

**Karl Sigmund.** *Exact Thinking in Demented Times: The Vienna Circle and the Epic Quest for the Foundations of Science.* Preface by Douglas Hofstadter. xviii + 449 pp., figures, notes, bibliography, index. New York: Basic Books, 2017. \$32 (cloth), ISBN 9780465096954.

In *Exact Thinking in Demented Times. The Vienna Circle and the Epic Quest for the Foundation of Science* Karl Sigmund undertakes the difficult task of giving a comprehensive and solid introduction into the history and philosophy of the Vienna Circle accessible to a multi-disciplinary readership of non-experts in philosophy. Sigmund's book is a melange of quite different ingredients: bits (of history) of philosophy of science are mixed with stories and anecdotes about genius, insanity, murder, suicide, megalomania, and other eccentric traits and events that can be found back in the early decades of the 20th century around the group of philosophers and scientists known as the Vienna Circle. Sometimes, these stories have some philosophical relevance, sometimes they do not.

The book has thirteen chapters, beginning with an introductory chapter on the philosopher-physicists Ernst Mach and Ludwig Boltzmann. Sigmund considers them as two dioscuroi, who founded the science-based philosophy that was to become the trademark of the Vienna circle. Then the book roughly follows the historical evolution of the Circle till its gradual fading away in the 1930s and its final disappearance marked by Schlick's assassination in 1936.

The book fulfills only partially the requirements that a solid introduction to the philosophy of the logical empiricism of the Vienna Circle has to satisfy. It tells the reader a lot about Vienna, Viennese culture, and, of course, about the protagonists of the Circle. Information proper about the philosophy of the Vienna Circle, however, remains rare. For instance, Carnap's *Aufbau*, undoubtedly one of the most important works of logical empiricism, is bluntly characterized as a "unique cocktail, blending Russell and Mach together in a subtle mix." (p. 118) This characterisation does not provide even a dim idea to the uninitiated reader of what this work is about. Or, to take another example, Sigmund's characterization of the Circle's general aim as an "epic quest for the foundations of science" seems misleading: For those, who remember Neurath's famous "boat metaphor" ("we are like sailors who on the open sea must reconstruct their ship but are never able to start afresh from the bottom" (p. 88)) an "epic quest for the foundations of science" (as the subtitle of Sigmund's book reads) smells suspiciously to an outdated metaphysical project. The philosophical shortcomings of Sigmund's book show up most drastically in the way as the famous "Davos disputation" is presented that took place between Cassirer and Heidegger in 1929. Cassirer as one of the protagonists of the disputation is not mentioned at all. Rather, according to Sigmund,

“During his cure in Davos ... Carnap happened to run into Heidegger, who was giving a course in philosophy there. This chance encounter ... marked a decisive moment in the history of philosophy. Metaphysics and language analysis turned their backs on each other and would henceforth follow radically different pathways.” (P. 156)

Actually Heidegger and Carnap did not meet personally in Davos, and the “disputation” between Cassirer and Heidegger was about the correct interpretation of Kant, it had nothing to do with metaphysics and language analysis.

Sigmund spends a disproportionate number of pages to a detailed presentation of the “Mathematische Colloquium” organized by Carl Menger, which, important as it might have been for the history of mathematics, possesses only limited philosophical relevance for the logical empiricism of the Vienna Circle.

*Exact Thinking in Demented Times* treats the Vienna Circle from a strictly local perspective. The Circle is considered as a Viennese island of reason surrounded by a sea of insanity. Attempts to locate the Circle in the wider philosophical landscape of the 1920s and 1930s are missing. This is a serious lacuna. After all, the philosophical education of the Circle’s leading figures Schlick and Carnap took place in German neo-Kantianism (which in Sigmund’s Vienna-centered universe played no role at all).

For the philosophical shortcomings of *Exact Thinking in Demented Times* the reader is amply compensated by a wealth of stories and anecdotes. In some sense, the book contains everything (and more) that one ever wanted to know about the Vienna Circle and its vicissitudes in the short time of its existence. Thus, Sigmund’s book is useful for readers who already know something of the philosophy of the Vienna Circle and want to flesh out their knowledge. On the other hand, *Exact Thinking in Demented Times* should not remain the only source that one consults for the issue of logical empiricist philosophy. Rather, Sigmund’s book may be read as an entertaining companion to philosophically more solid surveys of Logical empiricism of the Vienna Circle. In line with the targeted multi-disciplinary readership of philosophical non-experts the bibliography of Sigmund’s book concentrates on items that deal with biographical and historical aspects of the issue. For readers, who are seriously interested in the more philosophical aspects of the Vienna Circle’s logical empiricism the bibliography of Friedrich Stadler’s classic *The Vienna Circle: Studies in the Origins, Development and Influence of Logical Empiricism* (Stadler 2015, Springer) remains

indispensable. For the contemporary discussion of matters philosophical concerning the Vienna Circle one may consult the volumes of the *Vienna Circle Institute Yearbook* published by the *Institut "Wiener Kreis"*, *University of Vienna*, since 1993.

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