

**Jonathan Hodge and Gregory Radick, eds. *The Cambridge Companion to Darwin*.
2nd edition. Cambridge: Cambridge University Press, 2009. Pp. xiii+548. \$35.99
(paper).**

Philosophers and historians, scientists and enthusiasts gathered in 2009 at the University of Cambridge to fête Charles Darwin on the bicentenary of his birth. The event brought into relief the contrast between Darwin's two bodies, as controversies in evolutionary biology were debated in the very halls where Darwin, in his words, wasted his education. Scholarly attention to the body natural in the form of historical work on Darwin has become something of an industry, while philosophers and social scientists have focused on the body politic, busying themselves with the implications of Darwinian evolution for scientific explanation and theories of mind, morality, and human behavior.

One of several volumes produced at the University Press in conjunction with the Festival was the second edition of *The Cambridge Companion to Darwin*, which offers a carefully ecumenical primer to the scholarly approaches on display. The editors, Jonathan Hodge and Gregory Radick, have fittingly organized chapters along methodological lines, and the abruptness between sections is to some extent an artifact of decades of exciting and bewildering disputes over Darwin and Darwinism. In this respect an ideal companion, ushering the reader into conversations already underway, the volume comprises several précis of positions that have been long in the arguing. On account of this multilayered profusion, the *Companion* is perhaps not the best entry into Darwinism for a reader with little or no exposure to the primary texts; the pithy "Guide to Further Reading" (477) points to several good introductory and biographical sources. Like other

volumes in the series, its aim is rather to shepherd the reader in search of deeper and more expansive understanding. Many of the authors take care to identify the native grounds of such debates in earlier works, though in some cases too great a familiarity is assumed.

The revisions to Hodge and Radick's excellent introduction emphasize their aim of extracting philosophical themes from Darwin's own projects as well as from his legacy. Their preliminary synopsis of evolutionary theory is welcome, since the bulk of chapters explaining Darwin's scientific arguments comes later. Of these the most useful is Ken Waters' exegesis of the *Origin of Species*, a cogent summary of the book's motivation and method that is essential for understanding Darwin's own Darwinism and, incidentally, supplements the sister volume *The Cambridge Companion to the "Origin of Species"* (2009). This chapter provides the groundwork for Elliott Sober's exploration of metaphysical and epistemological aspects of contemporary Darwinian theory, a rich and dense account that, happily, raises more questions than it answers on such key themes as natural laws and kinds, probability, and hypothesis-testing.

The editors' biographical sketch provides a similar scaffold for the first group of essays, focusing on stages of Darwin's personal evolution. Phillip Sloan amplifies the familiar story of Darwin's professional development aboard the *Beagle* and beyond, identifying the predecessor philosophical naturalists who inspired Darwin to seek synthetic explanations for his zoological and geological observations. The significance of the methodological commitments occasioned by this theoretical orientation becomes apparent when Hodge picks up the narrative. His meticulous analysis of the systemic

development of the theory of natural selection through Darwin's "notebook period" should silence any skeptics regarding Darwin's originality.

Both Hodge and Jim Endersby, who addresses Darwin's theory of generation, emphasize how Darwin's social commitments – to good breeding and to what Hodge calls "those aristocratic and gentlemanly capitalisms" (71) – intertwine with his theoretical engagements. In Endersby's case, an emphasis on Darwin as Victorian paterfamilias leads him to overstate the case for Darwin's interest in breeding experiments as issuing from anxieties regarding his own consanguineous marriage.

Robert J. Richards' chapter turns the reader towards the fascinating terrain of Darwin's thoughts on man, arguing that Darwin's youthful dalliance with Humboldtian Romanticism left indelible marks on his theory of instinct. As elsewhere in the volume, Richards' account is no mere pre-history for a later philosophical discussion. Attending to Darwinian philosophies of mind, Kim Sterelny argues that an adaptationist view of cognition can help philosophers re-evaluate the fraught relationship between eliminativism and folk psychology. But if, as Richards claims, Darwin's most innovative work on the mind *preceded* his formulation of the theory of natural selection, any comparison between Darwin's theory of mind and later positions must be cautious. Like Sterelny, Owen Flanagan tempers Daniel Dennett's punchy comment that Darwinism is a "universal acid" for purging excess metaphysics, using the designation "strictly Darwinian" for explanations from population genetics (414). While Flanagan compellingly demonstrates the merit of this definition as a check on recent trends in

evolutionary metaethics, it surely would have struck Darwin, in many respects a loyal Lamarckian, as unacceptably exclusionary.

