

# Empirical Success or Explanatory Success: What does Current Scientific Realism Need to Explain?

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## Abstract

Against the well-known objection that in the history of science there are many theories that are successful but false, Psillos offers a three-pronged defense of scientific realism as the best explanation for the success of science. Focusing on these, I criticize Psillos' defense, arguing that each prong is weakened when we recognize that according to realist rebuttals of the underdetermination argument and versions of empiricism, realists are committed to accounting for the explanatory success of theories, not their mere empirical adequacy or instrumental reliability. I conclude by indicating how 'explanationist' realism might be recast to accommodate my arguments.

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