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# Duhem, Quine and the other dogma

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## Abstract

By linking meaning and analyticity (through synonymy), Quine rejects both “ dogmas of empiricism” together, as “ two sides of a single dubious coin.” His rejection of the second (“ reductionism” ) has been associated with Duhem’ s argument against crucial experiments — which relies on fundamental differences, brought up again and again, between mathematics and physics. The other dogma rejected by Quine is the “ cleavage between analytic and synthetic truths” ; but aren’ t the truths of mathematics analytic, those of physics synthetic? Exploiting Quine’ s association of essences, meaning, synonymy and analyticity, and appealing to a ‘ model-theoretical’ notion of abstract test derived from Duhem and Quine — which can be used to overcome their holism by separating essences from accidents — I reconsider the ‘ crucial experiment,’ the aforementioned “ cleavage,” and the differences Duhem attributed to mathematics and physics; and propose a characterisation of the meaning and reference of sentences, which extends, in a natural way, the distinction as it applies to words.

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