

Review of: "Growing Confidence and Remaining Uncertainty About Animal Consciousness"

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I think this paper is a missed opportunity. The best sentence is the last one: *The notion of a 'Cartesian Theater' where neural activity giving rise to consciousness is put on display has been derided by Dennett (1991), but may in fact be a fitting metaphor.* Isn't the real message here that neuroscience and philosophy are now in a complete muddle over consciousness when in 1650 people had a clearer view?

The author equates consciousness primarily with the 'there is something that it is like' of experience, which most agree on. Experience must be an input to some 'witness,' as the author says, or 'reader unit' in Buszaki's terms, that might generate action. In this context, there are two big problems with the discussion of current thought.

The first is that the theories cited, such as Integrated Information Theory and Workspace Theory, associate consciousness with neural activity rather than input. As a consequence, they are incoherent in a way that would have been obvious to Descartes. The NCC must be events of rich input, and these theories give no role to that.

The second is the assumption that the witness or experiencing subject is the 'animal,' 'human,' or 'organism.' This has become popular with philosophers following Varela and others, but it falls foul of Ryle's category mistake. Ryle's detailed analysis is confused, but he rightly points out that we cannot expect terms used for relations between organisms to be any use for relations within an organism. The witness, as Descartes saw, cannot be the whole thing because it is meaningless for the same thing to be both source and receiver of information. Neuroscience makes it clear that neural signalling is between one part of the brain and another. Only the second part can be treated as the witness. In a neurobiological analysis, which the author makes clear is the aim, a witness cannot be 'the organism.'

That leads on to what may well be the source of recent confusion. Neuroscience tells us that there is no unique place where things come together in brains. That has led many to claim that we can stop worrying about any witness – that there isn't one. But as the author points out, there must be, to make sense of consciousness. Neuroscience tells us that for most signals in the brain, there will be about 10,000 places where that signal is integrated with many others – Buszaki's reader units. Descartes's Error was, surely, simply the mistake of assuming only one witness. And his error, confusing subjective content unity with subject unity, is still rife, just airbrushed out by denying there is a witness at all. Complete confusion.

The consciousness debate is characterised by people talking past each other, and I suspect my comments will not make sense to the author, but I think it is worth airing them. I am not sure that we are further ahead on the issue of animal

consciousness than Descartes. Having four hierarchies of connections sounds like a plausible requirement for experiencing coloured moving objects or worrying about the stock market, but things are far more complicated than that, and in a way that at present we have no insight into because we have no agreement on what the witnesses might be. Many people, like David Hume and myself, have had no clear sense of self. Perhaps it is the biggest illusion of all.

I often wonder whether the difference between humans and other animals is that we have a much more sophisticated misunderstanding of our own nature!