

Leyla Y. Tarhan

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Education

- Harvard University** August, 2015 - May, 2021 (expected)
Cambridge, Massachusetts
PhD student
Department of Psychology: Cognition, Brain, and Behavior
Advisor: Dr. Talia Konkle
- Pomona College** August, 2009 - May, 2013
Claremont, California
Bachelor of Arts with Distinction
Major: Linguistics and Cognitive Science, Cognitive Science focus
Advisor: Dr. Deborah Burke
Minor: History

Publications and Presentations

Publications

- Tarhan, L.Y.**, de Freitas, J., Alvarez, G., & Konkle, T.A. (*in prep*). High-Level Features Predict the Cognitive Structure of Action Similarity.
- Tarhan, L.Y.** & Konkle, T.A. (2020). Sociality and Interaction Envelope Organize Visual Action Representations. *Nature Communications*. 11 (3002).
- Tarhan, L.Y.** & Konkle, T.A. (2019). Reliability-Based Voxel Selection for Condition-Rich Designs. *Neuroimage*, 116350.
- Tarhan, L.Y.**, Watson, C.E., and Buxbaum, L.J. (2015). Shared and distinct neuroanatomic regions critical for tool-related action production and recognition: Evidence from 131 left-hemisphere stroke patients. *Journal of Cognitive Neuroscience*. 27 (12).

Presentations

Tarhan, L.Y., de Freitas, J., Alvarez, G.A., & Konkle, T.A. (June, 2020). Semantic Embeddings of Verbal Descriptions Predict Action Similarity Judgments. Poster presented at the annual meeting of the Vision Sciences Society (virtual).

Tarhan, L.Y. & Konkle, T.A. (May, 2019). Reliability-Based Voxel Selection. Talk presented at the annual meeting of the Vision Sciences Society, St. Pete's Beach, FL.

Tarhan, L.Y. & Konkle, T.A. (September, 2018). High-Level Features Organize Perceived Action Similarities. Poster presented at the annual conference on Cognitive Computational Neuroscience, Philadelphia, PA.

Tarhan, L.Y. & Konkle, T.A. (May, 2018). Predicting the Behavioral Similarity Structure of Visual Actions. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete's Beach, FL.

Tarhan, L.Y. & Konkle, T.A. (September, 2017). Modeling the Neural Structure Underlying Human Action Perception. Poster presented at the annual conference on Cognitive Computational Neuroscience, New York, NY.

Tarhan, L.Y. & Konkle, T.A. (May, 2017). Low and High Level Features Explain Neural Responses During Action Observation. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete's Beach, FL.

Tarhan, L.Y., Watson, C.E., and Buxbaum, L.J. (February, 2015). Action Understanding and Production: Common and Distinct Neural Substrates. Poster presented at the bi-annual meeting of the International Neuropsychological Society, Denver, CO.

Tarhan, L.Y. and Burke, D.M. (May, 2013). Emotional Faces and Cognition: The Effects of Ekman's Emotional Expressions on Memory. Paper presented at the annual Berkeley Interdisciplinary Research Conference, Berkeley, CA.

Invited Talks

Seeing Actions: The Cognitive and Neural Organization of Action Perception

March, 2019

Joint meeting of the Morality Lab and the Social and Cognitive Computational Neuroscience Lab, Boston College

Seeing Action: uncovering perceptual action
representations in the mind and brain.
Fedorenko Lab, MIT

February, 2018

Research Positions

Laboratory Manager July, 2013 - July, 2015
Cognition and Action Laboratory
Dr. Laurel Buxbaum, P.I.
Moss Rehabilitation Research Institute, Philadelphia, PA

- Conducted research on action and object knowledge, action memory, and the semantic systems underlying action production and recognition under Dr. Laurel Buxbaum (principle investigator), Dr. Christine Watson, and Dr. Mattheus de Wit (post-doctoral fellows).
- Trained to trace brain lesions (reliable with neurologist Dr. H. Branch Coslett), warp and normalize lesion drawings to common template brain, and process imaging files.
- Conducted complex brain imaging analyses, including Voxel-based Lesion-Symptom Mapping (VLSM), lesion overlap analyses, lesion subtraction analyses, and conjunction analyses.

Research Interests

organization of action perception; large-scale cortical organization; visual cognitive neuroscience; cognitive neuroscience methods

Grants

Mind, Brain, and Behavior Graduate Student Award <i>Harvard University</i> \$8,150	2019
Large Grant for Student Research <i>Harvard University</i> \$3,260	2019
Norman Henry Anderson Graduate Psychology Fund <i>Harvard University</i> Contribution to graduate stipend	2018-2019
Large Grant for Student Research <i>Harvard University</i> \$3,093	2018
Small Grant for Student Research <i>Harvard University</i> \$240	2018

Travel Award <i>Cognitive Computational Neuroscience \$500</i>	2017
Stimson Grant <i>Harvard University \$1,000</i>	2017
Graduate Research Fellow <i>National Science Foundation</i>	2016 - 2020
Summer Undergraduate Research Project <i>Pomona College</i>	2012
NSF Summer Undergraduate Workshop <i>Institute for Research in Cognitive Science University of Pennsylvania, Philadelphia, PA</i>	2011

Technical Skills

Programming: MATLAB, R, HTML, Javascript, Python
Brain imaging analysis: Brain Voyager, Freesurfer

Teaching and Mentorship

Teaching Fellow <i>Harvard University</i> Social Psychology (Prof. Fiery Cushman) Psychological Science (Prof. Steven Pinker) Awarded Certificate of Distinction for excellence in teaching.	2018 - 2019
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