

## PHENOMENAL FEEL AS PROCESS<sup>1</sup>

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Phenomenal character (or feel) is the what-it's-likeness of subjective experience. I develop an ontology of phenomenal feel as process. My being in some phenomenal state *R* is the process of my instantiating *R*'s neurological correlate. The ontology explains why we have asymmetric epistemic access to phenomenal characters: the ontological ground for the subjective or first-personal stance is different from the ontological ground for the objective or third-personal stance. I end by situating my account in debates about physicalism.

Every experience has a certain phenomenal character, a way it is like. There is a way it is like to see red, to play a violin, to feel a raindrop, and to hold a newborn. There is also a way it is like to experience one's bodily motion and position, to have a sense of change over time, to recognize a face, to understand a sentence, and to feel joy. There is a way it is like to represent and perceive, and even a way it is like to have a new idea. Such phenomenal characters are an integral feature of human experience.<sup>2</sup>

The phenomenal character of an experience can be described as a way the experience feels. We can pick out the subjective character of experience using descriptive examples (for example, by using phrases like “what it's like to see red”), and in this way, provide an intuitive description of what it is. But can we also characterize the feel of experience in objective, ontological terms? What *is* the phenomenal character (or phenomenal feel), metaphysically speaking? What is its nature? This is the question I want to address. The answer will involve an account of the ontological category and structure of phenomenal character, that is, of the ontological category and structure of phenomenal feel.

## 1. The project

Thomas Nagel's famous discussion of what it was like to be a bat brought the importance of phenomenal character to the foreground for contemporary philosophers of mind.

"We know that most bats (the microchiroptera, to be precise) perceive the external world primarily by sonar, or echolocation . . . . But bat sonar, though clearly a form of perception, is not similar in its operation to any sense that we possess, and there is no reason to suppose that it is subjectively like anything we can experience or imagine. This appears to create difficulties for the notion of what it is like to be a bat. We must consider whether any method will permit us to extrapolate to the inner life of the bat from our own case, and if not, what alternative methods there may be for understanding the notion" (Nagel 1986, p. 438).

The example shows how descriptions of mental states from the scientific perspective cannot fully capture the nature of the phenomenal character of such states. Nagel's discussion focuses on the implications of his thought experiment for versions of the mind-body problem, in particular, on the question of whether alien phenomenology threatens physicalism in some way. Subsequent thinkers tend to follow his lead. But there is another issue that Nagel's example raises: it shows, in a simple and intuitive way, how we need a more metaphysically explicit account of phenomenal character, one that can support the epistemic asymmetry between the first-personal perspective and the scientific perspective, even if this account doesn't close the explanatory gap. The importance of this task is largely orthogonal to traditional concerns involving physicalism, although a successful outcome may shed light on the mind-body debate.

I will approach the task of developing an account of the ontology of phenomenal character by exploring the distinctively dynamic nature of these experiences. I'll argue that the internal or constituent structure of a token experience with phenomenal character is a dynamic instantiating of a physical or neural property.

By limning the ontology of phenomenal character, we can give an account of its dynamic nature that fits into a rigorous, robustly metaphysical, realist account of the world. There is an epistemic implication of my view: because the constituent structure of a phenomenal character is internal to a subject, in the sense that it is the dynamic instantiating of a physical property in an individual, its metaphysical structure makes it an essentially first-personal entity. Thus, its nature is such that we have asymmetric epistemic access to it: it can be understood from the subjective or first-personal stance but not from the objective or third-personal stance.

## 2. The dynamic nature of phenomenal character

There are at least three distinctive features of the nature of an experience with phenomenal character. First, as Nagel points out, any token experience with phenomenal character is an experience with a particular point of view. Second, it has a particular qualitative character tied to the sort of experience it is, e.g., an experience with the phenomenal character of seeing red has a distinctive quality that distinguishes it from other experiences with phenomenal characters of different types, such as an experience with the phenomenal character of seeing purple. The distinguishing quality of the experience with the phenomenal character of seeing red is ontologically determined by (although not necessarily reducible to) the physical source of the feel, so that the relevant qualitative difference between a subject's token experience with the phenomenal character of seeing red and, say, the same subject's token experience with the phenomenal character of seeing purple, is determined by neural differences (differences in neural properties) between the token brain states that ground these different token experiences. Third, any phenomenal character is a "what it's like" experience. This "what it's like" nature is what makes it a member of the natural kind of *experiences with phenomenal character*. "What it's like" involves the forceful "feel" that phenomenal characters have.

I want to focus on this third feature. I'll set aside the interesting first feature as a topic for another paper, and the second feature can be bound up with the third feature in a natural way after the ontology is described in more detail. So, focusing on the third defining feature, what is metaphysically distinctive about "what it's like" that characterizes the nature of experiences with phenomenal character?

