

REPRESENTATIONALIST THEORIES OF CONSCIOUSNESS

It is obvious that some mental states have representational content. Take the case of beliefs, for example. Beliefs are either true or false. They are true if the world is as their subjects believe it to be and false otherwise. Each belief, thus, has accuracy conditions—it is accurate in certain circumstances and inaccurate in others—and any state with accuracy conditions has representational content.

It is also obvious that some mental states are conscious. Recent representationalist theories of consciousness hold that there is a deep and important connection between the sort of consciousness that has most puzzled philosophers—phenomenal consciousness, as it is often called—and representational content.

This essay surveys representationalist theories of phenomenal consciousness as well as the major arguments for them. It also takes up two major objections. The essay is divided into five sections. Section I offers some introductory remarks on phenomenal consciousness. Section II presents the classic view of phenomenal consciousness to which representationalists are opposed. Section III canvasses various versions of representationalism about consciousness. Section IV lays out the main arguments for the representationalist stance. The final section addresses the two objections.

I: Phenomenal Consciousness

Of our conscious mental states, some are inherently conscious. That is to say, some of our mental states cannot *fail* to be conscious. For each such mental state, there is a *subjective* perspective that goes along with it. This perspective is conferred upon the subject simply by his or her undergoing the mental state. It is captured in everyday language by talk of ‘what it is like’. There is something it is like subjectively to feel pain, to smell vomit, to taste chocolate, to feel elated. Furthermore, what it is like to undergo one inherently conscious mental state can be compared with what it is like to undergo another. For example, what it is like to experience bright red is subjectively more similar to what it is like to experience bright orange than to what it is like to experience dark green.

Mental states that are inherently conscious are said to be ‘phenomenally conscious’ by philosophers. But just which mental states are these? One not very informative answer is that they are experiences. More helpfully, we can classify the relevant states into at least the following categories: (1) Perceptual experiences, for example, experiences of the sort involved in seeing green, hearing loud trumpets, tasting liquorice, smelling the sea air, running one's fingers over sandpaper. (2) Bodily sensations, for example, feeling a twinge of pain, feeling an itch, feeling hungry, having a stomach ache, feeling hot, feeling dizzy. Think here also of experiences such as those present during orgasm or while running flat-out. (3) Felt reactions or passions or emotions, for example, feeling delight, lust, fear, love, feeling grief, jealousy, regret. (4) Felt moods, for example, feeling happy, depressed, calm, bored, tense, miserable.

Some philosophers claim that there are also such experiences as, for example, the experience of suddenly remembering something or the experience of understanding a story. Others insist that insofar as there are experiences in these cases, they are simply various perceptual and/or bodily experiences that accompany memory and understanding.

Phenomenal consciousness attaches to mental states. Each phenomenally conscious mental state—each experience—is such that there is something it is like subjectively to undergo it. What it is like subjectively to undergo a given experience is known as the *phenomenal character* of the experience. Experiences vary in what it is like subjectively to undergo them and in so doing they vary in phenomenal character. Possession of a phenomenal character by a mental state endows it with the property of being phenomenally conscious.

As we will see in Section III, representationalist theories of consciousness are theories about the phenomenal character of experiences.

II: The Classic View

The classic view of experiences to which representationalist theories are opposed has it that although all experiences have phenomenal character, not all of them have representational content. Consider, for example, an endogenous feeling of elation or an experience of throbbing pain. These experiences, according to the classic view, are phenomenologically rich but they do not represent anything. Furthermore, even where experiences do have representational content, adherents to the classic view insist a) that they can vary in their phenomenal character while having the same representational content; and b) that they can vary in their representational content while having the same phenomenal character.

In defense of a), the most famous case offered is that of the inverted spectrum. Here is one version of that case. Suppose that Tom has a very peculiar visual system. His color experiences are systematically inverted with respect to those of his fellows. When Tom looks at red objects, for example, what it is like for him subjectively is the same as what it is like for other people when they look at green objects and vice-versa. This peculiarity is one of which neither he nor others are aware. Tom has learned the meanings of color words in the usual way and he applies these words correctly. Moreover, his non-linguistic behavior is standard.

