

If we accept that Mary, the color scientist, gains new knowledge when she sees the color red for the first time, must this lead us to a non-physicalist theory of consciousness?

Victoria Stone¹

University of Edinburgh

We experience the world as perceivers armed with many different sense modalities. These modalities include sight, sound, touch, smell, and taste, each giving an array of sensations and feelings to our phenomenology. How these sensations and feelings come to be is the central concern of the so-called “hard problem” of qualitative experience. The problem is as follows: How can the physical brain give rise to non-physical sensations, feelings and qualitative experience (such as experience of red, or the sensation of pain in your left knee, for example). In response to alternative functional or reductionist theories of qualia, some have claimed that this shows there to be an “explanatory gap” in experience (Levine, 1983, 1993, 2001). (By *qualia* I refer to the qualitative experiences described above.) Additional thought experiments demonstrating the hard problem include Nagel (1974), Jackson (1982) and Chalmers (1993, 1997). What these views have in common is the claim that consciousness or that the qualitative character of an experience cannot be deduced from any physical or functional description. This paper addresses this claim by way of Jackson’s “knowledge argument” employing Mary the color scientist, and it considers an alternative employing the sensorimotor contingency theory (O’Regan and Noë, 2001, 2002). Does accepting the premise that Mary gains new knowledge necessarily entail that phenomenal conscious experience must be something indescribable by a physical, reductionist theory? Let us step into Mary’s shoes. You are a vision scientist who has never experienced the outside world. You live in a black and white room investigating the world through a black and white TV. You have been taught all the facts about the world, its makeup and its colors. You also know all the fundamental principles about sight: the transgression of light wavelengths to your retina, for example.

Now, one fine day you are released from the room into the outside world and see color for the first time. Do you learn anything new? According to the view espoused, you learn for the first time what it feels like to experience color from your first person perspective. The knowledge and experiences you gain are not inferred from the third person information you previously had.

It is possible to make the thought experiment analogous to another familiar example. Nagel’s (1974) thought experiment asks us to suppose that we are able to list all the physical facts about the echolocation system of a bat. We are aware of its ability to use echolocation to see, and we can study the parts of its body. According to this view, however, no amount of

¹ s0976743@sms.ed.ac.uk

physical information will reveal what the experience of a bat is like from a third person point of view. We cannot know what it is like for a bat “to be a bat” purely from physical data.

If it is to be suggested that the “what it is likeness” of experience can be explained in purely physical terms, then these arguments present a case whereby both subjects are confronted with an explanatory gap in their qualitative experience: If we accept the premise that all physical facts are known, yet there remains to be something that is unknowable from a third person perspective, then physicalism must be false. With Mary, the claim is that there is an epistemological gap in her experience that is only filled when she enters the outside world for the first time and learns something new:² namely, the learning of the qualitative experience of what it is like to see (red). Thus, Jackson’s knowledge argument rejects the contention for a priori knowledge in experience. In doing so, the case presupposes an acceptance of the claim that there is something extra that needs to be considered in the phenomenal story.

It could be argued, however, that it is possible to reject this conception based on what it presupposes. The sensorimotor account (Noë, 2004, 2008; O’Regan & Noë, 2001, 2002) claims to present an alternative that locates the experience of phenomenal consciousness as a consequence of an interactive “give and take” with the environment. This is without commitment to a physical, reductionist view. Rejection of that which is presupposed by the knowledge argument and explanatory gap is achieved by arguing that phenomenal experience is not generated in the brain at all.³ Thus, unlike the case with Mary, the premise here is that qualia are not independent determiners of the character of qualitative experience. On the contrary, vision is conceived as a skilful activity in which we use our eyes as a means of give and take with the environment.⁴ On this account, it is knowledge of sensorimotor contingencies (SMCs) (the “practical knowledge” of law like ways that our sensations would change with movement) that governs the nature of phenomenal consciousness.