The distinctiveness of "what it's like" consists in its dynamic, active, forceful feel. While different phenomenal characters exhibit different characters (there is a felt difference between a token experience with the phenomenal character of seeing red and a token experience with the phenomenal character of seeing purple), there is also a felt dynamic quality or "oomph" that is common to each experience, in virtue of it being an experience with phenomenal character *simpliciter*. This felt resemblance or commonality is what makes an experience with the phenomenal character of redness and an experience with the phenomenal character of purpleness, and all other experiences with phenomenal characters, members of the *experiences with phenomenal character* kind.<sup>3</sup>

What is this forceful, dynamic quality of experience? It seems to be bound up with detecting the existence of something. Sense datum theorists argue that such detection is being directly aware of sense data. Others argue that when we experience, we are directly aware of mental states, or that we are directly aware of bits of the external world. I take no stand on those issues.

What matters here is that the experience of direct awareness is generally recognized as having the character of being a detection of some sort of presence, or of some sort of way of existing.

I think we can best capture the character of direct awareness as a kind of experience that involves detecting the presence, or the coming-into-existence, of a kind of entity. For example, when we have an experience with a phenomenal character of seeing red, we have a forceful, dynamic experience describable as experiencing the presentation-of-redness.

Support for the idea that conscious experience involves the feeling of a dynamic, forceful, presentation-of-coming-into-being comes from related discussions about the nature of temporal experience. In particular, many participants in the debate over the ontological status of “becoming” hold that a distinctive feature of conscious experience involves our sense that we are detecting events in our environment shifting into existence as they successively become present.<sup>4</sup> Such experience is also describable as the detection of a dynamic coming-to-be, or as D.C. Williams (1951, p. 462) put it, the feel of “the surge of presentness.”

Although the idea is expressed and developed in a variety of ways, conscious experience seems in general to have this sort of character.<sup>5</sup> Many devotees of the A-theory of time take this to be evidence for the idea that the world has a fundamentally dynamic feature involving the creation of successive “nows” or present moments. It is important, however, to separate out two ideas. First, there is the idea that experience has the feel of involving a dynamic becoming or successive making-presents. Second, there is the idea that fundamental reality includes *primitive* dynamic features, such as a dynamic temporal shift and successively existing present moments, that give experiences this dynamic character. I am concerned with the first idea, not with the second. The second idea is central to the debate between opposing camps in the philosophy of time: the A-theorists and the B-theorists. In particular, A-theorists argue that dynamic properties of presentness and passage are primitive, fundamental constituents of physical reality, while B-theorists claim that our dynamic experiences of presentness and passage are reducible to other features of temporal reality. The A-theoretic idea is that the dynamic quality of present experience is best explained by the postulation of actual primitive, dynamic temporal characters of presentness and passage in the physical world, while the B-theorist wants to reduce the dynamic quality of present experience to some other feature of the physical world.

But we need not adjudicate the dispute here, for both types of theorist can agree that experiences at times can have a dynamic quality describable as a feeling of a making-present or becoming. So, all parties can agree that, for example, when I have an experience of redness at a time, I have an experience with a dynamic, forceful phenomenal character describable as the feeling of the making-present (or as of the presentness) of redness. To recognize this, we need not commit to the A-theoretic ontology. Instead, we just need to

recognize that a dynamic sense of making-present or of coming-to-be is a distinctive feature of the phenomenology.<sup>6</sup>

So, to summarize: an experience with a phenomenal character involves a dynamic feel of making-present or, to use a traditional term from the philosophy of time, it involves the dynamic, forceful feel of “becoming.” Of course, there is more to any token phenomenal character than just this dynamic feel, since each particular phenomenal character is a dynamic making-present of a particular quality. As I noted above, an experience with the phenomenal character of seeing red differs from an experience with the phenomenal character of seeing purple, by feeling, respectively, like a making-present of redness and a making-present of purpleness. But this is no surprise, since the phenomenal character of seeing red and the phenomenal character of seeing purple are grounded by different token physical states. The states involve different neural correlates of the different feels, and this neural difference grounds the difference in the way each making-present is felt.

### 3. The intrinsic nature of phenomenal character

I have described the distinctive feel of phenomenal character as a feeling of dynamic becoming. I now want to propose a simple ontological explanation for this fact: phenomenal characters *are* dynamic becomings. That is, phenomenal characters are dynamic and forceful because they are dynamic entities, and their dynamic quality is a quality of becoming, that is, of a coming-into-existence. This is an identity claim: the phenomenal character is not a state that merely *represents* a dynamic coming-into-existence: rather, it *is* a dynamic state of coming-into-existence. An experience with phenomenal character is an entity that is intrinsically dynamic and forceful in virtue of being a process of making-present of a state, that is, a coming-into-existence of a state (the instantiation of a neural property).<sup>7</sup>

The idea is that experiences with phenomenal character feel dynamic and forceful because they are experiences of the process of instantiating a neural property, the neural correlate of the mental state. I dynamically experience the phenomenal character of seeing red by experiencing the coming-into-existence of phenomenal redness, by participating as a subject in the physical state that is the instantiating of (the relevant) neural properties. The state of instantiating the neural property is a process, and this *process* is the phenomenal feel.

