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HOW BIOLOGY SHAPES PHILOSOPHY

David Livingstone Smith

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How Biology Shapes Philosophy: New Foundations for Naturalism
David Livingstone Smith (*ed.*)
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As anyone who has put together a syllabus for a survey course in the philosophy of biology can attest, there is something of a dual nature at the heart of our field. On the one hand, philosophers of biology do work that resembles that done by our colleagues in the philosophies of other special sciences, like the philosophy of physics, chemistry, or economics. That is, we pose questions about the nature and interpretation of concepts at the centre of biological practice—species, natural selection, adaptation, fitness, genes, and the like—and we ask how these hang together to form the theoretical structures that biologists use to understand the living world around us. Sometimes such philosophy has an explicitly normative angle, attempting to thereby improve biological practice or the public understanding of the science. This is essential work, of course—if we can't understand just what evolutionary theory is supposed to be telling us, it won't be good for any other philosophical purposes.

But there's often another section on our syllabi—one that, at least for me, is a big part of why teaching the philosophy of biology is so enjoyable. For we recognize not just that evolutionary theory is interesting by its own lights, true though this may be; evolutionary theory also has much to teach us about other questions traditionally raised by philosophers working in a variety of different fields. Whether one has a pre-existing interest in the metaphysics of natural kinds, the epistemology of perception, or the ethical response to racism or gender discrimination, it turns out that biology, and especially evolutionary theory, has a stubborn habit of making itself apparent—and, for that matter, essential—in places where it wasn't expected.

This book is a delightful and illuminating survey of that second kind of work, which, in his short introduction, David Livingstone Smith baptizes *biophilosophy*. 'Instead of using philosophy as a resource for biology, as philosophers of biology do', he writes, '[biophilosophers] use biology as a resource for philosophy' (p. 2). Biophilosophy is thus the project of re-evaluating the content of the various 'received views' we have of a whole host of philosophical questions (questions, that is, outside traditional philosophy of science): Are such received views are actually plausible given what we know about the nature of humans as evolved primates? And, further, might insight about our evolutionary origin and biological makeup enable us to refine and improve them?

Before I turn to the content, it's worth beginning with a few words about audience. Clearly the book has a persuasive motivation. That is, one of its audiences is taken to be philosophers working in areas of traditional philosophy potentially impacted by evolutionary theory who, when they appeal to *a priori* philosophical arguments from intuition or conceptual analysis, might find themselves in 'self-imposed straitjackets of theoretical imagination' (p. 17), as Daniel Dennett a touch provocatively puts it in his contribution. That motivation might be rather lost upon the readership of the *BJPS Review of Books*, insofar as I don't think that it will come as a shock that our accounts of functions, of rationality, or of sex and gender ought to be consistent with our current best science. Philosophers of science, I presume, hardly need to be convinced of the importance of science for answering philosophical questions.

But it would be much too quick to see this persuasive aim of the volume and thereby write off the appeal of the book for philosophers of science. For one thing, we are already familiar with a number of books that are self-consciously structured around similar 'persuasive' ends, yet nonetheless provide real and genuine insight into the field for the already persuaded. This book's closest 'fellow travellers', I think, are volumes like Michael Ruse's *Taking Darwin Seriously* ([1986]), Daniel Dennett's *Darwin's Dangerous Idea* ([1995]), and Alexander Rosenberg's *Darwinian Reductionism* ([2006]), all systematic efforts to think through the impact of Darwinian (ever-present, the metonymous bearded Victorian) insight upon philosophy as a whole.

To begin to see the scope of the project, then, let me briefly summarize the content of the volume—always a perilous undertaking for a collection of this breadth and quality. It's organized roughly by subject, though without being clearly demarcated into sections or parts; these are thus my own efforts to bundle together the chapters. (I'll return below to what seems to me a difference in 'type' between the chapters, which will sort them a bit differently.)

After the Editor's brief introduction, we start with a pair of general perspectives on the relationship between biology and philosophy, one by Dennett and one by Rosenberg. These cover a large number of biophilosophical topics, with some traditional philosophy of biology thrown in for good measure, including discussions of the nature of evolution and natural selection, mental content and representation, ethical responsibility,

essentialism, and reductionism. Each does an admirable job of condensing its author's respective world-views, be it evolution's role as 'universal acid' for Dennett or Rosenberg's arch-reductionist project. In general, they give impetus and something of a combative impulse to the book in its early pages—it is worth remembering, if the reader is indeed among those who stand convinced of the possibility and utility of biophilosophy, that this convincing was hard-won and is as yet incomplete when we look at philosophy as a whole.

