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Thomas Kuhn's 'Linguistic Turn' and the Legacy of Logical Empiricism.

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The battle for Kuhn's legacy continues in books published recently such as John Preston's *Kuhn's 'The Structure of Scientific Revolutions'* (2008), Jouni-Matti Kuukkanen's *Meaning Changes: A Study of Thomas Kuhn's Philosophy* (2008) and Stefano Gattei's *Thomas Kuhn's 'Linguistic Turn' and the Legacy of Logical Empiricism* (hereafter: '*TKLT*'). *TKLT*, a scholarly book on Kuhn's major role in twentieth century philosophy of science, focuses on incommensurability, rationality and truth. For archival material, Gattei visited *Thomas S. Kuhn Archives* at MIT, *Archive of Professor Imre Lakatos* at London School of Economics, *The Karl Popper Archive*, Stanford University, and *Nachlass Paul. K. Feyerabend* at Konstanz University. At the *Archives of Scientific Philosophy* at University of Pittsburgh, Gattei consulted papers by Carnap, Feigl, Neurath, Ramsey, Schlick and Wittgenstein.

For the non-specialist, *TKLT* provides a historical account with numerous lengthy footnotes of Kuhn's turn from paradigms in *Structure of Scientific Revolutions (SSR)* (1970) to taxonomic lexicons in *Road Since Structure (RSS)* (2000). For the specialist, *TKLT* argues that Kuhn's later work in *RSS* is continuous with logical empiricism rather a rejection of it.

Chapter 1 focuses on two revolutions in philosophy of science. The first is logical empiricism and the second is the revolt against logical empiricism by historicist philosophers of science such as Kuhn. Gattei argues that Kuhn wrote *SSR* with Popper's critical rationalism in mind. Chapter 2 provides Polanyi, Hanson and Toulmin's discussions as precursors to the 1965 Kuhn-Popper debate, at the London School of Economics, found in *Criticism and the Growth of Knowledge* (Latakos and Musgrave, 1970), and it also reprints draft agendas and the actual agenda of the debate. Gattei also discusses Lakatos' proposal and Feyerabend's position.

Chapter 3 focuses on Kuhn's core thesis, incommensurability. The chapter provides the background and history of Kuhn's views on incommensurability, including Kuhn's major differences with Feyerabend's views on incommensurability. Gattei distinguishes different types of incommensurability—methodological, semantic and ontological—and summarizes the secondary literature on incommensurability up to Davidson. Chapter 4 focuses on Kuhn's linguistic turn in which Kuhn comes to emphasise the role played by taxonomic lexicons. Kuhn's view is that a taxonomic lexicon and its structure function very much like Kantian categories of the mind, though they

vary historically. This leads Kuhn not only to hold to a distinction between noumena and phenomena, but also to introduce the notion of synthetic *a priori* truths. The advantage of the notions of the lexicon and synthetic *a priori* truths is that they help to refine and unify Kuhn's notions of incommensurability and scientific revolutions.

Chapter 5 discusses the view that though Kuhn is supposed to have overthrown logical empiricism, papers on the affinities between Carnap and Kuhn—especially by Friedman—show that to be a myth. Gattei argues that the difference between Kuhn and Popper concerns their views of truth. For Kuhn, truth does not have role in theory appraisal. For Popper, truth is a regulative ideal. Gattei argues that in hindsight the problem of *SSR* is not a challenge to scientific rationality but to realism and the correspondence theory of truth. Gattei also discusses Kuhn's change to a local notion of incommensurability from methodological, semantic and ontological notions in *SSR*.

Though *TKLT* reassesses Kuhn's challenge to the standards of science as based on realism rather than on rationality, it does not mention Kuhn's implicit challenge via the question arising from his work: What legitimizes scientific knowledge claims if science does not have a method to yield truth? The legitimation project sets out to answer Kuhn's problem (Remedios, *Legitimizing Scientific Knowledge*, 2). Gattei does not discuss Kuhn's linguistic turn to taxonomic lexicons and relativized *a priori* truth as an attempt to address the legitimation project. The importance of the legitimation project is highlighted by Joseph Rouse's *Engaging Science: How to Understand its Practices Philosophically* (1996), which rejects the legitimation project and opts for a philosophy of scientific practice. Rouse reads Kuhn as advocating a philosophy of scientific practice ('Kuhn's Philosophy of Scientific Practice', 2003).

Gattei reads Kuhn's later work as continuous with rather than as a rejection of logical empiricism. However, he does not consider other readings of the later Kuhn's relativized *a priori*, such as Vasso Kindi's 'The Relation of History and Philosophy of Science in *Structure of Scientific Revolutions* and Kuhn's Later Philosophical Work' (2005). Kindi argues that in *SSR* Kuhn has a transcendental philosophical project, and that in *RSS* Kuhn has a transcendental argument for *a priori* principles (principles of reason), which offer conditions of possibility for science. Kindi notes that Kuhn's later view is that his model can be developed from first principles.

As mentioned earlier, one of *TKLT*'s main theses is that Kuhn wrote *SSR* with Popper in mind. This is a debatable point. Steve Fuller's controversial *Thomas Kuhn* (2000) argues that *SSR* is a Cold War document, and one of Fuller's major critical theses is that *SSR* is a noble lie. Gattei edited *The Kuhn Controversy* (2003), which is a special volume of *Social Epistemology* on criticisms of Fuller's *Thomas Kuhn*. Gattei published 'A Plea for Matters More Epistemological' in the volume. Many criticisms in the *The Kuhn Controversy* note that Fuller's argument is conjecture and is not based on archival material. Outside of its use of archival material, *TKLT* does not contrast Gattei's own

position with Fuller's or with the views of other interpreters of Kuhn, so the reader gains no appreciation of why or how Gattei's view is the correct one. Though archival materials are important, it is how they are interpreted that makes a reading succeed or fail.

TLKT has some minor editing problems, e.g. the last sentence of p. 71 (which fails to continue on p. 72), but overall Gattei has written a book that sets a standard on scholarship on Kuhn's work. *TKLT*'s overall view—that Kuhn's later work did not reject logical empiricism as *SSR* did—is a challenging thesis.

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