Putting this idea in terms of particular experiences, when I have an experience with the phenomenal character of seeing red, its feel is due to the fact that I experience the coming-into-existence of phenomenal redness. And when I have an experience with the phenomenal character of seeing purple, its feel is due to the fact that I experience the coming-into-existence

of phenomenal purpleness. And so on. Each feel is intrinsically a kind of an experience, an experience of a coming-into-existence of a particular sort. The difference between different phenomenal feels arises from differences in the physical processes of instantiation, presumably, by differences in which neural properties my brain is instantiating in each process.

Understanding experiences with phenomenal characters as states of coming into existence can explain why it can seem intuitively plausible to describe the experience with the phenomenal character of seeing red as a *revelatory* experience. Something is revealed to us when we have an experience with the phenomenal character of seeing red. What is revealed to us is not the nature of redness, but the nature of the experience of seeing red. This is revealed to us in virtue of our participation as subjects in the dynamic process that is the phenomenal feel.

#### 4. The ontological category of phenomenal character

The ontological category of something is defined by its ontological kind or nature. Its constituent structure is determined by how it is built from its ontological constituents.

To develop the ontology of phenomenal character, I'll start with an account of its ontological category. In determining the ontological category of an experience with phenomenal character, it isn't good enough to merely characterize the experience as a property, or as a state, or as an event. For example, simply labeling an experience with phenomenal character as a "state" gives us almost no information about its ontological nature. It has not been categorized in any meaningful sense. Lots of things are states, including states that are very unlike experiences (for example, a distribution of gas particles in a closed container at a particular time is a state); we get little or no insight into the distinctive features of phenomenal character with such a rough classification. It's as ontologically vacuous as claiming to explain the nature of mereological composition by describing composition as a relation.

A more substantive philosophical account of phenomenal character must refine the classification by tying it more closely to its ontological features. Going back to the example of mereological composition, it is when we argue that, say, composition is asymmetric, transitive and unique, that the concept of composition is primitive and unanalyzable, and that we must categorize composition as a building relation (or perhaps as a dependence or a grounding relation) that we begin to develop an informative account of its nature. We shed light on the categorical nature of an entity by shedding light on its distinctive metaphysical features.

Emphasizing that an experience with phenomenal character is grounded by the physical or neural isn't enough either. This should be apparent when

we consider a dualist theory of mind that claims that experiences with phenomenal character are nonphysical mental states. Such a theory, by itself, doesn't give us any deep information about the ontological character of experiences, for simply saying that phenomenal characters are fundamentally mental (i.e., nonphysical) doesn't tell us anything substantive about the metaphysical structure of "what it's like".

Let me amplify this point. Merely calling experiences with phenomenal character "mental states" will not tell us enough about what phenomenal character intrinsically is to give us a sense of its nature. It merely assigns a label. One way in which this comes out is with the way that disputes about physicalism are easily seen as merely terminological disputes: it depends on one's terminology and ontological classifications whether something counts as fundamentally "physical" or whether it counts as fundamentally "mental," and saying that it must be fundamentally physical may amount only to saying that it is described or quantified over by certain contemporary scientific theories.<sup>8</sup>

To make further progress we need to narrow down the category. Assume, for the sake of argument, that a token experience with phenomenal character is a token instance of a phenomenal state. What sort of state is it? We know, of course, that it is the sort that is an experience. But what sort is that?

In the previous sections, I argued that experiences with phenomenal character feel dynamic and forceful because they are experiences of something's coming into existence. In particular, they are experiences of instantiating neural correlates. They feel dynamic and forceful in different ways because they are experiences of instantiating different neural correlates. I dynamically experience the phenomenal character of seeing red by experiencing the coming-into-existence of phenomenal redness, by participating as a subject in the process that is the phenomenal state. The process of instantiation of the neural correlate is the physical entity that is the mental state. This physical entity is a process that can be described as a state: it is the state of my brain's instantiating various neural properties (neural properties that are correlated with phenomenal characters), and it is the phenomenal feel. The neural correlate, then, is not the physical state that is the phenomenal feel. It is merely a constituent in the state (process) of coming into existence that is the phenomenal feel.

The distinction is intended to capture the ontological ground for the distinctive feel of experiences with phenomenal character. We need to preserve this in our categorical classification. Merely describing phenomenal characters as states makes it too easy to miscategorize them by making them passive rather than active. Making phenomenal characters passive rather than active is a category mistake, one that might be encouraged by the perceived need to treat phenomenology from a scientific(-ish) point of view, but a mistake all the same. We need to retain the ontology without retaining the passivity.