Now when Tom views a ripe tomato, say, in good light his experience is phenomenally, subjectively different from the experiences you and I undergo. But his experience has the same representational content as ours. For his experience is the sort that is usually produced in him by viewing red objects and that usually leads him to believe that a red object is present. So he, like you and I, in viewing the tomato has an experience that represents the tomato as *red*. But the phenomenal character his experience has is the one tokened in our experiences when we view green objects, not

red ones. So, phenomenal character is not the same as, nor does it supervene upon representational content.

In defense of b) above, one well known example that is often adduced is that of inverted earth. Inverted earth is an imaginary planet, on which things have complementary colors to the colors of their counterparts on earth. The sky is yellow, grass is red, ripe tomatoes are green, and so on. The inhabitants of inverted earth undergo psychological attitudes and experiences with inverted representational contents relative to those of people on earth. They think that the sky is yellow, see that grass is red, etc. However, they call the sky 'blue', grass 'green', ripe tomatoes 'red', etc just as we do. Indeed, in all respects consistent with the alterations just described, inverted earth is as much like Earth as possible.

The example of inverted earth is due to Ned Block (1990). In Block's original version of the tale, one night while you are asleep, a team of alien scientists insert color-inverting lenses in your eyes and take you to inverted earth, where you are substituted for your inverted earth twin or doppelganger. Upon awakening, you are aware of no difference, since the inverting lenses neutralize the inverted colors.¹ You think that you are still where you were before. What it is like for you when you see the sky or anything else is just what it was like on earth. But after enough time has passed, after you have become sufficiently embedded in the language and physical environment of inverted earth, your representational contents will come to match those of the other inhabitants. You will come to believe that the sky is yellow, for example, just as they do. Similarly, according to Block, you will come to have a visual experience that represents the sky as yellow. For the experiential state you now undergo, as you view the sky, is the one that, in you, now normally tracks yellow things. So, the later you will come to be subject to inner states that are representationally inverted relative to the inner states of the earlier you, while the phenomenal aspects of your experiences will remain unchanged. It follows that phenomenal character is not the same as representational content.

Those who accept the classic picture of experience typically think of the phenomenal character of an experience as an intrinsic property of the experience, a property that in some cases is accompanied by a representational content. Philosophers who accept the classic view and who are materialists about phenomenal consciousness hold that once all the internal, physical facts are fixed for any given individual, the phenomenal character of each experience of that individual is fixed too. On this view, physically identical individuals located in different environments may well differ with respect to the representational contents of their experiences but the phenomenal characters of their experiences must be the same. Philosophers who accept the classic view but who are immaterialists about phenomenal character are more liberal. They allow that it is metaphysically possible for phenomenal character to vary even if all the internal physical facts are the same.

III: Versions of Representationalism

As noted above, on the classic view, phenomenal character is an intrinsic property of some mental states. Arguably, representationalist theories are best understood as rejecting even the basic assumption that the phenomenal character of a state is a *property* of that state, intrinsic or otherwise. To be sure, we talk of states *having* phenomenal character, but nothing in ordinary usage or thought commits us to the view that phenomenal characters *are* properties. After all, we talk of beliefs as having content and of words as having meaning, but we don't take belief contents or word meanings to be properties of beliefs and words respectively. Why do that from the outset for phenomenal character? Buy into the supposition that experiences are inner ideas or pictures viewed by an inner eye and it may be natural to take the 'feel' of an experience to be a property of the idea or picture. But that isn't commonsense. It is philosophical dogma—precisely the dogma which representational theories of phenomenal consciousness oppose.

Let us distinguish initially two representationalist positions²:

Strong Representationalism: phenomenal character is one and the same as representational content that meets certain further conditions.

Weak Representationalism: phenomenal character supervenes on representational content that meets certain further conditions (so that necessarily any two states that are alike with respect to the relevant representational content are alike phenomenally).

