University of Pennsylvania

Fall Term 2018

ECON 712– Decision Theory

Lectures: Tuesday and Thursday 1.30-3.00, in McNeil Building 103

Instructor: David Dillenberger, 619, PCPSE, ddill@sas.upenn.edu

Office hours: By appointment

Course home page: usual Canvas https://canvas.upenn.edu/

Requirements:

- Either a research paper or a take-home final exam. (The choice between these two options is yours).

- Presentation in the second part of the course (list of suggested papers is in Section 6 below).

Remark: There will be no class on November 20. If needed, make up class TBA.

Course description: Most economic theories start from a model of individual decision making and then use it as a building block to model interaction between agents, groups of agents and firms, the economy as a whole, etc. In this course, we study a suite of standard models, discuss critiques of these models, and introduce alternative models (sometimes known as “exotic preferences”) that deal with these critiques. For example, we will discuss topics such as present bias, temptation and self-control, non-expected utility, and ambiguity.

COURSE OUTLINE


1.2 Deterministic Choice: Preference Relation, Utility and Choice Function

Readings: Kreps, Chapters 2 and 3

---

1.3 Expected Utility Theory
Readings: Kreps, Chapters 5 and 6

1.4 Subjective and Objective Uncertainty: The Anscombe-Aumann Model
Readings: Kreps, Chapter 7

1.5 Subjective Probability and Savage’s Theorem
Readings: Kreps, Chapters 8 and 9

2. Addressing Allais and Ellsberg

2.1 Ambiguity aversion


2.2 Non expected utility under risk


### 2.3 Further Readings

• (Survey) Gilboa, I., and M. Marinacci (2013): “Ambiguity and the Bayesian paradigm,” in Advances in Economics and Econometrics: Tenth World Congress, Volume 1, ed. by A. Acemoglu, and Dekel. Cambridge University Press.


### 3 Dynamic Choice/Choice over Opportunity Sets

#### 3.1 Standard Model of Dynamic Choice

Kreps, Chapter 13

#### 3.2 Preference for Flexibility


#### 3.3 Preference for Commitment


3.4 Further readings on Preference for Commitment


3.5 Further Readings on Preference for Flexibility


4 Time preferences with risk


4.1 Further readings


5 Stochastic choice


6 Models of bounded rationality/other topics/students’ presentation


