

The Qualia Problem

by Frank Jackson (1982)

... I am what is sometimes known as a “qualia freak.” I think that there are certain features of the bodily sensations especially, but also of certain perceptual experiences, which no amount of purely physical information includes. Tell me everything physical there is to tell about what is going on in a living brain, the kind of states, their functional role, their relation to what goes on at other times and in other brains, and so on and so forth, and be I as clever as can be in fitting it all together, you won’t have told me about the hurtfulness of pains, the itchiness of itches, pangs of jealousy, or about the characteristic experience of tasting a lemon, smelling a rose, hearing a loud noise or seeing the sky.

There are many qualia freaks, and some of them say that their rejection of Physicalism is an unargued intuition. I think that they are being unfair to themselves. They have the following argument. Nothing you could tell of a physical sort captures the smell of a rose, for instance. Therefore, Physicalism is false. By our lights this is a perfectly good argument. ...

There are, unfortunately for us, many who do not find the premise intuitively obvious. The task then is to present an argument whose premises are obvious to all, or at least to as many as possible. This I try to do ... with what I will call “the Knowledge argument.” ...

The Knowledge argument for qualia

People vary considerably in their ability to discriminate colors. Suppose that in an experiment to catalog this variation Fred is discovered. Fred has better color vision than anyone else on record; he makes every discrimination that anyone has ever made, and moreover he makes one that we cannot even begin to make. Show him a batch of ripe tomatoes and he sorts them into two roughly equal groups and does so with complete consistency. That is, if you blindfold him, shuffle the tomatoes up, and then remove the blindfold and ask him to sort them out again, he sorts them into exactly the same two groups.

We ask Fred how he does it. He explains that all ripe tomatoes do not look the same color to him, and in fact that this is true of a great many objects that we classify together as red. He sees two colors where we see one, and he has in consequence developed for his own use two words ‘red₁’ and ‘red₂’ to mark the difference. Perhaps he tells us that he has often tried to teach the difference between red₁ and red₂ to his friends but has got nowhere and has concluded that the rest of the world is red₁-red₂ color-blind—or perhaps he has had partial success with his children; it doesn’t matter. In any case he explains to us that it would be quite wrong to think that because ‘red’ appears in both ‘red₁’ and ‘red₂’ that the two colors are shades of the one color. He only uses the common term ‘red’ to fit more easily into our restricted usage. To him red₁ and red₂ are as different from each other and all the other colors as yellow is

from blue. And his discriminatory behavior bears this out: he sorts red₁ from red₂ tomatoes with the greatest of ease in a wide variety of viewing circumstances. Moreover, an investigation of the physiological basis of Fred's exceptional ability reveals that Fred's optical system is able to separate out two groups of wavelengths in the red spectrum as sharply as we are able to sort out yellow from blue.

I think that we should admit that Fred can see, really see, at least one more color than we can; red₁ is a different color from red₂. We are to Fred as a totally red-green color-blind person is to us. H. G. Wells' story "The country of the blind" is about a sighted person in a totally blind community. This person never manages to convince them that he can see, that he has an extra sense. They ridicule this sense as quite inconceivable, and treat his capacity to avoid falling into ditches, to win fights and so on as precisely that capacity and nothing more. We would be making their mistake if we refused to allow that Fred can see one more color than we can.

What kind of experience does Fred have when he sees red₁ and red₂? What is the new color or colors like? We would dearly like to know but do not; and it seems that no amount of physical information about Fred's brain and optical system tells us. We find out perhaps that Fred's cones respond differentially to certain light waves in the red section of the spectrum that make no difference to ours (or perhaps he has an extra cone) and that this leads in Fred to a wider range of those brain states responsible for visual discriminatory behavior. But none of this tells us what we really want to know about his color experience. There is something about it we don't know. But we know, we may suppose, everything about Fred's body, his behavior and dispositions to behavior and about his internal physiology, and everything about his history and relation to others that can be given in physical accounts of persons. We have all the physical information. Therefore, knowing all this is *not* knowing everything about Fred. It follows that Physicalism leaves something out.

To reinforce this conclusion, imagine that as a result of our investigations into the internal workings of Fred we find out how to make everyone's physiology like Fred's in the relevant respects; or perhaps Fred donates his body to science and on his death we are able to transplant his optical system into someone else—again the fine detail doesn't matter. The important point is that such a happening would create enormous interest. People would say "At last we will know what it is like to see the extra color, at last we will know how Fred has differed from us in the way he has struggled to tell us about for so long." Then it cannot be that we knew all along all about Fred. But *ex hypothesi* we did know all along everything about Fred that features in the physicalist scheme; hence the physicalist scheme leaves something out.

Put it this way. *After* the operation, we will know *more* about Fred and especially about his color experiences. But beforehand we had all the physical information we could desire about his body and brain, and indeed everything that has ever featured in physicalist accounts of mind and consciousness. Hence there is more to know than all that. Hence Physicalism is incomplete.

Fred and the new color(s) are of course essentially rhetorical devices. The same point can be made with normal people and familiar colors. Mary is a brilliant scientist who is, for whatever reason, forced to investigate the world from a black and white room *via* a black and white television monitor. She specializes in the neurophysiology of vision and acquires, let us suppose, all the physical information there is to obtain about what goes on when we see ripe tomatoes, or the sky, and use terms like ‘red’, ‘blue’, and so on. She discovers, for example, just which wavelength combinations from the sky stimulate the retina, and exactly how this produces *via* the central nervous system the contraction of the vocal chords and expulsion of air from the lungs that results in the uttering of the sentence ‘The sky is blue’. ...

What will happen when Mary is released from her black and white room or is given a color television monitor? Will she *learn* anything or not? It seems just obvious that she will learn something about the world and our visual experience of it. But then it is inescapable that her previous knowledge was incomplete. But she had *all* the physical information. *Ergo* there is more to have than that, and Physicalism is false.

Clearly the same style of Knowledge argument could be deployed for taste, hearing, the bodily sensations and generally speaking for the various mental states which are said to have (as it is variously put) raw feels, phenomenal features or qualia. The conclusion in each case is that the qualia are left out of the physicalist story. And the polemical strength of the Knowledge argument is that it is so hard to deny the central claim that one can have all the physical information without having all the information there is to have. ...