It should be clear why the qualifiers 'meets certain further conditions' and 'relevant' are added. Not all states with representational content have any 'feel' or phenomenal character at all. Consider, for example, unconscious beliefs or subpersonal representational states involved in early vision representing light intensity or zero-crossings.

Reductive Strong Representationalism is the view that both the representational content with which phenomenal character is identical can be spelled out in physical or functional terms and that the further conditions on that content can be spelled out similarly.

Nonreductive Strong Representationalism is the view that either aspects of the content itself or aspects of the further conditions on the content are neither physical nor functional. On this view, phenomenal character is identified with representational content, but the content itself, or conditions on it, are irreducibly subjective.

Corresponding reductive and nonreductive positions are possible with respect to Weak Representationalism.

Representationalism admits further of wide or narrow contents. *Externalist*

¹ Your body pigments are also changed.

² Versions of representationalism are to be found in Harman 1990; Shoemaker 1990, 1994; McDowell 1994; Kirk 1994; Dretske 1995; Tye 1995, 2000; Lycan 1996; Byrne 2001; Jackson 2003; Chalmers 2005.

Representationalism is the thesis that microphysical duplicates can differ with respect to the relevant representational contents of some of their internal states. On this view, differently situated duplicates or duplicates with different histories can differ phenomenally. *Internalist Representationalism* denies this. According to the Internalist, microphysical duplicates must be alike with respect to the appropriate representational contents of their internal states.

There is also room for disagreement about whether the contents are Fregean or not. For the *Fregean Representationalist*, the pertinent representational contents are individuated at least in part by conceptual modes of presentation. For the non-Fregean, the contents are nonconceptual. Non-Fregean contents may be Millian (after John Stuart Mill), individuated exclusively by worldly entities such as concrete objects and properties, or hybrid, individuated in part by nonconceptual, sensory modes of presentation as well as worldly entities (paradigmatically properties).

The hybrid position here faces some difficult questions that the Millian position does not. If there are indeed nonconceptual sensory modes of presentation, is there one generic mode of presentation of this sort? Is there one for each sense? Or are there modes that vary within a sense? If so, how finely are they to be individuated? And what is it about these modes that makes them nonconceptual?

It is worth emphasizing that the Fregean representationalist can allow that the concepts whose modes of presentation are at least partly individuating of the relevant contents need not be concepts the subject of the experiences has, however. Thus, in another sense of nonconceptual content (under which the content of state *S* of person *P* is nonconceptual if and only if *P* need not possess any of the concepts used by theorists to state the accuracy conditions for *S*), *Fregean Representationalism* is compatible with the thesis that the sort of content relevant to phenomenal character is nonconceptual content.

Philosophers who are representationalists may or may not be reductionists about phenomenal concepts. Those who see the representationalist story as analyzing the contents of those concepts, as spelling out in a priori terms what it is to be in a state with so-and-so phenomenal feel and more generally what it is for a state to have a phenomenal feel. Those who are not reductionists here think of the representationalist theory as offering the best explanation of various pieces of data about phenomenal consciousness without itself being a conceptual truth.

As far as the entities that enter into the relevant representational contents, on the representationalist view, it should be clear that none of them can be concrete individuals. These individuals can play no role as far as phenomenology goes, for hallucinatory experiences have a subjective 'feel' to them and in cases of hallucination there are no appropriate concrete individuals. This much is agreed upon by all representationalists. I want now to say something more about the reductive and nonreductive forms of the view.

The standard reductive version of representationalism holds that the conditions on representational content are functional. More specifically, the usual view is that the

relevant contents must be *poised* to make the right sort of difference with respect to cognitive responses. For the purposes of illustration, let me focus again upon the example of visual experience.

Intuitively, visual experiences are not themselves beliefs but they are *apt* for the production of beliefs. Admittedly, some states that might reasonably be classified as visual experiences, for example, seeing that the table is covered with books, already involve beliefs or belief-like states. But such states seem best taken to be hybrid, having a visual experience proper and a belief or thought as components.

Visual experiences proper are not apt for the production of any old beliefs, however. Intuitively, each visual experience is the direct basis for the formation of a belief about the perceptible qualities represented by the experience. Each experience is also, in creatures equipped with the capacity to introspect, the direct basis for the formation of beliefs about the experience and its content.

