

Book review

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Neurophilosophy at Work. By P. Churchland. (Pp. 262; £14.99; ISBN 9780521692007 pb.) Cambridge University Press: Cambridge, UK. 2007.

Paul Churchland has to be one of the more influential American philosophers writing today. He has an inquiring, wide-ranging mind and he is unafraid to tackle big questions. He also writes with the intelligent layman in mind. *Neurophilosophy at Work* embodies all these virtues. It ranges over consciousness, moral perception, science and education policy, the nature of intelligence and meaning as well as the nature of colour. Some of the chapters are more accessible than others but as academic philosophy goes this is clear, bold, polemic writing.

Churchland is a materialist philosopher and the matter he is interested in is the brain – or, more specifically, the dynamic system of synapses which make up the brain's hardware. Philosophical materialism these days comes in two sorts – a rather vague 'non-reductive' kind basically amounting to a rejection of the supernatural; and a clearer 'reductive' kind which holds that only matter exists and that we are perfectly capable of (1) forming better and better ideas of what matter is and (2) making sense of everything in terms of it.

Reductive materialists are a small but influential breed: Paul Churchland is one of them. He stands in a line that stretches back into history. Marx and Freud can be construed as reductive materialists. In our time Richard Dawkins joins the line. For each thinker the basic unit of matter is different. For Marx it was the economic means of production, for Freud it was the sexual instinct, and for Dawkins it is the gene. Each version – or worldview – has a corresponding concept of the normal and the pathological. Churchland too has his material unit and his normal *versus* pathological distinction. The material unit is the 'recurrent neuronal net'. Normality is the 'proper configuration of the brain's 10^4 synaptic weights' whilst pathology is the opposite.

Churchland, like Freud and Marx before him and Dawkins alongside him wants to make sense of everything in terms of a basic unit of matter. This is the 'higher office'. The higher office of the recurrent neuronal net will do all the explaining our current hotchpotch of psychological, social and moral explanations concerning human nature achieve and much else besides. The diagnosis and the cure is this: we currently

walk with explanatory crutches, 'neurophilosophy' will allow us to kick away the crutches and walk to entirely new and good places.

I found the approach in *Neurophilosophy at Work* and the extent to which Churchland follows it to its logical conclusion riveting – even seductive. In the chapter on the cognitive neurobiology of moral virtues there are striking analyses and some impressive phenomenological distinctions. Writing on 'moral conflict' he describes, quite beautifully, the 'dialectical' process whereby in moral argument relevant contextual features are alternately magnified or minimized such that 'moral perception' flips back and forth between different aspects of a moral phenomenon. I thought of the coercion/liberty dialectic in psychiatry.

But what Churchland means by moral phenomena is actually certain configurations of neural nets. Moral argument is 'a matter of nudging one's interlocutor's current neuronal activation-point *out* of the attractor-category that has captured it, and *into* a distinct attractor-category' (p. 46).

The neural activation points and the moral phenomena are entirely the same thing for Churchland. The neural activation points glow with ethereal moral quality in Churchland's mind. Something has gone wrong here. The human brain is 3 pounds of organic tissue. Three pounds of organic tissue is not ethereal! That much is common sense.

In psychiatry we are lucky enough to have had Karl Jaspers guide us through some of the conceptual halls of mirrors that beset our field. In his *General Psychopathology* he identified in Wernicke precisely this tendency to move from neuronal talk to philosophical talk and back again without attention to the shift. He called the tendency 'Neuromythology' and his influence modulated some of its hubris. But Jaspers wrote almost 100 years ago and we now have neuroscientific technologies unimagined in his day and a cognitive neuroscience research programme which has been hard at work since the decade of the brain and continues as such. In this context Neurophilosophy has a force well beyond what it had in Jaspers' day.

One might like to think that psychiatry as a profession with its traditions, guilds and clinical common sense is safe from any unintended consequences of Neurophilosophy. But there are a number of areas where we are a least vulnerable. First, the metaphysics of Neurophilosophy is located at the level of the synaptic connections. Neurophilosophy reconstructs social, moral, educational, psychopathological and

political phenomena in terms of the 'recurrent net'. But the level of the 'recurrent net' is also the level where the pharmaceutical industry is operating and there are large profit margins. In this context, Churchland's phrase 'proper configuration of the brain's 10^4 synaptic weights' starts resonating with Huxley's *Brave New World*. Second, the significance of effects sizes in biological research risk getting magnified through the lens of prior ideological commitments. One might argue that Neurophilosophy has already impregnated these commitments where the

interpretation of empirical work using biological variables has been unhelpfully hyped – perhaps particularly in the USA. And third, as we reform our classification systems, we risk becoming seduced by the lure of neuro-classification and swing to a DSM-V which is as ideologically impregnated by neurophilosophy as DSM-II was ideologically impregnated by Freudian philosophy.

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