost. We could still make all of the distinctions that are at the core of the mind/body debates, because these are to do with the modal relations (such as supervenience, realization, grounding etc.) between physical entities and mental ones (Chalmers 2010, Dasgupta 2015).

Steward also raises two more objections to PE events in the philosophy of mind. First, she notes that issues about the nature of PE events will inevitably turn on

matters to do with the substances, properties and times that make them up (Steward 1997, pp. 32–36). PE events are not ‘entities about whose nature and properties questions can intelligibly arise which are not simply dependent on answers to prior questions about relations between other entities’ (1997, p. 31). I do not think this is troubling. The substance, identity and time are not some other thing, in addition to the experience. They are constituents of the experience, so it is clear that, in investigating them, we are investigating the nature of the experiences themselves.

Steward also claims that PE events aren’t particulars, but are universals, and draws out some further troubling consequences of this (1997, pp. 35–41). However, the instantiation of a property by this particular substance at this particular time is a particular PE event, different from any event which is the instantiation of any other property, by any other substance, at any other time. PE events are particulars. Steward backs up her position by saying that PE events are similar to facts, and she takes facts to be non-particulars (1997, pp. 37–38). Here we require disambiguation of ‘fact’. By ‘fact’, we might mean the instantiation of a property by a substance, or a state of affairs (Armstrong 1997). Call these facts₁. PE events are a lot like facts₁, in that both of them involve a particular instantiating a property.¹⁷ So PE events are like facts₁. But this is no problem because facts₁ are particulars (Armstrong 1997, p. 125). On the other hand, by ‘fact’, we might mean something akin to a proposition. Call these facts₂. This is the meaning Steward has in mind (1997, p. 38). It is not very clear whether facts₂ are particular or non-particular. But this doesn’t matter because PE events are not like facts₂. Vesuvius’ eruption is not a proposition.

8 Conclusion

We now have a clear picture of the metaphysical structure of conscious experiences. The motivation for this picture is simple: we should accept it because of its explanatory power. It gives a clear explanation of one of the most poorly understood features of experience, which is the relation between an experience and the subject who undergoes it. This paper has offered only the briefest sketch of the consequences of accepting the view developed here, but as I have shown, they spread throughout the philosophy of mind and to related areas in the metaphysics of events. At the very least, I hope to have demonstrated some of the power of ontology in resolving issues about our experiences, and how we stand to them.¹⁸

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¹⁷ The difference between them is that PE events have times as constituents. For more on the relation between PE events and Armstrong’s states of affairs, see Carruth and Gibb (forthcoming).

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