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Peer Review

Review of: "Implications of Methodological Approaches in Decision Theory: A Conceptual Synthesis with Emphasis on Heuristics"

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A choice of decision theories

The author presents a clear and well-structured overview of five different approaches to the study of behavioural decision-making. All five owe a debt to Herb Simon's ground-breaking work on bounded rationality, which constituted a paradigm shift away from what he, Simon, called the "Olympian" model of decision-making. The gods, having unlimited access to information and memory thereof, perfect knowledge of the laws of logic and probability, and infinite time to do the calculations, can aspire to the ideal of full rationality. Mortal minds, by contrast, are limited, and so is what can be expected from them when they judge, decide, and choose.

The presentation of the five schools of thought is even-handed, perhaps too much so. The set-up has the feel of an introductory chapter to a textbook where everyone gets to speak and vote. The paper could be strengthened, in my opinion, by adding more discussion on the relative strengths and weaknesses of the approaches on the table.

It might be worth noting, for example, that Gigerenzer's and Klein's work directly follows from Simon's, extending his work without rebuking or refuting his key insights. The heuristics-and-biases paradigm is sometimes portrayed as a refinement of the bounded-rationality perspective when in fact this paradigm rather amounts to an unbounded-irrationality perspective. The neuroeconomic approach is not particularly known for its ability to generate new conceptual insights, but rather for its (limited) ability to find brain correlates of behavioural patterns. In terms of theory, most work in neuroeconomics continues

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to piggyback on the conceptual work done by psychologists – yet many of its advocates arrogate to themselves the ability to adjudicate the validity of psychological theories.

If the author feels this direction is fruitful for a revision of his paper, he might consider going more deeply into the sociology of behavioural decision theories. The clash between the heuristics-and-biases and the fast-and-frugal heuristics schools has been most interesting – and perhaps dispiriting. Kahneman and Gigerenzer at one time tried to sort out their differences in an effort at adversarial collaboration, an enterprise that ultimately failed. An asymmetry still prevails today such that Gigerenzer and his colleagues continue to describe how their paradigm has gone beyond the Kahneman paradigm, whereas the followers of Kahneman mostly ignore strides that have been made in the study of what heuristics can and cannot do (see Gigerenzer, 2025, for a trip down memory lane).

Beyond the summary and overview work presented in his paper, the author seems to be making one substantive claim, namely, that "the methodological choices of different theoretical frameworks have important implications for the perspectives their authors adopt on key aspects of decision-making" (p. 15). What exactly this means remains underexplored. Is it to say that methodological choices themselves shape theory, or merely that they constrain how quantitative findings are interpreted? Once this has been clarified, more could be said, I suppose, about the prospects of seeing more fruitful interactions among these theories or their expected fate in terms of their waxing or waning prominence in the field.

Lastly, it could be argued that the set of five theoretical perspectives is not sufficiently comprehensive. With the advent of big data, machine learning, and artificial intelligence, all five classical schools have come under siege. This recent trend toward algorithmic brute force may harbinger the return of the omniscient gods, and the Bayesians and the reinforcement learners will rush to claim the role of the Messiah.

Gigerenzer, G. (2025). The legacy of Daniel Kahneman: A personal view. *Erasmus Journal of Philosophy and Economics, 18*, 28-61.

Declarations

Potential competing interests: No potential competing interests to declare.