The content of the visual experience proper supplies the input to the relevant belief-forming processes, where the role of the belief-forming processes is to generate beliefs of the sorts just described. But the appropriate beliefs are not always formed, of course; for introspection can malfunction and, at least in the case of external belief formation, other background beliefs can interfere. There is also the possibility that attention is not appropriately directed.

A visual experience has a poised content, then, so long as it is apt for the production in the *right* ways of the *right* beliefs. Likewise for the other senses. In the case of bodily experiences, desire is also relevant. The experience of pain, for example, is the direct basis for the desire to protect oneself, to avoid damage.

Poisedness, then is a functional role condition. It is standardly taken by reductive representationalists as one important condition that a representational content must meet in order to be a phenomenal character.

Another condition standardly imposed by reductive and nonreductive representationalists alike is that the relevant content be nonconceptual. This can be understood as indicated earlier, so that it is simply the condition that the subject of a state with phenomenal character need not have the concepts used to state the correctness conditions for the state. According to some philosophers, however, experiences have representational contents that are nonconceptual in the stronger Millian way, and in this respect experiences have contents that are different in kind from belief contents (on the assumption that belief contents are Fregean).

Putting these points together, one well known reductive representationalist proposal is that the phenomenal character of an experience is one and the same as its poised abstract nonconceptual intentional (or representational) content or its PANIC, for short.³

³ See Tye 1995, 2000. For detailed discussion and criticisms of this theory along with replies, see the web symposium at <http://host.uniroma3.it/progetti/kant/field/tyesymp.htm>. See also the shorter symposium on Tye 2000 in *Philosophical Studies* 2003.

Turning now to the nonreductive form of representationalism, as noted earlier, there are two ways in which such a view might be developed: either some of the entities out of which the relevant contents are built are themselves nonphysical or the further conditions these contents must meet are neither physical nor functional. Of these two possibilities, only the first has been worked out in any detail.⁴ Here the most straightforward proposal is that the content itself is Millian but that it involves nonphysical qualities—qualities that experiences represent as belonging to things in the world or part of the body, but qualities that the represented items do not really possess. These qualities are projected onto the world by experiences; in reality either nothing at all has them or the experiences themselves do. It is worth noting that the last of these proposals has features in common with the classic view of experience. For it is now conceded that experiences have special properties that are relevant to phenomenal character. What is denied is that these properties *are* phenomenal characters. Experiences have phenomenal character, on this view, via their (mistakenly) *representing* such qualities as belonging to things other than experiences.⁵

IV: Arguments for Representationalism

There are five main arguments for intentionalism to be presented here. I call the first argument "the appeal to transparency".

Suppose that you are standing before a tapestry in an art gallery. As you take in the rich and varied colors of the cloth, you are told to pay close attention to your visual experience and its phenomenology. What do you do? The representationalist says that you attend closely to the *tapestry* and details in it. You are aware of something outside you—the tapestry—and of various qualities that you experience as being qualities of parts of the tapestry, and by being aware of these things, you are aware of what it is like for you subjectively or phenomenally. But your awareness of what it is like, of the phenomenology of your experience, is not *de re* awareness *of* the experience or its qualities.⁶ It is *de dicto* awareness *that* you have an experience with a certain

⁴ A (qualified) version of the first view is presented in Chalmers 2005.

⁵ Another view not dissimilar to this one is held by Sydney Shoemaker (1990, 1994). There are two main differences. For Shoemaker, experiences have intrinsic qualities that they *correctly* represent things in the world as *producing* or as *being disposed to produce*. Secondly, these qualities have a physical nature. Neither the physical nature of these intrinsic qualities nor the relational nature of the properties external things are represented as having (properties such as the property of being disposed to produce an experience with so-and-so intrinsic quality in normal perceivers) are revealed to the subjects of the experiences. Even so, according to Shoemaker, the phenomenal 'feel' of the experiences is given by the relevant representational contents.

