Decision Making

Professor: Daniel Navarro-Martinez

Course Type: Elective

Credits: 4 ECTS

Term: 2nd Term

Course Description

"Decision Making" is a second-term course in the MSc in Management, at the Barcelona School of Management. It comprises twenty 90-minute lectures, and it serves as a general elective course for students specializing in any of the tracks.

Objectives

The main objective of this course is to improve the students' decision-making skills by introducing them to some of the main ideas and tools used in the science of decision making. Decision Science is an interdisciplinary field of study, which takes concepts from disciplines such as economics, psychology, management, philosophy, and mathematics. The ideas and tools used in Decision Science can be applied to virtually any type of decision and they are having an increasing impact on management and on policy making across the world. A prominent example of this is the recent creation of so-called Behavioural Insights Teams in countries such as the UK and the US, which are government bodies dedicated to the design of economic and social policies based largely on lessons taken from Decision Science. This course will focus on explaining the main intuitions behind those ideas and tools in an accessible way. Following the course will not require any technical knowledge or skill, and the mathematical elements introduced will be very basic.

Central to the course will be the notion that decision making can be analyzed at three different levels: normative, descriptive, and prescriptive. The normative level is concerned with determining the "rational" decision to make in a situation. The descriptive level focuses on understanding the way that human beings behave when they make decisions. The prescriptive level is about what advice to give to people when they must decide. The course will touch on all three levels and it will

have a strong focus on the descriptive (or behavioural) aspect. It will show how understanding the way people behave in different decision situations (i.e., the descriptive level) is crucial to know what errors and biases are likely to affect decision making and how they can be corrected, for instance by designing environments that promote better decisions.

Methodology

The methodology used in the course will include explaining and discussing theoretical concepts, discussing potential applications of those concepts to real-world situations, conducting replications of popular decision-making experiments with the students, and other interactive activities related to decision making.

A significant element of the course will be the discussion of possible real-world applications of the decision-making concepts studied. People make decisions in a wide variety of settings, which can go from everyday personal decisions (like how much to work, eat, exercise, or what to buy) to important decisions made in different types of organizations (like investment decisions, hiring decisions, or government policy decisions). This provides much scope for potential applications. To elaborate on this aspect, the students will be asked to think about their own proposals for applications, including making at least one class presentation about them.

Evaluation criteria

The evaluation of the course will consist of three elements:

a) *Final Essay (50%):* The students will have to write an essay (individually or in small groups) and present it in the last week of class. Each essay will focus on one of the main decision-making concepts studied in the course, and it is expected to: 1) explain the main ideas related to that concept, 2) propose potential applications of it in business, management or policy making, and 3) sketch the design of an experiment to test a hypothesis related to that concept.

b) *Class Assignments (20%):* The students will be given assignments for some of the sessions (to be done individually or in small groups), such as preparing brief presentations on possible applications of ideas studied in previous classes or reading papers and preparing for discussions about them.

c) *Participation (30%):* The students will be encouraged to participate in the discussion of the theoretical concepts explained in class and their applications and also of the experiments and other activities conducted in class.

There will be no exam in the regular evaluation. Students who fail will have the chance to do a retake exam about the contents of the course. In this case, the grade of the exam will be the final grade.

Students are required to attend 80% of classes. Failing to do so without justified reason will imply a Zero grade in the participation/attendance evaluation item and may lead to suspension from the program

Students who fail the course during the regular evaluation are allowed ONE retake of the evaluation, in the conditions specified above. If the course is again failed after the retake, the student will have to register again for the course the following year.

In case of a justified no-show to an exam, the student must inform the corresponding faculty member and the director(s) of the program so that they study the possibility of rescheduling the exam (one possibility being during the "Retake" period). In the meantime, the student will get an "incomplete", which will be replaced by the actual grade after the final exam is taken. The "incomplete" will not be reflected on the student's Academic Transcript.

Plagiarism is to use another's work and to present it as one's own without acknowledging the sources in the correct way. All essays, reports or projects handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the "Honor Code," students acknowledge that they understand the schools' policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program."

Reading Materials/ Bibliography/Resources

This section contains a number of bibliographical references that can be useful for students to follow the course and to expand on the different topics covered. The last subsection lists some popular books related to issues studied in the course.

GENERAL

Bazerman, M.H. and Moore, D.A. (2012). *Judgment in managerial decision making (8th edition)*. John Wiley & Sons, Ltd.

Goodwin, P. and Wright, G. (2014). *Decision analysis for management judgment (5th edition)*. John Wiley & Sons, Ltd.

Kahneman, D. (2011). *Thinking, fast and slow*. Penguin Books.

Koehler, D.J. and Harvey, N., eds. (2004). *The Blackwell handbook of judgment and decision making (volume 1)*. Blackwell Publishing.

Koehler, D.J. and Harvey, N., eds. (2015). *The Blackwell handbook of judgment and decision making (volume 2)*. Blackwell Publishing.

MAKING DECISIONS IN CONDITIONS OF RISK AND UNCERTAINTY

Camerer, C. (1995). Individual decision making. In J.H. Kagel, A.E. Roth (eds.), *The handbook of experimental economics*. Princeton University Press.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Penguin Books.

