

Imre Lakatos

Student Talk by David Dell

at European Business School, Oestrich-Winkel on October 14th 2008

Biograph

Imre Lakatos was born November 9th 1922 as Imre Lipsitz in Debrecen (Hungary). As he was born to a Jewish family and later an active communist, he changed his last name to Lakatos in order to avoid National Socialist persecution in the early 1940s. Lakatos started his academic career at the University of Debrecen in mathematics, physics and philosophy and completed it at the Eötvös College in Budapest. He started a PhD thesis at Cambridge University in 1957 which was later published as one of his most influential books *Proofs and Refutations*. In 1960 he joined the London School of Economics, where he worked under Karl Popper, and was appointed Professor of logic in 1969. He admired Popper's work and expanded the critical rationalism to mathematics (Larvor, 1998, S. 3-6). In the beginning Popper being a kind of mentor to Lakatos, their relationship later came to a rift. But still "Lakatos and Popper stood side by side in struggling against the 'new epistemologists' – among them Thomas Kuhn and Paul Feyerabend became the most prominent" (Kampis, Kvasz, & Stöltzner, 2002, S. ix). Lakatos was also editor of the British *Journal of Philosophy of Science* from 1971 till he died at age 51 in 1974.

Philosophical Views

Although Lakatos close to his death (1973) attacks Popper ruthlessly (Kampis, Kvasz, & Stöltzner, 2002, S. 13) he was in the first place, and most of his academic life, a great follower of Popperian philosophy. He tried to defend Popper's theory of falsifiability -which states that a theory is only scientific once it is somehow falsifiable (see Popper, 1934)- against the new movements in philosophy of science, so e.g. Kuhn's proposed Paradigm Shifts (see Kuhn, 1962). The problem Kuhn attacked within Popper's methodology is that it does not account for anomalies. Popper proposes that, once counterevidence to a theory is found, the theory should be

abolished. Kuhn on the other hand discovered that even scientists of renowned sciences hold their theory up (due to social and human motivations) until the amount of anomalies is just too overwhelming. Then, according to Kuhn, a radical shift takes place and one scientific paradigm is replaced by another one (in a sociological progress, with the majority of scientists following the new paradigm). This gap between the old and the new paradigm which Kuhns theory created and the fact that Lakatos didn't want to leave scientific progress to social and emotional fortune is the point of action for his methodology of the so called scientific research programmes (Lakatos & Musgrave, 1965). Those proposed research programs are a collection of the basic theory ("Hard-Core"), the methodological rules ("Heuristics"), the data and last but not least a vast array of auxiliary hypothesis which form a kind of "Protective Belt" to shield the underlying theory from empirical anomalies. So now, if a research program comes to a point where it is falsified, the error may lie in any of the four parts it is comprised of. To quote Lakatos himself "*It is not that we propose a theory and nature may shout no, rather we propose a maze of theories and nature may shout inconsistent*" (Lakatos & Musgrave, 1965, S. 130). The auxiliary hypothesis might be changed and adjusted to account for the empirical findings. This is what Lakatos calls "Problem-shifts" and he classifies them as either progressive or degenerative. Whereas Popper saw any changes in a scientific theory to account for anomalies as 'ad-hoc' and not scientific ("all swans are white *except XY*"), Lakatos claimed that progressive Problem-shifts are, in contrast, acceptable. The difference between progressive and degenerative Problem-shifts is that a progressive one should produce novel facts and help the research program to grow or, simply put, it should make a research program better than another one. For Lakatos, research programs where in constant competition with each other, with the progressive research programs surviving (similar to the evolution of species). Only a degenerative problem-shift, on the other hand would be seen by Lakatos as 'ad-hoc' in a Popperian sense. To sum it up: The protective belt is under constant fluctuation, being constantly bombarded with empirical evidence. It absorbs those shocks to prevent a generally progressive research program from being abandoned too early, but still leaving the possibility to abandon it in favor of a more progressive program (Lakatos, *The Methodology of Scientific Research Programmes*, 1978).

Effects on Economic Theory

Lakatos' London School of Economics colleague Spiro Latsis applied his findings on Milton Friedman's methodology of neoclassical economics. In 1972 he published an article in the *British Journal for the Philosophy of Science* (of which Lakatos was editor by that time, see above) claiming Friedmans work to be 'pseudo-scientific' as it did not contribute empirical testable novel facts. The important point is that he classified Friedmans theory not only as degenerate science, as he found Marx's works to be, but even less, as not being scientific at all. According to Latsis, Marx's theories at least contained novel predictions, which where empirically falsified and not progressively resolved. As neoclassical economics, in Latsis eyes, on the other hand does not contain any theoretically novel predictions after all, it cannot be possibly falsified (Latsis, 1972). Friedman counter argued in a letter to Latsis, that the monopoly competition model was able to predict phenomena not previously known and that those predictions where confirmed by empirical evidence, but failed to identify a specific example (see Friedman, 1972).

Literature

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