⁶ This claim, it is worth noting, fits well with the linguistic constructions that are naturally employed in connection with such awareness. To talk of our being aware of the phenomenology of an experience or of how an experience 'feels' is to use a generic perceptual verb ('aware of') followed by an abstract noun ('the phenomenology') or an interrogative nominal ('how the experience feels'). In cases of this sort, where there is a perceptual verb, the abstract noun or interrogative nominal typically stands in for a factive clause so that what is being described is (a species) of awareness of some fact. For example, if I am described as hearing the answer to your question or as seeing who is at the door, I do not satisfy the description merely by hearing the sentence that is

phenomenal character or 'feel'.

Here is another example to illustrate these preliminary points. Suppose that you have just entered a friend's country house for the first time and you are standing in the living room, looking out at a courtyard filled with flowers. It seems to you that the room is open, that you can walk straight out into the courtyard. You try to do so and, alas, you bang hard into a sheet of glass, which extends from ceiling to floor and separates the courtyard from the room. You bang into the glass because you do not see it. You are not aware of it; nor are you aware of any of its qualities. No matter how hard you peer, you cannot discern the glass. It is transparent to you. You see right through it to the flowers beyond. You are aware of the flowers, not by being aware of the glass, but by being aware of the facing surfaces of the flowers. And in being aware of these surfaces, you are also aware of a myriad of qualities that seem to you to belong to these surfaces. You may not be able to name or describe these qualities but they look to you to qualify the surfaces. You experience them as being qualities of the surfaces. None of the qualities of which you are directly aware in seeing the various surfaces look to you to be qualities of your experience. You do not experience any of these qualities as qualities of your experience. For example, if redness is one of the qualities and roundness another, you do not experience your experience as red or round.

If your friend tells you that there are several ceiling-to-floor sheets of glass in the house and that they all produce a subtle change in the light passing through them so that things seen the other side appear more vividly colored than is usually the case, as you walk gingerly into the next room, you may become aware that there is another partitioning sheet of glass before you by being aware of the qualities that appear to belong to nonglass surfaces before your eyes. You are not aware of the second sheet of glass any more than you were aware of the first; but you are now aware that there is a sheet of glass in the room by being aware of qualities apparently possessed by nonglass surfaces before you.

Visual experiences, according to the representationalist, are like such sheets of glass. Peer as hard as you like via introspection, focus your attention in any way you please, and you will only come across surfaces, volumes, films, and their apparent qualities. Visual experiences thus are transparent to their subjects. We are not introspectively aware of our visual experiences any more than we are perceptually aware of transparent sheets of glass. If we try to focus on our experiences, we 'see' right through them to the world outside. By being aware of the qualities apparently possessed by surfaces, volumes, etc, we become aware that we are undergoing visual experiences. But we are not aware of the experiences themselves.⁷

the answer or seeing the person who is at the door. I must be aware *that* the given sentence is the answer to your question, *that* the given person is the one at the door. In short, I must be aware of some appropriate fact. Likewise, in the case of awareness of the phenomenal character of an current experience. For more here, see Dretske 1993.

⁷ This claim is one that the sense-datum theorists would have endorsed, although they would have insisted that the things apparently outside are really immaterial surfaces or sense-data rather than physical surfaces. After all,

This is true, even if we are hallucinating. It is just that in this case the qualities apparently possessed by surfaces, volumes, etc before our eyes are not so possessed. The surfaces, volumes, etc do not exist.

Introspection, on the view just presented, is importantly like displaced perception or secondary seeing-that, as Fred Dretske (1995) has observed. When I see that the gas tank is nearly empty by seeing the gas gauge or when I see that the door has been forced by seeing the marks on the door, I do not see the gas tank or the forcing of the door. My seeing-that is secondary or displaced. I am not aware—I am not conscious—of either the gas tank or the forcing of the door. I am aware of something else—the gas gauge or the marks on the door—and by being aware of this other thing, I am aware that so-and-so is the case.