Starmer, C. (2000). Developments in non-expected utility theory: The hunt for a descriptive theory of choice under risk. *Journal of Economic Literature*, 38, 332-382.

Wu, G., Zhang, J. and Gonzalez, R. (2004). Decision under risk. In D.J. Koehler, N. Harvey (eds.), *The Blackwell handbook of judgment and decision making (volume 1)*. Blackwell Publishing.

PROSPECT THEORY: REFERENCE POINTS, LOSS AVERSION AND FRAMING

Camerer, C. (1995). Individual decision making. In J.H. Kagel, A.E. Roth (eds.), *The handbook of experimental economics*. Princeton University Press.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Penguin Books.

Kahneman, D., Knetsch, J. and Thaler, R.H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic Perspectives*, 5, 193-206.

Soman, D. (2004). Framing, loss aversion, and mental accounting. In D.J. Koehler, N. Harvey (eds.), *The Blackwell handbook of judgment and decision making (volume 1)*. Blackwell Publishing.

Tversky, A. and Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-458

FORMING JUDGMENTS

Camerer, C. (1995). Individual decision making. In J.H. Kagel, A.E. Roth (eds.), *The handbook of experimental economics*. Princeton University Press.

Goodwin, P. and Wright, G. (2014). *Decision analysis for management judgment (5th edition)*. John Wiley & Sons, Ltd.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Penguin Books.

Keren, G. and Teigen, K.H. (2004). Yet another look at the heuristics and biases approach. In D.J. Koehler, N. Harvey (eds.), *The Blackwell handbook of judgment and decision making (volume 1)*. Blackwell Publishing.

Tversky, A. and Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124-1131.

EVALUATING TIME

Frederick, S., Loewenstein, G. and O'Donoghue, T. (2002). Time discounting and time preference: A critical review. *Journal of Economic Literature*, 40, 351-401.

Loewenstein, G. and Thaler, R.H. (1989). Anomalies: Intertemporal choice. *Journal of Economic Perspectives*, 3, 181-193.

Loewenstein, G., Read, D. and Baumeister, R.F., eds. (2003). *Time and decision: Economic and psychological perspectives on intertemporal choice*. New York: Russell Sage Foundation.

DECISIONS WITH MULTIPLE ATTRIBUTES

Dyer, J.S., Fishburn, P.C., Steuer, R.E., Wallenius, J. and Zionts, Z. (1992). Multiple criteria decision making, multiattribute utility-theory: The next 10 years. *Management Science*, 38, 645-654.

Goodwin, P. and Wright, G. (2014). *Decision analysis for management judgment (5th edition)*. John Wiley & Sons, Ltd.

Shafir, E. and LeBoeuf, R.A. (2004). Context and conflict in multiattribute choice. In D.J. Koehler, N. Harvey (eds.), *The Blackwell handbook of judgment and decision making*. Blackwell Publishing.

Simonson, I. and Tversky, A. (1992). Choice in context: Tradeoff contrast and extremeness aversion. *Journal of Marketing Research*, 29, 281-295.

THE ROLE OF EMOTIONS

Damasio, A.R. (1994). *Descartes' error: Emotion, reason, and the human brain*. Putnam.

Finucane, M.L., Alhakami, A., Slovic, P. and Johnson, S.M. (2000). The affect heuristic in judgments of risks and benefits. *Journal of Behavioral Decision Making*, 13, 1-17.

Lerner, J.S., Li, Y., Valdesolo, P. and Kassam, K.S. (2015). Emotion and decision making. *Annual Review of Psychology*, 66, 799-823.

Loewenstein, G., Weber, E.U., Hsee, C.K. and Welch, N. (2001). Risk as feelings. *Psychological Bulletin*, 127, 267-286.

ATTENTION AND THE UNCONSCIOUS MIND

Gladwell, M. (2005). *Blink: The Power of Thinking Without Thinking*. Penguin Books.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Penguin Books.

POPULAR BOOKS

Ariely, D. (2008). *Predictably irrational: The hidden forces that shape our decisions*. Harper Perennial.

Gladwell, M. (2005). *Blink: The Power of Thinking Without Thinking*. Penguin Books.

Hammond, J.S., Keeney, R.L., Raiffa, H. (1999). *Smart choices: A practical guide to making better decisions*. Crown Business.

Kahneman, D. (2011). *Thinking, Fast and Slow*. Penguin Books.

Thaler, R.H. (2015). *Misbehaving: The making of behavioral economics*. WW Norton & Company.

Thaler, R.H., Sunstein, C.R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Penguin Books.

Bio of Professor

Daniel Navarro-Martinez (PhD) is an Associate Professor in the Department of Economics and Business at Universitat Pompeu Fabra, and an Affiliated Professor at the Barcelona Graduate School of Economics and the Barcelona School of Management. Before coming to Barcelona, he held positions at the University of Warwick (UK) and the London School of Economics and Political Science (UK). He does research in the fields of behavioural economics and judgment and decision making. His research has been published in international scientific journals, such

as Management Science, the Journal of Marketing Research, Social Science & Medicine, the Journal of Service Research, the Journal of Risk and Uncertainty, Judgment and Decision Making, the Journal of Economic Psychology, and Theory and Decision.