Self-Knowledge and “Inner Sense”

Lecture III: The Phenomenal Character of Experience

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I

These lectures have been organized around the question of whether there is any good sense in which our introspective access to our own mental states is a kind of perception, something that can appropriately be called “inner sense.” In my first lecture I distinguished two versions of the perception model of introspection, based on two different stereotypes of sense-perception. One of these, based primarily on the case of vision, is what I called the object-perceptual model—it takes perception to be in the first instance a relation to objects and only secondarily a relation to facts. I argued in my first lecture that introspection does not have non-factual objects of the sort required to make this model applicable. The other, which does not require perception to have non-factual objects, I called the broad perceptual model; its key tenet is that the existence of the objects of perception, whether they be factual or non-factual, is independent both of their being perceived and of there being the possibility of their being perceived. The view that introspection conforms to this was my target in my second lecture, where I argued that it is of the essence of various kinds of mental states that they are introspectively accessible.

But one important issue was left dangling. If we had only such intentional states as beliefs and desires to deal with, the view that introspective awareness is awareness of facts unmediated by awareness of objects would seem phenomenologically apt. My awareness of a belief just comes down to my awareness that I believe such and such. This goes with the fact that the properties of beliefs that enter into the content of such awareness seem to be primarily intentional or representational properties, and include few if any of the “intrinsic” properties which, on the object-perception model, objects of perception ought to be perceived as having. But in the case of sensations, feelings, and perceptual experiences things seem to be different. While a few philosophers have recently maintained that the only introspectively accessible properties of these are intentional ones, I think that the majority view is
still that these have a “phenomenal” or “qualitative” character that is not captured simply by saying what their representational content, if any, is.\(^1\) There is, in the phrase Thomas Nagel has made current, “something it is like” to have them. It is commonly held, and has been held by me, that the introspectable features of these mental states or events include non-intentional properties, sometimes called “qualia,” which constitute their phenomenal character and determine what it is like to have them. While these qualia are taken to be themselves non-intentional, or non-representational, they are held to play a role in determining the representational content of experiences; within the experiences of a single person, sameness or difference of qualitative character will go with sameness or difference of representational contents. But it is held to be conceivable that in different persons, or the same person at different times, the same qualitative character might go with different representational contents. Then we would have a case of “inverted qualia.” The classic case of this is John Locke’s example of spectrum inversion, in which one person’s experiences of red are phenomenally like another person’s experiences of green, and vice versa, and likewise for other pairs of colors (see Locke, *Essay*, II,xxxii,15).

Qualia are often taken as paradigms of intrinsic properties. And insofar as our introspective awareness of sensations and sense experiences involves awareness of qualia, it may seem to satisfy one of the requirements of the object-perception model of introspection that is not satisfied by introspective awareness of beliefs and other intentional states, namely that it is in the first instance awareness of intrinsic properties of objects of the awareness. And there is in fact one conception of qualia which presupposes the object-perception model. Philosophers sometimes give as examples of qualia properties they call by such names as “phenomenal redness.” This suggests a view according to which for each “sensible quality” S which we can perceive an external thing to have there is a property, phenomenal S-ness, such that perceiving an external thing to be S involves “immediately” perceiving, or in some way being directly aware of, an internal “phenomenal object” which is phenomenally S. This is the much reviled sense-datum theory of perception. If we reject this, we are left with the question of what conception of qualia, and of introspective awareness of them, we can accept if we do not accept the version that goes with the sense-datum theory.

But this question is inextricably bound up with others. There are questions about the relationship between the phenomenal or qualitative character of experiences and their representational content. And, closely related to these, there are questions about the status of, and the nature of our awareness

\(^1\) For the view that all introspectively accessible features of experience are intentional, see Gilbert Harman, 1990. There are similar views in William Lycan, 1987, and Michael Tye, 1991. The view advanced in this lecture can be seen as an attempt to reconcile the intuitions behind this view with belief in “qualia.”
of, the so-called "secondary qualities" of external objects—for the identity of the latter seems in some way bound up with the phenomenal character of our perceptual experiences of them. These collectively make up what I shall call the problem of phenomenal character.

II

Wittgenstein speaks of the "feeling of an unbridgeable gulf between consciousness and brain process," which occurs when I "turn my attention in a particular way on to my own consciousness, and, astonished, say to myself: THIS is supposed to be produced by a process in the brain!—as it were clutching my forehead" (Wittgenstein, 1953, I, 412). The sense of mystery is all the greater, I think, if we replace "produced by" in Wittgenstein’s ex-postulation with "consist in," getting "THIS is supposed to consist in a process in the brain." Wittgenstein goes on to comment on how queer this alleged business of "turning my attention on to my own consciousness" is. But we can get much the same puzzle without any attempt to turn our attention inward. I look at a shiny red apple and say to myself "THIS is supposed to be a cloud of electrons, protons, etc., scattered through mostly empty space." And, focusing on its color, I say "THIS is supposed to be a reflectance property of the surface of such a cloud of fundamental particles." Here we have, of course, the seeming disparity between what Wilfrid Sellars called the “manifest image,” the world as we experience it, and what he called the “scientific image,” the world as science tells us it is (see Sellars, 1963). How, one wonders, can the color one experiences be any part or aspect of what the best scientific theory tells us is out there?

And it is not only in the case of such properties as color that we can generate perplexity about this disparity without any problematic turning of attention onto one’s own consciousness. For consider the case of pain. The pain of a stubbed toe is, after all, experienced as being in one’s toe, a part of one’s body. Attending to such a pain, one may well be inclined to say to oneself, incredulously, “THIS is supposed to be a neural process in the brain!” For many of us the perplexity this generates is not dissipated by Wittgenstein’s attempt to show that such remarks are, in a philosophical context, a case of language gone on a holiday.

