

*The Romantic Conception of Life* is a study of the conceptions of living nature developed during the early German Romantic period, situated in the personal lives of their authors. Focusing upon the Jena Romantics, Schelling, Goethe and the scientists in their circles, it provides detailed readings of key texts, punctuated by portraits of the individuals discussed—portraits filled out by exhaustive attention to letters and diaries.

In this ambitious and learned work, Richards makes an important contribution to the historical reevaluation of Romantic biology. He rightly contends that before any assessment of its significance can begin, it is necessary to have a nuanced understanding of the science in its relationship to the Romantic movement and contemporary philosophy, which this book sets out to provide. Richards emphasizes that the Romantic figures he discusses were not opposed to Enlightenment reason, as ordinarily presumed, but on the contrary intensely preoccupied with exploring the potential of human reason. Moreover, they were deeply engaged with its philosophical legacy, such as the problem posed by Kant regarding the apparent teleological ordering of living organisms. He attributes the discontinuities of Enlightenment with Romantic science to the latter's emphases on the organic productivity of nature, on the aesthetic appreciation of nature's creativity, and on the attribution of freedom and morality to nature. Richards effectively demonstrates how these emphases enabled important contributions to the understanding of life in the period that acted as foundations for later developments in nineteenth-century biology.

The boldest and most controversial argument of the book is that Darwin was a Romantic. The closing chapter provides convincing examples of how Romantic theories of archetypes and Humboldt's vision of nature contributed to Darwin's evolutionary ideas. It also makes more general suggestions as to how the Romantic emphases on organic productivity, aesthetics and morality were significant parts of its legacy and hence of the environment informing Darwin's thinking, without claiming a direct descent of ideas. Moreover, Richards provides detailed examination of the evolutionary theories of German figures like Schelling and Goethe, and an analysis of their differences from other contemporary and subsequent evolutionary theories—one of the most engaging and original contributions of the book. Yet Richards's interest in nineteenth-century evolutionary theory hovers over the whole, giving a teleological orientation to the book and framing his reading of the Romantic texts. This is particularly true of Richards's discussion of archetype theory. An important aspect of the legacy of German thought on nineteenth-century biology, Richards rightly emphasizes the centrality of Goethe's theory of the archetype to his biological ideas. But he overemphasizes its centrality to Schelling, and thus fails to attend to the significant differences between Goethe's and Schelling's philosophies of nature and conceptions of the organic. Casting the Romantic conception of life so wide as to include Darwin will certainly give the book deserved attention. But the broad historical claims of its concluding part sit uncomfortably with the careful contextual analyses of early Romantic figures and their texts of the earlier chapters.

Richards is one of the few historians of science to have deeply engaged with the difficult philosophical texts of German idealism vital to understanding conceptions of life in the Romantic period. The results are highly insightful discussions of how the figures he discusses resolved the problem of understanding the teleology of the individual organisms into the problem of understanding nature as a whole, and of how they understood the self-organization of the universe as correspondent to the self-organization of the mind, thus relating developing knowledge of nature to developing knowledge of the self. But Richards rejects the claims of Fichte and Schelling, and of many of their modern interpreters, that they were continuing Kant's critical project. Thus he reads Fichte and Schelling as making the perplexing claim that the world is constituted by the mind, when they are better understood as extending Kant's examination of the conditions for cognition of the world. He also finds in Kant a clear boundary

between reflective judgments of the organic and determinative judgments of mechanical bodies, whereas Fichte and Schelling started from the ambiguities they found in Kant's attempts at such demarcations. But it is precisely the great merit of Richards's excellent book, the most substantial work on Romantic science now available, that it invites debate with scholars in the field at the level of detailed analysis long enjoyed by historians of science of other periods.

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*The author comments:*

Joan Steigerwald has provided a clear and perceptive representation of the intentions of my book. I am grateful for her generous assessments and certainly will not cavil with them. I would like just briefly to discuss a few issues about which she expresses some hesitation. First, I am acutely aware that my depiction of the Romantic sources of Darwin's theory fails the test of orthodoxy; though I am comforted that a few other scholars are beginning to draw similar conclusions. Once provided with the right historical spectacles, I think that evidence for "Darwin's Romantic biology" protrudes as obviously as his own shining pate. His portrayal of the moral and aesthetic features of nature, his endorsement of recapitulation theory, his organic conception of nature, his progressive characterization of evolution, his employment of the archetype, as well as the distinctively Romantic reading that guided the formulation of his theory—all of this and more makes, I think, a persuasive case. Undoubtedly, though, the common view of Darwin as a relentless mechanist who deprived nature of intrinsic value remains an image deeply entrenched in the historiography.

Steigerwald has noted that I do not regard Fichte and Schelling as merely extending Kant's epistemological and metaphysical proposals. This is an issue that divides scholars of German idealism. I argue that when Fichte and Schelling dismissed as risible Kant's "thing-in-itself" (an object about which Kant claimed nothing could be known, though he himself seemed to know a lot about it), we should take their laughter seriously. Perhaps only the specialist will hyperventilate about this problem, but it is one that has multiple ramifications for the history of the human sciences in the nineteenth century and even today.

Finally, Steigerwald suggests that I exaggerate the impact of Goethe's influence on Schelling, especially in respect to archetype theory. The dispute is another of those that might excite only the devotees of German idealism. Yet the case is one of many that display, I think, the necessity of examining close personal relations in order to understand the more abstract relations of ideas. My book might be read as one long argument for the necessity of keeping the authorial genie in the well-wrought urn. Goethe was a magnetic personality and his intimate intervention in Schelling's near suicide bound the two individuals in a sympathetic union that secreted into their philosophical and scientific beliefs—or so I argue.

Some of Steigerwald's conceptions differ from mine, but we are in solid agreement that Romanticism had a far-reaching impact on nineteenth-century science, forming several of its deeply flowing and powerful currents.

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