



Course program and reading list

Semester 1 Year 2022

School: Baruch Ivcher School of Psychology

Cognitive Processes B - attention and language

Lecturer:

Prof. Daniel Levy daniel.levy@runi.ac.il

Tutors:

Prof. Daniel Levy daniel.levy@runi.ac.il

Teaching Assistant:

Ms. Jenna Gellman Jenna.Gellman01@post.runi.ac.il

Course No.:	Course Type :	Weekly Hours :	Credit:
8939	Lecture	2	4

Course Requirements :	Group Code :	Language:
Final Exam	221893910	English

Prerequisites

Prerequisite:

8000 - Introduction To Psychology
8936 - Cognitive Processes A sensation and perception **OR** 8020 - Introduction to Cognitive Psychology

Students who took one of the courses listed below will not be allowed to register to the course Cognitive Processes B - attention and language (8939):

8130 - Cognitive Processes A



Course Description

In this course will explore the worlds of language, attention, knowledge, and intelligence, and attempt to understand the brain bases of those functions. We will consider the organization of knowledge in the mind, including categorical knowledge and the lexicon. We will try to understand the processes of understanding language, producing speech, reading, and writing. We will also get acquainted with cognitive and neuropsychological disorders such as ADHD, hemispatial neglect, aphasia, dyslexia, and dysexecutive function, and how they might be treated. Other questions to be discussed: How do we solve intellectual and practical problems (reasoning, induction, deduction, and inference)? What is required for us to multi-task? What is intelligence? Are there really gender differences in cognition?



Course Goals

- To provide an understanding of the fundamentals of psycholinguistics
 - To introduce models of the organization of knowledge in the mind and brain
 - To present various types of attention and executive function
 - To explore thinking patterns associated with inductive and deductive reasoning and with problem solving
 - To consider the concept of intelligence and its implications
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Grading

3 in-class quizzes, 5% each; 2 in-class mini-quizzes, 2.5 % each - dates on syllabus

1 short assignment, 5%; 1 medium-length assignment, 10%; 1 long assignment, 15% - submission dates on syllabus

Final exam, 50%



Learning Outcomes

Aside from being aware of the state of scientific knowledge about these topics in

cognitive science (assessed in the quizzes and exam), you should be able to use that knowledge to explore and explain phenomena and challenges in human experience in light of a cognitive view point (assessed in the assignments).

Lecturer Office Hours

Prof. Daniel Levy, Zoom or live, by appointment: daniel.levy@idc.ac.il

Tutor Office Hours

Prof. Daniel Levy, Zoom or live, by appointment: daniel.levy@idc.ac.il

Teaching Assistant

Jenna Gellman, by appointment: gellmanjenna@gmail.com

Additional Notes

Assignments

Details about the requirements of the assignments will be on the Moodle, in the section about the week of submission

Assignment 1 **Being multilingual – advantages and disadvantages**

Assignment 2: **Interview of person with ADHD**

Assignment 3: **What is emotional intelligence?**

Reading List

Textbooks:

Goldstein, E. B. (2011). *Cognitive psychology: Connecting mind, research, and everyday experience*. 3rd edition. Wadsworth Cengage Learning.

Goldstein, E. B. (2017). *Sensation and perception*. 10th edition. Wadsworth Cengage Learning.

Conway, A. R. A., & Kovacs, K. (2015). New and emerging models of human intelligence. *Wiley Interdisciplinary Reviews: Cognitive Science*, 6(5), 419-426.

Dąbrowska, E. (2015). What exactly is Universal Grammar, and has anyone seen it?.

Frontiers in Psychology, 6, 852.

Erel, H. & Levy, D. A. (2016), Orienting of visual attention in aging. *Neuroscience and Biobehavioral Reviews*, 69, pp. 1-24. Read pp. 2-4.

Friedmann, N., & Coltheart, M. (2018). Types of developmental dyslexia. In A. Bar-On, & D. Ravid (Eds.), *Handbook of communication disorders: Theoretical, empirical, and applied linguistics perspectives*. pp. 721-752. De Gruyter Mouton

Hagoort, P. (2019). The neurobiology of language beyond single-word processing. *Science*, 366, 55-58. [+ glossary file]

Hyde, J. S. (2016). Sex and cognition: gender and cognitive functions. *Current Opinion in Neurobiology*, 38, 53-56.

Li, K., & Malhotra, P. A. (2015). Spatial neglect. *Practical Neurology*, 15(5), 333-339.

Miyake, A., & Friedman, N. P. (2012). The nature and organization of individual differences in executive functions: Four general conclusions. *Current Directions in Psychological Science*, 21(1), 8-14.

Posner, J. Polanczyk, G. V., & Sonuga-Burke, E. (2020). Attention-deficit hyperactivity disorder., *Lancet*, 395, 450-62.

Rabinovici, G. D., Stephens, M. L., & Possin, K. L. (2015). Executive dysfunction. *CONTINUUM: Lifelong Learning in Neurology*, 21(3 Behavioral Neurology and Neuropsychiatry), 646.

Rode, G., Fourtassi, M., Pagliari, C., Pisella, L., & Rossetti, Y. (2017). Complexity vs. unity in unilateral spatial neglect. *Revue Neurologique*, 173(7-8), 440-450.

van der Lely, H. K. J., and Pinker, S. (2014). The biological basis of language: Insight from developmental grammatical impairments. *Trends in Cognitive Sciences*, 18, 586-595.