In the first instance, then, the problem of phenomenal character isn’t really a problem about the objects of introspective awareness. At least in the case of color, taste, smell, etc. it is about the objects of perceptual awareness. The case of pains, itches, tickles, etc., is tricky. There is a well established tradition of regarding these as mental entities, and that may make it seem that the awareness of them must be introspective. Yet, as I observed, we experience these items as being in one place or another in our bodies. Since the seventeenth century, at least, a prominent subtheme in discussions of these matters has been that despite differences in the way they are treated in

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ordinary language, pain and the secondary qualities are metaphysically on a par. In a few philosophers this has led to attempts to objectify pains—to construe them as states of the body which we perceive in having pain experience (See Graham and Stephens, 1985, and Newton, 1989). More commonly it has led to attempts to subjectify the secondary qualities—to construe them as features of sensations.

I will assume here that colors are where the contents of our visual experiences and our ordinary ways of talking place them—on the surfaces of physical objects, or in expanses of sky or water. Grass is green, the sky is blue, ripe tomatoes are red. But reflection on the disparity between the manifest and the scientific image makes inescapable the conclusion that, to put it vaguely at first, the phenomenal character we are confronted with in color experience is due not simply to what there is in our environment but also, in part, to our nature, namely the nature of our sensory apparatus and constitution. The intuition that this is so finds expression in the inverted spectrum hypothesis—it seems intelligible to suppose that there are creatures who make all the color discriminations we make, and are capable of using color language just as we do, but who, in any given objective situation, are confronted with a very different phenomenal character than we would be in that same situation, and it is not credible that such creatures would be misperceiving the world. But I think that the intuition is plausible independently of that. How could the phenomenal character we are confronted with be solely determined by what is in the environment, if what there is in the environment is anything like what science tells us is there? At the very least, the way things appear to us is determined in part by limitations on the powers of resolution of our sensory organs. And it seems obvious that it depends on the nature of our sensory constitution in other ways as well. There is good reason to think, for example, that the phenomenological distinction between “unique” hues such as red and “binary” hues such as orange is grounded in a feature of our visual system, and has no basis in the intrinsic physical properties of the objects we see as colored (see Hardin, 1988).

I have deliberately used the vague phrase “the phenomenal character we are confronted with,” which leaves it unspecified what is supposed to have this phenomenal character—the external objects perceived, or our subjective experiences of them. And the problem is, in part, about how to eliminate this vagueness. Looking at the matter one way, the obvious solution is to put the phenomenal character in the experiences. This gets us off the hook with respect to the problem of reconciling the manifest image with the scientific image, as the latter applies to the external objects—although it still leaves us, if we are materialists, with the problem of reconciling the manifest image, i.e., the phenomenal character, with what we think about the real nature of the mind itself. But, putting this latter problem on the side for now, locating the phenomenal character in the experiences seems to fly in the face of
the phenomenology. For what seemed to pose the problem was the experienced character of redness, sweetness, the sound of a flute, and the smell of a skunk. And these are not experienced as features of sensations or sense-experiences; they are experienced as features of things in our environment.

If we insist on saying that the phenomenal character really belongs to experiences or sensations, it is hard to avoid the conclusion that our sense-experience systematically misrepresents its objects in the environment—that it represents them as having features that in fact belong to the experiences themselves. This is the view I have called "literal projectivism"—that we somehow project onto external objects features that in fact belong to our experiences of them. But this seems, on reflection, to be unintelligible. I am looking at a book with a shiny red cover. The property I experience its surface as having, when I see it to be red, is one that I can only conceive of as belonging to things that are spatially extended. How could that property belong to an experience or sensation? Remember that an experience is an experiencing, an entity that is "adjectival on" a subject of experience. It seems no more intelligible to suppose that a property of such an entity is experienced as a property of extended material objects than it is to suppose that a property of a number, such as being prime or being even, is experienced as a property of material things. The literal projectivist view may seem more palatable if the projected properties are said to be properties of portions of the visual field (see Boghossian and Velleman, 1989). But that, if taken literally, amounts to a resurrection of the sense-datum theory, with all of its difficulties.

A different view is what I have called "figurative projectivism." This concedes that qualia, understood as properties of experiences, are not properties that could even seem to us to be instantiated in the world in the way in which colors, for example, are perceived as being. But it says that associated with each quale is a property that can seem to us to be instantiated in the world in this way—and that when an experience instantiates a quale, the subject perceives something in the world as instantiating, not that quale itself, but the associated property. The property is in fact not instantiated in the external object perceived, or in any other object—its seeming to be instantiated there is a result of how the perceiver is constituted. That is what makes the view projectivist. But the property also is not instantiated in the experiences of the perceiver—that is what makes the projectivism figurative. In fact, on this view, the "secondary qualities" that enter into the intentional content of our experiences are never instantiated anywhere. They live

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only in intentional contents; in Descartes' terminology, they have only "objective" reality, never "formal" reality.\(^3\)

This view has its own set of unattractive consequences. Like literal projectivism, it implies that our perceptual experience is incurably infected with illusion—that we cannot help but perceive things as having properties that they do not and could not have. In addition, while we can make sense of the idea of there being properties that are in some way represented in our experience but never instantiated in anything—e.g., the property of being a ghost—it is difficult, to say the least, to make sense of the idea that experienced color could be such a property. Granted that there are in fact no ghosts, we at least have some idea of what would count as someone veridically perceiving an instantiation of the property of being a ghost. But if we ourselves do not count as veridically perceiving the instantiation of redness-as-we-experience-it, I think we have no notion of what would count as veridically perceiving this.

