

# Boundedly Rational Choice Procedures

Tentative course outline

EUI 2019

Rohan Dutta, rohan.dutta@mcgill.ca

## 1 Course Overview

This is a course in decision theory. We will study a number of choice procedures that formalize some intuitive ideas about how agents make decisions in the face of behavioural constraints such as limited attention/cognitive abilities. For each such procedure we will be particularly interested in: (a) what kind of choice data (both deterministic and stochastic) is it able to rationalize (better than standard models)? (b) how well can we identify the procedure from choice data? and (c) what inferences (if any) can we make for welfare analysis?

## 2 Structure

There will be an initial set of lectures where I shall present a selection of the papers listed below, followed by student presentations. Participants will present a paper in class, write a referee report and a short research proposal.

## 3 Relevant Papers

### 3.1 Deterministic Choice

Manzini, Paola, and Marco Mariotti. 2007. “Sequentially Rationalizable Choice.” *American Economic Review* 97(5) 1824–1839.

Masatlioglu, Yusufcan, Daisuke Nakajima, and Erkut Ozbay. 2012. “Revealed Attention.” *American Economic Review* 102(5) 2183–2205.

Manzini, Paola, and Marco Mariotti. 2012b. “Categorize then Choose: Boundedly Rational Choice and Welfare.” *Journal of the European Economic Association* 10(5) 1141–1165.

Cherepanov, Vadim, Timothy Feddersen, and Alvaro Sandroni. 2013. “Rationalization.” *Theoretical Economics* 8 775–800.

Dutta, Rohan and Sean Horan. 2014. “Inferring Rationales from Choice: Identification for Rational Shortlist Methods.” *A EJ: Microeconomics* 7(4) 179-201.

Manzini, Paola, and Marco Mariotti. 2012a. “Choice by Lexicographic Semi-orders.” *Theoretical Economics* 7 1–23.

Apesteguia, Jose, and Miguel A. Ballester. 2013. “Choice by Sequential Procedures.” *Games and Economic Behavior* 77 90–99.

Kalai, Gil, Ariel Rubinstein and Ran Spiegler. 2002. “Rationalizing Choice Functions by Multiple Rationales.” *Econometrica* 70(6) 2481-2488.

Lleras, Juan Sebastian, Yusufcan Masatlioglu, Daisuke Nakajima and Erkut Ozbay. 2017. “When More is Less: Limited Consideration.” *Journal of Economic Theory* 170 70-85.

Bernheim, Douglas, and Antonio Rangel. 2009. “Beyond Revealed Preference: Choice-Theoretic Foundations for Behavioral Welfare Economics.” *Quarterly Journal of Economics* 124(1) 51–104.

de Clippel, Geoffroy, and Kareen Rozen. 2014. “Bounded Rationality and Limited Datasets: Testable Implications, Identifiability, and Out-of-Sample Prediction.” Brown University working paper.

### **3.2 Stochastic Choice**

Luce, Robert D. 1959. “Individual Choice Behavior: A Theoretical Analysis.” *New York: Wiley*.

Reiskamp, Jorg, Jerome R. Busemeyer and Barbara A. Mellers. 2006. “Extending the Bounds of Rationality: Evidence and Theories of Preferential Choice.” *Journal of Economic Literature* 44 631-661.

Tversky, Amos. 1972. “Choice by Elimination.” *Journal of Mathematical Psychology* 9 341-367.

Gul, Faruk, Paulo Natenzon and Wolfgang Pesendorfer. 2014. “Random Choice as Behavioral Optimization.” *Econometrica* 82(5) 1873-1912.

Manzini, Paola and Marco Mariotti. 2014. “Stochastic Choice and Consideration Sets.” *Econometrica* 82(3) 1153-1176.

Aguiar, Victor H., Maria Jose Boccardi and Mark Dean. 2016. “Satisficing and Stochastic Choice.” *Journal of Economic Theory* 166 445-482.

Cattaneo, Matias D., Xinwei Ma, Yusufcan Masatlioglu and Elchin Suleymanov. 2018. “A Random Attention Model.” *working paper*.