

Christian J. Emden. *Nietzsche's Naturalism: Philosophy and the Life Sciences in the Nineteenth Century*. Cambridge University Press 2014. 254 pp. \$95.00 USD (Hardcover ISBN 9781107059634).

In *Nietzsche's Naturalism*, Christian J. Emden conveys a nuanced and historically rich account of Nietzsche's philosophical naturalism. Setting himself the task of reconstructing Nietzsche's naturalism through 'an approach that seeks to do justice to both Nietzsche's philosophical import and his historical context', (6) Emden succeeds in creating a context-sensitive account of Nietzsche's thought that should satisfy historically-minded Nietzsche scholars while simultaneously bringing Nietzsche into dialogue with debates in contemporary philosophy of science. Despite some organizational issues that detract from its readability, Emden's book successfully outlines a persuasive account of Nietzsche's naturalism, and offers the reader a wealth of comprehensive historical detail.

For Emden, Nietzsche's central philosophical project is a naturalism exemplified by Nietzsche's aim to 'translate humanity back into nature' (*Beyond Good and Evil*, Ed. Rolf-Peter Horstmann, Trans. Judith Norman, Cambridge University Press, 2001, 230). Emden's thesis is that Nietzsche's naturalism is strongly shaped by his engagement with the nineteenth century philosophical and scientific milieu, and that understanding this historical context is necessary for providing an accurate reconstruction of this naturalism. Accordingly, Emden takes great care to provide this historical background, contrasting this book with other contemporary interpretations of Nietzsche that ignore or oversimplify Nietzsche's engagement with nineteenth century debates, and thereby misconstrue Nietzsche's thought as contradictory, merely therapeutic, or irrelevant to philosophical naturalism. Emden's book clears the air, providing an accurate and comprehensive account of the naturalism of Nietzsche's ambition to 'fold the normative into the natural' (33). Providing a nuanced view of Nietzsche's attempt to understand the relationship between the intellectual and organic worlds in a way that avoids falling into idealism or materialism, Emden's reconstruction of Nietzsche's naturalism is an important contribution to philosophical naturalism and the philosophy of science.

Emden argues that the principal formative intellectual influence on Nietzsche's naturalism is the first generation of neo-Kantian philosophers who situate themselves at the intersection of Kantian philosophy and the myriad emerging disciplines of the nineteenth century natural sciences. In the second chapter, 'The neo-Kantian stance', Emden introduces these philosophers, whose ranks include Friedrich Albert Lange, Afrikan Spir, Otto Liebmann, Hermann von Helmholtz, and Ernst Mach, among others. By tracing Nietzsche's engagement with these philosophers, Emden demonstrates that Nietzsche is shaped by neo-Kantian attempts to integrate Kantian philosophy with disciplines such as morphology, cell theory, and evolutionary theory, understanding the relationship between mind and world (or, for Nietzsche, the normative and the natural) without appealing to the transcendental arguments of transcendental idealism or by reducing the intellectual world to mere nature through scientific materialism. To demonstrate the extent to which Nietzsche's naturalism is informed by debates in neo-Kantianism, Emden combs through the various books, essays and personal letters of the neo-Kantians. In doing so, he introduces the reader to many debates within neo-Kantian philosophy that are germane to reconstructing Nietzsche's naturalism, namely teleology in Chapter 7, 'Problems with purpose', causation in Chapter 9, 'Naturalizing Kant', and the possibility of naturalizing the presuppositions of philosophical arguments in Chapter 12, "'Darwinism's' metaphysical mistake'. Each of these chapters is rich with well-referenced historical detail.

Equally, Emden discusses Nietzsche's engagement with nineteenth century life sciences, explaining the extent to which Nietzsche's naturalism is informed by research in cell theory, embryology, psycho-physiology, morphology, and evolutionary theory. In Chapter 3, 'Nietzsche's "Anti-Darwinism"', Emden explores how Nietzsche's naturalism is informed by the complex reception of Darwin's work among the leading German biologists Carl von Nägeli, Eduard von Hartmann, and Oscar Schmidt. Emden argues that Nietzsche's 'anti-Darwinism' was not a rejection of evolution by natural selection—a theory that Nietzsche endorsed, given evidence of his praise of selectionists like Lange and Caspari—but rather a rejoinder to the teleological Darwinism of figures like Herbert Spencer. In contrast to other interpretations of Nietzsche's relationship to Darwin (*cf.* Dirk Johnson, *Nietzsche's Anti-Darwinism*, Cambridge University Press, 2013), Emden writes that 'Darwin was, for Nietzsche, as important as the traditions of German morphology and cell theory' (39). That is, Emden places Darwin's theory of evolution among the ateleological nineteenth century life science disciplines, whose focus on the contingency of biological processes gives Nietzsche the tools to create a naturalism free of teleology and vitalism. Discussing Nietzsche's rejection of Spencerian 'Darwinism' and Ernst Haeckel's 'biogenetic law', Emden demonstrates that, in both cases, Nietzsche rejects teleology in favour of a more prosaic alternative: Otto Caspari's ateleological account of common descent (in the first case) and Wilhelm His' physiological and developmental account of embryogenesis (in the second). Although Emden demonstrates Nietzsche's connection to the life sciences, he also explains that Nietzsche's naturalism is not a reductive scientific materialism. In Chapter 4, 'Psychology, experiment, and scientific practice', Emden explains Nietzsche's argument that life science 'first needs a value-ideal, a value-creating power, serving which it *is allowed to believe* in itself' (*On the Genealogy of Morals*, Edited by Keith Ansell-Pearson and Carol Diethe, Cambridge University Press, 1994, §25, 120). Because normativity is both itself natural and a precondition for science, Nietzsche explicitly rejects the view that the natural sciences possess an authority of objectivity or a value-neutral framework for the unity of knowledge.