Although it seems to me clearly unacceptable, figurative projectivism has some of the features which I think an acceptable account ought to have. It holds that the phenomenal character we are presented with in perceptual experience is constituted by some aspect of the representational content of our experience, thereby acknowledging the fact that we focus on the phenomenal character by focusing on what the experience is of. It holds that the properties that enter into this representational content, and in that way (i.e., by being represented) fix this phenomenal character, are not themselves features of our experiences—are not themselves qualia. But it holds that the qualia instantiated in an experience do determine the representational content that fixes the phenomenal character. Indeed, it holds that it is of the essence of any given quale that its instantiation by an experience makes a certain determinate contribution to that experience's representational content. But this is not to say that all aspects of the representational content of an experience are among the features that determine its qualitative character. For suppose Jack and Jill are spectrum inverted relative to each other. When both are

\(^3\) Such a view is suggested by Barry Stroud's formulation of the "theory of secondary qualities" in Stroud, 1977, pp. 86–87. It also seems to be the view of John Mackie in Mackie, 1976. Although in some passages the view Mackie attributes to Locke, with approval, seems to be literal projectivism, in the end it seems closer to figurative projectivism. For, on Mackie's reading, the resemblance thesis Locke affirms for primary qualities and denies for secondary qualities says, not that our ideas resemble things in the world with respect to their intrinsic natures (this is held to be false for the ideas of both sorts of qualities), but that the way external things are represented in our ideas resembles the way they actually are. Given that the rejection of this thesis as applied to secondary qualities and their ideas does not reduce to the rejection of the first resemblance thesis (that which is rejected for secondary and primary qualities alike), it amounts to figurative projectivism. There is a more recent expression of figurative projectivism in Averill, 1992—the "sensuous colors" that he says our experiences attribute to objects are not, he says (p. 569), instantiated "in any physically possible world."
looking at a ripe tomato, their experiences will be markedly different in phenomenal character, and so in one sense different in representational content—given that phenomenal character is determined by representational content. Yet I would want to say, and a figurative projectivist could agree, that the experiences of both represent the tomato, and represent it correctly, as being red. So the figurative projectivist need not say, and I think should not say, that redness is among those properties represented in our experience but not instantiated anywhere in the world, although he may want to say this of “redness-as-we-experience-it,” on some understanding of that phrase. Further, the figurative projectivist would say, and I would agree, that despite the differences in phenomenal character, and representational content, between the experiences of Jack and Jill, there is no sense in which the experience of one of them is more or less true to the objective nature of what is experienced, namely the tomato, than the experience of the other. They experience the tomato differently, but not in a way that makes the experience of one of them more or less veridical than the experience of the other. All of this I agree with. The question is how one can hold all this without going all the way with figurative projectivism and holding that the experiences of both Jack and Jill, each in a different way, misrepresent the tomato by representing it as having a property it does not have, and that, more generally, every visual experience represents its object as having properties that nothing in this world has?

Once these desiderata for a solution to the problem have been made clear, it begins to be clear what sort of solution it must have. How can the experiences of Jack and Jill represent the tomato differently and yet neither of them misrepresent it, given that the same information about its intrinsic nature is getting to both? This can only be because the different properties their experiences attribute to the tomato are relational properties. So the bare bones of the solution is this. Let Q1 be the quale associated with redness in Jack, and let Q2 be the quale associated with redness in Jill. There is a relational property constituted by a relation to experiences with Q1. And there is one that is constituted by a relation to experiences with Q2. Jack’s experience represents the tomato as having the first of these relational properties, and Jill’s experience represents it has having the second of them. And in fact it has both. Neither property is the property of being red, which is also attributed to the tomato by the experiences of Jack and Jill. So while the contents of their experiences have something in common (both represent the tomato as being red), they also differ in a way that does not involve either of them misrepresenting the tomato.

Let us call these relational properties “phenomenal properties.” What, more specifically, are they? They ought to be of a kind such that where, intuitively, the color experiences of two subjects are phenomenally the same, the subjects are perceiving (or seeming to perceive) the same property of this
kind, and that where the color experiences of two subjects are phenomenally different, they are perceiving (or seeming to perceive) different properties of that kind. Assuming the possibility of spectrum inversion, this would mean that the properties should be of a kind such that different perceivers can, under the same objective conditions, perceive the same objective thing, or things of exactly the same color, to have different properties of that kind, and perceive things having different colors to have the same properties of this kind, this because of differences in their subjective constitutions. This rules out dispositional properties defined with respect to particular creatures or creatures with particular sorts of subjective constitutions. And as best I can see, the only properties that satisfy this requirement are the relational properties things have in virtue of actually causing experiences of certain sorts. E.g., if R is the quale that characterizes my experiences of red things, the phenomenal properties would include the property something has just in case it is currently producing an R-experience in someone related to it in a certain way, namely someone viewing it under normal lighting conditions. This, unfortunately, is a property nothing has when it is not being perceived. But it satisfies, as I think no other actually instantiated property does, the prime requirement for being a phenomenal property. Subjects who are perceiving, or seem to be perceiving, the same property of this kind will necessarily be having color experiences that are phenomenally alike, and subjects who are having experiences that are phenomenally alike will be perceiving, or seeming to perceive, the same property of this kind.

But it is bound to be objected that it cannot possibly be the representing of such relational properties as these that constitutes the phenomenal character of perceptual experiences. We do not, at least ordinarily, experience things as affecting our experience in certain ways. The content of our experience is not relational in this way. Insofar as the difference between the experiences of Jack and Jill lies in what properties they ascribe to the tomato, it surely consists in what monadic properties they ascribe to the tomato.

