

# **Behavioral Decision Making**

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# Preface

This book is not a set of conference proceedings. In fact, it is the book that I wish was available when I started my own postgraduate research on decision making! It consists of a set of 17 chapters; 14 were specially commissioned, and the remaining 3 are selected reprints of journal articles. The book presents an overview of research and theory in behavioral decision making. Disciplines covered include cognitive psychology, social psychology, management science, sociology and political science. Each of the chapters is written by an established authority, in a manner that should make the content easy to understand. The book reveals that individual, small-group, organizational, and political perspectives are necessary to achieve a full understanding of the decision-making process. An additional multidisciplinary emphasis in the book is on ways of improving aspects of decision making.

We assume that you, the reader, have some elementary knowledge of behavioral decision making. If you do not, then I suggest as a first step that you read Wright (1984) or Hogarth (1980). With this grounding, the entire book should become accessible to you.

John W. Payne investigates how individuals make decisions under risk in the first part, *Individual Decision Making*. He argues that decision making is sensitive to small changes in the decision task and that the decision task is the major determinant of the type of decision taken. Task complexity, time pressure, the way information is displayed, and the type of response required all appear to change information processing and subsequent decision making. Payne evaluates alternative theoretical frameworks for explaining these task and context effects on risky decision making.

Amos Tversky and Daniel Kahneman take a similar task-oriented point of view and argue that the way in which a decision problem is conceptualized or “framed” is often one of several possible representations. They make a com-

parison with subjective perspectives on the same visual scene. Outcomes of a decision are perceived as positive or negative in relation to a reference point, and the reference point can vary to such an extent that a given outcome may be evaluated as a gain *or* as a loss.

By contrast, George Wright reviews the literature on decisional variance in the psychological and management journals and identifies two distinct lines of research and theory. Decision making is sometimes held to be contingent on changes in the task, but it has also been conceptualized to be the expression of a cognitive style or trait. Wright argues that a methodology taken from personality psychology could be used to resolve the cognitive style/contingent decision-making issue and allow the relative variance contributed by person, situation, and an interaction of these to be evaluated.

A. John Maule takes the viewpoint of a cognitive psychologist and evaluates research that has importance for understanding individual decision making. His primary concern is the identification of processing stages, and he analyzes some problems with the notion of *limited capacity*, a catchall often used to explain why decision makers do not perform normatively.

David M. Messick, in Part II, *Small-Group Decision Making*, views decision making as a socially interdependent process. He argues that we are sensitive to the outcomes received by others. Another's good fortune can elate or depress us. Envy is relative! He analyzes the consequence of allowing people to have free access to a valuable but scarce resource that grows at a constant but small rate. If individuals extract too much of the resource, it becomes depleted and so is useless to everyone. Should a superordinate authority replace the system of free access?

William R. Ferrell investigates whether quantitative judgements obtained from small groups are "better" than those obtained from individuals. Judgments can be combined behaviorally or mathematically, and he evaluates methods of aggregating individual judgments to produce a group judgment with the aim of increasing judgmental quality.

In Part III, *Organizational Decision Making*, George Wright bridges this section of the book with the previous sections by evaluating the effect of cultural influences on organizational, small-group, and individual decision making. He pays special attention to research that has compared Japanese and American organizational decision making.

David Weeks and Sam Whimster analyze sociological conceptualizations of organizational decision making and go on to argue that "rational" decision making is necessarily linked to an analysis of power, control, and social context. The individual is often part of a small social grouping within a larger organization, and individual, group, and organizational interests may conflict.

Roger King focuses on "power" and poses the question of whether the exercise of power always involves a conflict of interests. He argues that the su-

preme exercise of power may involve the powerful defining a situation in such a way that the powerless may not be aware of any conflict. This silent view of power leads to a conclusion that an absence of overt political participation by business in no way denies political influence.

Humphrey V. Swann addresses the question of whether quantitative decision theory is useful to an organization. He poses this question from the point of view of an occupational psychologist involved with personnel selection and payment schemes. Swann pays special attention to the problems of implementing decisions once they have been taken.

In Part IV, *Improving Decision Making: The Role of Decision Aids*, Ayleen D. Wisudha assesses the role of computerized decision aids within the decision-making process and proposes guidelines for the development of these aids. She addresses the question to the extent to which a decision aid should contain substantive problem knowledge or should be adaptive to the decision maker's own problem representation.

Patrick Humphreys and Dina Berkeley argue that uncertainty pervades decision making. Uncertainty enters into the way a decision problem is conceptualized and in the extent to which the decision maker has influence over the future as it is modeled in decision analytic representations. The decision maker may also have reservations about quantitative problem representation *once* the acts and events in the representation begin to unfold as reality. Humphreys and Berkeley analyze the potential of decision support systems to aid resolution of all types of uncertainty.

James A. Wise reviews the role of decision aids for design decision making. For an architect, specifying probabilities and utilities may be of little use in hypothesizing a spatial form. However, Wise shows that a complex design, once formulated, can be evaluated by techniques related to multiattributed utility theory.

Hillel J. Einhorn and Robin M. Hogarth in Part V, *Judgmental Forecasting*, analyze judgmental forecasting and evaluate the relationship between predictions, actions, and outcomes. They emphasize the probabilistic nature of cues to causality and the uncertainties associated with inference. Causal thinking is examined in detail, and Einhorn and Hogarth discuss the implications of their analysis for improving forecasting.

Allan H. Murphy presents the results and analysis of forecasting in a real-world setting—weather forecasting. Weather forecasters make use of objective guidance forecasts, based on numerical statistical procedures, to help them produce subjective forecasts. In some situations, subjective forecasts are an improvement on objective forecasts; sometimes they are not. Murphy discusses the problems of evaluating the precise role of objective forecasts in the subjective forecasting process.

Jack Dowie, in Part VI, *Decision Theory: Areas of Future Impact*, analyzes



the implications of decision theory for the educational process. Should the teacher's values and uncertainties be open for discussion and criticism? Education, Dowie analyzes, is often concerned with teaching the certainties of high-value knowledge. But should we be educated for uncertainty? Dowie examines the usefulness of requiring students to give probabilistic responses to multiple-choice questions and describes the use of multiattributed utility theory in student assessment.

Lawrence C. Currie argues that Kelly's personal construct theory can be applied to aid our understanding of how people make decisions. Currie deals with the applicability of personal construct theory to the perception of danger and decision making in two-person games.

GEORGE WRIGHT

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