



REVIEW: Nikolas Rose and Joelle M. Abi-Rached. *Neuro: The New Brain Sciences and the Management of the Mind*

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Source: *Spontaneous Generations: A Journal for the History and Philosophy of Science*, Vol. 8, No. 1 (2016) 93-96.

Published by: The University of Toronto

DOI: [10.4245/sponge.v8i1.21160](https://doi.org/10.4245/sponge.v8i1.21160)

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Published online at jps.library.utoronto.ca/index.php/SpontaneousGenerations
ISSN 1913 0465

Founded in 2006, *Spontaneous Generations* is an online academic journal published by graduate students at the Institute for the History and Philosophy of Science and Technology, University of Toronto. There is no subscription or membership fee. *Spontaneous Generations* provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

REVIEWS

Nikolas Rose and Joelle M. Abi-Rached. *Neuro: The New Brain Sciences and the Management of the Mind*. 352 pp.
Princeton: Princeton University Press, 2013.*

Riiko Bedford[†]

Nikolas Rose and Joelle Abi-Rached begin *Neuro: The New Brain Sciences and the Management of the Mind* with a broad question: “What kind of beings do we think we are?” With the rise of such neuro-centric fields as neurolaw, neuroeconomics, neurocriminology, and social neuroscience, they suggest, it seems that the answer is increasingly that *we are our brains*. Alongside increasingly bold claims from scientists about the power of neuroscience to explain our minds and behaviours, scholars in the social and human sciences have become understandably alarmed by such an encroachment into their traditional territories. They have responded in turn with criticisms about the value and possibility of reducing human emotion, behaviour, and sociality to the mere structure and function of the brain. Rather than positioning itself on either side of this “debate,” *Neuro* seeks instead to explore whether neuroscience truly does represent a threat to the social sciences, or if there is in fact room for a cooperative and productive rapprochement between these two fields. Thus, it is “in the spirit of critical friendship” that Rose and Abi-Rached trace their part historical, part sociological, and part philosophical analysis of contemporary neuroscience.

The seven chapters of the book are thematically arranged, tracing the rise of what they call the “neuromolecular vision of the brain” and the use of technologies of visualization and animal models in neuroscience (chapters 1-3), in addition to exploring attempts to redefine psychiatric diagnosis and explain the nature of human sociality and criminality in terms of the brain (chapters 4-6). A final chapter considers what impact, if any, neuroscientific findings have had on our conceptions of personhood. A necessarily synthetic account, Rose and Abi-Rached largely draw upon the work of the “authorities”—the published literature of neuroscientists, including both peer-reviewed and popular works, as well as a series of more informal interactions with scientists, lawyers, and policy-makers facilitated

* Received April 28, 2014. Accepted September 11, 2014

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by conferences and workshops. They also refer to legal and policy debates that have relied upon neurobiological findings. *Neuro* covers much ground, both thematically and temporally—across 200 years and several disciplines. While this may leave some readers wishing that one or another subject was treated in greater detail, interesting themes emerge from such a broad scope.

A key feature of contemporary neuroscience highlighted by Rose and Abi-Rached is what they call its “neuromolecular vision of the brain,”¹ according to which the brain is an organ whose function consists of evolutionarily-shaped neural processes that are best understood at the molecular level—in terms of chemical transmission across synapses and all the molecular machinery that entails. Enabled by a host of factors—including the travel of images produced by new technologies of visualization,² and a growing emphasis on the plasticity of the brain—this neuromolecular style of thought has extended outward from the laboratory to shape broader conceptions about the relationship between our brains and our selves. But in what way? And what implications might these new ideas about human nature and personhood have for policies of governance, given the historically close link between theories about people and about how best to govern them? To piece together a general picture of the relationship between brain and person that is emerging from these sciences, Rose and Abi-Rached examine both scientists’ own assertions on this subject as well as the social uses to which neuroscientific findings have been proposed or operationalized. What the authors suggest is that neuroscientists have been less willing to deny traditional ideas about the ontological status of consciousness and intentionality than the more sensational of media reports suggest. Instead, they argue that the brain has not replaced mind as the seat of personhood, but has become yet another aspect of it. More importantly, the brain has become a new site of personal improvement—whether through the use of pharmaceutical drugs, or by acting on the newly-recognized plasticity of the brain and its responsiveness to the environment—as well as social responsibility. In the interests of our own bodies and of the body politic, we are being taught to keep our brains and those of the next generation healthy, in particular by focusing on the development of the child. Yet is this really so radical after all? Similar ideas can be traced back to debates about

¹ Reminiscent of Lily Kay’s account of the “molecular vision of life” (*The Molecular Vision of Life*. Oxford: Oxford University Press, 1993).

² That allowed the gaze of the neuroscientist to penetrate the skull to observe both the structure and function of the living brain. The tendency of these images to speak for themselves, and hence to move easily across social and cultural sites, has been illustrated wonderfully by Joseph Dumit’s study of the cultural life of PET scans (*Picturing Personhood: Brain Scans and Biomedical Identity*. Princeton: Princeton University Press, 2004).

the transmission and control of hereditary dispositions towards insanity, alcoholism, and feeble-mindedness in the mid 19th century, later programs of positive eugenics and mental hygiene in the 1920s and 1930s, to modern child welfare and parental education programs that emphasize early screening of children and families at risk. What is novel, Rose and Abi-Rached argue, is simply the new neurobiological underpinnings and supportive forms of evidence and technology that underlie this old logic.

Thus, the implications being drawn from current neurobiological research in fact accord with doctrines long familiar to the social sciences: the importance of familial and social environment for the achievement of individual health and success, and of the dynamic interplay between biology and society. In this sense, *Neuro* convincingly shows that neuroscience does not represent a threat to or incompatibility with contemporary social and human sciences. But what about a more positive relationship beyond mere compatibility? Here, Rose and Abi-Rached leave something to be desired. They conclude by highlighting a few areas for communication between the two fields, centred around a set of critiques of reductionist tendencies in neuroscience, and emphasizing an analysis of the meaning of “social” or “sociality” as a particularly fruitful avenue for collaboration. However, what shape these tantalizing suggestions might assume are not fleshed out beyond a brief example. Still, there is much of substance to take away from this book. Rose and Abi-Rached engage in a careful and critical analysis of many aspects of neurobiological research, including the problems of translation from animal models to human behaviours, the difficulties inherent in establishing neurological characterizations of psychiatric disorders, and the troubles in localizing features of the mind to discrete sites in the brain. Those interested in these issues will find a clear and even-handed explication of some of the difficulties as well as advantages of the methodology of neuroscience research.

This book also raises questions about the process by which the public comes to consume, interpret, and apply scientific information. As much as this pertains to the reporting practices of scientists and the journalistic practices of science writers, the ease with which neurobiological findings have been made relevant to human affairs requires us to consider additionally the circulation and negotiation of scientific knowledge, its impact on self-understanding and public policy, and its relation to broader philosophical trends and folk wisdoms. So as much as Rose and Abi-Rached’s timely volume is aimed at addressing a specific question concerning the relationship between neuroscience and the social sciences, *Neuro* is also an illustration of the deep embeddedness of scientific knowledge in society and the state, and of the importance of a critical engagement on the part of the social sciences with the truths being produced by science, especially when they pertain to human

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REVIEW: Rose and Abi-Rached, Neuro

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