Emden also interprets genealogy in naturalist terms as the ateleological natural history of the contingency of normativity. Emden demonstrates that Nietzsche modeled genealogy on the life sciences in Chapter 10, 'Genealogy and Path Dependence', where the common descent of cells in cell theory is equivalent to the 'path dependence' of norms. Like Georg Schneider and Gottfried Treviranus—who studied the origin of cell lines—Nietzsche seeks to understand both why present norms reproduce characteristics of their progenitors, and also how they 'evolve from' past states without teleologically 'evolving to' the present or the future. Similarly, in Chapter 14, 'Toward a Natural History of Normativity', Emden explains how, to emphasize contingency in development, Nietzsche models genealogy on the embryological research of Wilhelm His. In contrast to Ernst Haeckel's 'biogenetic law', which projected a necessary pattern of development perfectly reflecting the phylogenetic history of the species onto embryology, His compared very fine slices of frozen embryo to empirically reconstruct organic development, tracking its contingent accidents. Emden argues that Nietzsche viewed genealogy as a research method similar to His'; Nietzsche aimed to characterize contingent and accidental change in normativity accumulated through history, not to project a telos onto the history of morality. Thus, by emphasizing Nietzsche's interaction with nineteenth century biologists, Emden counters the claim that Nietzsche reintroduces teleology and vitalism back into his genealogical method.

The main strength of Emden's book is how persuasively and comprehensively it demonstrates that neo-Kantianism and the emerging life sciences shape Nietzsche's naturalism—that any other interpretations that ignore this historical context misrepresent Nietzsche's philosophy and his continued relevance. Emden skillfully navigates the sheer wealth of philosophers and life scientists who

shape Nietzsche, skillfully presenting a charitable description of each even when they are objects of Nietzsche's criticism. Emden capably supports his own views with historical sources throughout the book, and the reader is never overwhelmed, nor faced with oversimplification of complex arguments. Emden demonstrates the usefulness of including this often overlooked historical context when he is able to convincingly resolve contradictions arising from controversial interpretations of, for example, will to power, Nietzsche's relation to Darwin, vitalism, and teleology. Moreover, because many of the nineteenth century German sources used by Emden have not been translated into English, Emden's own translations of relevant quotes makes these texts available to an English audience.

Another strength is that readers will find Emden's reconstruction of Nietzsche's naturalism surprisingly relevant to contemporary philosophy of science. Nietzsche's naturalism outlines a philosophically and scientifically integrated research program through his commitment to naturalizing Kant and his engagement with disciplines in the life sciences as they originated. It is to Emden's credit that he makes such a strong case that Nietzsche, rarely included as an important philosopher of science, has much to offer current debates in philosophical naturalism.

However, a weakness of Emden's book is its organization. Often, arguments are inadequately introduced, creating confusion that is only resolved once the section is read in its entirety; thus many sections are understood only retrospectively. Also, a strength of Emden's writing style—that he avoids overgeneralization in favour of citing historical sources—becomes problematic when he is forced to use general terms, such as neo-Kantianism or naturalism, whose broad definitions he is hesitant to provide. One limitation of the book is that, because Emden emphasizes historical sources more than current debates in Nietzsche scholarship and philosophical naturalism, the contemporary significance of Emden's book is less clear to readers without an introduction to current Nietzsche scholarship or debates in philosophical naturalism

There are three types of readers—Nietzsche scholars, philosophers of science, and natural scientists—who would find this book useful to their research. Most obviously, Nietzsche scholars will find in Emden's book an introduction to the people and ideas that shaped Nietzsche, helping these readers understand the historical context of Nietzsche's arguments and terminology. They will also find a unified interpretation of Nietzsche that can stand on its own, outside of the context of naturalism, as well as an explanation of nineteenth century natural sciences typically unavailable to scholars with a philosophical background. Less intuitively, scholars interested in the philosophy of science and philosophical naturalism may be surprised to find that Nietzsche is as relevant to their discipline as Emden presents him. These readers will be introduced to an often overlooked historical period where philosophy and the natural sciences were integrated disciplines, making it possible for Nietzsche to ask 'the right questions about the reach of naturalism and normativity—questions that continue to be relevant today' (10). Finally, contemporary natural scientists interested in the reconcilability of the fundamental questions of science and philosophy will be pleasantly surprised by the pertinence of Emden's book. Through Emden's exploration of the nineteenth century natural sciences, they will find that the rich intellectual history of their own discipline contains a scientifically and philosophically integrated research program. Because contemporary natural sciences are just as diverse as they once were, Emden's exploration of historical philosophical naturalism is even more relevant than he portrays it.

In conclusion, *Nietzsche's Naturalism* is a valuable addition to a growing body of literature that draws on historical philosophical figures to inform contemporary discussions of the relationship between philosophy and science. Through Emden's reconstruction of Nietzsche's naturalism, the

reader gains a consistent and plausible account of Nietzsche's thought, an introduction to the work by nineteenth century intellectuals to integrate science and philosophy, and a look into Nietzsche's ambitious naturalism that aims to translate humanity back into nature.

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