

QUALIA

Perception and thought are often, although not exclusively, concerned with information about the world. In the case of perceiving though, unlike thinking, it is widely believed that there is an additional element involved, a subjective feeling or, as it is often put, something that it is like to be perceiving. Qualia are these characteristic feelings that accompany perceiving. One motivation for the idea that we experience qualia is that there is a clear difference between seeing a red tomato and thinking that a tomato is red and that the difference has to do with some extra element present in the case of seeing that is absent in the case of thinking. Philosophical attempts to understand qualia and their place in the world have played a central role in recent debates about the nature of mind and its place in the world. Before getting to those debates, we will take a more detailed look at the distinction between the content of perceptual experiences, what they tell us about the world, and their qualitative or phenomenal character, what it is like to experience them.

Representational Content and Phenomenal Character

Perception informs us as to the nature of things in the world around us. I smell the lilacs in my backyard and see the orange flowers of the marigolds. I feel the wind on my face and hear the blaring horn of a fire truck passing through a nearby intersection. In all of these cases the things I am smelling, seeing, feeling or hearing are ordinary objects like bushes, flowers, air, and large motor vehicles. These things may or may not have the

properties I perceive them to have, but it is the flowers that may or may not be orange and a large motor vehicle that may or may not be emitting loud noises. In the common jargon of philosophy we can say that my perceptual experience *represents* the marigolds to be orange and the fire truck loud. Correspondingly we can characterize the (representational) *content* of my experience as including the orangeness of the flowers and the loudness of the truck. One aspect of the content of my experience of looking at a marigold is similar to an aspect of the content of my experience of an orange. Both experiences have as a part of their content that something is orange.

When I look at a marigold I will, in many circumstances, visually represent it to be orange. In addition, there is something it is like to see (or appear to see) a marigold as orange. *Seeing* a marigold to be orange is very different from *reading* that marigold's are orange and at least part of that difference derives from a difference in what it's like to visually experience something as orange as opposed to the experience of reading the word "orange". Again using the jargon of philosophy, the experience of seeing a marigold as orange has a particular *phenomenal character*. Just as the content of the experience of seeing a marigold is similar in some ways to the content of seeing an orange, the phenomenal character of the two experiences is also similar. Experiences that are similar in what it is like to have to have them, in their phenomenal character, are similar in their experienced qualia while experiences that differ in their phenomenal character are different in their experienced qualia.

The phenomenal character of an experience is, at least in concept, distinct from its representational content. We have picked out the two features of an experience in different ways: what its about versus what its like to have it. We can all agree that

perceptual experiences have both a content and a phenomenal character and set aside for a moment what the relationship is, if any, between these two features of experience.

As we have seen qualia are just those properties that explain the similarities and differences in what it is like to undergo perceptual experiences. It is at this point that the philosophical controversies begin. These controversies revolve around two fundamental questions: What are the bearers of qualia and what kind of properties are qualia?

Are Qualia Non-Physical?

There has been extensive debate in philosophy as to whether qualia are physical properties or can be reduced to physical properties. Although it is often obscure just what concept of a physical property is being relied on and what it means to reduce a property, the essential ideas behind the controversies can be explained without entering into these complexities. The basic method of argument is by consideration of hypothetical cases. The most straightforward kind of case involves the possibility of a being just like oneself in all bodily characteristics, reaction to external stimuli, and other behavior that does not experience qualia. Call such a hypothetical duplicate of me a zombie, because it is just like me only there is nothing that it is like to be it. Our question then is: are zombies possible or, in other words, is it possible to duplicate my body and with it all my patterns of behavior without also duplicating the phenomenal character of my perceptual experiences. When looking at an orange marigold my zombie duplicate will describe it just as I would, discriminate its color from those of adjacent flowers just as I would and in general be indistinguishable in behavior and physically (or physiologically)

measurable characteristics. Since zombies are exactly like us in all physical and physiological respects but differ from us in lacking qualia, their possible existence would show that qualia are not among our physical characteristics and don't depend on those characteristics either. That the conclusion that qualia are distinct from and independent of all physical properties follows from the assumption that zombies are possible is relatively uncontroversial. The principle debates revolve around the question of whether zombies are genuinely possible. The chief argument for the possibility of zombies is based on the apparent fact that we can coherently imagine zombies and the assumption that anything that is coherently imaginable is possible. Although it would be preferable to base our conclusion that our physical nature either does or doesn't explain all of our mental lives on observable facts, rather than imagined possibilities, it has proven very difficult to find facts that would settle these disputes.

