

The question is how can we get away from the rules from within which we have been operating' (p. 154). Bateson's long years of fieldwork with alien forms of communication (in anthropology, psychiatry and animal training) held out the promise that one could escape the Cold war samsara of constant closed loops of repetitive behaviour. In its place he offered an ecological vision of consciousness in which the individual recognized the contingent and mutable nature of the games they were playing and the materials they played them with.

Parts of this story are familiar – John Brockman and Andy Pickering have both already offered detailed readings of the radical impact of Bateson's thought, and his philosophy has received more detailed reconstructions (in excellent works by David Lipset and Peter Harries-Jones). Chaney, however, brings something new to these discussions through his pursuit of the rather Batesonian strategy of drawing readers' attention to the multiple contexts that sustained Bateson's ideas. Whereas other authors have looked to Wiener and Mead as formative influences, *BJHS* readers will probably be pleased to discover in Chaney's work a careful emphasis on Bateson's interest in Lamarckism, partly 'inherited' from his father but reworked through correspondence with the historians of science William Coleman and Charles Coulton Gillispie. The Lamarck fashioned in these conversations was an individual who had redescribed the universe: it was no longer an ordered hierarchy but a shifting assemblage driven by change from below. There were no fixed points. As with the universe so with the mind. As Bateson told his audience at the Roundhouse, 'I am inclined to regard the total systemic creature, you see, as mind, and the total systemic ecology as mind, and the culture as mind' (p. 218). It's a point of view which explodes the possibility of biography, allowing many different biographies to be told at many different levels. And its point of view encourages reflexivity. Writing to Coleman in the early 1960s, Bateson agreed that the the history of science is only superficially guided by scientific research and disciplined thinking. 'Behind this superficial façade', he claimed, 'there is always ... a "heaving mass of inchoate mysticism which scientific figures never put into words"' (p. 115). He recalled how as a student at Trinity he had been shown Newton's 'alchemistic manuscripts, deistic tracts and other occult materials' locked up in a 'big wooden box' and asked, rhetorically, 'Do historians have no such boxes?' They clearly do, and it is to Chaney's credit that he makes no attempt to disguise his commitment to Bateson's vision of an ecological consciousness and to the political reformation that would be won through its acceptance. His approach and Bateson's arguments remain provocative, calling into question the assumption of a fixed context that is usually evoked to ground sociohistorical narratives. As Bateson and Chaney make clear, fixing a context is as much an achievement as fixing an identity. This is not a definitive Bateson biography, and it certainly won't be the final word on Bateson, but Chaney's achievement is to show how this provisionality is a strength.

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LISA M. OSBECK, *Values in Psychological Science: Re-imagining Epistemic Priorities at a New Frontier*. Cambridge: Cambridge University Press, 2018. Pp. ix + 145. ISBN 978-1-1071-3490-4. £80.00 (hardback)
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As a distinctly American flavour of anti-scientific sentiment continues to spread around the world, particularly in the form of anthropogenic climate change denialism, a theoretical revival of the fact/value dichotomy controversies might seem risky. On the one hand, foregrounding the subjective and value-laden aspects of science in the post-truth era resurrects such dangerous questions as 'the nature of our access to reality ... the nature of "facts," the possibility of genuine neutrality, [and] the meaning of objectivity' (p. 42). On the other hand, a fresh angle on the affordances of a thorough understanding and cultivation of values in science – a discussion of how values can

contribute productively to science rather than function as mere drivers of bias and inaccuracy – directly contributes to important interdisciplinary methods for solving our most pressing global problems as diverse ‘plain folk’ and researchers of all stripes. General psychologist Lisa M. Osbeck’s new book *Values in Psychological Science* is most germane for a world increasingly structured by epistemic, moral, social and political polarities.

One of the main purposes of this book is to overcome this widespread interdisciplinary and cross-disciplinary impasse through the identification and articulation of how the researcher as a person deploys value systems that inform and shape the methods and instruments of analysis, and ultimately knowledge production itself. Because ‘values impact methods and practices’ and therefore ‘precede even the questions we pose that serve as the basis for inquiry’ (p. 28), Osbeck suggests that a common epistemic priority for the scientific community should be to cultivate via education revised versions of the universally deployed scientific activities or techniques of observation, imaginative sense making, and perspective taking. For Osbeck, these methodological activities, as well as all others, are logically classified as values: ‘Activities of persons are broader than any method; they are more fundamentally expressive of our relation to the world and to each other – as enduring and holistic propensities’ (p. 39). The cultivation of these specific shared values/activities will foster cooperation among seemingly incommensurable fields. Such cooperation is imperative to enable us to ‘adapt to unpredictable and at times catastrophic events’ by generating ‘transformative possibilities for human life and interaction’ (p. 38), regardless of the psychological or genetic origin stories that seek to explain the ubiquitous phenomena of insular group dynamics.