The next two chapters concern cognition and the philosophy of mind. Peter Godfrey-Smith offers an illuminating discussion of the ways that data about the evolution of cognitive capacities across the tree of life might be brought to bear upon the nature of human consciousness or subjective experience. Patricia Churchland offers an overview of her long-standing research programme in neurophilosophy (after which Smith has explicitly modelled the introduction of biophilosophy), sitting at the interface between neuroscience and the philosophy of mind. A section on mental content and representation offers an overview of teleosemantics by David Papineau, followed by an argument from Karen Neander that methodological practice in current sciences of the mind entails such a teleosemantic approach.

The seventh and ninth chapters concern questions connecting evolution to value theory: first, Ronald de Sousa's wide-ranging and interesting contribution that centres on the ultimate ends and value of human beings, and then Philip Kitcher's argument for an evolutionary account of ethics (and ethical progress) in a Deweyan vein, seen as our improving ability to solve certain kinds of social problems. Samir Okasha considers the relationship between evolution as a putative 'optimizing' process and human rationality, and Edouard Machery presents an account of human nature compatible with our evolutionary history. Chapters from John Dupré and Luc Faucher describe evolutionary approaches to the understanding of gender and race, respectively, and the book closes with Richard Boyd's anti-reductionist approach to causation and natural kinds in macroscopic systems, as a way that philosophers might learn from evolutionary theory.

In short, this is a wide array of precisely the topics that would be ripe for a 'biophilosophical' approach. It is also, clearly, the production of a genuinely impressive collection of authors, all eminently qualified experts in the areas to which they're contributing. (It is appropriate as well to pause to mourn the loss of Karen Neander; her lucid and innovative chapter was one of her last publications.) Furthermore, it's a set of authors known for widely different and original styles, which comes through here in spades.

Beyond a content-focused way of thinking about the book's structure, I also think it's helpful to divide the book up into 'types' of articles. The first two chapters by Dennett and Rosenberg and the last by Boyd serve as something of 'manifestos', describing in broad strokes the kind of impact that biophilosophy might be expected to have, if their authors' interpretations are right. A number of other chapters—Churchland, Papineau, Faucher, and Dupré, at least—are more like 'overviews', offering fairly balanced and well-sourced perspectives on broad fields of work. A few others—the boundary gets fuzzy here, but Machery, Neander, and Kitcher certainly belong in this category—are presentations of a particular contribution to a biophilosophical debate, while still intelligible to a general audience.

While one might indict the volume for therefore being a bit diffuse in its target, I would push the opposite claim: I think this makes the book substantially more readable. Alternating denser chapters with lighter ones, it can simultaneously appeal to scientists (who would be lost in too many philosophical weeds), philosophers outside

the philosophy of science (who may not be familiar with the contours of these debates in the philosophy of science), and philosophers of biology (for whom the manifestos may move too quickly and be too thinly argued).

To close, then, I want to briefly consider the 'programmatic' aspect of the work. Is the time right for 'biophilosophy'? I'm not sure. On the one hand, I agree entirely with the authors here that a biological approach to the questions that they consider is a fruitful one, and one that has to be considered—even if, in the end, rejected—if philosophers want to do justice to a number of questions traditionally thought to be the province of armchair theorizing. In that sense, I take biophilosophy to be an essential task for philosophy as a whole.

On the other hand, I worry about the question of discipline structure that's in play here. I think it's quite right to argue that thinking of this sort of work as 'philosophy of biology' (even, to borrow a point from Jason Stanley, adding the dreaded 'applied' to the front, as 'non-applied' philosophers are wont to do in order to rob a sub-discipline of respect) is not going to produce the kind of long-term appreciation of the relevance of biological facts for philosophical questions that biophilosophers argue is sorely lacking. But I fear that dubbing the approach 'biophilosophy' could have the same kind of isolating effect. After all, what we want is not the existence of 'biophilosophical philosophy of mind' running alongside 'philosophy of mind' (with the tacit slide in the latter to '*real* philosophy of mind'), but rather the deep and profound integration of the kinds of approaches offered in this volume into the fields that have heretofore ignored them.

Any appeal to an established discipline to cease ignoring something that resides on its periphery is guaranteed to prove a socio-intellectual challenge. But perhaps the best hope we have is a volume such as this one, which proves, by ostension, that a whole swath of questions across traditional areas in philosophy are helpfully illuminated by engagement with biological thought.

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