The early Scientific Philosophy of Moritz Schlick
Theory Choice, Simplicity and ‘German Mandarins’

Bjørn Henning

DK Program The Sciences in Historical, Philosophical and Cultural Contexts
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Ph.D. advisors:
Friedrich Stadler
Karl Sigmund

Moritz Schlick (1882-1936)

The aim of my dissertation project is to reconstruct the early scientific philosophy of Moritz Schlick, founder of the Vienna Circle, especially taking into account his literary estate. The time frame I am investigating runs from 1910 to 1925, i.e. the time before Schlick was instrumental in formulating the main ideas of the Vienna Circle. Two essential questions guide my research: one systematic and the other biographical in nature: (1) Which specific features characterize Schlick’s early scientific philosophy, and how did his philosophy develop in the period being studied? (2) What socio-cultural conditions influenced Schlick’s philosophical thinking, what was his socio-cultural and academic background?

Systematic Approach

For my thesis I investigate the impact philosophical considerations and scientific theories had on Schlick’s thinking and how these impacts influenced and altered his scientific philosophy. I centrally focus on Schlick’s theory of knowledge. Within this domain, I deal with the debate on theory choice against the background of the criterion of simplicity. I want to explore the following questions: What solution to the problem of theory choice did Schlick suggest? What exactly did he mean when he talked about ‘simplicity’? Who were Schlick’s adversaries, who his supporters? And, finally, did his philosophical conceptions influence other scholars and scientists?

Biographical Approach

I also examine Schlick’s socio-cultural and academic background, and ask whether and how it might have influenced his early scientific philosophy. For this purpose, I apply the concept of ‘German Mandarins’ developed by historian Fritz Ringer as a conceptual tool to get a better understanding of Schlick’s philosophical thinking.

Systematic Results

Scientific Philosophy as Epistemology cum Weltanschauung

Comparing the types of scientific philosophy put forward by Schlick and his academic teacher Max Planck, I defend the claim that Schlick’s early philosophy should be seen as a union of logic, epistemology and aspects regarding Weltanschauung (world view), i.e. metaphysical and ethical analyses regarding the nature and the value of scientific knowledge. While Planck still adhered to the concept of scientific philosophy as an approach complementary to epistemological, metaphysical and ethical considerations, Schlick got rid of his realistic Weltanschauung in the late 1920s.

Realism or Empiricism?

I argue that realism is indeed a central feature of Schlick’s early philosophy. However, his research on the principle of relativity and the problem of theory choice in science confronted him with problems of his realism. In his 1915 paper, ‘The Philosophical Significance of the Principle of Relativity’, he outlines a version of empiricism on the basis of his theory of truth while still debating issues of realism. In fact, this was the first time that Schlick stepped away from his realistic philosophy, yet he refrained from making his approach explicit as ‘empiricism’. It was not before the early 1920s that Schlick called his views empiricism, while he still defended realism in the second edition of General Theory of Knowledge in 1925.

Biographical Results

Schlick as a modernistic ‘German Mandarin’

I categorize Schlick as a proponent of the moderate and modernist wing of the group Ringer called ‘German Mandarins’. This I justify by reference to Schlick’s socio-cultural and academic background, as well as the philosophical, political, and moral ideas articulated in his writings. I argue that Schlick’s realistic world view could be seen as a consequence of the socio-cultural conditions he was brought up with, i.e. his education in a liberal bourgeois family and his studies under Planck, who passionately endorsed scientific realism. Keeping this in mind, I try to shed some new light on Schlick’s objections against positivism and pragmatism as a follow-up discussion to the debate between Mach and Planck around 1910.

Simplicity between Realism and Conventionalism

In the context of theory choice, Schlick discusses ‘simplicity’ as a principle of economy of concepts which he demarcates from Mach’s principle of economy of thought. Although he tends to endorse empiricism in his 1915-paper, he still criticizes Mach’s conception. His criticism and rhetoric, I argue, stems from his academic heritage under the influence of Planck. For Schlick, ‘simplicity’ as a criterion for theory choice plays two roles:

(i) It is an aesthetical and methodological rule stipulated in order to choose quas convention a certain theory among others that are empirically equivalent. This aspect of ‘logical simplicity’ we later find affirmatively mentioned in the works of Max von Laue and, most prominently, Einstein himself.

(ii) Schlick also discusses possible ways of justifying the choice of the simplest theory with respect to the concept of reality. His main idea is that simplest theories come closer to reality insofar they give a more adequate representation of it. Interestingly, later in his paper Schlick retreated to an empiricist position without really resolving the issue at hand.