

The Cambridge Companion to Darwin

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Darwin's Heritage - Still Open to Debate

Even in times of recession the Darwin industry is in bloom more than ever. Recent years have seen the publication of book after book on the history and philosophy of biology; and if one looks for a name at the heart of all this enterprise, it would be Charles Darwin (1809-82). Unlike Isaac Newton, Darwin is still connected with controversial scientific and philosophical debates. Even though his theory could be seen as being almost universally applicable, the evaluation of his intellectual heritage remains controversial. For instance, one could object that there are many other giants in the history of biology whose names are tied to important conceptual changes; in this category, the work of Aristotle, Linnaeus, Oken, Haller, Lamarck, Wallace, Weismann, Mendel, Morgan, de Vries, Bateson, Fisher, Wright, Dobzhansky, Hamilton, Lorenz, Trivers, Dawkins, Gould, Lewontin, Sober and Wilson come to mind. These names show that Darwin's biological theory has neither been a *creatio ex nihilo* nor the end of history of biology. But Darwin in particular was (and still is) a controversial icon for fundamental paradigm shifts in both biology and metaphysics which still have an effect on us today. This makes it reasonable to reflect on the causes of this shift because, as Goethe once claimed, those who have a special interest in history are often particularly concerned with the present. Thus, after the passage of one hundred and fifty years, the 'Origin of Species' still deserves a thorough philosophical and historical treatment.

The Cambridge Companion to Darwin, edited by J. Hodge & G. Radick and published by the press of the university where Darwin once studied, is a notable anthology which addresses both the history and the philosophy of Darwinism. 'Classical' anthologies on this topic up to now have tended to treat either historical (Kohn, 1985) or the philosophical debates (Hull & Ruse, eds., 1998; Allen, Bekoff & Lauder, eds., 1998) and it is a merit of this particular anthology that it treats both of these topics in an accessible manner. However, an anthology which covers many different (normally semi-isolated) discourses has to pay a price. In

the case of the *Companion*, the seventeen essays, written by known experts, are only partly related to each other. Moreover, most of these brief essays do not review the full range of research in each topic under discussion. Instead, they give a concise introduction to the subject and then go on to make their own contributions. Nonetheless, the *Companion* provides novices as well as experts with a wealth of substantial research on the flourishing debates in the history and philosophy of Darwinism.

The first half of the book looks at historical issues. Most of these articles profit from the detailed research recently produced by the so-called ‘Darwin industry’ which, in the narrow sense, is interested in the documentation of every minutiae of Darwin’s works, notebooks, letters and life. The essays do have, however, a broad and interesting scope. Here I can only sketch the content of some of the chapters. P. Sloan opens the volume by tracing Darwin’s early intellectual development, with a particular view to the role of romanticism and then J. Hodge takes up the thread, describing Darwin’s later notebook program as associated with a British ‘aristocratic capitalism’ instead of pure *laissez-faire* capitalism. R. Richards gives a brief account of how Darwin dealt with emotions and ethics (Richards has written a massive tome on this matter). G. Radick, who writes about whether the concept of natural selection is independent of its history or not, ends with a challenging question: “Is it really more in the Darwinian spirit to hold that Darwin’s own theory is a contingent product of social history, rather than a timeless truth?” Moving along, D. Hull demonstrates how the three best-known Victorian philosophers of science, Herschel, Whewell and Mill, all came to a negative verdict on the theory of natural selection, though the former two had a strong influence on Darwin. Finally, H. Brooke discusses the relation between Darwinism and Victorian Christianity, giving further support for his middle course between a conflict model and a model which minimises existing dissonance of Darwinism and Christianity.

The second part of the *Companion* address systematic issues and, in doing so, it covers a wide range of topics. For example, J. Gayon concentrates on the persistent Darwinian concepts of the ‘tree of life’ and of ‘natural selection’ and discusses some historical and contemporary challenges to both concepts. E. Sober, who is particularly known because for his contributions to the debate on egoism and altruism, addresses metaphysical and epistemological issues in modern Darwinism (chance, essentialism, testability). This is followed by K. Sterelny’s review of the challenges posed by Darwinism to philosophy of mind and (evolutionary) psychology. Moving into the realm of ethics,

A. Rosenberg discusses attempts made by Darwinian naturalism to bridge the gap between ‘ought’ and ‘is’, particularly in reference to ‘Darwinian morality’ and ‘Darwinian metaethics’. M. Ruse, like Brooke in the historical part, discusses the relationship between Darwinism and theism. Ruse, a confessing Darwinian, compares the general approaches of both ‘isms’ to design, progress, evil, soul and mystery. According to him, a committed Darwinian does face problems being a Christian, but not an absolute barrier. D. Dennett expounds his challenging, and perhaps dangerous, idea of an epistemological exclusiveness of Darwinian bottom up processes and the blindness of the Darwinian mechanism in biology and ‘memetics’. He ends by addressing the topics in relation to problems of selfhood and creativity.

Having discussed the contents of a book, a review should also discuss what is *not* written in a work—those subjects which might have been included, but which were not. In its systematic part, the *Companion* focuses on the debates associated with the philosophical implications of Darwinism. Although the book is admirable for having such a broad scope, it has blind spots nonetheless. Anyone who buys it should be aware that the *Companion* could have had a different focus. Firstly, the philosophical debates on the conceptual questions of evolutionary biology itself could have been emphasised more strongly. One might think of an anthology that focuses on the following debates: units of selection, phenotype-reductionism, morphology, evolutionary game theory, punctuated equilibrium, taxonomy or active DNA. A second possible companion could focus on the interactions of Darwinism with particular subject areas. It might contain articles like ‘Darwinism and Literature’, ‘Darwinism and Politics’, ‘Darwinism and Economy’ or ‘Darwinism and Theology’. A third possibility would include not only debates within the philosophy of biology but also corresponding debates in philosophy in general, such as those on emergence/supervenience, essentialism, form-function, inner and outer, teleology and progress. A further companion could address the philosophers of nature who do not discuss Darwinism ‘analytically’ but who directly try to continue alternative traditions of a philosophy of nature. One may, for example, think of neo-Aristotelianism, neo-Thomism, romantic *Naturphilosophie*, Phenomenology, Whitehead’s Process Philosophy or Hans Jonas’ philosophical biology. Hence, any companion on Darwin and Darwinism which consists of about five hundred pages is necessarily selective and many companions on Darwin remain to be written. In any case, *The*

Cambridge Companion to Darwin is a firm step forward and will serve its readers well.

Despite its blind spots the *Companion* does provide us with an excellent introduction to the concepts, contexts and controversies concerning Darwin and Darwinism, especially since fundamentally important questions like the role of history, being, knowledge and morality are addressed and discussed. In my view, the articles in all their differences seem to convey a common message. On the one hand it becomes clear that Darwin's theory is not only based on his 'empirical' work, but embodies even more a unique 'theoretical' achievement, a great synthesis of ideas and theories available to him in his time period. On the other hand it is shown that Darwin and today's Darwinism also needs to be taken seriously in regard of metaphysical, epistemological and ethical questions. Whatever our final evaluation of Darwin's position may be, Darwin, who actually was called 'philosopher' by his shipmates on the HMS Beagle, is part of the line of great philosophers, which reaches from Plato, Aristotle, Augustine, Aquinas, to Locke, Hume, Kant, Hegel, Wittgenstein and Russell.

The Cambridge Companion to Darwin is a valuable source for understanding Darwin also as a philosopher.

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