

Purple Haze
The Puzzle of Consciousness
by
Joseph Levine
Oxford: Oxford University Press OUP USA 2001

Phenomenal Consciousness
A Naturalistic Theory
by
Peter Carruthers
Cambridge: Cambridge University Press 2000

The Nature of Consciousness
by
Mark Rowlands
Cambridge: Cambridge University Press 2001

The Vienna Circle was a group of scientifically-minded philosophers, many physicists by training, who in the 1920s and 30s developed the cluster of philosophical doctrines known as Logical Positivism. Among the Circle's most distinguished members were Rudolf Carnap and Herbert Feigl, each of whom emigrated to America during the Nazi era. It is said that Feigl, the author of an important 1958 monograph defending a materialist approach to the mind-body problem, once gave a visiting lecture on the problem of consciousness at UCLA, where Carnap was teaching. Feigl argued that although there were good reasons for believing that the mind is fundamentally physical, the physical explanation of the 'qualia' of sensory experience – the ineffable sensory qualities involved in, say, smelling coffee – was still a mystery to science. Now the story becomes apocryphal. Carnap is supposed to have interrupted, 'But Feigl, there is something missing from your lecture. Science is beginning to explain qualia in terms of the alpha factor!'. We can imagine Feigl somewhat alarmed by this interjection from the great Carnap: 'But Carnap, please tell me: what is the alpha factor?'. 'Well, Feigl' Carnap replied 'if you tell me what qualia are, I'll tell you what the alpha factor is'.

True or false, the anecdote exemplifies two very different approaches to what some philosophers call ‘the hard problem of consciousness’. One approach is insouciant, rather like Carnap’s: of course there must be some physical property in the brain which is responsible for conscious experience, and it is only a matter of time until science finds it. There is no mystery of consciousness. Another approach is like Feigl’s, based on the worry that there will be aspects of our conscious experience which remain forever beyond scientific explanation. Those who take this latter approach do tend to be materialists – that is, they think all phenomena in the world are material or physical – but they see the phenomena of conscious as providing the greatest obstacle to their materialism. Among the books under review here, that by Peter Carruthers takes the first approach, and Joseph Levine’s takes the second. Mark Rowlands’s book balances, rather unsteadily, between the two.

What exactly is the problem of consciousness supposed to be? Every few months new books appear promising solutions or dissolutions to the problem, or deeper explanations of it and why it is insoluble. Here we have three more. Everyone wants to take part in what a recent book called ‘The Race for Consciousness’. The grand title suggests the Space Race: like the competition to get a man on the moon, scientists all over the world are working furiously around the clock to find the elusive essence of consciousness. Some even say that the explanation of consciousness is the ‘greatest challenge left for science’ – after a cure for cancer, perhaps.

On reflection, there is something wrong with these analogies. For unlike the explanation of consciousness, scientists involved in the ‘Space Race’ had a pretty good idea of what it was they were trying to achieve. Similarly with cancer research. But in the ‘race’ to explain consciousness, there is no such consensus. Few philosophers or neuroscientists appear to agree about what would count as a solution,

what the assumptions behind the problem are, and what methods should be employed in solving it. In this context, Joseph Levine's new book represents a clear advance in the debate: a lucid statement of what it is that might worry materialists about consciousness. The problem, according to Levine, consists in what he calls 'the explanatory gap': although we have good reason to believe that conscious phenomena are physical, we have no idea how to explain how this comes about. To use an analogy of Thomas Nagel's: those who say that consciousness is physical are in the position of an Ancient Greek who says that matter is energy. They are saying something true, but they cannot understand how it can be true. There is a gap in our understanding, between what we know about the physical world and what we know about consciousness, even though we are supposed to know enough to know that consciousness is physical.

The source of this explanatory gap, according to Levine, lies in an essential feature of explanation itself. Explanation is at heart deductive: to explain a phenomenon is to show how we can logically deduce facts about it from other underlying facts and the laws of nature. For example: the superficial facts about water (transparency, liquidity etc.) can be explained by the underlying molecular facts and the laws of nature, in such a way that someone who knew these underlying facts and laws would be able to deduce that the superficial facts are the way they are: given full knowledge of the underlying facts and laws, it is impossible and therefore genuinely inconceivable that the superficial facts could be other than they are. But with consciousness, it seems conceivable that someone could know all the underlying facts and laws about a creature's brain, and yet not be able to deduce logically whether, or in what way, the creature was conscious. This is because it seems logically possible that a creature (called a 'zombie' in the philosophical literature) could be physically

identical to me but not have my consciousness. So even if consciousness is, as a matter of fact, physical, we cannot explain why it is, since we cannot deduce the truths about consciousness from the underlying physical facts. This is the explanatory gap.

