Book Review

Journal of Planning Education and Research XX(X) 1-2 © The Author(s) 2013 Reprints and permissions: sagepub.com/journalsPermissions.nav jpe.sagepub.com

(S)SAGE

Daniel Kahneman, Thinking, Fast and Slow. New York: Farrar, Straus and Giroux, 2011. 499 pp. \$30.00 (hardback). ISBN 978-0-374-27563-1

Reviewed by: Shih-Kung Lai, National Taipei University, Taiwan DOI: 10.1177/0739456X13509314

Thinking, Fast and Slow is a collection of ideas about judgments and decision making that are derived from work that Daniel Kahneman, a Nobel laureate in economics and one of the founders of behavioral economics, has endeavored to do for about half a century. The book is divided into five parts: Two Systems, Heuristics and Biases, Overconfidence, Choices, and Two Selves.

In the first part, Two Systems, Kahneman argues that human cognition operates in two modes: The System 1 thinking is fast and intuitive, whereas the System 2 thinking is slow and calculative. Between the two, it is the System 1 thinking that dominates in our daily activities of judgments and decision making. In the second part, Heuristics and Biases, Kahneman proceeds to identify the various heuristics based on which the System 1 thinking makes probabilistic judgments, including, among others, anchoring and adjustment, availability, and regression to the mean. Judgmental biases are also introduced as the results of the application of such heuristics. In the third part, Overconfidence, Kahneman depicts in detail the judgmental bias of overconfidence in that people tend to be too optimistic about forecasting particular events, such as the time frame during which a project would be completed. Drawing heavily on his work on prospect theory, explaining how choices are actually made under risk, Kahneman depicts in the fourth part, Choices, how human choices are made behaviorally rather than axiomatically and sets forth policy implications derived from these findings. In the final part, Two Selves, Kahneman discusses his recent work on the meaning and measurement of happiness in life. In particular, he distinguishes between experienced and decision utility and argues that these are two distinct concepts about utility.

In a nutshell, Daniel Kahneman makes the case that human preferences are labile. Unless we can measure and predict them, human judgments and choices are subject to cognitive biases that are very difficult to overcome. This reviewer thinks that this observation applies to planning behavior as well. Specifically, plan making and using is an activity that explores related decisions in time and space contingent on future conditions. However, little has been said or modeled descriptively and normatively in the planning

literature about how such an activity takes place. Given the commonality of plan making and using, the theoretical framework of decision analysis can and should be readily extended to model such activity. Making and using plans can be pursued as choosing among alternative plans and making interdependent decisions (Hopkins 2001, 27-28) accordingly. The formulation of plans itself is a decision-making problem. I argue that the axiomatic and behavioral aspects of plan making and using can be explored in parallel with the development of behavioral decision theory, except that behavioral decision theory focuses on one choice at a time whereas behavioral planning theory considers more complex situations of linked decisions than those of making single decisions. Based on behavioral economics, similar attempts to describe planning making and using in the planning field can be made to understand planning behavior. Also, one can start thinking about a research framework and a research agenda concerning how one can proceed to explore the behavioral aspects of plan making and using. That is, one can start thinking about constructing a behavioral planning theory of plan making and using that is useful in light of urban development processes.

Making plans is crucial for many complex activities, including land and urban development. However, most of the literature in the planning field focuses on understanding and explaining urban phenomena rather than planning per se, partly because there is no consensus as to what plans are; what effects they have; how to make them; and how they interact with each other. A coherent research framework as to how to investigate such phenomena could be devised. For example, in this framework one could set out to formulate the theoretical foundation for such a behavioral planning theory in terms of decision analysis, cognitive science, economic analysis of property rights, and the stream of opportunities model (Hopkins 2001, 29-31). The research methodologies might include axiomatization, psychological experiments, and computer simulations.

Throughout the book, there are some ideas about planning here and there, although Kahneman does not address planning directly. For example, in comparing a pair of choice problems with sure gain and loss in relation to probabilistic combinations of gain and loss, Kahneman distinguishes narrow from broad framing. When looking at a pair of choices separately (i.e., narrow framing), the subjects tended to make the choices that were inferior to those when the pair of choices were considered together (i.e., broad framing). I argue that the implications in the planning context are twofold. On one hand, this particular experiment shows that making single decisions separately results in an outcome that is different from that of making interdependent decisions. On the other hand, making interdependent decisions may yield an outcome that is better than that derived from making single decisions. Making interdependent decisions is a special feature of plan making and normally yields better outcomes than those of making single decisions independently (Hopkins 2001, 58–64).

Kahneman does, however, address planning to some extent by noting the planning fallacy. He and Amos Tversky "term *planning fallacy* to describe plans and forecasts that are unrealistically close to best-case scenarios" and "could be improved by consulting the statistics of similar cases" (p. 250). Kahneman then continues to argue that examples of the planning fallacy abound in the experiences of individuals, governments, and businesses by providing some true stories in the real world. The planning fallacy occurs when the decision maker focuses on the inside view of a project that depends solely on the decision maker's own experiences, without realizing that the outside view exists that takes into account a sample of similar situations in the world. Thus, Kahneman suggests ways of mitigating the planning fallacy by citing Bent Flyvbjerg's (2006) work to adopt distributional information in making plans and forecasts of projects.

Kahneman spends a significant number of pages depicting and justifying the heuristics on which people depend to make probabilistic choices. I believe that if the formulation of plans itself is a decision-making problem, then these explanations and justifications of heuristics can and should be readily applied to explain planning behavior. According to Kahneman, a heuristic is a simple mental procedure that helps find adequate, albeit imperfect, answers to difficult questions. In particular, people tend to substitute a simple question for a more difficult one in finding answers of probabilistic judgments, thus resulting biases. For example, a more difficult question of "How much would you contribute to save an endangered species?" would be replaced by an easier one of "How much emotion do I feel when I think of dying dolphins?" The answer to the second question apparently does not address the first question. In the urban planning context, the first question asks for the valuation of some type of natural resource while the second question might prompt the decision maker's feeling for saving that resource, resulting in a psychological judgment completely different from the true valuation. Numerous analogies can be derived directly and indirectly from Kahneman's arguments for debiasing heuristic judgments in the planning context.

The scope of planning research can be very wide, and planning logic can be explained from narrow and broad viewpoints. From the narrow point of view, the logic is a set of axioms describing how plans should be made, whereas from the broad point of view, it is a set of explanations about planning phenomena. The behavioral planning theory proposed here belongs to the narrow viewpoint of planning logic, that is, it explores how plans should be and are actually made. Even within the narrow definition of plans, there remain many interesting research topics worth pursuing. I have slighted some preliminary ideas about how to proceed to constructing such a theory. I believe that academic planners can learn many lessons from Kahneman's work in understanding the behavioral aspects of planning behavior. Much work remains to be done in the future.

References

- Flyvbjerg, Brent. 2006. "From Nobel Prize to Project Management: Getting Risks Right." Project Management Journal 37:5–15.
- Hopkins, Lewis D. 2001. Urban Development: The Logic of Making Plans. London: Island Press.