Another much discussed argument for a somewhat weaker conclusion is the knowledge argument. The heart of the knowledge argument is another hypothetical scenario. In this scenario, which takes place in the distant future, we are asked to imagine a person, call her Mary, raised from birth in a completely black and white environment: a person who has never had the experience of seeing red (or green or any other color except black, white and grey). In addition, Mary knows everything there is to know about the physical causes of color, the processing of color information in the brain, and everything else that is scientifically relevant to understanding color experience. As it is usually put, Mary knows all the physical facts (and true theories) relevant to the experience of seeing red. Suppose that Mary is for the very first time in her life exposed to a red thing (in good light and at an appropriate distance etc). When she first has the

experience of the color red would she learn something that she didn't already know? If she does learn something then it would seem that facts about qualia are not counted among the physical facts (since she already knew all those facts). If facts about qualia are not physical facts (and not derivable from physical facts) then it would seem that the qualia themselves must also be non-physical. If, as is commonly done, we assume that physical happenings have only physical causes then it also follows that qualia, being non-physical, have no effect on the physical world. In the jargon of philosophy, qualia are epiphenomenal, dependent on the physical world, but not the same as any part of it and powerless to produce any physical effect. One implication of the epiphenomenal nature of qualia is that they can't be the causes of behavior. Mary may learn something new when she experiences the color qualia for the first time but those qualia can't be the cause of her behavior, including her saying that she has learned something new. Speaking involves physical movements and those movements can't be caused by epiphenomenal qualia.

One striking feature of both of these arguments is the degree to which they depend on hypothetical scenarios and particular judgments concerning those scenarios. The centrality to the anti-physicalist argument of the intuitive judgment that zombies are possible or that Mary learns something new raises very important questions about methodology in philosophy. The status of intuitive judgments of this kind and their proper role in philosophical theorizing has become an important debate in its own right.

Content and qualia again

One possible alternative to anti-physicalism concerning qualia is the thesis that the phenomenal character of an experience and its representational content are the very same thing differently described. According to this view, called intentionalism or representationalism, there are not distinct characteristics of perceptual experiences, quale and content, but only a single characteristic with two different names. Just as there are not two distinct properties, being water and being H₂O, just a single property with two different names, there may not be two distinct properties of the experience of a marigold, what it's like to have it and what it says about the world. If we could have an understanding of how perceptual experiences come to be about the world in physical terms, then we could also understand the qualia possessed by those experiences in physical terms since the two aspects of the experience are one and the same. One attraction of this view is that it takes two problems, one of which is particularly intractable, and reduces them to a single, hopefully, more tractable problem. Another, much discussed attraction of this view is that it provides a compelling explanation of an important feature of perceptual experience. When I look at an orange marigold I would not normally describe my awareness as being of two distinct things, the quale of orangeness and the orangeness of the marigold. Although we can distinguish in concept between what it's like to have the experience and what the experience tells about the world, there are not actually two distinguishable elements of the experience. Perception just seems like an awareness of things in the world and the usual descriptions of experiences are in terms of what they are about, rather than how they feel. We can't easily find in our experience qualia distinct from content. If the phenomenal character of an experience just is its content then we have an explanation for why it is so difficult to

distinguish the two aspects of experience. It's like trying to separate the water from the H₂O in my glass.

Intentionalism, by identifying qualia and content, is committed to it being impossible to vary one without varying the other. If water is identical to H₂O then any manipulation that changes the boiling point of water must also change the boiling point of H₂O and a similar logic will apply to representational content and phenomenal character. The most common objection to intentionalism is that it is possible to independently vary the content and qualia associated with an experience and that this possibility is shown by consideration of certain types of inverted spectrum scenarios. Again, in spite of various complexities, the basic idea behind the inverted spectrum is quite simple. It seems possible that there could be two people, Fred and Mary, who when looking at ripe tomato on the vine have experiences with inverted qualia. That is to say, that the quale associated with Fred's tomato experience is the same as the quale associated with Mary's leaf experience and vice versa. It also seems possible that Fred and Mary don't differ in their ability to name the colors, or discriminate the colors, or to pick the fruit rather than the leaves from the plant. Given this identity in their abilities to use perception to interact with the world, it seems that their respective experiences must have the same content, be about the same things. We here have a case of difference in qualia with sameness in content. If such a case is genuinely possible then intentionalism has been refuted.

Qualia in Science

Set aside the anti-physicalist arguments and take the inverted spectrum argument against intentionalism seriously. We are left with the view that qualia and content are

distinct features of perceptual experience and that the quale associated with an experience is identical to or reducible to the physical embodiment of that experience. If qualia are to be explained in terms of brain features than it would seem that neuroscience is the proper place to look for an account of the phenomenal character of experience. This expectation, however, may be defeated by the same kinds of considerations that raise difficulties for intentionalism. Because there are no obvious connections between the physiological properties of neurons and the phenomenal character of experience it is possible to construct inverted spectrum scenarios that conflict with any attempt at physiological explanation of qualia. Why should activity in any particular neuron be associated with the quale of green rather than the quale of red? We could discover correlations between neural activity and qualitative character but such correlations would not themselves answer the why question? (This is one moral that could be drawn from considering the case of Mary the color scientist.) This line of reasoning leads to the assertion of an explanatory gap: no amount of information about how the brain works will allow us to understand why our experiences have the qualia that they do. To assert the existence of an explanatory gap is different from asserting that qualia are not physical. Here what is being questioned is our ability to scientifically study qualia, not their status as physical or not. From this point of view qualia may be physical (or not) but their relation to the physical properties discoverable by science is unknowable.

Suggestions for further reading

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