

Ariana Familiar

afam@sas.upenn.edu
+1 (978) 424-7122

Mail: 3740 Hamilton Walk #105
Office: 3710 Hamilton Walk
Philadelphia, PA 19104

Education

PhD	Psychology, Cognitive Neuroscience	2015 – <i>expected 2020</i>
MA	Psychology University of Pennsylvania, Philadelphia, PA	2015 – 2018
BA	Psychology & Philosophy	
AA	Liberal Studies New York University, New York, NY	2009 – 2013

Awards

NSF Integrative Graduate Education & Research Traineeship in Complex Scene Perception
University of Pennsylvania, Philadelphia, PA 2015 – 2017
Supported by: National Science Foundation
Advisors: Dr. David Brainard (Psychology) &
Dr. Kostas Daniilidis (Computer & Information Science)

SAS Dean's Travel Subvention
University of Pennsylvania, Philadelphia, PA 2017, 2018

GAPSA Research Student Travel Grant
University of Pennsylvania, Philadelphia, PA 2017

Publications

- [1] *Chong E, ***Familiar AM**, & Shim WM (2016) Reconstructing representations of dynamic visual objects in early visual cortex. *Proceedings of the National Academy of Sciences of the USA*, 113(5), 1453-1458.
*co-first authors
- [2] Matheson HE, **Familiar AM**, & Thompson-Schill SL (2018) Investigating grounded conceptualization: Motor system state-dependence facilitates familiarity judgments of novel tools. *Psychological Research*, 1-11.
- [3] **Familiar AM** & Thompson-Schill SL (2018) Social value learning shifts conceptual representations of faces. *Proceedings of the 40th Annual Meeting of the Cognitive Sciences Society*.
- [4] **Familiar AM**, Matheson HE, & Thompson-Schill SL (in prep.) Network-level Representation of Integrated Visual and Motor Objects in Human Cortex: evidence for distributed cross-modal object representations
- [5] **Familiar AM**, Matheson HE, & Thompson-Schill SL (in prep.) Motor facilitation of action sentence comprehension.

Areas of Expertise

- Programming Languages: Python, MATLAB, R, SPSS, SQL, Bash
- Software: Microsoft Office, Adobe Suite, R, SPSS, FSL, AFNI, SUMA, FreeSurfer
- Computation: statistics, multivariate analysis, dimensionality reduction, pattern classification, frequency analysis, noise reduction
 - Applications: MRI data acquisition and analysis, machine learning, neural networks and deep learning, computational photography, image processing and computer vision, psychophysical methods for vision science

Professional Experience

Research Assistant & Lab Manager Shim Lab, Dept. of Psychological & Brain Sciences, Dartmouth College Hanover, NH	06/13 – 07/15
Research Assistant Carrasco Lab, Dept. of Psychology, New York University New York, NY	02/13 – 05/13
Lab Assistant Santa Lucia Foundation: Neurological Rehab Hosp & Biomedical Research Center Rome, Italy	06/12 – 08/12
Research Assistant Dept. of Psychology & Medicine, Sapienza University of Rome Rome, Italy	06/12 – 08/12
Human Resources Intern Trinity Wall Street New York, NY	06/11 – 12/11
Research Assistant Boston IVF & The Domar Center Waltham, MA	05/10 – 08/10

Teaching

Lab Assistant

Neuroscience Research Academy, University of Pennsylvania Summer 2017 & 2018

Teaching Assistant

Intro to Experimental Psychology, University of Pennsylvania Fall 2018

Cognitive Neuroscience, University of Pennsylvania Spring 2017

Guest Lectures

“Object Recognition”
Cognitive Neuroscience, University of Pennsylvania 02/2017

“High-level visual information in early visual cortex”
Top-down processing and brain plasticity, Dartmouth College 10/2014

- “Theories of the role of early cortex in visual cognition: hierarchies and reverse hierarchies” 10/2013
 Top-down processing and plasticity in the brain, Dartmouth College
- “The effects of cross-modal spatial attention on visual crowding” 06/2012
 Dept. of Psychology & Medicine, Sapienza University of Rome

Advising

Undergraduate Scholars

Penn Undergraduate Research Mentorship
 Ivy Tse 2017 - 2018

Dartmouth Presidential Scholarship
 Catherine Baker 2013 - 2014
 Anisha Mohin 2013 - 2014

Dartmouth Junior Research Scholarship
 Elizabeth Fairless 2013

Dartmouth Sophomore Science Scholarship
 Carrie Ann Davison 2014 - 2015
 Zoe Guttendorf 2014 - 2015

