

Darwinian Dialectics

Robert J. Richards and Michael Ruse (2016). Debating Darwin. University of Chicago Press, Chicago. ISBN: 9780226384429, 320 pages, price: \$30.00 (hardcover).

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This co-authored volume on Charles Darwin's life and work is the culmination and, in its own way, a celebration of a long-standing dispute between Robert J. Richards and Michael Ruse, two prominent historians and philosophers of biology. In its specific and highly original structure, it offers an intriguing example of unresolved dialectics: It first provides a thesis by one and an antithesis by the other author. Instead of trying to resolve the tension between their accounts, the authors subsequently enter into an exchange of critical commentary. This exchange is capped by a remarkably inconclusive but much more harmonious epilogue that moves from historical and biographical to contemporary perspectives on the lasting importance of Darwin's thought. The authors then leave it to the reader to create (or fail to create) a synthesis from their contrasting viewpoints.

This design for a book might look frustrating but is in fact very instructive for everyone interested in how far interpretations of a great scientist's theories and their biographical and historical embedding might lie apart, and why they might do so. Few historical figures are as inviting of this kind of exercise as Darwin. To be sure, Richards and Ruse do not try to make their images of Darwin mutually unrecognisable, nor do they differ in their appreciation of Darwin's accomplishments, but neither do they seek a lot of common ground. Instead, they undertake the experiment of letting their views openly and unresolvedly clash in front of their readers, while making it fully clear that the images they paint of Darwin are normatively invested but still scholarly sound and fact-based appropriations of the historical figure.

One intriguing effect of this format is that the tension between the two images of Charles Darwin's life and work becomes palpable for every reasonably well-informed reader with an immediacy that would not be available in a mere comparison between some of their works. This is so for the first, more obvious, reason that the authors explicitly relate their views to each other and motivate their reasons in detail. Richards and Ruse disagree in a profound but mutually well-informed, friendly and well-mannered way that is reminiscent of the scholarly letter-writing still common in Darwin's time. The second, less obvious reason for the instructiveness of the unresolved tension lies in the opportunity for the reader to

observe, side by side, how exactly the two authors build their respective narratives in terms of argument and rhetoric. In Ludwik Fleck's terms, Richards' and Ruse's *Denkstile* ("thought styles" in his 1935/1979 *Genesis and Development of a Scientific Fact*) differ in the most remarkable and sometimes surprising ways. There is much to be learned in this respect from what they state but also from what they do *not* state.

Taken at face value, Ruse's and Richards' narratives can be summarised in the following well-rehearsed way: On Ruse's account, Darwin the person and Darwin's theory were a product of his time, country, and social class. Far from being a coherent determining force, both the conservative, Anglican element and its views of Natural Theology and divine providence and the liberal, industrial element and its views of mechanism and progress were present in Darwin's intellectual upbringing. In their unique combination, these factors suffice to explain how Darwin came to conceive of his theory of evolution through variation and natural selection. On Richards' account, Darwin the person and Darwin's theory were a product of their time and place too, but were transformed into their ultimate shape by the influence of German Romantic science, in particular Alexander von Humboldt and Johann Wolfgang Goethe and their holistic, deistic views of nature. Neither Richards nor Ruse deny the existence of the influences from either side but, on a proximate level, they differ in the assessment of their relative importance. On an ultimate level, however, more is at stake.

A good starting point for a diagnosis is the space and importance that is given to Darwin's journey as a naturalist on the HMS Beagle by each author. While Ruse duly but briefly acknowledges this journey as one episode in Darwin's intellectual biography (and the only time he ever spent abroad) and much more extensively dwells on Darwin's social class and the context of British politics, culture, religious and educational institutions in the early 19th century, Richards describes Darwin's journey to the tropics as the ultimate experience to shape his theory of evolution, allowing himself to pay less attention to how British culture and society may have looked and felt at that time. Richards also elaborates on the literature that influenced and inspired Darwin, above all von Humboldt's approach to nature and its investigation in his 1814/1818 *Personal Narrative of Travels to the Equinoctial Regions of the New Continent*, but also, although mostly mediated through the writings of Darwin's British contemporaries, Goethe's morphological theory and Kant's moral philosophy. Put differently, where Ruse talks a lot about Darwin's formative years and the social factors and the education that did that forming, Richards highlights the transformative experience of the Beagle journey and Darwin's education through reading.

The diagnosis is that these are not merely differences in emphasis but in general outlook: Ruse has an almost social determinist (rather than merely social constructivist) view of the making of Darwin's thinking that testifies to his Marxist influences, whereas Richards adopts a much more classically humanist stance that cherishes individual creativity and intellectual freedom. Hence, the first major difference in *Denkstil* between Ruse and Richards is how they position themselves with respect to Marx' famous dictum: "It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness." (Karl Marx, 1859/1977, *A Contribution to the Critique of Political Economy*) If you are a child of the British upper middle class in the early 19th century, with a certain family background and a given set of intellectual influences, your way

of thinking is bound not to stray very far from that background. The originality of Darwin's contribution owes to the unique constellation of influences that comprises Paley's Natural Theology, Smith's and Malthus' political economy and Lyell's geology in particular. Among these influences, German Romanticism is of lesser importance precisely because it was extraneous (if not to say foreign) to the conditions of social existence under which Darwin grew up, but more of an acquired taste. This is Ruse's underlying narrative on the relation between existence and consciousness. In contrast, Richards' underlying narrative is this: If you are a child of that time and that country and that class, there is no reason why you should not be able to transcend the intellectual – and in some respects geographic – boundaries thus imposed, given a bright mind, a good deal of effort and some favourable circumstances. If anything, a transformative experience of the Beagle kind will be a potent catalyst to this process.

