# Maria Khoudary

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ORCID: 0000-0002-1339-2600

### Education

### Boston College, Chestnut Hill, MA

May 2019

Bachelor of Science, Psychology (honors) and Philosophy, *magna cum laude* Scholar of the College Thesis: *Securing the Reliability of Episodic Memory* Advisors: Dr. Maureen Ritchey (psychology) and Dr. Richard Atkins (philosophy)

# Research Experience

### Interactive Student, Neuromatch Academy

July 2020

- Participated in a three-week online summer school in computational neuroscience covering fundamentals of modelling, Bayesian statistics, linear dynamical systems, and machine learning.
- With three classmates, built five different convolutional neural networks to investigate architectural constraints on successful prediction of the early visual BOLD response to natural images.

#### Lab Manager and Research Assistant, De Brigard Lab, Duke University

Summer 2019-present

- Program and conduct behavioral and fMRI experiments investigating memory, metacognition, and counterfactual thinking; re-analyze moral judgment fMRI data using spatiotemporal partial least squares; conduct and assist with several online, survey-based studies.
- Manage over 10 IRB protocols, oversee lab finances, create and maintain lab website.
- Coordinate the Summer Seminars in Neuroscience and Philosophy, a two-week summer school for early career researchers; assist with editing a volume on neuroscience and philosophy by providing editorial comments and co-authoring a glossary with contributing authors.

### Undergraduate Research Fellow, Ritchey Lab, Boston College

Fall 2017-Spring 2019

- Designed and conducted honors thesis experiment testing the effects of divided attention on semantically induced memory distortions.
- Collected and manually rejected EEG data, administered behavioral studies examining how context, context reinstatement, emotion, and emotion regulation modulate episodic memory.

#### NSF-REU Fellow, Carrasco Lab, New York University

Summer 2018

Worked with a graduate student to design, pilot, and conduct a behavioral experiment quantifying
the effects of covert exogenous attention on contrast sensitivity across the visual field; conducted
comprehensive literature review, wrote MATLAB scripts to organize and visualize data.

• Participated in wet lab and MATLAB bootcamps, brown-bag faculty lectures for fellows, and a philosophy journal club organized by graduate students in computational neuroscience.

Undergraduate Research Assistant, Cordes Lab, Boston College

Spring 2017-Fall 2017

• Conducted behavioral experiments testing numerical cognition in 2- and 3-year-old human participants, assisted with behavioral experiments testing numerical cognition in infants.

Undergraduate Research Assistant, Dr. Gene Heyman, Boston College

Fall 2016

• Calibrated stimulus duration for an experiment testing rapid attention allocation.

#### Awards and Honors

Phi Beta Kappa, Boston College		Spring 2019
Scholar of the College, Boston College		Spring 2019
Order of the Cross and Crown, Boston College		Spring 2019
Research Experience for Undergraduates Fellow, National Science Foundation Summe		Summer 2018
Dean's List, First Honors	Spring 2016, Spring 2017, Fall 2017, Spring 2	2018, Fall 2018, Spring 2019
Undergraduate Research Fellowship, Boston College		Spring 2018
Nu Rho Psi, National Honor Society in Neuroscience		Fall 2018
Psi Chi, National Honor Society in Psychology		Fall 2017
Honors Program, Boston College Psychology Department		Fall 2017
Honors Program, Boston College Morrissey College of Arts and Sciences		Spring 2015

### Articles

- De Brigard, F., **Khoudary, M**., & Murray, S. (In press). Times imagined and remembered. In Hoerl, C., McCormack, T., & Fernandes, A. (Eds.). *Temporal Asymmetries in Philosophy and Psychology.* Oxford University Press.
- Mele, A., Nadelhoffer, T., **Khoudary, M**. (Forthcoming). Folk Psychology and Proximal Intentions. *Philosophical Psychology.*
- **Khoudary, M.** (Resubmitted). Effects of divided attention on picture misattributions. *Mental Note, undergraduate cognitive science journal at Rutgers University.*
- **Khoudary, M**., Hanna, E., O'Neill, K.G., Iyengar, V., Clifford, S., De Brigard, F., Cabeza, R., Sinnott-Armstrong, W. (in prep). A Functional Neuroimaging Investigation of Moral Foundations Theory.

