

"What is bounded rationality?"

Gerd Gigerenzer

Abstract

How do people make decisions when time is limited, knowledge imperfect, and the future uncertain? For many economists, the answer is that people behave as if they were optimizing under constraints (such as information costs). For many psychologists, in contrast, the answer is that people commit reasoning fallacies, due to limited cognitive capacities. These two answers make an odd couple, one promoting rationality and the other irrationality. In this lecture, I propose an alternative view of cognition based on Herbert Simon's vision of bounded rationality: the study of fast and frugal heuristics. The heuristics in the "adaptive toolbox" are anchored in the mind and the environment. They are embodied in the sense that they can exploit capacities of the human mind (such as recognition memory), which allows judgments to be quick. They are anchored in the environment in the sense that they can exploit statistical or social structures (such as signal-noise ratio), which allows the mind to ignore information – less is more. The rationality of heuristics is ecological, not logical.

Literature:

Gigerenzer, G., Todd, P. M., & the ABC Research Group (1999). *Simple Heuristics That Make Us Smart*. New York: Oxford University Press.

Gigerenzer, G. & Selten, R. (Eds.) (2001). *Bounded Rationality: The Adaptive Toolbox*. Cambridge, MA: MIT Press.

Biographical Information

Gerd Gigerenzer is Director of the Center for Adaptive Behavior and Cognition (ABC) at the Max Planck Institute for Human Development, Berlin; former Professor of Psychology at the University of Chicago; and John M. Olin Distinguished Visiting Professor, School of Law, University of Virginia. His books include *Simple heuristics that make us smart* (with Peter Todd & the ABC Research Group, Oxford UP 1999), *Adaptive thinking: Rationality in the real world* (Oxford UP 2000), *Bounded rationality: The adaptive toolbox* (with Reinhard Selten, MIT Press 2001), and *Calculated risks: How to know when numbers deceive you* (Simon & Schuster 2002). He is the winner of the 1987 Association of American Publishers Prize for the best book in the Social and Behavioral Sciences (*The probabilistic revolution*, MIT Press), the 1991 American Association for the Advancement of Science (AAAS) Prize for Behavioral Science Research, and the 2002 German Science Book of the Year Prize. He is a member of the Berlin-Brandenburg Academy of Sciences and the German Academy of Natural Sciences (Leopoldina).