Purple Haze summarises and expands upon the themes of Levine's earlier writings, and provides one of the best accounts of the materialist problematic to date. This is not to say that the materialist assumptions behind this account are all entirely plausible. Although Levine does a good job in defending the idea that explanation is fundamentally a matter of logical deduction, he leaves himself open to the charge that he is stipulating how to use the word 'explanation'. A merely contingent correlation between A and B could not be the basis of an explanation on Levine's view, since its contingency would allow it to be possible to have A without B. But we do count many such contingent (and statistical) correlations as explanations – for example, the contingent correlation between having a deprived childhood and doing badly at school – which implies that Levine's real concern is only with explanations of a rather particular kind. And this leaves open the possibility that explanations of consciousness could be, for all Levine says, mere contingent correlations between facts about the brain and facts about consciousness, and none the worse for that.

Another assumption behind Levine's discussion is that there is a fundamental distinction between conscious states of mind ('qualia') and those that involve mental representation (or what philosophers call 'intentionality'). According to this distinction, a visual experience of a green apple involves the representation of something green in the environment, but it also involves a 'qualitative feel' characteristic of experiences of green things. The distinction is dubious – how are we supposed to identify the greenness of the experience, in addition to the greenness of

the apple? – and accordingly some philosophers, like Peter Carruthers, prefer to explain consciousness in terms of intentionality. Carruthers defends what has come to be called a Higher Order Thought (or ‘HOT’) theory of consciousness. HOT theories of consciousness say that a person’s mental state is conscious when the state is thought about by the person. For example: my current headache is a conscious mental state because I am thinking about it. That is supposed to be what makes the headache a state of consciousness. An obvious and immediate difficulty with this view is that it seems to require that throughout one’s conscious life, one is constantly thinking about one’s own states of mind. Can there really be all that cognitive activity going on when one is conscious? Carruthers rightly thinks not, and modifies the HOT theory. Rather than saying that a state of mind is conscious when and only when it is actually being thought about, Carruthers says that a state is conscious when it can be thought about (he calls this the ‘Dispositionalist’ HOT theory, since it explains consciousness in terms of a disposition to have thoughts about another state of mind).

But this surely gets matters the wrong way around. Our conscious experiences are not conscious because we can think about them; rather, we can think about them because they are events in consciousness. It is consciousness which explains our capacity for higher-order thought, not vice-versa. The most fundamental way we have of understanding consciousness is in terms of the notion of a series of occurrent events, what William James famously pictured as the ‘stream of consciousness’. No disposition to think about events in the stream of consciousness can explain what makes them conscious, since any such disposition must ultimately be understood in terms of some idea like ‘bringing something to consciousness’. The idea of consciousness is therefore presupposed in the explanation of the disposition.

These and other problems with the HOT view are well articulated in Mark Rowlands's readable but ultimately inconclusive monograph. Rowlands, like Carruthers, believes that there is an intrinsic connection between consciousness and intentionality, but does not explain this in terms of higher-order thought. One motive behind these two attempts to link consciousness to intentionality is that it is supposed to facilitate the kind of explanation or 'reduction' of consciousness to physical facts which materialists desire. For it is widely assumed that a materialist explanation of intentionality is less problematic than an explanation of consciousness; so if we can reduce the second to the first, we will be making progress.

There are many reasons to be sceptical of this assumption, not least being the fact that no-one has provided a remotely plausible materialist explanation of intentionality. But even if it were granted, it is not obvious that it will help with Levine's problem, as he poses it. For suppose all conscious phenomena are intentional – that is, mental representations of the world. If it is logically possible for the physical basis of this intentionality to exist without the intentional states being conscious, then the explanatory gap arises again: for one would not be able to deduce the consciousness of these intentional states from the relevant physical facts and laws of nature. So if one were convinced that there is such an explanatory gap, then the appeal to intentionality will not help to fill it.

So what can be said at this stage about the prospects for an explanation of consciousness? The books under review share the common ambition of finding one key, some idea (intentionality, deductive explanation, higher-order thought) which will unlock the mystery. But maybe the idea of a single key gives us the wrong model. Perhaps it is closer to the truth to say that the scientific explanation of consciousness will be more like finding a cure for cancer than it is like getting a man on the moon.

There is no one thing which deserves the name of 'the' cure for cancer, and by all accounts it is unlikely that there will ever be such a thing. But there is a complex network of treatments, diagnoses, therapies and preventative measures, some specific to the various forms of the disease, some based on well-understood correlations and some on poorly-understood but effective shots in the dark. The result of all this is that a person's chance of surviving cancer are better than they have ever been. Maybe this kind of complex network of empirical correlations and hypotheses - rather than the picture of the missing deduction which will fill the explanatory gap - would be a better model for the scientific explanation of consciousness. If this is right, then there may be less for the philosopher to do than Levine and others suppose.

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