But the way properties are represented in our experience is not an infallible guide to what the status—as monadic, dyadic, etc.—of these properties is. Reflection shows that the relation to the right of is, at least, triadic, but do we experience it as such? And consider being heavy. What feels heavy to a child does not feel heavy to me. Reflection shows that instead of there being a single property of being heavy there are a number of relational properties, and that one and the same thing may be heavy for a person of such and such build and strength, and not heavy for a person with a different build and

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4 I say "unfortunately" for two reasons. First, it is prima facie counterintuitive that properties we perceive to be instantiated in external things are properties whose esse is percipi. Second, if what I claim here is right, then there are cases of sense-perception, namely perception of phenomenal properties, that do not conform to what I have called the broad perceptual model.
strength. But when something feels heavy to me, no explicit reference to myself, or to my build and strength, enters into the content of my experience. Indeed, just because one is not oneself among the objects of one’s perception, it is not surprising that where one is perceiving what is in fact the instantiation of a relational property involving a relation to oneself, one does not, pre-reflectively, represent the property as involving such a relation. Thus it is that one naturally thinks of to the right of as dyadic.

Just as one’s self is not among the objects one perceives, so the qualia of one’s experiences are not among the objects, or properties, one perceives. And so these too are not explicitly represented in the content of one’s experience. Does this mean that we are not introspectively aware of the qualia? Well, if I am right in my rejection of the perceptual model of introspection, we don’t in any sense perceive them. But neither do we in any sense perceive the representational content, and the phenomenal character, of the experience. Introspective awareness is awareness that. One is introspectively aware that one has an experience with a certain representational content, and with the phenomenal character this involves. And if one reflects on the matter, and has the concept of a quale, this brings with it the awareness that one’s experience has the qualia necessary to bestow that content and that character. But it would be wrong to say either that one is aware of what the qualia are like or that one is not aware of what the qualia are like. In the sense in which there is something seeing red is like, there is nothing qualia are like (just as, in that sense, there is nothing electricity is like, and nothing apples are like). What is “like” something in this sense is an experience, sensation, or whatever, or perhaps the having of an experience or sensory state, and being like something in this sense is a matter of having phenomenal character, which in turn is a matter of having a certain sort of representational content. The relation of qualia to this phenomenal character is not that of being it, and not that of having it, but rather that of being constitutive determiners of it. The qualia are determiners of it in two ways. It is partly in virtue of having the qualia it does that the experience represents what it does. And part of what it represents is the instantiation of a property, a “phenomenal property,” which is in fact, although it is not explicitly represented as, the relational property of producing experiences having these qualia.

This account needs qualia because it needs a way of typing experiences which not does consist in typing them by their representational contents. It needs this because only so can there be properties whose identity conditions are given by saying that things share a certain property of this type just in case they are producing experiences of a certain type. Such types can be called phenomenal types. Sameness of phenomenal type, and likewise phenomenal similarity, is a functionally definable relation (see Shoemaker, 1975a, 1975b, 1982 and 1991). I shall say more about this later on; for now I will say only that qualia will be the features of experiences in virtue of which they stand
in relations of phenomenal similarity and difference, and belong to phenomenal types. It is usual to characterize qualia as being, among other things, nonintentional features of experiences. But if, as I have suggested, the properties represented by our experiences include ones that are constituted by their relations to the qualitative character of the experiences, qualia will be very intimately related to a kind of intentional property. If, for example, an experience having quale R represents its object as having a phenomenal property, call it R*, which something has just in case it is producing R-experiences, then R will be necessarily coextensive with the intentional property an experience has just in case it represents something as having R* in a way that involves having R.\(^5\)

It is an important part of this view that what in the first instance we are introspectively aware of, in the case of experience, is its representational content. In this respect my view is similar to that of Gilbert Harman, who claims that the only introspectable features of experiences are their intentional or representational ones (See Harman, 1990). Harman does not recognize the special class of intentional features which according to me determine the phenomenal character of experiences, namely those that represent relational properties that an object has in virtue of producing experiences.

\(^5\) Suppose that someone has a remarkable perceptual sensitivity such that just by looking at someone viewing a red object she can see whether that object is producing in that person an R-experience, or just by looking at an object she can see whether it is apt to produce R-experiences in persons with a certain sort of perceptual system, even though she herself does not have that sort of perceptual system and is incapable of having R-experiences. It would seem that person could have an experience with the intentional property *represents something as having* R*, but lacking the quale R. If this case is possible, it will hardly do to say that it is the possession of this intentional property that confers on the experience its phenomenal character. (I owe this objection to Michael Tye.) What this example shows is the need to distinguish between intentional properties that are “reference-individuated” and ones that are “sense-individuated.” (I make this distinction in Shoemaker, 1990). If Jack is someone whose experience represents something as being R* in virtue of having quale R, and Jill is someone with the remarkable perceptual sensitivity just imagined, then when both perceive something to be R* their experiences will share the reference-individuated property *represents something as having* R*. But the senses, or modes of presentation, by means of which R* is represented will be different, and Jill’s experience will not have the sense-individuated intentional property that Jack’s experience has. It is those sense-individuated intentional properties whose possession essentially involves having certain qualia that confer phenomenal character.

To at least one reader there has seemed to be a “whiff of circularity” here. But while R* is defined in terms of R, there is no sense in which R is defined in terms of R*. And while it is true that in virtue of having R an experience represents a property, R*, which is in fact a relational property that is defined in terms of R, this property is not represented as a relational property, and no reference to R enters into the content of the experience. Compare literal projectivism. According to it, an experience having R thereby represents an external object as having R; but although R is in fact a property of experiences, and is the very property whose possession by the experience gives it its representational content, it is not represented as being such. If, as I think, there is no circularity here (just implausibility), there is certainly none in my account.
with certain qualia. But let me focus for a moment on the point of agreement between him and me, namely that in the first instance introspective awareness is of representational content, or what comes to the same thing, of intentional features. What are the reasons for saying this?