Similarly, in the case of introspection of a visual experience, I am not aware or conscious of the experience itself. I am aware that I am having a certain sort of experience by being aware of something other than the experience — the surfaces apparently outside and their apparent qualities.⁸

Returning now to the first example, the representationalist claims that when you are told to attend closely to your visual experience, as you view the tapestry, what you actually do is to attend closely to the tapestry and the various ways it, or parts of it, look to you. Ways things look to people are typically expressed by predicates (as in 'looks red', 'looks square', 'looks close'), and predicates express qualities—in this case, qualities represented by the relevant experiences of those people, qualities such that if the things seen have them, the experiences are veridical or accurate. Change the qualities 'out there', more specifically, the qualities which are the ways the tapestry looks, and necessarily the 'feel' of your experience changes.

What is true for vision is true for the other senses. Attending to the phenomenology of a perceptual experience, to its felt character, is a matter of attending to the ways things look, smell, taste, sound, or feel by touch. In the case of bodily sensations, the object of your attention is the way a certain part of your body feels.⁹ With emotions and moods, the attentional focus is often on things outside—things perceived as dangerous or foul or pleasing—but there is also attention to ways one's body is changing (pounding heart, shaky legs, higher blood pressure). More generally, attention to phenomenal character is a matter of attention to the ways things other than the experience seem, that is, to qualities that are not qualities of experiences. Change any of the qualities that are the various ways things look, smell, sound, etc and *necessarily* the phenomenal character of the experience changes. Why should this be? The answer the strong representationalist proposes is that phenomenal character is identical with a certain sort

sense-datum theorists were at pains to distinguish the act of sensing from the thing sensed. G.E. Moore (1903) is the modern father of transparency.

⁸ There are dissimilarities. In typical cases of seeing-that, background beliefs play a role in generating the propositional state of awareness. This is not so in the case of introspection. For more here, see Tye 2000, Chapter 3.

⁹ I ignore here the case of phantom limb sensations, for which there is no relevant limb to feel any way.

of representational content into which the relevant qualities enter.

Some representationalists take a weaker stand. They say merely that once the qualities that are directly experienced are fixed, the phenomenal character is fixed. Either way, the appeal to transparency is taken by intentionalists to be a key supporting argument for their position.

The second argument for the representationalist position, I call "the many property problem revisited."¹⁰ In the 1970s, Frank Jackson presented a problem for the adverbial approach to visual experience involving multiple after-images. He called this problem "the many property problem." The problem in essence was this: if what it is to have a sensory experience of something red is to sense redly, as adverbialists hold, then sensing something red and round should be a matter of sensing redly and roundly. So, having a red, square after-image at the same time as a green, round one is to be analyzed as sensing redly and squarely and greenly and roundly. Since the conjuncts here can be commuted, this is the same as sensing redly and roundly and squarely and greenly. Thus, the distinction between having a red, square after-image and a green, round one and having a red, round after-image and a green, square one is lost.

Now evidently the phenomenal character of a visual experience of a red, round object and a green, square one is different from the phenomenal character of a green, round object and a red, square one. How is this difference to be accounted for? If the phenomenal character of an experience is an intrinsic property of that experience, then it seems that the phenomenal character of the first experience must be a conjunctive property of the experience that is constituted by conjoining the phenomenal characters of experiences of red things, round things, green things, and square things. This, however, leaves no room for a phenomenal distinction between the first experience and the second one (the experience, that is, of a green, round object and a red, square one). To reply that the first phenomenal character is more complex in that it has a further conjunctive constituent corresponding to the relative spatial position of the green, round object and the red, square one is not to solve the problem. For this simply adds a further conjunct and the problem arises again.

One solution to this problem is to say that each experience has real objects, sense-data, that are present whether or not the experience is veridical. The phenomenal character of the first experience is really a matter of its being an experience that relates its subject to two sense-data, one of which is red and square and the other of which is green and round (in whatever senses of these terms are deemed applicable to sense-data). Since the phenomenal character of the second experience involves sense-data with different qualities, the phenomenal difference between the two experiences is preserved.

The price paid for this solution is the admission of sense-data. Since the introduction of sense-data via the argument from illusion is not well motivated and there is a whole host of problems generated by them, this solution seems unacceptable.

