UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Psicologia delle Decisioni Economiche

2526-2-F5106P047

Learning area

Social psychology, economic psychology and decision-making

Learning objectives

Knowledge and understanding

- Acquire knowledge of the main models in psychology and behavioral economics aimed at systematizing economic decision-making, with a particular focus on social and moral decisions and the effect of language.
- Acquire knowledge of how large language models can change psychology and behavioral economics.

Applying knowledge and understanding

- Acquire the ability to critically evaluate the methodology used and the conclusions drawn in research articles
- Acquire the ability to apply theoretical models in natural contexts

Making judgment

- Students will learn to assess experimental studies in behavioural psychology and economics, recognizing methodological strengths and limitations.
- Students will develop the ability to design original studies, selecting appropriate tools to investigate behavioural psychology and economics constructs like cooperation and altruism.

Communication Skills

- Students will practice communicating research findings clearly to both expert and non-expert audiences,

using appropriate disciplinary language.
- Through classroom discussions, students will learn to present research ideas and collaborate effectively within teams.

Learning Skills

- Students will learn how to search and critically review scientific literature to support the development of new research ideas.
- Students will develop the ability to stay updated on new tools and methods in behavioural psychology and economics research.

Contents

The course aims to introduce the main models aimed at systematizing economic decisions.

Detailed program

Frontal lectures

Module 1 – Foundations of Behavioral Economics
1. The birth of behavioral economics
2. Utility, bounded rationality, and decision theory
3. Classical experiments: risk, economic games, social preferences
4. Cognitive biases and heuristics
5. Anonymous decisions and one-shot interactions

Module 2 – The Consequentialist Paradigm
6. Bounded rationality and satisficing behavior
7. Prospect Theory and hyperbolic discounting
8. Social preferences within the consequentialist framework
9. Limitations of the consequentialist approach in moral decision-making

Module 3 – The Crisis of the Paradigm and the Role of Language
10. Violations of economic consequentialism (e.g., lying aversion)
11. Effects of linguistic framing on social and individual decisions
12. Moral language and antisociality
13. A paradigm shift: from outcome-based to language-based preferences

Module 4 – Large Language Models and Decision-Making
14. Introduction to neural networks and LLMs
15. How LLMs make economic decisions
16. LLMs as decision-making assistants
17. The concept of a “language-based utility function”

Module 5 – The LENS Model
18. The role of language in activating emotions and norms
19. The connection between emotions, norms, and behavior
20. Interaction between norms and emotions in social behavior
21. Formalization of the LENS model

Module 6 – Sentiment Analysis and Decisions
22. Emotion classifications and sentiment analysis tools
23. Sentiment-based utility function (LiMoLES)
24. Extending from binary sentiment to discrete emotions
25. Empirical validation of sentiment-based models

Module 7 – Normative Analysis
26. Moral theories: Moral Foundations Theory and Morality-as-Cooperation
27. Measuring norms in texts
28. Normative analysis and utility function (LiMoLNoS)

Module 8 – LLMs and Behavioral Prediction
29. Limitations of lexicon-based tools
30. Text analysis with BERT and LLM-based chatbots
31. Formal predictions in economic games (Dictator, Ultimatum, etc.)
32. Empirical validation and model comparison

Module 9 – Broader Implications and Future Directions
33. Theoretical and applied implications
34. Ethical considerations in using LLMs in psychology and economics
35. Future directions of research

Prerequisites

Knowledge of the fundamentals of social psychology could be useful, but it is not required, because the course will be made as self-sufficient as possible.

Teaching methods

Delivered teaching (75%). Frontal lectures.
Interactive teaching (25%). Classroom discussions.

Assessment methods

The assessment will be carried out through a final oral exam, aimed at evaluating the theoretical knowledge of the course themes, the ability to summarize, argue, and identify the connections between the different areas discussed.

Erasmus students can contact the Module Leader to agree on the possibility of taking the exam in English.

Textbooks and Reading Materials

Capraro, V. (forthcoming). The economics of language: How LLMs can reshape behavioural economics.

Cambridge University Press.
Capraro, V., Halpern, J. Y., & Perc, M. (2024). From outcome-based to language-based preferences. Journal of Economic Literature, 62(1), 115-154.
Capraro, V., Di Paolo, R., Perc, M., & Pizziol, V. (2024). Language-based game theory in the age of artificial intelligence. Journal of the Royal Society Interface, 21(212), 20230720.
Capraro, V. (2025). Human behaviour through a LENS How Linguistic content triggers Emotions and Norms and determines Strategy choices. Current Opinion in Psychology, 102024.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | GENDER EQUALITY | DECENT WORK AND ECONOMIC GROWTH | REDUCED INEQUALITIES