This is a change in the default conceptual stance. Instead of taking the default attitude of thinking of phenomenal characters as the results of interacting with the outside world, that is, as static causal effects that result from our detection of external stimuli that we then observe, think of an experience with phenomenal character as a *process of interacting* with the outside world. A phenomenal character isn't just a passively existing state that is the response to the outside world, or the downstream causal effect of stimuli from the outside world. Rather, it is the active constructing of a response to the outside world. It is what it is to respond to contact with the outside world. Again, this takes an experience with phenomenal character to be a process of a certain sort. In particular, it takes an experience with phenomenal character to be a process that is a state of coming into existence, or a coming-into-existence of a representation, not a finished product (the representation).

The idea is that the category of a phenomenal character is not one that is implicitly passive, such as the category of (merely) being a representation that is an effect resulting from a stimulus from the environment. It is one that is explicitly active, a category of process. The revision, in effect, suggests that we can “verb” phenomenal characters. An experience with phenomenal character is a process that the conscious subject participates in.<sup>9</sup>

To get a grip on the idea that a phenomenal character is a process, consider an analogous view, the Kantian conception of an active faculty or intelligence. On the Kantian view, the active intelligence of the subject organizes or unifies the apperception. (Arguably, for Kant, this active faculty was tied to one's awareness of oneself as a transcendental subject, but I am setting this aside.) The Kantian idea I want to draw on is that we can make sense of a kind of intelligent, subjective activity that is essential to the proper cognizing of experience.<sup>10</sup> I propose that we identify our engagement in such activity with the dynamic character of phenomenal experience, such that the cognizing of experience is the participation in the making-present or the coming into existence that characterizes the feel of the phenomenal state. We should understand phenomenal characters not as the static products of constructing or engaging with the stimuli of the outside world, but as the very constructing or engaging itself. A phenomenal character is, then, a process or an activity that is a forming of a representation.

My view conceptualizes experience differently from how it is traditionally given. The reconceptualization makes phenomenal characters into something creative. We engage in phenomenal activity when our faculty operates on certain neural properties and in doing so creates our first-person perspective. The feel of the experience is the creating or making-present itself: the phenomenal character of a redness experience, in other words, what it's like to see red, is the activity of participating in the process of instantiating physical state *R*, that is, it is the coming-into-existence of one's involvement



in physical state *R*. The phenomenal character of experience is the creating of the elements of one's subjective perspective: it is the activity or action of creating (the instantiating) that is experience.

The reconceptualization basically turns behaviorism on its head. Behaviorism, in essence, also took mental states to be active, but in exactly the opposite way: mental states were behavioral acts performed by the appendages or gross physical parts of the body. Mental states like being in pain were reduced to bodily acts like wincing when pricked with a needle. Behaviorism took mental states out of the brain by moving the mind out to the activity. I am proposing, instead, to move the activity into the mind. Experience is a process, and we have it through our active instantiating of neural correlates.

## 5. The ontological structure of phenomenal character

Now that I've refined the categorical classification of phenomenal character, I want to investigate its constituent structure. The hope is that by limning the constituent structure of phenomenal character we can gain further insight into its metaphysical nature.

Assume that token phenomenal characters are token states. This means that token phenomenal characters are particulars, they have particularized structure, and they may have token relations and properties as constituents.<sup>11</sup> The key shift is to identify the process of instantiation of the neural correlate as the mental state. The neural correlate of the phenomenal feel is merely a proper part of the mental state.

Phenomenal processes have structure. In particular, they involve individuals having neural properties. Individuals participate in the phenomenal process by having these neural properties. Spelling the structure out in ontological detail, when an individual feels phenomenally, she stands in a token having relation to a token of neural correlate *C*, giving us a relational complex similar in structure to the sort of relational complex we'd get from the structured property of a substance having a property. The phenomenal state *R* is the process that is the instantiating of *C*, or, put another way, it is my *having* neural correlate *C*.

There is an important technical caveat to the claim that an individual's instantiating neural correlate *C* is the phenomenal character that is the mental state *R*. Since phenomenal feel is the activity of forming or creating something, the reference of the term "individual" in "an individual instantiating neural correlate *C*" can be ambiguous. Either it refers to a subject that is ontologically incomplete, or it refers to a subject that is ontologically complete. The ontologically incomplete subject is the part of the subject that does not include the instantiating of *C*. The complete subject includes the instantiating of *C* as a constituent, whereas the incomplete subject is the

bearer of *C*. It is the complete subject who is conscious, not the incomplete subject.