¹⁰ See here Byrne forthcoming.

So, what is the answer? The representationalist will say that the answer is simple. The first experience has different accuracy conditions and thus a different representational content from the second. Since phenomenal character is the same as representational content (or is metaphysically determined by it), the difference in phenomenal character is straightforwardly preserved.

The third argument for representationalism points to the intuitive connection between the phenomenal character of an experience and the way things seem to the person undergoing the experience. If things subjectively *seem* the same to you and me, then intuitively what it is like for me subjectively is the same as what it is like subjectively for you; and if what it is like subjectively for the two of us is the same then things seem subjectively the same to us. Since the way things seem subjectively is naturally taken to be the representational content of the experience just as the way things are believed to be is standardly taken to be the content of a belief, and sameness of phenomenal character is no more or less than sameness in 'what it is like', phenomenal character necessarily co-varies with representational content. Why should this be? The answer, according to the strong representationalist, is that phenomenal character just is representational content of a certain sort.

Anti-representationalists will respond to this argument by denying that sameness in how things seem automatically goes with sameness in phenomenal character. They will say that, as the case of the inverted spectrum shows, sameness in how things seem is compatible with a difference in phenomenal character.¹¹ The representationalist can respond that this is just not so—that where there supposedly is sameness in subjective seeming, there is sameness in phenomenal character—and that for each putative counter-example, an account is possible that preserves the above linkage between seeming and phenomenal character. This point brings me to the fourth argument.

The fourth argument for the representationalist view is in general form extremely simple. Many very smart philosophers have tried their best to come up with clear, actual cases of experiences which are identical in their representational contents but which differ phenomenally.¹² They have appealed to blurry vision, double vision, vision with eyes closed, phosphenes, experiences with one eye open versus two, experiences of tilted versus untitled coins, gestalt effects of various sorts, the experience of pain, the experience of elation, experiences of trees at varying distances away, peripheral vision, seeing versus touching a round object, and many other actual phenomena. Representationalists have replied to these cases one by one and in detail; and they have made a plausible case for the view that in each of these cases where there is a

¹¹ I am assuming here that the opponent of representationalism will say that the person with phenomenally inverted color experiences nonetheless is such that ripe tomatoes and other red things look or seem red to him (or her).

¹² See here Block 1996, Boghossian and Velleman 1989, McGinn 1982, Peacocke 1983, Searle 1983 among others.

phenomenal difference, there is a representational difference too. That leaves the opponents of representationalism with possible cases. And here the inverted spectrum and inverted earth loom large. These cases can be handled by the representationalist too (see section V). So, it seems that no-one as yet has managed to describe a clearcut example of representational identity and phenomenal difference among experiences. Why should this be? The simplest and most straightforward explanation is that phenomenal character *is* a certain kind of representational content. On this view, once all the representational facts are fixed, the phenomenal facts are automatically fixed too. Let us call this argument "the absence of counter-example argument."

Obviously this argument does not prove that the representationalist view is correct, even granting the assumption (which some philosophers would certainly contest) that as yet no clear actual or possible counter-example has been adduced. But few arguments in philosophy are even close to proofs.

The fifth argument I want to mention I call "the appeal to phenomenal indeterminacy." This may be illustrated by the case of blurriness in visual experience. As noted above, this phenomenon is sometimes adduced by opponents of representationalism as creating a difficulty for the view. But representationalists maintain that this could not be further from the truth. Recall the example of the visual image of a speckled hen. How many speckles are there? This question posed an insuperable problem for the sense-datum theory. For to the subject of the experience, it is indeterminate how many speckles are present; yet there seems no room for such indeterminacy on the sense-datum proposal. Not only does representationalism give a straightforward and satisfying account of such phenomenal indeterminacy but it also enables us to understand how there could be a phenomenal difference between seeing blurrily and seeing clearly something blurry. In the former case, there is phenomenal indeterminacy with respect to the number of speckles, since there is no number of speckles, N , such that the visual experience represents a hen with N speckles. The visual experience here does not "comment upon" the precise number of speckles. It leaves open how many speckles are present just as does the linguistic report that there is a speckled hen in the garden. In the latter case, one sees blurrily just in case one undergoes a visual experience that represents fewer surface details than are represented when one sees clearly. By contrast, one sees clearly something blurry (e.g., a water color picture with blurry edges) just in case one's visual experience represents that the boundaries of the blurry thing lie between precisely located spatial regions A and B without representing exactly where they lie. There is a phenomenal difference between the two cases, the representationalist will say, precisely because there is a representational difference. No other theory of phenomenal character can give a satisfying and plausible account of this difference.¹³