One reason is phenomenological. As I have said already, if asked to focus on “what it is like” to have this or that sort of experience, there seems to be nothing for one’s attention to focus on except the content of the experience. Indeed, it may seem at first that there is nothing to focus on except the external object of perception—e.g., the tomato one sees. Initially it may seem as though the question of what seeing the tomato is like can be none other than the question of what the visually detectable aspects of the tomato are. But then reflection makes one realize that one could be having the experience one does even if there were no tomato, and that there could be creatures whose experience of the tomato is different but who don’t misperceive it. Even after this realization, however, one’s attention remains fixed on the tomato—although now with the awareness that it doesn’t matter, to the “what is it like” question, whether the tomato one sees is really there or is merely an intentional object. If one is asked to focus on the experience without focusing on its intentional object, or its representational content, one simply has no idea of what to do.

But this phenomenological fact goes with a fact about what our representational faculties are for, and what they presumably evolved to enable us to do. The most central fact about minded creatures is that they are able to represent aspects of their environment, both as they take it to be and as they want it to be, and to be guided by these representations of their environment in their interactions with it. In intellectually more sophisticated creatures the control over the world that is bestowed by this representational capacity is enhanced by a second order representational capacity—a capacity to represent their own first-order representational states. But what this is in aid of is still effective representation of the environment (including the subject’s own body). So it is not surprising that introspective awareness is keyed to representational states, and to the contents of these states.

III

Although I have focused on the example of visual experience, and in particular our experience of color, I think that what I have said can be applied to other sorts of perceptual experience—smell, touch, taste, and hearing. In all of these cases the phenomenal character of the experiences consists in a certain aspect of its representational character, i.e., in its representing a certain sort of property of objects, namely “phenomenal properties” that are constituted by relations to our experience.

I think that the same account can also be extended to the case of pains, itches, and the like. When, for example, I have the experience I describe as a
pain in my foot, my experience represents my foot as having a certain property. What property? The best available name for it is “hurting.” This really is a property of my foot. But what it is for my foot to have this property is for its condition to cause me to have an experience having certain qualia. It is therefore a relational property. But I am not aware of it as a relational property, just as in my visual experience I am not aware of a red object as having a relational property defined in terms of a color quale. And my awareness of the quale of the pain experience, insofar as I am aware of it at all, is of the same sort as my awareness of the color quale; if you like, it is knowledge by description. What is primary here is a case of perceptual awareness—awareness of my foot as having a certain phenomenal property,namely hurting. Normally this goes with perceptual awareness of the foot that goes beyond awareness of it as having this property—e.g., feeling that it is bruised or cut. Going with this perceptual awareness of the foot hurting is introspective awareness that one is having an experience of one’s foot hurting. And this should not be thought of as an inspection by inner sense of the quale which gives the experience this introspective character. There is no such inspection. The kinds of awareness there are here are, first, perceptual awareness of the foot, second introspective awareness (which is awareness that) to the effect that one is having an experience which if veridical constitutes such a perceptual awareness, and, third, the theoretically informed awareness that the experience has qualia which enable it to have the representational content it has.

I maintain that there is a sense in which our color experiences, our tactile, gustatory, etc. experiences, and our bodily sensation experiences have the same structure. This should not be taken to mean that color words, words for odors and tastes, and words like “pain” and “itch,” all have the same sort of semantics, or express the same kinds of concepts. I doubt, for example, that “red” and “bitter” have the same sort of semantics. Consider Jonathan Bennett’s example of phenol-thio-uria, which tastes bitter to three-quarters of the population and is tasteless to the rest (see Bennett, 1968). If as the result of selective breeding, or surgical tampering, it becomes tasteless to everyone, I say it has become tasteless. And if more drastic surgical tampering makes it taste sweet to everyone, I say it has become sweet. But I don’t think that if overnight massive surgery produces intrasubjective spectrum inversion in everyone, grass will have become red and daffodils will have become blue; instead, it will have become the case that green things look the way red things used to, yellow things look the way blue things used to, and so on. I think that our color concepts are, for good reasons, more “objective” than our concepts of flavors. Here the semantics of our terms reflects our interests. Our dominant interest in classifying things by flavor is our interest in having certain taste experiences and avoiding others, and not our interest in what such experiences tell us about other
matters. With color it is the other way around; the evidential role of color dominates such interest as we have in the having or avoiding of certain color experiences.

Despite the differences between “red” and “bitter,” both name properties of objects of perception, properties things can have when no relevant experiencing is going on. “Pain” does not name such a property. And probably “hurts” does not. If someone reports that there is a pain in his foot, we do not say that he is mistaken if there is nothing wrong with his foot and his feeling of pain is induced by direct intervention in his brain. And probably we do not say he is wrong in this case if he says that his foot hurts—although someone who said this would not seem wildly out of line. We could have had a usage in which the truth-value of a pain ascription depends on what is going on in the part of the subject’s body in which she reports feeling pain; and there are recessive tendencies in that direction in our actual usage, as is shown by our uncertainty about how to describe cases of “phantom limb pain.” But here again, the actual semantics reflects our interests. We have a strong interest in pain experiences, namely in avoiding them and getting rid of them, which is independent of our interest (which of course is not negligible) in what they reveal about the condition of our bodies. And this interest provides a reason for having an economical way of reporting and expressing these experiences—a way more economical than saying “I seem to feel a pain in my foot.” But the phenomenology of pain experience, and the aspects of our usage of “pain” that reflect it (i.e., our speaking of pains as located in parts of our bodies), does not go comfortably with our truth conditions for pain ascriptions. The experience we report by saying that we feel a pain in the foot or the tooth does represent something about the foot or tooth; but we make the condition of the foot or tooth logically irrelevant to the truth of the pain ascription. In any case, what is important for my present purposes is that the differences in the semantics of “red,” “bitter” and “pain” should not hide the similarities there are between the structure of our experiences of color, taste, and pain. The seventeenth century writers who were fond of comparing the status of the “secondary qualities” to that of pain were on to something right.