The introductory framework of the first and second chapters functions to assimilate the historical trends and philosophical ideas surrounding studies on the nature of the relation between values and science. Osbeck’s main intervention into the tradition investigating the contexts of scientific practice – running from John Dewey to Bruno Latour and Donna Haraway – is to introduce the heuristic of the ‘acting-person framework’, which emphasizes scientific reasoning as ‘embodied’ and ‘enculturated’ in the person of the researcher. Revising epistemic priorities in psychological science in alignment with an acting-person framework involves thinking the researcher as person across multiple levels of analysis by integrating the social and cognitive, as well as the researcher’s idiosyncratic agglomeration of interests, rhetorical style and affective make-up.

The last four chapters of the book discuss the historical roots and the potential for innovative development of three specific values that might be good for psychological science in contemporary social contexts, but are also ‘valuable across methodological traditions and across boundaries’ (p. 12). First, Osbeck reviews the literature on the question of the nature of observation in scientific inquiry. In contrast to both the classical understanding of science as the product of neutral observation of evidence and strong social-constructivist formulations about the inaccessibility of reality and the reduction of science as instrumental to the extension of structural inequality, Osbeck emphasizes that observation is only possible within the affordances and constraints of our measuring instruments, theoretical frameworks and communal practices. Osbeck stresses that acknowledging that observations are not value-free, theory-laden or ‘mind-independent’ does not justify charges of relativism. The local establishment of binding scientific values, alongside constant communal re-evaluation of those assumptions, is in fact ‘vital to the work of science’ (p. 58). Second, Osbeck suggests a further impossibility to the existence of value-free observation because communication of data patterns is dependent on and strengthened by the researcher’s unique style of representation, termed ‘imaginative sense-making’, as influenced by her sociohistorical context. The third and final strategy for fostering more comprehensive, complete and accurate understandings of any complex object or system of study is by learning to occupy other perspectives, and thereby to critically analyse their logical and moral integrity by their own sets of assumptions. For example, the ‘modelers’ and ‘experimenters’ in a shared bioengineering lab described their

respective experiences of a summer training programme in the opposite and formerly disparaged role as ‘provoking a kind of personal transformation, experienced as a newfound ability to incorporate the other epistemic perspective’ (p. 93). This personal transformation through interdisciplinary, experiential learning will inevitably lead to better science, according to Osbeck. As political stratification increases alongside globalization, Osbeck suggests that the adoption of perspective taking as a scientific commitment and everyday habit of life is vital to a sustainable human future, and is much like learning a new language, which ‘requires listening’ and ‘reflexive examination of one’s own biases and assumptions, and considerable motivation for expansion’ (p. 107).

Highly influenced by William James’s version of pragmatism, this book provides a clear and necessary middle path between the opposing traditions of positivism and social constructivism in the philosophy of science, one manifestation of which is methodological debates between qualitative and quantitative research in psychology. The above examples of so-called epistemic gaps are perhaps most popularly captured (and reproduced) in studies adhering to simplistic – or even ‘bad-faith’ – distinctions between the ‘two cultures’ (Joseph Carroll *et al.*, ‘A cross-disciplinary survey of beliefs about human nature, culture, and science’, *Evolutionary Studies in Imaginative Culture* (2017) 1(1), 1–32; Alexander Kafka, “‘Sokal squared’: is huge publishing hoax “‘hilarious and delightful” or an ugly example of dishonesty and bad faith?”, *Chronicle of Higher Education*, 3 October 2018). Osbeck clearly states that it is a creative dead end to place continued emphasis on the differences between and within fields of study for ‘this is a time that calls for emphasis on points of similarity between arts and sciences’ in order to better ‘generate new resources for problem-solving, to facilitate interdisciplinary collaboration, and to imbue a needed sense of responsibility for the products of our making’ (p. 12). Furthermore, in line with the spirit of Osbeck’s book, such studies that seek out – or ‘find’ – epistemological incompatibility beg political questions of underlying motivating values since ‘disciplines and the distinctions between them always reflect human decisions and human purposes’ (p. 8). What kinds of epistemic, political, aesthetic, moral and social values structure inquiries that deepen disciplinary incommensurability by giving primacy to distinctions?

While *Values in Psychological Science* is clearly directed toward audiences from the psychological sciences, the innovations and interrogations at the interfaces of old epistemic divides make its findings generally applicable in the classroom and across the academic terrain. It is especially relevant to humanities scholars in search of pedagogical techniques for engaging STEM students. This book provides a clear emphasis on the connections between the humanities, arts and sciences at the level of style of inquiry especially manifest in the mutual valuation of careful, detailed observation and the use of creative metaphors and conceptual modeling for understanding the object of study. The book is also applicable to those in academic teaching, mentorship, advising and leadership positions generally who are interested in nurturing rich professional environments through the cultivation of reflexive intradepartmental cultures of open dialogue composed of research circles that may find collaboration difficult. Indeed, the penultimate chapter of the book ambitiously maps out a kind of ethics for the academic community as a whole in participating in the activity of ‘imaginative projection’, defined as the occupation of situations and modes of being outside a single point of view. Ultimately, the idea is that just as the ability to imperfectly (of course) assume the position of academic outsiders to one’s own field ‘enhances epistemic power’, so too would the associated activity of ‘perspective-taking across cultural identifications’ (p. 105).

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