PS918-15 Psychological Models of Choice

21/22

Department
 Psychology
Level
 Taught Postgraduate Level
Module leader
 Emmanouil Konstantinidis
Credit value
 15
Module duration
 10 weeks
Assessment
 100% coursework
Study location
 University of Warwick main campus, Coventry

Description

Introductory description

The main aim of this module Psychological Models of Choice is to review theories of individual choice. Core empirical results in the decision-making literature will be reviewed and their theoretical implications explored.

[Module web page](#)

Module aims

The module will cover the major theories of choice, with emphasis upon choices involving risk and time. Secondary aims include developing criticisms of methodologies, the ability to implement mathematical models of decision making, and appreciation of the strengths and weaknesses of different theoretical approaches.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Introduction to cognitive modelling
Psychological Models of Risky Choice
Evidence Accumulation models
Heuristics
Information Biases
Emotions and arousal
Big Data & Choice models
Decision by sampling

Learning outcomes

By the end of the module, students should be able to:

- 1. Read, understand, and critically evaluate academic articles that report models of choice
- 2. Describe and discuss the strengths and weaknesses of the most important models of individual choice
- 3. Implement a mathematical model of individual choice; understand and analyse the relation between theory and data
- 4. Describe and evaluate the appropriateness of key experimental methods for testing models of decision making
- 5. Understand the theoretical importance of core, critical empirical results in decision making

Indicative reading list

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

Baron, S. (2008). Thinking and deciding (4th ed.). Cambridge, England: Cambridge University Press.

Busemeyer, J. R., & Townsend, J. T. (1993). Decision field theory: A dynamic-cognitive approach to decision making in an uncertain environment. Psychological Review, 100, 432–459.

Kahneman, D. (2011). Thinking, fast and slow. New York: Macmillan.

Kahneman, D., & Tversky, A. (2000). Choices, values and frames. New York: Cambridge University Press & the Russell Sage Foundation.

Lichtenstein, S. & Slovic, P. (2006). The construction of preference. Cambridge, UK: Cambridge University Press.

Newell, B. R., Lagnado, D. A., & Shanks, D. R. (2007). Straight choices: The psychology of decision making. Hove, UK: Psychology Press.

Subject specific skills

- Understanding & evaluation of models of individual choice
- Analysis of relationships between theory and data
- Development of criticisms of methodologies

- Implementation of mathematical models of decision making

Transferable skills

- Critical evaluation of academic articles
- Discussion of the strengths and weaknesses of models
- Evaluation of the appropriateness of experimental methods

Study

Study time

Type	Required
Lectures	10 sessions of 2 hours (13%)
Practical classes	5 sessions of 2 hours (7%)
Private study	120 hours (80%)
Total	150 hours

Private study description

120 hours private guided study, including completion of assessments

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A3

	Weighting	Study time
Test 1	15%	
Modelling Assignment	55%	

2500-word written reports for modelling assignments, where students learn to (i) program a computational model of choice and (ii) apply the model to data.

Test 2	15%	
Test 3	15%	

Feedback on assessment

The class tests will be reviewed in class with detailed feedback provided about the correct answers and discussion of the some of the common errors. Individual one-on-one feedback will also be provided upon request.

Written feedback will be provided on the writing assignment and on the written report for the modelling assignment.

Availability

Courses

This module is Core for:

- Year 1 of TPSS-C803 Postgraduate Taught Behavioural and Data Science
- Year 1 of TPSS-C8P7 Postgraduate Taught Behavioural and Economic Science (Science Track)

This module is Optional for:

- Year 1 of TPSS-C8P7 Postgraduate Taught Behavioural and Economic Science (Science Track)
- Year 1 of TECS-C8P8 Postgraduate Taught Behavioural and Economics Science (Economics Track)
- Year 1 of TMAA-G1PF Postgraduate Taught Mathematics of Systems

This module is Option list A for:

- RMAA-G1PG Postgraduate Research Mathematics of Systems
  - Year 1 of G1PG Mathematics of Systems
  - Year 1 of G1PG Mathematics of Systems