



Master Class with Prof. Vasso Kindi (University of Athens)  
and Prof. John Preston (University of Reading)

# The Historical Turn in Philosophy of Science: Kuhn, Feyerabend, Wittgenstein (3/5 ECTS)

10<sup>th</sup> – 11<sup>th</sup> May 2013

The historical turn in philosophy of science which began in the late 1950s and early 60s rattled the way that philosophy of science was hitherto practiced. New concepts, such as *paradigm*, *incommensurability*, and *theory-ladenness* were introduced, and new problems were raised, such as the rationality of scientific development, the integrity of scientific practice, relativism and idealism in relation to science. The effects were very disconcerting and quickly historical philosophy of science was vehemently criticized and eventually marginalized as not meeting the standards and expectations which this turn attempted to question, for instance, an algorithmic and ahistorical understanding of rationality, or the belief in unremitting scientific progress. The reception that historical philosophy of science received obstructed the full appreciation of several important aspects concerning its roots, contentions and implications. Thus Wittgenstein was not on the agenda of mainstream philosophy of science when historical philosophy was discussed and his influence on the protagonists of this movement passed largely unnoticed; the challenge that Kuhn and Feyerabend mounted to Western rationalism was swiftly condemned rather than attended to; and the concepts of paradigm and incommensurability were demonized rather than carefully interpreted and judged.

In the seminar, we will put aside facile and worn-out categorizations and assimilations. Instead, we will revisit the work of key figures of historical philosophy of science, principally the work of Kuhn and Feyerabend, to explore the dimensions and implications which were not emphasized and generally recognized in the previous period. For instance, instead of simply dismissing rationality, the emphasis on practice shifts interest from an intellectualist understanding of rationality to the concrete practical decisions scientists have to make; and the historical dimension made prominent by historical philosophers of science calls attention to the intricate relations between philosophy and science in different historical periods and hence to the influence exercised by scientists on philosophers, e.g., by Boltzmann on Feyerabend and Wittgenstein. On this basis we hope to reach a more judicious assessment of the historical turn, its achievements and its shortcomings.

**Venue:** Philosophisches Seminar, Zürichbergstrasse 43, 8044 Zürich, Room: ZUP-U-8

**Registration:** [phd@philos.uzh.ch](mailto:phd@philos.uzh.ch).

No fees apply, but please note that participants are expected to have done the reading of the texts. PhD students at the UZH are required to book the module in order to get 3 or 5 credit points.



**Friday, 10<sup>th</sup> May 2013**

**Morning 9:30 – 13:00**

**Session 1: Concepts and Incommensurability**

Kuhn, T. S. 1982. "Commensurability, Comparability, Communicability". In: *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association*. Volume Two: Symposia and Invited Papers. 669-688.

Kindi, V. 2012. "Concept as vessel and concept as rule". In: Feest, U./Steinle, F. (eds.): *Scientific Concepts and Investigative Practice*. Berlin: De Gruyter. 23-46.

Glock, H. J. 2010. "Wittgenstein on Concepts". In: Ahmed, A. (ed.): *Wittgenstein's Philosophical Investigations: A Critical Guide*. Cambridge: Cambridge University Press. 88-108.

Davidson, D. 1984. "On the Very Idea of a Conceptual Scheme". In: *Inquiries into Truth and Interpretation*, Oxford: Clarendon Press. 183-198.

Hoyningen-Huene, P. 1990. "Kuhn's conception of incommensurability". In: *Studies in History and Philosophy of Science, Part A*, 21:3. 481-492.

**Afternoon 14:30 – 18:00**

**Session 2: Paradigms**

Kindi, V. 2012. "Kuhn's Paradigms". In: Kindi, V./Arabatzis, T. (eds.): *Kuhn's The Structure of Scientific Revolutions Revisited*. London: Routledge. 91-111.

Cedarbaum, D. G. 1983. "Paradigms." In: *Studies in the History and Philosophy of Science* 14(3). 173-213.

Masterman, M. 1970. "The Nature of a Paradigm." In: Lakatos, I. /Musgrave, A (eds.): *Criticism and the Growth of Knowledge*. Cambridge: Cambridge University Press. 59-89.

Wray, B. K. 2011. "Kuhn and the Discovery of Paradigms". In: *Philosophy of the Social Sciences* 41:3. 380-397.

Rowbottom, Darrell P. 2011. "Stances and Paradigms: A Reflection". *Synthese* 178:1, 111-119.



**Saturday, 11<sup>th</sup> May 2013**

**Morning 9:00 – 12:00**

**Session 3: Feyerabend's Case against 'Western rationalism'**

Feyerabend, P.K. 1984. "Xenophanes: A Forerunner of Critical Rationalism?". In: Andersson, G. (ed.): *Rationality in Science and in Politics. Boston Studies in the Philosophy of Science*. 79. Dordrecht: D.Reidel. 95-109.

Feyerabend, P.K. 1987. "Reason, Xenophanes and the Homeric Gods". In: *Farewell to Reason*. London: Verso/New Left Books. 90-103.

Feyerabend, P.K. 1999. "Xenophanes". In: *Conquest of Abundance: A Tale of Abstraction Versus the Richness of Being*, Edited by Bert Terpstra. Chicago: University of Chicago Press. 41-59.

Preston, J.M. (forthcoming): "The Rise of Western Rationalism: Paul Feyerabend's Story". In: Kidd, I.J. /Brown, M (eds.): *Reappraising Feyerabend*, a special issue of *Studies in History and Philosophy of Science*, to be published in 2013.

**Afternoon I: 13:30 – 16:00**

**Session 4: Boltzmann, Wittgenstein & Feyerabend**

Boltzmann, L. 1974. *Theoretical Physics and Philosophical Problems: Selected Writings*, Edited by Brian F. McGuinness. Dordrecht: D.Reidel. Pt. I, essays 16 ("On the Fundamental Principles and Equations of Mechanics", 100-128), and 19 ("On Statistical Mechanics", 159-172).

Feyerabend, P.K. 1967. "Boltzmann, Ludwig". In: Edwards, P. (ed.): *The Encyclopedia of Philosophy*. London: Collier-Macmillan. 334-337.

Wilson, A.D. 1989. "Hertz, Boltzmann and Wittgenstein Reconsidered". In: *Studies in History and Philosophy of Science*. 20. 1989. 245-63.

Preston, J.M. (forthcoming). "Wittgenstein, Hertz and Boltzmann", In: Glock, H.-J./Hyman, J. (eds.): *The Blackwell Companion to Wittgenstein*. Oxford: Blackwell.

**Afternoon II: 16:30 – 19:00**

**Session 5: Wittgenstein's Influence on the Historical Turn in the Philosophy of Science**

Toulmin, S. E. 1961. *Foresight and Understanding*. New York: Harper Torchbooks.

Hanson, N.R. 1958. "Observation". Chapter 1 of *Patterns of Discovery*. Cambridge: Cambridge University Press. 4-30.

Kuhn, T.S. 1970. "The Priority of Paradigms", Chapter V of *The Structure of Scientific Revolutions*. Chicago: The University of Chicago Press.

Feyerabend, P. 1981. "Explanation, Reduction and Empiricism". In: *Realism, Rationalism and Scientific Method*, Cambridge: Cambridge University Press. 44-96.