¹³ Further arguments for representationalism about phenomenal consciousness are to be found in Byrne 2001 and Jackson 2003.

V: The inverted spectrum and inverted earth

In the standard inverted spectrum case, it is usually supposed that the person with phenomenally inverted color experiences does not differ from normal perceivers with respect to the representational contents of those experiences. This supposition is one that the representationalist challenges. For one thing, the background assumption that the invert would make the same judgments with respect to the colors as normals is clearly false. There are more discriminable hues between blue and red than between yellow and green. So, the invert would make fewer hue discriminations than normals when shown things for which he and normals use color terms in the blue-red range. The invert would also misclassify something saturated yellow in color as darker than something that is saturated blue. Furthermore, the invert would count brown as merely darker in color than yellow ; for his experience would be the same as the experience the rest of us undergo as we view dark blue things, and dark blue does not differ except in brightness from lighter blues. So, the invert would behave in ways that would mark him out from normals and lead us to think of him as making mistaken judgements about the colors of things. These judgements are based upon his color experiences. So, those experiences are also in error. The upshot is that his color experiences do not have the same representational contents as normals; for normal color experiences typically do not err.

The second point to make is that even if it is metaphysically possible for some creatures to undergo color experiences that *are* phenomenally inverted relative to those of others without there being any difference in narrow functioning or behavior, this does not refute the representationalist. For the representationalist can insist that in such a case there is still a difference in representational content. To appreciate how this can be so, consider the following case.

Imagine that in a country in Latin America after a revolution, car tires are replaced as they wear out in a haphazard way and that at some given time in this country there are 47 cars traveling on the road, all with replaced tires, and all going exactly 30 mph. The speedometers in these cars read different things: some read 30, some read 31, some read 37, some read 28, and so on. Is there any way of telling which of the 47 speedometers is representing accurately actual car speed just by looking at the speedometer? Of course, not. The speedometers were designed for use with tires of a certain size. They give an accurate read-out of the speed just in case they are operating as they were designed to operate with tires of the appropriate size.

Similarly, in the case of color. The color experience system in the brain was designed by evolution for use with an optic nerve and retina meeting certain further conditions. There is no way of telling who, among present-day actual color perceivers, has the retinal apparatus and optic nerve meeting the historical design specifications (Dretske 1995). But whoever does gets the colors of things right in experience. What is true in this case, the representationalist can say, is true in the metaphysically possible case in which there is a phenomenal difference unaccompanied by any difference in narrow functioning or behavior. Here the perceivers who get the colors of things right are those

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whose visual systems are operating in the right historical way. But there is no way of knowing from current behavior just which these perceivers are.

The response to the inverted earth case is similar. The person who switches to inverted earth and who is wearing color-inverting lenses has the representational contents of his visual experiences fixed by the historical setting in which his visual system was designed to be used. Since the experiential state he is in on inverted earth when he views red things is the state that in his species was designed to track green things on earth under optimal conditions, it represents green and not red. This remains the case however long he remains on inverted earth. Furthermore, this difference between Mr Invert and the those who have always lived on inverted earth is one that will show up in subtle behavioral differences which do not change through time. For example, if Mr Invert is shown two color patches, one yellow and one blue, each at maximum saturation, he will classify the blue patch as brighter whereas the locals will classify the other patch as the brighter one.

The upshot is that the representationalist about phenomenal consciousness has plausible replies to the standard cases of the inverted spectrum and inverted earth.

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