

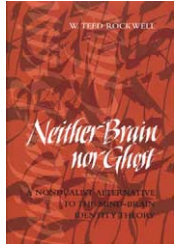


Dewey: the first ghost-buster?

Neither Brain nor Ghost: A Nondualist Alternative to the Mind-Brain Identity Theory by W. Teed Rockwell. MIT Press, 2005. £23.95/\$36.00 (256 pp.) ISBN 0-262-18247-5

Leslie Marsh

Centre for Research in Cognitive Science (COGS) and Department of Informatics, University of Sussex, Falmer BN1 9QH, UK



Ghost-busting

Ghost-busting, or less colloquially, anti-Cartesianism or non-representationalism, is a loose and internally fluid coalition (philosophical and empirical) comprising *Dynamical*, *Embodied*, *Extended*, *Distributed*, and *Situated* (DEEDS) theories of cognition. Gilbert Ryle – DEEDS' anglophonic masthead [1] – supposedly exorcised the Cartesian propensity

to postulate mind as an apparition-like entity somehow situated in the body. Ryle's behaviouristic recommendation was, that just as we don't see the wind blowing but only see the trees waving, so too should we conceive intelligence as *manifest* through action. The Cartesian ghost of old has mutated, taking the form of the 'Machine in the Machine', the brain as a self-contained system within the body. This bifurcation of the person into brain and body, apparent in the methodological supposition that cognition can be studied independently of any consideration of the body and the physical and ambient social environment is, in effect, a naturalized and perhaps more insidious variant.

For Rockwell, the philosopher John Dewey should be the patron saint to the DEEDS strand of cognitive science albeit before the event. Dewey, in Rockwell's view, has been grossly overlooked as a fertile source for non-Cartesian philosophy of mind. Indeed, *Rockwell's* Dewey prefigured behaviourism and cognitive psychology, articulated the basic principles of dynamic systems theory (DST), and anticipated many Heideggerian notions central to current non-Cartesian cognitive science!

Minds, brains and bodies

Rockwell's target is the mind–brain identity theory, which conceives of the brain as a self-contained causally closed organ on the basis of philosophers' assumption that the brain–body distinction has been *proven* by neuroscience, rather than presupposed (p. 31). However strong the temptation may be, perhaps the brain is not a *bona fide* natural kind (p. 36). Rockwell, like all DEEDS theorists, disputes that the brain can be the *entire* supervenience base of the mind (p. 69). If mental functions have been found in the skull that's 'only because that is where most people have been looking for them.' (p. 18). Of course, this generates intuitions that deny that there is an essential

relation between human physicality and cognition. Rockwell's Deweyan inspired remedy is to expand the supervenience base across the tripartite of brain–body–world (as Andy Clark said 'putting brain, body and world together again') [2].

What Rockwell is proposing is that the body must be factored into a satisfactory explanation of how a cognitive system works. He is not making the trivial claim that the mere fact of our having olfactory, visual, somatosensory and auditory experience implies that one's body has a nose, eyes, skin and ears. The more interesting claim he is making is that the body is *part and parcel* of the cognitive system. Rockwell accepts new evidence that the neural networks that are distributed throughout the body 'are not structurally that different from the ones in the cranium' (p. 23). The example of phantom limbs is invoked: if the embodiment of sensation is distributed throughout the nervous system would we not expect such a phenomenon? (pp. 26–27).

I act, therefore I think

For nigh on 350 years Cartesian philosophy of mind has had *cogito, ergo sum* ('I think, therefore I exist') as its central methodological and metaphysical presupposition. DEEDS, by contrast, inverts this view: *ago ergo cogito* ('I act, therefore I think').

Rockwell's emphasis on the notion of embodiment implies a goal driven and purposeful engagement with the world. Thought changes the world, but only via its effects on action, and action needs a body. Rockwell welds this emphasis on active engagement, a Deweyan conception of process and experience, to current DST. Pragmatism (Dewey's no exception) has had an intimate association with process philosophy, a metaphysics and epistemology that gives primacy to temporality, activity and change. DST runs on a weave of embodiment, environmental situatedness, temporality and the goal-directedness of intelligent action (intentionality). Thus the ground is prepared for Rockwell's suggested amalgamation.

Rockwell's Deweyan alternative to the current externalism/internalism debate is what he terms 'a theory of middle-sized content' (p. 93). For Dewey, 'all intentional phenomena take place within a background of experience, which was itself irreducibly intentional' (p. 141). Externalism, broadly speaking, is the view that the content of a mental state is in part determined by elements of the external world. Internalism or individualism, is the view that the content of mental states is determined by features

e-mail: l.marsh@sussex.ac.uk

of the conscious subject without recourse to environmental conditions. Rockwell's mediating proposal conceives of environment as 'constituted by its relationship to the mind (goals, projects, functions)', a reciprocal relation between our conceptual creativity and the environment (natural and artefactual), to intimate, regulate and inform concepts and action (pp. 105–106). This reciprocity is not dissimilar to David Wiggins' 'conceptual realism' captured by his slogan 'the mind "conceptualises" objects, yet objects "impinge" upon the mind' [3]. Both Wiggins and Dewey (as expounded by Rockwell) seek to redress the stark polarity of, on the one hand, the empiricist conception of discrete unmediated 'raw' moments, and on the other hand, the idealists' constructivism or antirealism.

Following on from Dewey's legacy

Dewey's legacy is highly contested. Much of course depends upon which of Dewey's works are being trawled [4]. I don't think that Rockwell's suggestive reconstruction of Dewey can be accused of being unduly fanciful. I do, though, have three gripes with this book. First, Rockwell doesn't tackle head-on the controversial and very live Chalmers–Clark–Wilson 'extended mind' thesis [5,6], despite claiming that their 'active externalism' has not been bold enough (p. 17). (Although cited in the text, the classic Clark and Chalmers paper is omitted in the References). Second, although Rockwell is of the view that current neuroscientific knowledge no longer fully supports the mind–brain identity (p. 9), I don't share Rockwell's optimism: a *PubMed* search does not lend

support to this assertion. Third, what is an eminently readable book comes to an abrupt end: there is a distinct sense of unfinished business. I felt that a brief chapter summarizing the Deweyan approach was called for, at the very least.

All said and done, Rockwell has done cognitive science the immense service of 'rehabilitating' Dewey. Rockwell himself is a welcome addition to what is now a third wave of DEEDS theorists: he writes with an empirically informed clarity and a healthy ecumenical spirit, attitudes conspicuously missing from orthodox philosophy of mind. This is reflected, for example, in his ambivalent attitude to philosophers' Zombies (Chapter 7), a logical but not physically possible thought experiment ostensibly illustrating the poverty of heterophenomenology (a scientific third-person approach to the study of consciousness [7]).

References

- 1 Ryle, G. (1990/1990) *The Concept of Mind*, Penguin
- 2 Clark, A. (1997) *Being There: Putting Brain, Body, and World Together Again*, MIT Press
- 3 Wiggins, D. (1980) *Sameness and Substance*, Oxford University Press
- 4 Godfrey-Smith, P. (2002) Dewey on Naturalism. *Realism and Science. Philos. Sci.* 69, S25–S35
- 5 Clark, A. and Chalmers, D. (1998) The extended mind. *Analysis* 58, 10–23
- 6 Wilson, R.A. (2004) *Boundaries of the Mind: The Individual in the Fragile Sciences: Cognition*, Cambridge University Press
- 7 Dennett, D. (2005) *Sweet Dreams: Philosophical Obstacles to a Science of Consciousness*, MIT Press