O’Regan and Noë (2001) claim that the sensorimotor account can also fend for the conscious experience of color. On their view, one has the experience of the color red because of one’s exercising of the mastery of SMCs that “signal the presence of redness” (p. 85). The reason one does not experience “green” instead of “red,” for example, is because of this very understanding that movement of the eyes would incur the “resulting changes typical of red-ness.” This, they say, is supported by the fact that the sensation of red does not go away when we blink, further arguing that this entails a rejection of the sensation of redness as a by-product of neural

² It is epistemological in the sense that her learning concerns knowledge about a certain experience of seeing the color red.

³ “There is no need to seek a neural basis for the occurrence of visual qualia such as red, for, in the relevant sense, there are no such qualia” (O’Regan & Noë, 2002, p. 14).

⁴ Noë uses the “amodality” or “presence in absence” in experience to support the contention that phenomenal consciousness is something other than qualia in our heads. For example, it is clear that with your position in this room, what is behind or outside of your peripheral vision is occluded from sight. With this account, however, what is occluded (be it a window or door, for example) does constitute your experience by way of your practical knowledge or understanding that if you were to turn around, then the window or door would come into direct experience.

influx.

For our concerns, two things are achieved by endorsing this view. First, the conscious phenomenal experience of the qualia “red” is not postulated as something in addition to the act of gaining experience from the world itself. It does not present an epistemic gap in experience because there is no gap to be had. We experience what we do because of what is available to us. Second, the view remains non-committed to a physical, neural explanation by showing how we experience the presence of the color red in its absence (as in the blinking example). The argument follows that if this were not the case, it would indeed exemplify the necessity of a determinate physical explanation guiding experience.

What, then, does this mean for Mary? On this reading, Mary’s conscious experience of red would be given also from her understanding of SMCs. The problem that comes to mind on consideration of this is that Mary has never experienced color, which implies that she has no discriminatory capacities. How would Mary distinguish one act, which would have the resulting affect of the experience of “red,” from another act, which would have the resulting affect of the experience of “green,” for example? Even if all the physical facts about such color dispositions are known (as the premise we are asked to accept suggests), knowledge of SMCs could not constitute Mary’s experience because, by necessity, this requires memory of what the color red looked like before.⁵ Mary, being experientially new to color, therefore, presents difficulties for the SMC theory. It does not provide a framework by which Mary can experience color, whilst avoiding the employment of experienced facts in working memory.

Does this amount to the fact that qualia cannot be reductively explained, leaving the knowledge argument still in glorious victory? We have seen that SMCs may not be successful constituents of phenomenal conscious experience. This is demonstrated by way of identifying the need for working memory to first allow for discriminatory capacities. The conclusion of this argument, therefore, shows that the SMC theory does not provide a valid framework in which to argue that Mary does not learn anything new; knowledge of SMCs necessary to employ discriminatory behavior is not possible in cases where color is new to the perceiver.

A question concerning the reducibility of qualitative consciousness would not be complete without reference to Chalmers’ Zombie Argument (1993, 1997). That is, the argument positing the logical possibility of zombies: physically identical isomorphic replicas of yourself that lack conscious experience. I suggest connections between Chalmers’ Zombie and Mary: Similar to the claim that Mary does not experience color until entering the real world and learning something new, a zombie twin also has a black hole in his phenomenal feel. This is because his body is a limitation that does not permit him to experience qualia: He is limited by his isomorphic structure that only functions according to his human replica. This being the case,

⁵In rejection of the claim that the motor system may be the only thing responsible for amodal completion, Prinz (2006) argues that knowledge of “visual expectations” can be used to explain why it is that presence, in absence, is experienced: “It could be explained entirely within the visual system, as a function of visual expectations.” Thus, we remember what (red) looks like from a previous encounter and are able to make future predictions or expectations based on these experiences.

he has no autonomy and agency over his body to attain conscious experience of the color (red).

It can be argued, therefore, that the above demonstrates the irreducibility of qualia to a physical description. Neither Mary nor the zombie can be prescribed the experience of qualia by physical data. Consequently, accepting this premise could indeed still entail a commitment to the view that qualia must be irreducible, despite, as we have seen, an alternative description from a sensorimotor account of phenomenal consciousness.

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