# Talks and Presentations (\* denotes equal contribution)

Chen, J.\*, Elowsky, C.\*, **Khoudary, M**.\*, Revsine, C.\* (July 2020) Predicting fMRI Responses: a Machine Learning Approach. *Neuromatch Academy project presented in fulfillment of the Interactive Track.* 

March 2021 2

- **Khoudary, M.**, Stanley, M., Yang, B.W., Cabeza, R., De Brigard, F. (June 2020). Memory vividness and source monitoring. *Poster accepted to the Society for Philosophy and Psychology Annual Meeting (postponed due to COVID-19).*
- **Khoudary, M.**, Hanna, E., O'Neill, K.G., Iyengar, V., Clifford, S., De Brigard, F., Cabeza, R., Sinnott-Armstrong, W. (May 2020). A Functional Neuroimaging Investigation of Moral Foundations Theory. Poster presented virtually at the Cognitive Neuroscience Society Annual Meeting.

  Poster accepted to the North Carolina Cognition Conference (postponed due to COVID-19). Poster accepted to the Society for Philosophy and Psychology Annual Meeting (postponed).
- **Khoudary, M.**, Cooper, R., Ritchey, M. (May 2019). Effects of divided attention on item and source memory. *Poster presented at the Boston College Psychology Undergraduate Research Conference.*
- **Khoudary, M**. (April 2019). How attention alters perception. *Talk given at Nu Rho Psi outreach event,* "What's New in the Brain?"
- **Khoudary, M.**, Jigo, M., Carrasco, M. (July 2018). Characterizing the effects of covert exogenous attention on contrast sensitivity across the visual field. *Poster presented at the NYU Summer Student Research Conference; talk given at the Center for Neural Science Summer Undergraduate Research Program Symposium.*

### Skills

### Programming and Software

Intermediate proficiency: R; Python; MATLAB; Git; PLS Toolbox for MATLAB; PsychoPy; Google Colab Novice proficiency: JavaScript; TensorFlow; EEGLAB, MGL, and Psych toolboxes for MATLAB; SPSS

### Data Collection (human subjects)

fMRI (8 coil 3T GE MR750) EEG (BioSemi 64 channel gel)
Behavioral (Qualtrics, Amazon Mechanical Turk, Prolific) Eye Tracking (EyeLink 1000)

### Languages

Arabic (Native Levantine; novice Modern Standard)

### Relevant Coursework

#### Boston College

Cognitive Psychology
Sensation and Perception
Psychopharmacology
Developmental Psychology
Cognitive Neuroscience
Behavioral Neuroscience

Research Practicum in Cognition Psychology Neural Circuits of Emotional Memory

Intro to Behavioral Statistics and Research Computer Science I Experimental Design and Statistics (grad/undergrad) Philosophy of Mind

Selected Readings in Phenomenology (grad/undergrad) Philosophy of Science (grad/undergrad)

March 2021 3

*Tufts University* – grad/undergrad seminars 50 Years of Consciousness Research

Current Topics in Consciousness Research

Duke University - audited courses

Functional Neuroimaging

Memory: Philosophical and Scientific Issues (grad/undergrad)

## Selected Leadership & Outreach

Founder, Philosophy and Neuroscience Journal Club, Duke University

Spring 2020-present

• Create a journal club for neuroscientists, psychologists, and philosophers to read and discuss issues in philosophy of neuro/science and mind; secure funding, run and schedule meetings, work with faculty and administration to book internal and external speakers.

FM DJ, WZBC-Newton, Boston College

Fall 2018-present

 Host a radio show (default mode) wherein I play variants of psychedelic music and interview researchers in psychology, neuroscience, and/or philosophy.

Mentor, Psychology Department Mentorship Program, Boston College

Fall 2018-Spring 2019

• Met monthly with three undergraduate psychology students to offer advice about courses, career development, research opportunities, and time management.

President and Co-Founder, Nu Rho Psi, Boston College

Spring 2018-Spring 2019

 Worked with a graduate student, three undergraduates, and university administration to establish a Boston College chapter of the national honor society in neuroscience.

Tutor, Connor's Family Learning Center, Boston College

Fall 2017-Spring 2019

Subjects tutored: Behavioral Neuroscience, Sensation and Perception, Intro to Behavioral Statistics and Research, Research Methods for Social Sciences, Intro to Psychology as a Natural Science, Intro to Psychology as a Social Science, Developmental Psychology, Philosophy

President, Students for Education Reform, Boston College

Fall 2016-Spring 2018

• Organized campus- and city-wide events to raise awareness about inequity in the K-12 education system and provide opportunities for grassroots political action.

### References

Felipe De Brigard, Ph.D.

Maureen Ritchey, Ph.D.

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Richard Atkins, Ph.D.

Associate Professor

Assistant Professor

Associate Professor

Philosophy

Psychology & Neuroscience

Philosophy

Psychology & Neuroscience

Boston College Bost

Boston College

Center for Cognitive Neuroscience

Duke University

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March 2021 4