



COURSE UNIT INFORMATION SHEET (SYLLABUS)

2020/2021

Name Thought and Language
Teaching staff Mário Boto Ferreira (coordinator) ; Paulo Ventura ; Leonel Garcia-Marques
ECTS 6
Functioning Four hours per week: One theoretical lesson (2 hours) and one applied lesson (2 hours)
Learning goals Thought and Language is an introduction to the main research themes in each one of these two domains. With respect to thought, the goal is to contrast descriptive and normative models of thought, reasoning, judgment and decision-making. Specifically, we will study how people reason and make decisions in their daily lives and how these decisions differ from normative models of inductive and deductive judgment and decision-making. With respect to Language, the main goal is to provide an integrated view of the cognitive processes underlying four crucial language domains: speech recognition; reading (word recognition) and their interactions; speech production and writing (production of written language).
Skills to be developed



In the end of the course students should be able to: Thought:

1. Demonstrate an articulated comprehension of the psychological processes underlying thought, judgment and decision-making as well as understand when and how these processes may lead to (more or less) calibrated judgments. Analyze and compare different theories of reasoning, judgment and decision-making.

Language:

2. Demonstrate an articulated comprehension of the psychological processes underlying language recognition and production of language; understand not only the consensual theoretical arguments but also the contrasting theories about the different aspects of language.

Prerequisites (precedences) *

Contents

1. Inductive reasoning and models of Judgment and decision-making

1.1 Summary of past research on inductive reasoning: formal models of decision-making.

1.2. Bounded rationality as a first reply to the limitations of formal models of decision-making.

1.3. The research program on Heuristics and biases advanced by Tversky and Kahneman as a new approach to judgment under uncertainty.

1.4. Structure and function of the heuristics: main limitations and alternative approaches

2. Deductive reasoning and Mental Models

2.1. Types of deductive reasoning

2.2. Systematic and characteristic difficulties in deductive reasoning presented by lay-people Mental models

2.3. Logical errors in deductive reasoning

3. Speech Recognition

3.1. The segmentation of the continuous acoustic stream Intermediary unities for lexical access

Models of speech recognition

4. Recognition of written language

4.1. The role of visual information in lexical access in reading. Intermediary unities for lexical access

4.2. The role of phonology in lexical access. Models of word recognition in reading



5. Speech Production

5.1. Lexicalization

5.2. Phonological encoding

5.3. Contrast between strictly serial models, interactive models and cascade models

Writing (production of written language)

6.1. Processes underlying writing

6.2. Theoretical models

6.3. The role of working memory

Bibliography

Plous, S. (1993). The psychology of judgment and decision making. New York : McGraw-Hill.

Baron, J. (2008). Logic. In J. Baron, *Thinking and deciding* (pp. 77-98). Cambridge University press.

Ferrand, L. (2011). Psicologia cognitiva da leitura [Cognitive psychology of reading]. Brasil: Instituto Piaget Editora.

Harley, T. (2007). The psychology of language: from data to theory. Hove, East Sussex: Psychology Press Spinelli, E., &

Ferrand, L. (2009). *Psicologia da linguagem* [Psychology of language]. Brasil: Instituto Piaget Editora.

Other references will be provided during the course

Teaching methods

Theoretical lessons will provide a general overview of the main themes of the UC (please see “Contents”) as well as a conceptual framework for the theoretical-practical lessons.

In the theoretical-practical lessons there will be presented central issues of the Contents of the UC (based on research literature previously provided to the students) to be discussed by the students under the professor’s coordination. Students will also elaborate (in groups of 4 to 5) written conceptual reflections on these issues to be handed in to the professors (according to a calendar to be defined in the beginning of the semester)

Evaluation Regimes (General and/or Alternative)

General regime



The UC evaluation includes the written reflections and multiple-choice tests to be taken in class during the semester (see evaluation elements)

In the case of a second wave of the COVID-19 pandemic, an alternative evaluation plan will take place, using the e-learning platform (e.g., to hand in assignments) and replacing the multiple-choice tests by a final exam.

Evaluation Elements

Conceptual reflections (group assignments) (50%)*; multiple-choice tests during theoretical lessons (50%)** - specific dates to be announced in the beginning of the semester.

Students' participation in two experiments connected to the Topics of the UC (dates to be announced in the beginning of the semester)***.

*Although the conceptual reflections assignments are mandatory, the final grade of this evaluation element will be based on the average of the 4 best questions (two relative to Language topics and two relative to Thought topics).

** Students need to obtain a passing grade in the evaluation element "multiple-choice tests" in order to be approved in the course.

***For students who do not participate in the experiments the evaluation of the weekly questions will be based on the average of all the questions made during the semester.

Rules for grade improvement

Students who have completed this course in 2019-2020 and want to improve their final grade, may: a) complete the multiple-choice tests of the current year (which replaces de last year exam); and b) complete the conceptual reflections of the current year (as a member of a group or individually).

Students who enrolled in this course for the first time, may: a) complete the multiple-choice tests of the next year; b) remake the conceptual reflections of the current year (as a member of a group or individually); c) complete the conceptual reflections of the next year (as a member of a group or individually).

Rules for students having previously failed the course unit *



These students may opt for the general regime or special the regime. If they have already complete the conceptual reflections (with positive evaluations) they are not required to complete new reflections (the obtained evaluations will be used to compute the final grade).

Requirements on attendance and punctuality

Students are allowed to miss $\frac{1}{4}$ of the classes.

Rules for special students

(workers, elite athletes, student body leaders, military, fathers/mothers, with special needs) *

The abovementioned special students may opt for an evaluation that includes only the multiple-choice tests.

These students must decide on which type evaluation regime (general or special) and inform the teacher until de end of October.

Language of instruction

Portuguese

Disciplinary violations and penalties

According to the Evaluation of Learning Regulation of the Faculty of Psychology of the University of Lisbon, the following behaviors are considered as disciplinary offenses subject to disciplinary action:

- a) To use or attempt to use materials, information, notes, study resources or other objects and equipment not authorized in academic exercises;
- b) To help or try to help a colleague in committing a disciplinary offense;
- c) To submit the same written work for evaluation in different course units without permission from the instructors, even if with minor changes;
- d) To present someone else's work as one's own;



- e) To forge, or change without permission from the author, any information or citation in an academic work;
- f) To interfere, change or attempt to change grades;
- g) To try to prevent or interfere with the proper functioning of classes, research or other academic activities;
- h) To make false accusations regarding instructors, governance bodies, other students or non-teaching staff of the FPUL;
- i) To falsify signatures in attendance sheets, documents relating to evaluation elements or in any official document relating to an academic process or status.

Disciplinary offenses committed in any assessment element can lead to its annulment, and must be reported to the Pedagogical Council or, considering their gravity and repetition, may lead to other penalties, to be determined by the Rector of the University of Lisbon.

* If applicable