Undergraduate Work Study

University of Pennsylvania
 Jordyn Schor 2017

Conference Presentations

- [1] **Familiar AM** & Thompson-Schill SL (2018) Social value learning shifts conceptual representations of faces. Talk presented at *Cognitive Sciences Society* Annual Meeting, July 25-28, Madison, WI.
- [2] **Familiar AM** & Thompson-Schill SL (2018) Social value learning shifts conceptual representations of faces. Poster presented at *Cognitive Neuroscience Society* Annual Meeting, March 24-27, Boston, MA.
- [3] **Familiar AM**, Matheson H, & Thompson-Schill SL (2017) Representation of visual and motor object features in human cortex. Poster presented at *Vision Sciences Society* Annual Meeting, May 18-24, St. Pete Beach, FL.
- [4] **Familiar AM**, Matheson H, & Thompson-Schill SL (2017) Integration of visual and motor object features in human cortex. Poster presented at *Cognitive Neuroscience Society* Annual Meeting, March 25-28, San Francisco, CA.
- [5] Matheson HE, **Familiar AM**, Thompson-Schill SL (2017) Becoming a Martian archeologist: Investigating cortical representations of novel tools. Poster presented at *Psychonomics Society* Annual Meeting, Vancouver, BC.
- [6] Ziman K, **Familiar A**, & Shim WM (2016) Positive affect worsens ensemble coding performance. Poster presented at *Vision Sciences Society* Annual Meeting, May 15-20, St. Pete Beach, FL.

[Abstract] *Journal of Vision*, September, 2016, 16(12):59

doi: 10.1167/16.12.59

- [7] **Familiar A**, Uddenberg S, & Shim WM (2015) Positive affect reduces visual crowding. Poster presented at *Vision Sciences Society Annual Meeting*, May 15-20, St. Pete Beach, FL.
 [Abstract] *Journal of Vision*, September, 2015, 15(12):450
 doi: 10.1167/15.12.450
- [8] **Familiar A**, Chong E, Shim, WM (2014) Reconstructing representations of dynamic visual objects in early visual cortex. Short talk and poster presented at *Center for Cognitive Neuroscience at Dartmouth Annual Retreat*, September 27, Fairlee, VT.
- [9] **Familiar A**, Chong E, & Shim WM (2014) Interpolated visual features during apparent motion are represented in primary visual cortex. Poster presented at *Vision Sciences Society Annual Meeting*, May 16-21, St. Pete Beach, FL.
 [Abstract] *Journal of Vision*, August 22, 2014, 14(10):286
 doi: 10.1167/14.10.286

Memberships in Scientific Societies

2013 – Present

- Vision Sciences Society 11/13 – Present
- Cognitive Neuroscience Society 03/15 – Present
- Cognitive Sciences Society 05/18 – Present

Memberships in Academic Organizations & Groups

Present

- Associate: Penn MindCORE 09/18 – Present
- Member: Penn Graduate Women in Science & Engineering 09/15 – Present
- Member: Penn Computational Neuroscience Initiative 09/15 – Present
- Member: Penn Center for Cognitive Neuroscience 09/15 – Present

2006 – 2015

- Chair: Penn Graduate Women in Science & Engineering 12/17 – 05/18
- Member: Penn Complex Scene Perception Journal Club 09/15 – 05/17
- Member: Dartmouth DBIC fMRI Brown Bag 06/13 – 07/15
- Member: Dartmouth CCN Cognitive Brown Bag 06/13 – 07/15
- Member: DSU project (Tuscany, Italy) 02/12 – 05/12
- Member: NYU Phi Delta Epsilon 10/11 – 05/13
- VP Recruitment: NYU Alpha Epsilon Phi 12/10 – 12/11
- Sophomore Representative: NYU Biology Society 09/10 – 09/11
- Philanthropy Chair: NYU Alpha Epsilon Phi 12/09 – 09/12
- Member: NYU Alpha Epsilon Phi 11/09 – 05/13
- President: LS Class of 2009 Steering Committee 09/07 – 06/09
- Co-founder, Co-president: LS Women Surviving War 09/06 – 06/09
- Co-Coach: Destination Imagination 09/07 – 09/08
- Founder, Lead Pianist: Nouveaux Classique 09/06 – 06/09

Science Outreach Volunteering

STEM Outreach Initiative 11/2016 – 05/2017

Position: Teacher & graduate student recruiter

Affiliation: Penn Moelis Science Access

Location: Sayre High School, Philadelphia PA

K-8 Summer Science Carnival 07/2016 & 07/2017

Position: Activity leader

Affiliations: Penn Graduate Women in Science & Engineering
Migrant Education Program

Location: Southwark Elementary School, Philadelphia PA

Neuroscience Booth 06/2016

Position: Booth leader and recruiter

Location: STEAMPunk Expo, Penn Morris Arboretum, Philadelphia PA

Neuroscience Booth 04/2014

Position: Booth leader

Affiliation: Graduate Women in Science & Engineering

Location: Science Day, Dartmouth College, Hanover NH