

Popper's Paradoxical Pursuit of Natural Philosophy

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Abstract

Philosophy of science is seen by most as a meta-discipline – one that takes science as its subject matter, and seeks to acquire knowledge and understanding about science without in any way affecting, or contributing to, science itself. Karl Popper's approach is very different. His first love is natural philosophy or, as he would put it, cosmology. This intermingles cosmology and the rest of natural science with epistemology, methodology and metaphysics. Paradoxically, however, one of his best known contributions, his proposed solution to the problem of demarcation, helps to maintain the gulf that separates science from metaphysics, thus fragmenting cosmology into falsifiable science on the one hand, untestable philosophy on the other. This has damaging repercussions for a number of issues Popper tackles, from the problem of induction to simplicity of theory and quantum theory. But his proposed solution to the demarcation problem is untenable. Metaphysical assumptions are an integral part of scientific knowledge, inherent in the persistent acceptance of unified theories against the evidence. Once this is appreciated, it becomes obvious that natural philosophy, a synthesis of science and philosophy, is both more rigorous and of greater intellectual value than the two dissociated components we have today. What Popper sought for could come to full fruition. Problems that Popper tackled, from the problem of induction, to the problem of unity of theory, problems of quantum theory, and problems concerning the scope and limits of physics, all receive more adequate resolution within the new, fully-fledged natural philosophy.

Keywords: Karl Popper, cosmology, natural philosophy, physics, metaphysics, scientific method, demarcation, induction, physicalism, simplicity, unity, quantum theory, probabilism, metaphysical research programmes, realism

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