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Behavioral decision theory has two inter-related facets: descriptive and normative. This review is organized around these two facets. The first section deals with descriptive studies of judgment, inference, and choice; the second section discusses the development of decision-aiding techniques based on normative principles. [The *Social Sciences Citation Index*® (SSCI)® indicates that this paper has been cited in over 325 publications since 1977.]

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Although decision making has been studied for centuries by philosophers, mathematicians, and economists, it has a rather short history within experimental psychology. Ward Edwards's seminal review article in 1954 introduced psychologists to the "exceedingly elaborate, mathematical, and voluminous" economic literature on risky and riskless choice, utility, and game theory, and reviewed the handful of relevant empirical studies then in existence.<sup>1</sup>

Edwards's review was followed by a rapid proliferation of theories of choice and decision making, along with carefully controlled experiments designed to test those theories. In 1961 Edwards published the first chapter on the new field of "behavioral decision theory" in the *Annual Review of Psychology*.<sup>2</sup> Sarah Lichtenstein and I were students of Edwards at the time and were very much influenced by the research opportunities outlined in his two review articles.<sup>1,2</sup> Thus we were pleased, later, to be asked by the *Annual Review* editors to write the fourth

chapter on "behavioral decision theory," which was to review the literature in this field between January 1971 and December 1975.

The task was an enormous challenge. The field had grown in size and complexity, producing several hundred papers annually on topics such as the measurement of subjective probability and utility, the cognitive processes underlying judgment and choice, and the development of decision analysis and multiattribute utility theory as aids to decision making. Enlisting the aid of our colleague, Baruch Fischhoff, we examined more than 1,000 publications, of which 319 were cited in our review.

I believe that our article is frequently cited because it documented exciting new empirical results, many of which challenged existing theories. For example, we reviewed research by Daniel Kahneman, Amos Tversky,<sup>3</sup> and others, showing that, when making probability judgments, people use cognitive heuristics that are efficient but prone to serious biases. We also reviewed studies of risky choice that had produced results at variance with utility theory, the dominant economic model. This body of work elaborated the theory of bounded rationality that Herbert Simon had constructed 20 years earlier.<sup>4</sup> It also stimulated much subsequent research on the psychological processes by which decision problems are represented and information is used in decision making. Finally, we described important new theoretical and methodological research designed to help people make better decisions. In documenting these various developments, we attempted to give our readers a sense of the tremendous scope and vitality of work in this burgeoning field.

By the time our review was published, interest in "behavioral decision theory" had spread to many disciplines, such as accounting, economics, philosophy, medicine, education, political science, geography, marketing, and management science, as well as psychology. Subsequent chapters in the *Annual Review of Psychology* have described the more recent trends in this field.<sup>5,6</sup>

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