IV

What I have said so far goes only part of the way towards resolving the seeming disparity between the phenomenal character we are presented with in our experience of the world and our scientifically informed beliefs about what the true nature of the world is—or, in Sellarsian terms, between the manifest image and the scientific image. Placing the phenomenal character in the representational content, and pointing out that the representational content includes the ascription of properties things have in virtue of their relations to experiences, goes some way towards resolving this seeming dispar-
ity—it removes the appearance of disparity between the phenomenal character we are presented with and our beliefs about the objective nature of our external environment. But, as is often observed, it does not remove the seeming disparity between the phenomenal character we are presented with and our beliefs about the nature of the world as a whole, including our own minds—not if our minds themselves are physically constituted, and part of nature. It does not remove the “giddiness” Wittgenstein says accompanies the thought “THIS is supposed to be produced by a process in the brain.”

The sense of a disparity here is related to several prominent themes in recent philosophy of mind. There is Frank Jackson’s “knowledge argument.” Jackson makes the plausible claim that no amount of physical information, either about states of affairs outside our heads or states of affairs inside them, would tell one what it is like to see red, or, in David Lewis’s version, to taste vegemite. And Jackson uses this to argue that physicalism must be false. There is also Joe Levine’s “explanatory gap” argument (see Levine, 1984). One has, Levine argues, no notion of what an explanation would look like of why a given arrangement of the physical substrate of the world should give rise to experiences having a particular phenomenal character, rather than ones having a different phenomenal character structurally like that one. For example, one has no notion of what an explanation would look like of why, given that our physical constitution and that of the rest of the world is as it is, red things look to us the way they do rather than the way they would look if our spectrum were inverted. This, like Jackson’s argument, seems to call into question whether the physical facts can be all of the facts, or can fix all of the facts.

I think that the best response to these worries is to show that the existence of these apparent disparities between manifest and scientific image is just what an acceptable physicalist theory should lead us to expect. What I shall argue is that a broadly functionalist view, combined with physicalism, predicts that we will be presented in experiences with a phenomenal character which is in a certain sense irreducible to its functional and physical underpinnings.

A good place to start is with the truism that, on any view, creatures with the capacity for perceiving their environments will have “quality spaces,” in Quine’s sense of that term (see Quine, 1960 and 1969). For any given kind of such creatures, there will be physically different stimuli that are indistinguishable by creatures of that kind, in that they lack the capacity to respond differentially to such stimuli. And among the stimuli they can discriminate, some will be easier to discriminate than others. This imposes a similarity ordering on possible stimuli. The ordering will be relative to that kind of creature; the same stimuli may be ordered differently in the quality spaces

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6 See Frank Jackson, 1982. See also David Lewis, 1990.
of different kinds of perceivers. And, what goes with this, the similarity ordering for a given sort of creature is unlikely to “carve nature at its joints” to any significant extent—i.e., it is unlikely to coincide with the similarity ordering that a classification in terms of the principles of physics or chemistry would impose on the same stimuli. The quality space of a creature presumably evolves together with its dietary needs and tastes, its reproductive system and mating behaviors, its having a physical structure subject to certain kinds of damage from things in its environment, and countless other aspects of it that influence its interaction with its environment—and the structure of the quality space is more answerable to these than it is to the structure of the environment as represented in the “scientific image.” Physically very different stimuli may be very close to one another in the similarity ordering, and physically very similar ones may be very far apart; this because of what the significance of these various stimuli is for the organism in the environment in which it lives. Among other things, the structure of the quality space will determine what sorts of conditioning the creature is subject to, and what sorts of inductions it is prone to make.

Corresponding to the multidimensional similarity ordering on stimuli which constitutes a creature’s quality space will be a similarity ordering on internal states of the creature produced by these stimuli, internal states that have the function of being perceptual representations of the external objects or states of affairs which, in the creature’s environment, are the standard causes of the various sorts of stimuli. The similarities and differences amongst these states that enter into this similarity ordering are what I call “phenomenal” similarities and differences. These are functionally definable relationships. Roughly speaking, perceptual states have the phenomenal similarities and differences they do in virtue of the roles they play in producing the behaviors that exhibit the quality space of the creature—the discriminations it makes, the kinds of conditioning it is capable of, the kinds of inductions it makes, and so forth. These roles will be more or less rich depending on the overall complexity and conceptual sophistication of the sensory and cognitive system of the creature in question. In relatively primitive creatures the phenomenal difference between two sensory states may consist primarily in the fact that there are stimuli that produce one and not the other, and circumstances in which the presence of one of them elicits a bit of behavior while the presence of the other does not. In more sophisticated creatures the existence of a phenomenal difference between sensory states may involve much more, including the formation of beliefs about objective differences in the environment, and beliefs about differences in how things appear.