The second, related major difference in *Denkstil* between Ruse and Richards is that Richards, a historian by denomination, argues much more philosophically than Ruse, the card-carrying philosopher in this book. If one's scholarly convictions are bounded by historical circumstance and social class, it will be more important to describe these influences than to explore the structure of one's arguments *qua* arguments – which will ultimately spell bad news for philosophy though. In contrast, if one tries to carve out the systematic import that one thinker's reasoning has on another's, and if one takes that import seriously as being *systematic*, it will be more important to reconstruct the lines of reasoning involved and their interconnections than to unfold the socio-economic background on which they developed. By implicature rather than corollary, Ruse's historically and socially coloured image of Darwin's world looks notably darker, colder and more "red in tooth and claw" than Richards' rationally minded and humanistic one.

From these contrasting characterisations of Darwin's influences, there flow equally contrasting descriptions of Darwin's concrete views of central subjects of his theory: Darwin conceived of nature as essentially organic and teleological (Richards) or as reducible to mechanical and law-like principles (Ruse); he believed that natural selection acts on groups, too (Richards) or only on individuals (Ruse); he viewed evolution as being inherently progressive (Richards) or as something whose progressive character needs explanation (Ruse); he deemed human morality to be based on a genuine moral sense (Richards) or on mere utilitarian concerns (Ruse); and when it comes to religion, he assumed God and nature to be unified in 'deistic' fashion, and a benevolent being above all (Richards), or he conceived of Him as the more stern, un-involved creator-god handed down to us by the 'theistic' mainstream (Ruse). The beliefs on each subject ascribed to Darwin are mutually inconsistent when compared individually, but when viewed as a set of dichotomies, each side forms a coherent belief system. One system is deeply progressive, teleological and Romantic, the other thoroughly utilitarian, mechanistic, and Anglican. No person could possibly commit to both belief systems at the same time – or indeed ever, save a fundamental experience of conversion.

Richards' and Ruse's freely admitted charge of appropriating Darwin being granted, and their work on fleshing out Darwin's intellectual development being fully appreciated, there still might be an issue with these images of Darwinian belief systems: they create an

unduly static and monolithic impression. First of all, a person's views may be exposed to contradicting influences, pulled into different directions over time or even synchronously, become unstable at one point and restabilise at a quite different one, or even remain conflicted over an extended period of time. A person generally neither benefits from a birds-eye view of the factors that influence his or her intellectual trajectory nor from an ex-post view of where it ultimately leads. Being in command of such perspectives is the privilege of the historian or biographer – a privilege that is richly exploited by Ruse and Richards. Conversely, one could not possibly awake from any dogmatic slumber if his or her intellectual trajectory had no chance of being exposed to and modified by contrasting influences. If anything, Darwin's long and tormentous struggle with Christian faith and the remaining imprint of the concept of God on his work even after his turn to agnosticism are prime examples of a complex and conflicted intellectual development – of which both authors are well-aware. An image of Darwin as either quintessentially Romantic or irreducibly Anglican might inadvertently eclipse such important transformations. Ambiguities and tensions in one's views might even become productive in terms of shaping one's intellectual accomplishments in complementary ways. The relation between Darwin's deeply aesthetic, romantically informed view of nature and his more law-like conception of natural selection and other forces in evolution might be a case in point here (with which neither Richards nor Ruse would agree though). It is possible that a coherent and tenable theory develops from *prima facie* contradicting influences. The dichotomy between Ruse's and Richards' accounts of Darwin's development might inadvertently create an illusion of biographical coherence that obscures this possibility.

Still, there is a number of benefits in the contrasting images provided by Richards and Ruse, which mostly work by example: First, with respect to Darwin as a historical figure, they raise the question of whether and how far a thinker can raise above his influences – a question to which the authors give quite distinct answers. Second, on the level of underlying narratives, they illustrate the power and persuasiveness of such narratives and the values embedded in them. Third, in view of overcoming the unresolved tensions between Richards' and Ruse's accounts, they invite a wide range of possible solutions from their readers: one might simply be persuaded by one narrative or another; one might prefer to critically reconstruct or deconstruct either narrative, or both; or one may try to forge a synthesis between them, as the author of this review has tried before (Hajo Greif, 2015, *The Darwinian Tension*). Besides the evident and eminent scholarship exhibited in this book, it is this open-endedness that is of genuine educational value. It not only requires and enables the reader to connect the dots him- or herself but also encourages open-mindedness over scholarly partisanship.

In content and form, this book will be very useful reading in upper-level history and philosophy of science as well as in social studies of science classes. As an introduction to Darwin and his theory, it is of limited suitability though, not because of its specific design but because it will be more rewarding to readers with some previous knowledge of the subject.