

Decision Theory in Practice

Professor Itzhak GILBOA

COURSE OBJECTIVES

The course will introduce the students to biases and mistakes that were documented in the psychological literature, and examine their relevance to managerial decision making. Basic principles of rational decision theory will be presented and contrasted with psychological evidence, to be judged on descriptive and normative grounds for making better decisions.

COURSE CONTENT

The course will cover judgment and choice biases resulting from various heuristics, statistical errors and tips for the consumption of statistical data, as well as the basic theories of decision making under risk. Time allowing, the course will also cover questions of well-being and related topics.

TEACHING METHODS

Topics are presented by mini-cases, namely, realistic decision situations that are often simplified to make a concrete point. Students are asked to comment on the problems, and a follow-up class discussion analyzes the case in terms of classical theory as well as in light of psychological evidence.

EVALUATION

There will be an in-class examination in the last session.

BIBLIOGRAPHY

On the foundations of theories of rational choice:

Hammond, J.S., R. Keeney, and H. Raiffa, (1998) *Smart Choices: A Practical Guide to Making Better Decisions*. Harvard Business School Press.

Binmore, K. (2009) *Rational Decisions*. Princeton University Press.

Gilboa, I. (2010) *Rational Choice*. MIT Press.

On the psychology of choice and violations of classical theories:

Bazerman M. H. and D. Moore (2006), *Judgment in Managerial Decision Making*. Wiley.

Ariely, D. (2008), *Predictably Irrational*. MIT Press.

Thaler, R. H. and C. R. Sunstein (2008), *Nudge: Improving Decisions About Health, Wealth, and Happiness*. Yale University Press.

A synthesis:

Gilboa, I., *Making Better Decisions: Decision Theory in Practice*. Blackwell-Wiley, 2010.

Itzhak GILBOA

gilboa@hec.fr

Itzhak Gilboa got his PhD from Tel-Aviv University in 1987. He worked under David Schmeidler on decision making under uncertainty, which remained his main research topic ever since. Together with Schmeidler, he has introduced the maxmin Expected Utility model and case-based decision theory. I. Gilboa taught at Kellogg School of Management of Northwestern University between 1987 and 1995, and, after two years at the University of Pennsylvania he joined Tel-Aviv University. He is also a fellow of the Cowles Foundation for Research in Economics, Yale University. Itzhak Gilboa is a Fellow of the Econometric Society, Member of the Game Theory Society Council, and has served as associate editor of *Econometrica*, *Games and Economic Behavior*, *International Journal of Game Theory*, and *Journal of Economic Theory*,. He was recently appointed to be the holder of the AXA Chair for Decision Sciences at HEC.

