

*"We may know how neurons work but we still have no convincing explanation for consciousness itself."*

### Box 1. Reflective exercise

- None of us view ourselves merely as physical objects as we live immediately in our own self-aware worlds. During your next surgery pause briefly and remind yourself that each patient who walks through the door possesses an example of the most complex object in the universe, and has also a rich internal world of self-awareness. How does such a realisation affect your consulting?

### Box 2. Further reading

**Primary source:** Nagel T. 'What is it like to be a bat?' *The Philosophical Review*, October 1974. This is an influential paper by the American philosopher, Thomas Nagel. It can be accessed online: <http://cutonthebiasworkshop.files.wordpress.com/2011/05/nagel-1974-what-is-it-like-to-be-a-bat.pdf> [accessed 28 Apr14].

**Further study:** Polanyi M. *Personal knowledge: towards a post-critical philosophy*. First published 1958, republished by Routledge 1998. This is a classic account of the effect of the reflective self in the construction of scientific knowledge by a world-class physician and biochemist.

### Q is for Qualia

GPs are used to QOFs and QUALYs, but qualia are far more vital! Qualia (singular 'quale') are the immediate individual conscious sensations that we experience, (such as 'redness', or pain) that we then put together and interpret as we mentally model the world. (Think of the old conundrum: how do I know that the redness I perceive when I look at a pillar box is the same as the redness you perceive?)

Logically if physical science can tell us all that can be known about the world then a person with colour-blindness must be able to know what it is to see red. We can construct this knowledge scientifically around a model of having the right sort of cones in the retina to perceive incident light with a wavelength of 650 nm, for example. Yet if this person — in possession of all available knowledge about redness — were to be cured of their colour blindness then they will learn something new that they did not know before: what it is to see red. An exhaustive scientific description of the perception of red objects does not contain an account of the qualia I experience as 'redness'. This argument is a demonstration of something that is both profound and also obvious to all but the most extreme physicalist. Erwin Schrödinger made a similar point:

*'The scientific picture of the world around me is very deficient. It gives me a lot of factual information, puts all our experience in a magnificently consistent order, but is ghastly silent about all that is really near to our heart, that really matters to us. It cannot tell a word about the sensation of red and blue, bitter and sweet ... it knows nothing of beauty and ugly, good or bad ... Science sometimes pretends to answer questions in these domains, but the answers are so silly that we are not inclined to take them seriously.'*

We may know how neurons work but we still have no convincing explanation for consciousness itself. Consciousness is often described as an 'emergent' quality. In a complex system (let us again remember that the human brain is the most complex object in the universe, containing  $10^{11}$  neurons) qualities, indeed realities, 'emerge' that are more than the sum of their lower-order constituent parts. It would be unreasonable to insist that there is no such thing as

'a table' because science can only identify elemental particles arranged in a particular way within space and time. It would also be banal to say there was no symphony on a CD because all it contained was digital data.

There is something about consciousness that cannot be reduced down to physical processes in the material world. Although we can do a great job describing how neurons work, we still have no convincing physical explanation for consciousness itself. Materialist theories of mind omit the essential component of consciousness, namely that there is something that it feels like to be a particular conscious thing. Current reductionist efforts to tackle the mind-body problem cannot succeed. Qualia, and thus human self-awareness, cannot be contained within a purely physical account of the self. As Milton remarked 'The mind is its own place'.

### CPD further study and reflective notes

The notes in Boxes 1 and 2 will help you to read and reflect further on any of the brief articles in this series. If this learning relates to your professional development then you should put it in your annual PDP and claim self-certified CPD points within the RCGP guidelines set out at <http://bit.ly/UT5Z3V>.

If your reading and reflection is occasional and opportunistic, claims in this one area should not exceed 10 CPD credits per year. However if you decide to use this material to develop your understanding of medical philosophy and ethics as a significant part of a PDP, say over 2 years, then a larger number of credits can be claimed so long as there is evidence of balance over a 5-year cycle. These credits should demonstrate the impact of your reflection on your practice (for example, by way of case studies or other evidence), and must be validated by your appraiser.

### David Misselbrook,

GP, Dean Emeritus of the Royal Society of Medicine, Past President FHPMP the Society of Apothecaries, Senior Lecturer in Family Medicine RCSI Medical University of Bahrain and *BJGP* Senior Ethics Advisor.

DOI: 10.3399/bjgp14X679804

### ADDRESS FOR CORRESPONDENCE

#### David Misselbrook

Senior Lecturer in Family Medicine, RCSI Bahrain, P.O. Box 15503, Adliya, Kingdom of Bahrain

**E-mail:** [DMisselbrook@rcsi-mub.com](mailto:DMisselbrook@rcsi-mub.com)