Another way to put the point: if instances of neural properties had by an individual *I* are part of or are included in *I*, in an important sense, instantiating *C* is internal to *I*: it is part of the whole that is the individual, complete, subject. We can treat this ontologically in different ways, depending on how we think subjects are constructed. We might follow David Armstrong (1997 and elsewhere) and take *I*s having *C* to consist in a thin particular (call it *I*-) instantiating *C*. *I* has *C* in virtue of *I*- instantiating *C* (*I* is constructed from *I*- and the properties it instantiates). Alternatively, we might endorse a bundle theory where *I* is a bundle of properties, and so *I*s instantiating *C* amounts to *C*s being a part of the whole that is *I*, perhaps with some additional structural constraints.<sup>12</sup> Other variations are surely possible. With respect to the ontology of how an individual has *C*, on a thin particulars view, we can hold that *I*- instantiating *C* (and other neural properties) is what completes *I* to make *I* a conscious individual. On a bundle-theoretic view, we can hold that *I*s including *C* (and other neural properties) in its bundle is what completes *I* and makes *I* conscious.

One final detail: it is, of course, important that the token neural properties involved in phenomenal processes are what our best science has identified as the neural correlates of those experiences. Just having any old property is not sufficient for a phenomenal feel. This means that we know *a posteriori* that the neural correlates are special. They are special because having them results in the existence of a certain phenomenological character: or as I would put it, because having them is the process that is the phenomenal feel.<sup>13</sup>

It is useful to distinguish my proposal from other recent proposals involving phenomenal character. First, the proposal is opposed to the view that phenomenal character is constituted by the *scene itself* that is in view (e.g., Campbell 2002).<sup>14</sup> Such a view takes the phenomenal character of an experience of property *P* to be constituted by *P* itself.

A proposal which is closer to mine in some ways is the “enactive view,” which takes perceptual states to be partly constituted by sensorimotor action of some sort. This view takes action to be central to experience. For example, according to Noë (2001, 2004), a visual experience of a bottle is partly constituted by a sensorimotor act (perhaps as minimal as a visual saccade). The main point of difference is that I am taking phenomenal character to be the process of realization or instantiation of neural properties, and I hold that the metaphysical structure of phenomenal characters is grounded in physical states entirely within the brain (although such states may have extrinsic properties that affect their nature).

My view is not that the phenomenal character is constituted in part by the agent’s behavior, bodily actions, or environment (although it is surely partly caused by the environment). Moreover, my view is intended to

encompass all experience, not just perceptual experience. The phenomenal characters that are not perceptual, are, on my view, just as much active processes as the phenomenal characters that are. That said, there are deep connections here. For example, phenomenologists such as Merleau-Ponty attribute a dynamic character to complex perceptions: the phenomenal character of seeing a tiger carries with it an experience of the power and threatening nature of the tiger; a dynamic phenomenal tigerish feel. Fans of the enactive view of perception have built on such insights, and their views of perceptions as partly constituted by actions seems to be supported by the idea that phenomenal characters have an inherently dynamic quality.<sup>15</sup>

## 6. Physicalism

I take this way of thinking about the ontology of subjective character to be orthogonal to contemporary disputes about physicalism versus dualism. That said, locating my approach in the logical space of the discussion of contemporary treatments of mental states will help to clarify my view. In particular, in this section I will discuss ways that taking phenomenal character to be a process of instantiation can be physicalist. The first way to fit the view that phenomenal states are processes into the contemporary discussion about the nature of mental states is to see the view as a version of antireductionist physicalism. Taking token mental states to be token processes is antireductionist because, strictly speaking, it denies token-token and type-type identity theories.

The denial of token-token identity stems from the fact that even while phenomenology reduces to individuals having neural correlates, phenomenal characters are not simply identical to their neural correlates. Thus, I've denied that instances of pain are instances of pyramidal cell activity (or are instances of whatever our best science will locate as the right sort of neural correlate). For those who defend token-token identity theories, when they are suitably precise about their metaphysics, they take instances of phenomenal characters to just be instances of the neural correlates of the token phenomenal characters. For example, in Braddon-Mitchell and Jackson (1996, p. 98), token-token identity theories are described as those that take tokens of pains to be identical to tokens of c-fibers firing.

Instead of defending token-token identity, I have held that an instance of pain is a particular (or token) phenomenal act of an individual's *having* the neural correlate: in the toy case used by Braddon-Mitchell and Jackson, it is an individual's *having* an instance of c-fibers firing. Experience includes more ontological structure (the having) than the token-token identity theorist says it does. This is important: this additional ontological structure in the phenomenal character is part of what is needed for subjective experience to be a process. The process is the bearing of the having relation to the

neural correlate by the incomplete subject. The neural correlate is merely a constituent of the process that is the phenomenal feel. On my view, then, tokens of phenomenal characters are particulars with structure: e.g., a token of pain is a token process, a token of having the neural correlate of pain, not just a token of c-fibers firing (or a token of pyramidal cell activity, or whatever).<sup>16</sup> Tokens of *c-fibers firing* (or tokens of pyramidal cell activity, etc.) include less structure than tokens of *having c-fibers firing* (or tokens of having pyramidal cell activity, etc.).