Qualia I take to be the features of experiences in virtue of which they stand in these relations of phenomenal similarity and difference. They will stand to one another in relations of phenomenal similarity and difference in
virtue of the roles they play in contributing to the phenomenal similarity or
difference of the experiences that have them. The same experience may have
many different qualia, and the overall similarity and difference relationships
between two experiences will be a function of the similarity and difference relationships between the qualia instantiated in them. If, as I have said, the relations of phenomenal similarity and difference are functionally definable, then we should also be able to define in functional terms what the identity conditions of qualia are, and what it is to be a quale. That will be enough to allow qualia to be physically realized—and, moreover, to be physically realized in any of a variety of different ways. Letting R be the quale that characterizes my experiences of red things, it may well be that the physical property that is the realization or implementation of R on one occasion is different from that which is the realization or implementation of it on another occasion; all that is necessary is that these different properties stand in the right functional relationship of phenomenal similarity. So not only should we not expect similarities and differences in the qualitative character of our experience to line up with intrinsic similarities and differences between things in our environment, as these would be described by the “objective” sciences of physics and chemistry; we also should not expect them to line up with neurophysiological similarities and differences between the states of our brains and nervous system that are their realizations.

So the seeming disparity between the phenomenal character we are presented with in our experience of the world and our scientifically informed beliefs about the true nature of the world is due in part to the fact that, like any other biological species, we have a quality space that is to some extent idiosyncratic and tailored to our particular biological situation and needs, and in part to the fact that qualia, like other mental properties, are “multiply realizable.”

As I have argued elsewhere, the claim that the similarity relationships and identity conditions of qualia are functionally definable is compatible with the claim, first argued some years ago by Ned Block and Jerry Fodor, that individual qualia are not functionally definable. If behaviorally undetectable spectrum inversion is a possibility, then different color qualia may be in a certain sense functionally indistinguishable. They will occupy different locations in a “space” of qualia, but because of the symmetrical nature of that space it will be impossible to give a functional description that applies to the one but not to the other—rather in the way that if one is describing in spatial terms a spatially symmetrical array of objects, then any description one gives of an object will apply as well to its symmetrical counterpart. If this is so, then color qualia will be “ineffable” in a way that goes beyond

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7 See Block and Fodor, 1972, and Shoemaker, 1975 and 1982.
the irreducibility to particular physical properties that goes with multiple realizability.

Whether behaviorally undetectable spectrum inversion is possible, or more generally whether behaviorally undetectable "qualia inversion" is a possibility, is a hotly contested issue. And here different issues need to be sorted out. One issue is empirical. Is the structure of our color quality space symmetrical in such a way that two creatures having a quality space with that structure could differ in the way their qualia are linked with objective stimuli? Reasons have been given for saying that it is not: e.g., that there are fewer discriminable shades between certain of the "pure" colors (the "unique hues") than between others, and that colors that have been thought to be candidates for inversion, e.g., red and green, have phenomenological "polarity" features (e.g., red is experienced as a "warm" color and green as a "cool" one) that make them functionally discriminable.

To the best of my knowledge, the question of whether the quality spaces associated with other senses have the required sort of symmetrical structure has not been much investigated.

A different question, which seems to be more conceptual than empirical, is whether there could be creatures, psychologically pretty much like us, some of whose quality spaces are symmetrical. If there can be, then there can be qualia that are not functionally definable. There is not time for me to pursue this question in any detail here. I will simply say, without argument, what I think about it. First, I think that the answer is yes—it is possible that there should be such creatures. Probably we are not such creatures, but even that doesn’t seem to me obvious. Second, I think that if the phenomenal character of our experiences can be realized physically, as I believe it is, the same could be true of the phenomenal character of the experiences of such creatures. Finally, and most controversially, I think that if it is so much as possible that there should be creatures that have symmetrical quality spaces, and so are subject to behaviorally undetectable qualia inversion, then it is also possible that there be creatures who share the same asymmetrical quality space and yet differ systematically in the phenomenal character of their experiences in the same objective circumstances—because the qualia instantiated in the experiences of one of the creatures are altogether different from those instantiated in the experiences of the other. And if this last claim is true, then individual qualia of ours are not functionally definable, whether or not our quality spaces are all asymmetrical in a way that precludes qualia inversion.

If this last is right, we have an account, compatible with a materialist view of mind, which predicts that the phenomenal character of experience will be ineffable, and so irreducible, in a very strong sense. But that would

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8 The issue is addressed in Harrison, 1973, Shoemaker, 1975, and Hardin, 1988, Chap. III.
be the frosting on the cake, and I do not think that we really need it in order to dissipate the mystery that may seem to arise from the disparity between the way we experience the world, perceptually and introspectively, and what the best science available tells us the true nature of the world is.

