

Book Reviews

Both Helmholtz's letters and Cahan's editorial matter provide a rich portrait of medical training in Berlin in the 1840s, and Cahan makes a good case that familiarity with Helmholtz's medical training and extraordinary social life in Berlin is crucial for a proper understanding of the breadth of later interests and accomplishments.

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MICHAEL HAGNER and BETTINA WAHRING-SCHMIDT (eds), *Johannes Müller und die Philosophie*, Berlin, Akademie Verlag, 1992, pp. 341, DM 88.00 (3-05-002232-9).

Johannes Müller (1801–1858) is often referred to as the “father” of modern German physiology. His education and subsequent career coincided with the period during which the natural sciences were gradually emancipated from the “Queen of the sciences”—philosophy. Müller's inaugural address at Bonn University in 1824, ‘Vom Bedürfnis der Physiologie nach einer philosophischen Naturbetrachtung’ (‘On physiology's need for a philosophical contemplation of nature’) provoked great interest at the time and remains a central source of reference for this present volume.

None of the authors here accepts Du Bois Reymond's thesis that Müller's work can be divided into earlier “romantic” phases followed by a more or less distinct empirical one. Rather, they argue, throughout his career, Müller assimilated various philosophical strands into his scientific work, with Schelling, Rudolphi and Goethe as successive influences. Several of the authors—Wahring-Schmidt, Mazzolini, and Hagner—examine Müller's relationship to Kant, Spinoza and other philosophers. Müller's Kantian language has long been appreciated; Hagner further suggests that Spinoza's writings help shape Müller's research on sensory physiology and provided a formula for his moral and ethical aspirations. However, the essays in this volume go beyond mere issues of “influence” to suggest that Müller's employment of philosophy was strongly affected by his desire to give physiology a stable scientific foundation.

More generally, these essays remind us that attitudes towards *Naturphilosophie* have changed over time. During the second half of the nineteenth century, the movement was simply castigated by those who disapproved of all philosophy within science. As Lammel points out, however, critics of *Naturphilosophie* had their own, positivistic philosophical agenda. The old metaphysics was simply replaced by a new one. In his afterword Peter McLaughlin wonders whether:

the use of the image of *Naturphilosophie* during the second half of the nineteenth century to discredit philosophy and to separate the natural sciences strictly from philosophy, is perhaps more related to the failure of the 1848 Revolution than to a presumed negative influence of philosophy on science.

The editors of this volume disclaim any unified thesis about Müller and his relationship to philosophy. The essays do amply demonstrate that philosophy was a lifelong preoccupation for him and that we cannot understand his science without taking this fact seriously.

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