

Structural Realism versus Standard Scientific Realism: The Case of Phlogiston and Dephlogisticated Air

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Abstract

The aim of this paper is to revisit the phlogiston theory to see what can be learned from it about the relationship between scientific realism, approximate truth and successful reference. It is argued that phlogiston theory did to some extent correctly describe the causal or nomological structure of the world, and that some of its central terms can be regarded as referring. However, it is concluded that the issue of whether or not theoretical terms successfully refer is not the key to formulating the appropriate form of scientific realism in response to arguments from theory change, and that the case of phlogiston theory is shown to be readily accommodated by ontic structural realism.

Keywords: ontic structural realism, approximate truth, reference, theoretical terms, phlogiston.

General Issues: Theory Change

Subjects: General Issues: Theory/Observation

General Issues: History of Science Case Studies

General Issues: Realism/Anti-realism

Conferences and

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