

On the Freedom of Free Will

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The notion of free will is full of problems for anyone who is not a full-blooded dualist on mind/brain matters. Like the notorious qualia problem, it's a central part of our experience but just doesn't seem to fit in with any scientific outlook. Being free (usually) to choose what we'll do or think seems as much part of our nature as breathing. It is of course a faculty that is basically taken for granted in many of our social structures, especially the justice system. Yet, for the last two hundred years or so, there's been no obvious place for it in science. Many scientists have been driven to say that it is an illusion; but then, since this alleged illusion is such a central part of experience while science itself in the last analysis is simply the study of regularities in experience, why should not science too (or instead) be regarded as illusory? The whole topic has provided a hook for thinkers to wriggle on but there has been no escape which did not involve some sort of overt or covert retreat into dualism.

Of course people have sometimes claimed that they could get off the hook. Quantum indeterminacy and chaos theory are both often seized upon as offering a remedy. Alas, neither suffices. The evolution of the wave function in quantum mechanics is just as deterministic as any Newtonian, mechanical system and is actually considerably more predictable than most Newtonian systems. Of course the collapse of the wave function that results in manifestations in our everyday world is not deterministic, it is probabilistic. The trouble is it is strictly probabilistic; no place for free will there either. Chaotic systems, on the other hand, are unpredictable but nevertheless strictly deterministic. Indeed it seems likely that their unpredictability derives ultimately from probabilism at the quantum level. Though they abound in the brain, squeezing any convincing account of free will out of them is in the blood out of a stone class.

Ah-ha, a few people say, 'but there is in fact evidence that wave function collapse can be biased. What about the Princeton random number generator experiments, for example?'. It's true that peoples' wishes do seem to affect the output of such generators in an acausal way. The effect is, however, extremely weak (on average about one number in a thousand is affected). To rely on such a weak and wavering phenomenon to account for the everyday operation of free will demonstrates faith, perhaps, but not great rationality. But maybe the effect is magnified within an individual person's brain by all those chaotic systems? Well, yes, maybe. Not many of us would bet on it, though. Free will needs a firm conceptual foundation. At long last, thanks to Henry Stapp, such a foundation may now be available. Stapp is a well respected physicist who has for many years made important contributions to the 'consciousness' literature. He now points out that what quantum theory does is to predict the possible answers to whatever questions are put to nature. This is a quite uncontentious statement with which all quantum theorists could agree. But there's a gaping hole here. Who or what decides which questions shall be put to nature? Quantum theory has nothing to say about it. Maybe here is the sort of spacious home that free will requires. He goes on to show (see reference) firstly that his picture of a home for free will fits nicely with a Whiteheadian ontology in which the basis of reality lies in 'actual occasions of experience'; secondly that his proposal is consistent with the mathematics of quantum theory.

Putting questions to nature is an essential aspect of pattern recognition. If you recognise a pattern you are in effect categorising something or things. To even recognise that a

'something' is there you have to distinguish it from its background. Then, to further categorise it, you have to ignore some of its aspects while emphasizing others. Pattern recognition inescapably involves a whole series of questions put to nature. It's a process that does not require mind for its essentials, but only a certain degree of complexity. Molecules 'recognise' other molecules in the sense that they react differently with different chemicals. Life evolved on the basis of 'recognitions' of this type and, once it had evolved, their scope became immensely wider and more subtle. Now we see the world by virtue of the patterns of edges, orientations and colours detected by our visual cortex which is constantly 'questioning nature'. And, thanks at least in part to self-consciousness, we can often decide which questions we shall put to nature both in our everyday lives and in the pursuit of science. This is the faculty that we term free will.

Is it in fact deterministic? In other words, are the often immensely abstract questionings produced by all those hugely complex circuits in our brains simply the product of unalterable neuronal feed-back or whatever? I don't believe that this question is meaningful.

Clearly we are part of nature and, in that sense, all is determined. But our questionings also determine the aspects that nature will show us. In another sense, therefore, it is we who are free and nature that is determined by us. A similar circularity crops up quite often in discussions of whether materialism is a better philosophy than idealism (i.e. the idea that all is fundamentally made of Ideas). It led Strawson to remark:- 'This raises the question of whether any idealist theory of mind is coherent. The answer to this question is probably 'Yes'. But there is a more important question to which the answer may be 'No'. This is the question whether any idealist theory of mind is both coherent and interestingly distinct from a materialist theory of mind.' (p. 107). Looked at from nature's point of view, our free will is not really free. Looked at from our point of view, it is our free will that constrains nature.

References:

Galen Strawson (1994). *Mental Reality*. The MIT Press, Cambridge MA and London.

Henry Stapp (1998). *Whiteheadian Process and Quantum Theory of Mind*. Available at:- <http://listserv.arizona.edu/lsv/www/quantum-mind.html>

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