Behavioral Decision Theory: A Two-edged Sword

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Prepared for The Irrational Economist Conference and Bookwriting
The Wharton School, University of Pennsylvania
December 4 and 5, 2008

Abstract

Howard Kunreuther’s earlier research focused on the descriptive as well as prescriptive limitations of the expected utility (EU) model. Together with Jack Hershey and I, he explore why utility functions - as one crucial ingredient to rational choice under risk - were hard to construct and validate in clinical settings. Although behavioral decision theory (BDT) was at one level a blessing for EU, in further underscoring the need for decision support, it also challenged the operational validity of EU on both the probability and utility side. Subsequent work by Howard, focusing on the loss side and ambiguous probabilities, further documented that not all was well with EU as either a descriptive or normative model.

The notion that elegant, parsimonious models of choice - such as EU, PT or other generalized versions- could capture human beliefs and preferences in valid ways eventually gave way to the view that process and context variables were more than background noise but often front and central in the story of human choice. In our book Decision Sciences, Howard, Paul Kleindorfer and I developed this viewpoint more fully at individual, group, organizational and societal levels. By then, Howard's transformation of diehard economist to behavioralist was complete, with a nice blend of the best that these two perspective have to offer real world policy issues.

The double edged implication of BDT, on the one hand supporting the need for more analysis to overcome the evident weaknesses of unaided decision making, while on the other hand also undermining the very edifice of rationality represented by EU, has not been as fully appreciated as it should. Whereas few doubt that BDT has revealed the descriptive inadequacy of EU, not many would claim that it has mortally wounded it normative status. I shall try to elucidate the latter view, building on Howard's research that process and context variable are so central in human choice that they render much of the normative apparatus inadequate to the task it claims to solve.