UC San Diego
UC San Diego Previously Published Works

Title

Permalink
https://escholarship.org/uc/item/1xk1r6fr

Journal
Isis, 105(1)

ISSN
0021-1753

Author
Gere, Cathy

Publication Date
2014-03-01

DOI
10.1086/676807

Peer reviewed
Combine the current journalistic enthusiasm for everything neurological with the nineteenth-century history of speculation about the neural basis of Anglo/Teutonic genius, add a pinch of psychopharmacological triumphalism and a dash of venture capitalist hype, and you might end up with a big, soft target for critique. Fortunately, Nikolas Rose and Joelle M. Abi-Rached’s scintillating overview of discourses with the prefix ‘neuro-’ charts a different course. They have attempted a ‘more affirmative relation to the new sciences of brain and mind’ (2), eschewing the caricature of neuroscience as reductionist and simplistic. The result is a critique that is all the more effective for being sympathetic. Free of the need to hammer home the epistemic vices of their protagonists and generous in its acknowledgement of neuroscientists’ increasingly sophisticated self-criticism, the book is impressively devastating when it comes to the indubitably problematic aspects of these new fields.

At the heart of their account stand four recent developments. First is the irresistible rise of neuropharmacology, a development that Nikolas Rose has charted in a series of brilliant previous works, showing how an over-simplified picture of brain chemistry ‘enabled the growth of novel transactions between the laboratory, clinic, commerce and everyday life’ (10). Second, in the 1990s, the neurochemical brain joined forces with genomics to give us a raft of probabilistic assessments of susceptibility to mental and behavioral disorders. Third – against the fatalistic grain of neurogenomics – comes a preoccupation with neuroplasticity, in which studies of epigenetic mechanisms promises to reveal the ways in which experience shapes the developing brain at a sub-molecular level. Finally, and most ubiquitous, is the proliferation of images of the brain in action, made possible through the technologies of PET and fMRI scanning.

The first four chapters range over a wide territory, from the interdisciplinary formation of ‘the neurosciences’ in the 1960s, to the vicissitudes of psychiatric diagnosis. The book is dazzling in its scope and concision, but there is some unevenness of treatment: topics already well-covered by historians, such as model organisms, trail long chronologies, while others are treated only within the context of the more recent past. Chapters five, six and seven seem to constitute a more pointed and coherent argument, covering the ‘social brain’, the ‘anti-social brain’ and ‘personhood’ respectively. The choice of the field of ‘social neuroscience’ as a focus of enquiry is inspired, allowing the authors to track how the border between Geistes- and Naturwissenschaften is currently being renegotiated by the new sciences of the human mind. As always, their even-handedness allows them to pack a mighty punch when necessary: in the chapter on the anti-social brain, for
example, they suggest that one paper on the neurology of aggression would have ‘most human scientists and many neurobiologists ... reeling at the bizarre jumps of logic ...’ (185).

Of all the book’s digs at the excesses of our neurobiological age, the best may be its coining of the word ‘Libetism’, referring to the abundant philosophical hay made from Benjamin Libet’s 1983 experiments purportedly showing that free will is an illusion. Characterizing as ‘absurd’ the idea that Libet’s experiment could tell us ‘anything about the exercise of human will in any of the naturally occurring situations where individuals believe they have made a conscious choice’, the authors suggest, hilariously, that Libet must ‘be a strange kind of dualist ...’ (211). Rather than lingering on this dismissive note, however, their demolition of Libetism segues into a fascinating catalog of ways that neuroscientists have attempted to put back together again the shattered Humpty-Dumpty of neurobiologically decomposed personhood. Rose and Abi-Rached gently propose that fMRI studies of ‘selfhood’ are not the most rigorous of experiments, but that the very plurality and imprecision of these gropings suggest all kinds of possibilities for constructive engagement between social scientific and neurobiological accounts. In its self-confidence, eloquence, subtlety, and intellectual generosity, this book is a powerful demonstration of its own message: that the human and social sciences have ‘nothing to fear in the rise to prominence of neurobiological attempts to understand and account for human behavior’ (232).

Contributor bio:

Cathy Gere is Associate Professor of History of Science at the University of California, San Diego. She is currently working on a book about utilitarianism and the sciences of pain and pleasure.