

Moshe Poliak
43 Vassar Street | Cambridge, MA 02139
617-642-7452 | moshepol@mit.edu
mpoliak.github.io

Research Interests

Sentence processing, noisy channel processing, information structure, prosody, statistical methods.

Education

Massachusetts Institute of Technology

Ph.D student in Brain and Cognitive Sciences
Advisor: Edward Gibson

2022 – present

Harvard University

A.B in psychology, summa cum laude
Thesis Advisor: Jesse Snedeker

2018 – 2022

Research Experience

The Language Lab at MIT (PI: Edward Gibson)

Research Assistant

2021 – 2022

Extended a class project on Noisy Channel Processing in Russian into an independent project with Dr. Edward Gibson, Dr. Rachel Ryskin, and Mika Braginsky. Designed the experiment; wrote preregistration; created stimuli; programmed experiment with Python and Qualtrics and recruited participants on Prolific; analyzed data with Frequentist and Bayesian approaches; currently writing manuscript for publication.

Language Development Laboratory (PI: Jesse Snedeker)

Research Assistant, Thesis Student

2020 – 2022

As a thesis student: iteratively developed the study questions and data analysis. The project compares three EEG data analysis methods (mean amplitude, cluster mass, neural decoding) in resolving fundamental problems in linguistic EEG.

As a research assistant: edited audio stimuli, programmed experiments, collected EEG data, and analyzed data on projects that employ the visual world paradigm or the EEG story time paradigm.

Implicit Social Cognition Laboratory (PI: Mahzarin Banaji)

Research Assistant

2019 – 2022

Developed research questions; designed and coded online experiments with reaction-time measures and questionnaires; analyzed data; interpreted results; reported on experiments in presentations and in writing; created educational materials on various media targeted at the general public.

Presentation and Invited Talks

Chen, A.*, Hofer, M.*, **Poliak, M.**, Zaslavsky, N., & Levy R. (2022). The emergence of discrete and systematic communication in a continuous signal–meaning space. Poster at the 44 Annual Meeting of Cognitive Science Society (CogSci).

Poliak, M., Ryskin, R., Braginsky, M., & Gibson, E. (2022). Effects of the structural prior on noisy-channel inference: evidence from Russian. Poster at the 35th Annual Conference in Human Sentence Processing.

Poliak, M., Yacovone, A., & Snedeker, J. (2022). Between you and me: Use ERP decoding when between-participants variation is high. Poster at the 35th Annual Conference in Human Sentence Processing.

Poliak, M., Morehouse, K., & Banaji, M. (2021). Gender and Judgments of Fame: Responses to “Noise” Are Sensitive to Local, Not Global, “Signal”. Poster presentation at the APS Annual Convention conference.

Yacovone, A., **Poliak, M.**, Koya, H., & Snedeker, J. (2021). ERP decoding shows bilinguals represent the language of a code-switch after lexical processing. Poster at the 34th Annual CUNY Conference on Human Sentence Processing.

* Co-first authors

Awards and Honors

- Phi Beta Kappa Inductee, Alpha Iota Chapter, Junior 24
- Derek Bok Center Certificate of Distinction in Teaching (Fall 2020, Fall 2019)
- Detur Book Prize for academic achievement (2019)

Grants and Funding

- Summer Research Funding, Patricia King Fellowship Program and Deland Fund for Undergraduate Research, Harvard College Research Program, 2021
- Conference Funding, Horne fund, Harvard College Research Program, 2021
- Undergraduate Research Scholars Award, Institute for Quantitative Social Science, Harvard University, 2021
- Summer Research Fellowship, Building Learning through Inquiry in the Social Sciences, Harvard University, 2019
- Undergraduate Research Scholars Award, Institute for Quantitative Social Science, Harvard University, 2019

Teaching and Mentoring

Harvard University Teaching Fellow

Taught section, held office hours, created educational materials, and assessed students' performance in several courses.

<i>Introduction to Computer Science</i> , Harvard College	Fall 2019, Fall 2020
<i>Introduction to Artificial Intelligence with Python</i> , Harvard Summer School	2020
<i>Web-Programming with Python and JavaScript</i> , Harvard Summer School	2020
<i>Computer Science for Managers</i> , Harvard Business School	Spring 2020

Harvard College Peer Advising Fellow

Advised first-year students in their adjustment to life in college.

2019-2021

Professional Development

Diversity and Inclusion Badge Program

Fall 2022

A series of online DEI courses

Volunteering and Service

BCS Application Assistance Program

Fall 2022

Skills

Human Languages: Russian (native), Hebrew (native), English (fluent), Arabic (MSA, proficient)

Computer Languages: R, Python, MATLAB, JavaScript, HTML, CSS, PHP, SQL, C, GIT

Software: PRAAT, SoX, Qualtrics, EC2, EEGLAB

Interests and Hobbies: Vocal performance (classical and heavy metal), film, oenology, figure skating.