Now, I don't think my view violates the spirit of the token-token identity theorist's approach.<sup>17</sup> Physicalists might be willing to embrace the additional structure I've argued for, and perhaps identity theorists would be happy to take on token processes of having neural properties in place of token neural properties. My point is that to get our ontology of subjective experience right, we need to sharply distinguish between mere instances of neural correlates and instances of phenomenal processes, since the latter belong in a different ontological category (a category of *process*). So I have taken my view to deny token-token (and type-type) identity theories, and thus, at least arguably, to be a species of nonreductive physicalism. But, in the end, reductive physicalists could embrace this feature of my view without jettisoning the spirit of token-token identity theory.

If my view can count as physicalist, it is also a version of a posteriori physicalism, since it accepts that inference to the best explanation on empirical grounds is needed to give an ontology of mind. I dispense with any commitment to finding an a priori entailment from physical truths to phenomenal truths.<sup>18</sup> As an a posteriori version of physicalism, my view does not attempt to close the explanatory gap; it sees no need to require an a priori explanation of mental experiences in purely objective or scientific terms.

But my view might be useful to those physicalists who feel the pressure to explain more about the way that the physical and the phenomenal are connected. This is worth doing, for even if we think it is misguided to require a priori entailments for explanations, as Joseph Levine (2006, p. 145) points out, "the connection between the neurobiological description and our first-person conception of what-it's-like seems totally arbitrary." To some, the sense of arbitrariness is disturbing—even after we've dispensed with the a priori requirement. The seemingly arbitrary nature of the connection between the different sorts of descriptions might make us feel that something else has been left unexplained—even after, as a posteriori physicalists, we've accepted the existence of the explanatory gap.

What needs explaining, even after we've accepted the explanatory gap, is twofold. The first thing that needs explaining is the nature of the correlation between the existence of the token neural correlate and the existence of the token experience. The way to explain this is to provide the fundamental ontology, and to use this ontology to describe the ontological ground for

the correlation. The second thing that needs explaining is why phenomenal knowledge is not entailed by third-personal knowledge.

A posteriori physicalists argue that we can do science or metaphysics and use inference to the best explanation to infer that there is some physicalist-acceptable ontological ground that underlies the correlation between the existence of the neural correlate and the first-person experience. This is what I have done above, in my argument for phenomenal feel as the process of instantiation. But a posteriori physicalists sometimes want to provide another kind of explanation as well: they want to explain *why* the ontology does not support an a priori move from a neurobiological description to a first-person description of what-it's like.

I'm not sympathetic to the claim that we need to provide this sort of additional explanation in the current dialectical context. The reason I'm not sympathetic is that we've answered the metaphysical question about the nature of the correlation between the existence of the token neural correlate and the existence of the token experience, and that's the question of metaphysical interest. The ontological ground for the connection between the token neural correlate and the token experience is the neural correlate itself, that is, it is because the token neural correlate is a proper constitutive part of the token experience that they are correlated. The only further ontological fact we need is that phenomenal characters are not merely neural correlates: instead, they are processes of instantiating neural correlates.

So my approach doesn't explain why processes are phenomenal characters or explain why phenomenal knowledge requires the actual participation of the knower in the process. Rather, my approach simply describes the differences between the fundamental ontological bases for different cognitive situations. Another way to put the point is that my approach, in terms of making an ontological posit, rejects any demand to provide an explanation of why phenomenal characters are processes or why phenomenal knowledge requires the actual participation of the knower in the process, for this sort of demand for further explanation makes no sense at the level of fundamental ontology. To illustrate: it makes sense to ask why pressure is proportional to volume, and to answer by explaining that gases are composed of moving particles bouncing off the walls of their containers, etc. But if one demands an explanation of why gases are composed of moving particles, the answer can only be: because this is the fundamental ontological fact that we began with. There just isn't any more explanation to be had.

That said, my ontology of phenomenal feel does provide an explanation, of sorts, of why phenomenal knowledge is not entailed by third-personal knowledge. The explanation falls right out of the ontology. The difference between the contents of phenomenal knowledge, which are constituted by an individual's being engaged in the phenomenal process, and the contents of scientific knowledge, which are constituted partly by external causal relations or causal-relational properties, explains why having scientific knowledge

does not entail having phenomenal knowledge, and vice-versa. Grasping the contents of phenomenal knowledge requires participation in a process (a process that the knower must participate in as a constituent). In contrast, grasping the contents of third-personal knowledge of various states merely requires the knower to stand in certain causal-perceptual relations to them. The explanation for the lack of connection between phenomenal knowledge and objective knowledge is the deeper failure of “ontological” entailment between their contents.