It may seem that there is something none of the considerations I have raised explains. How can it be true, indeed necessarily true, that whatever has a state with certain physical properties has *this* quale—or a quale that bestows *this* phenomenal character? (To simplify the discussion, I will pretend in the remainder of this section that what we have epistemological access to, and can make demonstrative reference to, are qualia, rather than the phenomenal properties and phenomenal characters that are grounded in them.) If the relation between the physical properties and the quale were a causal one, then answering this question would seem to require positing causal laws that are "brute" and "unintelligible." But of course, that isn't how I think of it. I take the quale to be physically realized, which I take to mean that an instantiation of the quale is nothing over and above the instantiation of one of the physical properties that realizes it. So the question becomes: how can it be necessarily the case that an instantiation of a particular physical property is identical with an instantiation of *this* quale? Well, part of the answer is that the property is, by hypothesis, one that plays a certain a certain functional role, one that I claim to be constitutive of qualia. Suppose, to simplify matters, that just one quale is currently instantiated in my experience. I have a state with a certain physical property, one functionally suited for being a qualia instantiation, and the quale instantiated in my experience is *this* one. And so it is necessary that if something has this physical property, it has *this* quale. If it is felt that this does not make it intelligible how it can be necessary that whatever has a certain property has a certain quale, it seems fair to ask whether this differs from any other case in which an explanation is demanded of how something indicated indexically is identical with something indicated in some other way. E.g., how can it be necessary that the person who originated in a certain sperm and egg is *me*? Couldn't it have just as well been someone else? (Compare: couldn't the quale associated with this physical property just as well have been a different one?) Here the only explanation available consists of a general modal claim, the essentiality of origins, together with the empirical claim that humans originate in the fertilization of eggs by sperm, together with the brute fact that if you trace back my history you get to that sperm and egg. The explanation I have given is parallel; it combines a modal claim (necessarily any instantiation of a property satisfying a certain functional characterization is a quale instantiation), a general empirical claim (certain physical properties satisfy that functional characterization), and a matter of brute fact (I have a state with a certain physical property, and the only quale instantiated in my experience is this one). Of course, part of what creates the air of mystery here is that my
epistemic access to my quale, and my ability to refer to it, requires no knowledge of functional role or physical makeup. (It is, indeed, part of the functional role of qualia that their subjects have this sort of epistemic and referential access to them—or, more accurately, to the associated phenomenal properties and characters.) But this has its counterpart in the fact that my first-person epistemic and referential access to myself requires no knowledge of essentiality of origins and facts about sperm and eggs.

V

Let me now conclude by saying something about the bearing of all this on the general theme of these lectures, the question of whether introspection should be conceived on a perceptual model. I think that where philosophers find it most natural to think of introspection as a kind of perception is in those cases where we are confronted with “phenomenal character.” In part this is because it is in these cases that it is most natural to adopt an “act-object” account of the mental states in question, thus making the object-perception model of introspection seem applicable. But it is also because we seem to have introspective access in such cases to properties that on the one hand seem to be mental properties but on the other hand seem so closely related to the perceived properties of objects that it is easy to fall into confusing them with those properties. It is these that are supposed to determine the phenomenal character of experience, something which pre-reflectively we are disposed to think of as the character of the external objects of perception. If one takes these to be qualia, thought of as non-representational features of experiences, it is natural to think that our awareness of them is perceptual. To suggest that we are merely aware that certain features are instantiated in our experience, without being presented in a perceptual or quasi-perceptual way with the instantiation of these features, seems false to the phenomenology of the matter—for it is, precisely, in being presented perceptually with the instantiation of sensible properties that we are confronted with phenomenal character, and while we have reasons for thinking that this phenomenal character has to do with our subjective constitution rather than the objective nature of the external objects perceived, it goes against the grain to deny that our access to it is in some sense perceptual.

On the account I have offered, we can do justice to the intuition that our access to phenomenal character is perceptual in two related ways. First, we can allow that in one sense we do perceive external objects to have phenomenal character—we perceive them to have “phenomenal properties” of the sort I characterized earlier, relational properties that constitutively involve a relation to qualia. But this access is a mode of sense-perception, not introspection, so its perceptual character gives no support to any perceptual model of introspection. Second, if we move to an access to phenomenal character that is introspective, what this is an access to is the representational
content of perceptual experiences. So such introspective awareness occurs precisely in cases where we have or seem to have perceptual awareness of something, and it is an awareness of what it is that we are ostensibly perceiving. If we confuse \textit{being aware of what it is that we are ostensibly perceiving} and \textit{being aware of what we are ostensibly perceiving}, it will seem that the awareness is itself perceptual. But of course we should not confuse these. The first, unlike the second, is not perceptual awareness; it is simply awareness \textit{that} one’s perceptual experience has a certain representational content. Although normally when this occurs there is an object of which one is perceptually aware, and although what one is introspectively aware of in such cases is that one’s experience represents an object of the sort that object is, it is not \textit{by} being aware of that object that one is introspectively aware of this fact. For example, it is not \textit{by} being perceptually aware of the apple that I am aware that I am having an experience as of an apple. Nor it is by being aware of any other object that one is aware of it. This is awareness of facts unmediated by awareness of objects.

On the face of it, three different sets of properties enter into this introspective awareness. There are the properties that the introspected experience represents the external object of perception as having. These are of course “sensible qualities,” properties of the kind we have access to by sense-perception. But of course, relative to this introspective awareness these are merely “intentional objects”; what we introspect is not that these are instantiated, but that they are perceptually represented as being instantiated. What we do know by introspection to be instantiated are what we can call representational or intentional properties of experiences—e.g., the property which an experience has just in case that experience represents there being something red in front of one. As we noted in Lecture I, such representational properties are not promising candidates for being “intrinsic” properties, and so are not promising candidates for being the perceived properties of any sort of objects.

The third set of properties are qualia. Assuming that these are distinct from the intentional properties they bestow on experiences, and that our introspective access is in the first instance to the latter, it would seem that we know the qualia themselves only “by description.” We know them as those properties of experiences whose position in our quality space determines the phenomenal similarities and differences amongst our experiences, and as those properties that experiences must have if external objects are to have phenomenal properties. So regarded, these too are unpromising as candidates for being the perceived properties of any sort of objects. I have toyed with the idea that qualia should be simply identified with the intentional properties that represent phenomenal properties. I have not the space here to discuss the pros and cons of such an identification. But if we do make such an identification, which at the moment I am inclined \textit{not} to do, then again qualia
will be unpromising as candidates for being the perceived properties of any objects, for just the reasons that intentional properties are. So they are unpromising as candidates for that whether or not we make the identification. And if qualia are not the perceived properties of mental entities, I think it is safe to conclude that there are none.
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