

# History of Science and the Material Theory of Induction: Einstein' s Quanta, Mercury' s Perihelion

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## Abstract

The use of the material theory of induction to vindicate a scientist' s claims of evidential warrant is illustrated with the cases of Einstein' s thermodynamic argument for light quanta of 1905 and his recovery of the anomalous motion of Mercury from general relativity in 1915. In a survey of other accounts of inductive inference applied to these examples, I show that, if it is to succeed, each account must presume the same material facts as the material theory and, in addition, some general principle of inductive inference not invoked by the material theory. Hence these principles are superfluous and the material theory superior in being more parsimonious.

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