Once we have a clearer understanding of the ontological structure that supports the epistemic asymmetry, we can use it to bolster other sorts of physicalist accounts. In particular, one might bolster accounts of how phenomenal knowledge involves the possession of a special concept involving a distinct “mode of presentation” of the neural correlate (Loar 1990, 1997). On the ontological account I’ve given, phenomenal knowledge doesn’t derive from our standing passively in some relation that is a mode of presentation to a neural correlate; instead, the phenomenal mode is the process of presenting the property to oneself via instantiation in a process that is internal to the whole subject. This mode contrasts to the scientific mode of presentation, which is largely causal and external to the whole subject. This is the basis for a cognitive difference between phenomenal knowledge and third-personal scientific knowledge, and is the ground for the difference between the first-personal stance and the “scientific” stance.

Being clear about the ontological difference between the ground for phenomenal knowledge and the ground for scientific knowledge may also give a posteriori physicalists a reply to the sort of argument we see in Jackson (2006). Jackson’s argument against a posteriori physicalism is based on the intuitive claim that, if a complete physical enquiry describes all the physical properties, there cannot be an explanatory gap at the end of all such enquiry—unless we are implicitly assuming that there exist fundamental mental properties that the physical description is overlooking. If subjective experiences were simply instances of neural correlates, as the token-token identity theorist would have it, then it would seem that a complete description of such instances would give us complete knowledge of subjective experience. But a clearer understanding of the ontological ground for phenomenal knowledge undermines the Jacksonian intuition. We can assume that a complete physical description of the world would describe the facts about having the neural correlates that are subjective experiences and thus give us complete scientific knowledge of the world, but, as we have seen, there is no reason to think that having such knowledge would entail our being participants in the processes that are these subjective experiences, and thus no reason to think that such scientific knowledge would entail the relevant phenomenal knowledge.

I’ve been assuming that my view is physicalist, since there is no obvious appeal to primitive mental properties in taking phenomenal states to be

processes of realizing neural correlates. However, matters here are subtle, and whether the view is really consistent with physicalism will depend on the ontology needed to support the internal structure of phenomenal processes. In particular, it depends on how “thin” or “thick” the relation of *having* that is a constituent of the phenomenal process is thought to be.

Recall the ontology of the phenomenal process: the experience is the having of *C*, where *C* is the instance of the neural correlate of the experience. How are we to understand such having? If such having is merely the familiar having of instantiation, or perhaps a mereological part-whole relation, or the relation of “compresence” defended by traditional bundle theorists, then such “having” involves no more ontology than the physicalist already commits to by agreeing that particles have charge or that cells have mitochondria. On this “thin” account of the phenomenal act, the distinctive character of subjective experience arises solely from the fact that certain sorts of neural correlates are special, in that having *those* neural correlates rather than other properties is special. The “having” of those properties (or of any other properties) is entirely un-special. As I noted above in §5, the specialness of these neural correlates is discovered by cognitive and physical sciences, and we capture the ontological distinctiveness of phenomenal character by classifying it correctly as a process involving these neural correlates. (It’s also worth noting that this treatment of “having” is consistent with various metaphysically thin ways of treating instantiation, viz. ways that avoid worries about Bradley-style regresses.)

On a “thick” understanding of phenomenological acts, the “having” relation *is* something special. There is something primitively distinctive or special about the sort of having involved in the having of the neural correlates that gives rise to the distinctive ontological character of subjective experience. On the thick account of the phenomenal process of realization, the distinctive character of subjective experience arises partly or solely from the fact that the sort of “having” involved with having neural correlates is special, and distinguishes the having of neural correlates from the having of boring properties like *having a kidney*. On the thick understanding of phenomenological processes, the question is whether this special sense of having can be considered suitably physicalist. I suspect that it cannot, although I don’t see why such a relation should be thought to be metaphysically suspect in any other way.<sup>19</sup> We accept primitive relations in metaphysics all the time: primitive composition, primitive naturalness, etc. What’s so bad about a primitive relation of mental having?

In any case, I am inclined towards the thin understanding of phenomenological having and phenomenal processes, but I don’t rule out the possibility that the thick conception is the right one. It’s just that a thin conception seems perfectly adequate to support the distinctive nature of phenomenal feel as process. Given that I am prepared to be an a posteriori physicalist, I am prepared to grant that neural correlates are a special natural kind, where

their specialness consists in their ability to be constituents in the structured entities that constitute phenomenal processes, and that the indirect recognition of this fact explains why they have been singled out by the relevant sciences.

Of course, even with a thin, physically acceptable understanding of phenomenal processes, my position retains a certain antireductionist flavor, for, like Nagel (1986), it takes the subjective perspective to be epistemically irreducible. Science can give us many things, but it cannot give us the subjective perspective. This is because the subjective perspective is created by being an individual that is participating in a process, not by scientifically observing that process as an external onlooker. As a result, there is a blind spot in science's third-personal or objective view of the world.

