Science and Truth

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Can science lead to true theories of the world? Can it provide understanding of the workings of the deep—unobservable—structure of the world? Scientific realism is a philosophical view of science that aims to answer the foregoing questions in the affirmative. It is an epistemically optimistic view, which claims that not only does science aim to offer knowledge of the world, but also that it succeeds in this endeavour. The lecture will develop the main arguments in favour of scientific realism—aiming to link them with developments in the sciences (especially around the turn of the twentieth century) and to unravel their historical trajectory. It will also critically examine a major argument against scientific realism--known as the pessimistic induction. This argument capitalises on the presence of breaks and revolutions in the history of science and claims that even current theories are likely to be superseded by radically different ones in the future. It therefore undermines the epistemic optimism associated with scientific realism. The lecture will analyse this important argument and examine its historical and conceptual credentials. It will conclude with a model of theory-change which will highlights the elements of continuity and convergence in the developing scientific image of the world.

Literature

Stathis Psillos *Scientific Realism: How Science Tracks Truth*, (London: Routledge, 1999.
Stathis Psillos *Philosophy of Science A -Z*, (Edinburgh: Edinburgh University Press 2007)

Stathis Psillos *Knowing the Structure of Nature: Essays on Realism and Explanation*, (London: MacMillan-Palgrave, 2009)

Stathis Psillos 'Scientific Realism with a Humean Face' in Juha Saatsi & Steven French (eds) *The Continuum Companion to Philosophy of Science*, Continuum, pp.75-95, 2011
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