But does it matter? Jean Gayon trenchantly scrutinizes the relationship between Darwin and Darwinism, describing it as isomorphic insofar as “Darwin’s own contribution has constrained the conceptual and empirical development of evolutionary biology” (278). His finely-wrought history is valuable on its own terms, and even more so as a plausible confirmation of this important thesis. If Gayon can persuade his readers that Darwin’s thought circumscribes the *Bauplan* of contemporary Darwinism, they must surely conclude that incongruities between historical and philosophical accounts do matter. It is at these junctures that the historian of the philosophy of science can offer his best interventions.

The second section – “Historical Contexts” – kicks off with Radick’s stimulating contribution, which asks whether the theory of evolution by natural selection could have come into being independently of Darwin’s milieu. By dint of Radick’s virtuosity as a historian, what might seem a banal counterfactual exercise becomes an illuminating provocation. With Radick’s question in mind, the reader will benefit further from David Hull’s chapter, which contrasts Darwin’s method with that of his contemporaries – Mill, Whewell, and Herschel, in the shadow of Bacon and Newton – and approach more critically Alexander Rosenberg’s challenging defense of a naturalistic metaethics based on Darwinian theory. If one agrees with Rosenberg that morality is a subject for scientific explanation, must it follow that morality is inexplicable except in light of evolution?

In another of the volume's pleasing appositions, John Hedley Brooke's chapter on Darwinism and Victorian Christianity sets the stage for Michael Ruse's sympathetic if unapologetically secularist reflection on faith in our (neo-)Darwinian age. In one of the Festival's more exciting moments, Brooke (with Richards and Philip Kitcher as wingmen) battled Dennett on the topic of evolution and theology. Brooke's invaluable erudition comes through here, if not all of his fire from that debate. Diane B. Paul's propitious contribution, thoughtfully updated for the new edition, treats the fraught relationship between Darwin and social Darwinism with similar diligence. And for his part, Dennett is – himself. Freewheeling and fierce, his chapter summarizes his own brand of Darwinism so forcefully that one might imagine there to be three bodies: natural, politic, and Dennettian.

In the second edition, there are two thoroughly new pieces. The first, a fitting addition for the bicentenary, is an essay by the editors entitled "The Place of Darwin's Theories in the Intellectual Long Run." Hodge and Radick offer a corrective to the claim that Darwin overturned "2000 years of Platonic-Aristotelian consensus" (258) about the fixity of species. Emphasizing the role of Judeo-Christian as well as Greek traditions in shaping Victorian science, they argue that many eighteenth-century natural philosophers considered species in terms of matter in motion rather than essence. By Darwin's day, however, this mechanist picture had given way to the natural-historical image of ancestral stock – an innovation attributed to Lyell and others rather than to Darwin. The chapter closes by considering the relationship between Darwinian theory and later philosophies, particularly American pragmatism. Unfortunately, Peirce's un-Darwinian "agapism" is

neglected and he is placed alongside Dewey as a disciple of natural selection, an oversight in an otherwise wonderful demonstration of the merits of counterpoint.

The second addition, by Simon Blackburn, directly addresses a recurrent theme: does Darwinism invalidate the traditional idea of human nature? Blackburn turns to Hume for an answer, and may well flummox historians by declaring him a Darwinian. Unlike recent sociobiologists, Blackburn argues, Hume's proto-evolutionary picture avoids the grosser excesses of adaptationism while proffering a natural history of morality. Blackburn's argument hinges on the legitimacy of causal explanation in evolutionary biology, a target of Jerry Fodor and others. However, the essay does not clarify how Hume might defend his etiological narratives from the familiar "just-so story" charge.

Of course, one might imagine further additions, paying explicit attention to the intelligent design controversy; to teleology, geology, or embryology; or to the global reach of Darwinism. Philosophical terrain often frequented by Darwinian enthusiasts, such as the twin peaks of free will and determinism, are left uncharted. Nonetheless, the *Companion's* riches should make it of interest not only to toilers in the Darwin Industry, who may choose to expand their libraries with the second edition, but also to a wider audience. Historians of the philosophy of science in particular may endorse the closing line of the volume, with which Kitcher ends his thoughtful reflection on how best to scale the pass between hyper-Darwinism and anti-naturalism: "Darwin deserves his due, neither more nor less" (475).