This blind spot should not be feared, since, at least on the thin conception, it isn't a blindness entailing that there are mysteriously inaccessible ontological facts, but a blindness entailing that the complete scientific perspective alone won't give us a complete ontological perspective. To think that the existence of a scientific blind spot entails that we'll be unable to describe or detect certain kinds of properties in the world in any other way other than by scientific observation is to make the mistake of the driver who, relying solely on his mirrors despite detecting an ominous rumbling and honking to his right, merges into a truck on the New Jersey Turnpike. Such a driver refuses to accept that any vehicles not reflected in his mirrors could be detected in any other way—with disastrous results. The lesson is that the existence of a blind spot from the scientific point of view need not entail a gap in the ontological view, whether one is driving to New York or one is mapping the ontology of the mental.<sup>20</sup> The gap in the scientific view simply underscores the need for an ontological treatment of phenomenal character like the ontological treatment I have given. Just as the driver on the NJ turnpike should pay attention to the honking on the right even if he can't see anything new in his mirrors, we should pay attention to the distinctive ontology of phenomenal character, even if knowing this ontology won't lead us to quantify over anything new in our scientific theories.

## Notes

1. I'm indebted to Robert Adams, Tim Bayne, Chris Blake-Turner, David Chalmers, Andy Egan, Joseph Levine, Bill Lycan, Marc Slors, Nico Silins, Denis Robinson, and Susanna Schellenberg for helpful comments.
2. I mean to pick out a sort of feel which includes the feel of what it's like to taste and touch, etc., but may include the feel of what it's like to have more complex experiences (cf. Lycan 2008). If you disagree that there is any such sort of feel, then take me to be describing qualia when I talk about "what it's like" and the subjective character of experience.



3. Phenomenologists such as Merleau-Ponty attribute an active character to complex perceptions. For example, Merleau-Ponty might claim that the phenomenal character of seeing a tiger carries with it an experience of the power and threatening nature of the tiger, that is, we experience a dynamic, forceful, phenomenal tigerish feel when we see the tiger. Fans of the enactive view of perception have built on such insights, and their views of perceptions as partly constituted by actions are supported by the idea that phenomenal characters have this quality. See Toadvine (2006) for discussion and references to primary and secondary material.
4. See Callender (2008), Le Poidevin (2007), and Maudlin (2007).
5. Paul (2010) and Prosser (2011, 2016).
6. Also note that we can grant that a dynamic quality is constitutive of experience without running afoul of physicalism: the B-theorist's reducible dynamic element is consistent with physicalism, but so is the A-theorist's irreducible dynamic element. As Maudlin (2007, p. 124) rightly says, "All of the participants in this debate accept the supervenience of the mental on the physical. If you believe in the passing of time, then that is among the relevant physical characteristics of the subvenience base."
7. What, exactly, is the entity that is coming into existence? The entity coming into existence is a mental state—an experience with phenomenal character. The experience of coming-into-existence that gives a phenomenal character its distinctive character is the literal coming-into-existence of the phenomenal state itself, and it is this ontological fact that we experience when we as subjects have the experience.
8. See Chalmers (2011), Schellenberg (2010), and Stoljar (2010).
9. This makes the view friendly to adverbialism (Ducasse 1942; Chisholm 1957). It develops the ontological basis I'd like to use to make sense of "seeing redly" (Johnson 1992).
10. I intend the comparison to be illustrative only: I am not arguing that Kant took his active faculty to be phenomenology.
11. From now on my concern is only with particular states and tokens of relations and properties, so I will sometimes drop the "token of" locution for ease of exposition.
12. Paul (2017).
13. Note that "results" here is, in the first instance, a constitutive claim. Neural correlates are constituents of the phenomenal process. But of course, this gives us the causal correlation: we detect the neural correlates when we detect the phenomenal process, since one is a constituent of the other.
14. I'm indebted to Susanna Schellenberg for this point.
15. There are also connections to Kriegel (2005).
16. Does this mean that a having of a mental property is a having of a having of a physical property? Not necessarily: it isn't clear that havings of havings exist, and we run the risk of allowing for regress objections. We can take the phrase "having a mental property" and argue that unlike the general use of "having an —x—" it doesn't predicate an additional having of —x—: it simply picks out the structured relational complex of I's having C.
17. Thanks are due to Andy Egan for pressing me on this point.

18. For a defense of a posteriori physicalism, see Block and Stalnaker (1999). For a response and defense of a priori physicalism, see Chalmers and Jackson (2001).
19. Well, it might face Bradley-like regress worries. I'm setting this aside.
20. Gunderson (1970) notes something like this when he describes a periscope that can focus everything in the world in its crosshairs except itself. The existence of the periscope is entailed by the fact that it can fix points in its crosshairs, much as the existence of the subjective perspective is entailed by our own experience. It would be wrong to think that the periscope doesn't exist simply because it cannot fix itself in its crosshairs.

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