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## THE HISTORY AND METHODOLOGY OF EXPECTED UTILITY

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# The History and Methodology of Expected Utility

Elements in Decision Theory and Philosophy

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**Abstract:** This Element offers an accessible but technically detailed review of expected utility theory (EU), which is a model of individual decision-making under uncertainty that is central to both economics and philosophy. The approach of this Element falls between the history of ideas and economic methodology. At the historical level, EU is reviewed by following its conceptual evolution from its original formulation in the eighteenth century through its transformations and extensions in the mid-twentieth century to its more recent supersession by post-EU theories such as prospect theory. In reconstructing the history of EU, the Element focuses on the methodological issues that have accompanied its evolution, such as whether the utility function and the other components of EU correspond to actual mental entities. On many of these issues, no consensus has yet been reached, and in this Element the author offers his view on them.

**Keywords:** expected utility theory, history of expected utility, methodology of expected utility, risk and uncertainty, prospect theory

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