

# EMALIE GRACE MCMAHON

---

emaliemcmahon@jhu.edu  
<https://emaliemcmahon.com>

- EDUCATION**     *Johns Hopkins University, Baltimore, MD*     2019-current  
Department of Cognitive Science  
Advisers: Leyla Isik and Michael Bonner
- University of Tennessee, Knoxville, TN*     2013-2017  
Major: Honors Neuroscience  
GPA: 3.93
- EXPERIENCE**    *National Institute of Mental Health, Bethesda, MD*     2017-2019  
Research Assistant  
Advisors: Leslie Ungerleider and Maryam Vaziri-Pashkam
- University of Tennessee, Knoxville, TN*     2015-2017  
Honors Thesis Student  
Advisor: Daniela Corbetta
- PUBLICATIONS** Lam, K. C., Pereira, F., Vaziri-Pashkam, M., Woodard, K., & **McMahon, E.** (2020, June 22). Understanding Object Affordances Through Verb Usage Patterns. arXiv: 2007.04245v1.
- McMahon, E.**, Kim, D., Mehr, S. A., Nakayama, K., Spelke, E., & Vaziri-Pashkam, M. (2020). The ability to predict actions of others from distributed cues is still developing in children. *PsyArXiv*. doi: 10.31234/osf.io/pu3tf
- McMahon, E.**, Zheng, C. Y., Pereira, F., Gonzalez, R., Ungerleider, L.G. & Vaziri-Pashkam, M. (2019) Understanding Action Prediction with Machine Learning and Psychophysics. *Journal of Vision* 19(7): 1-16. doi: 10.1167/19.7.16
- Corbetta, D., Wiener, R. F., Thurman, S. L., & **McMahon, E.** (2018). The Embodied Origins of Infant Reaching: Implications for the Emergence of Eye-Hand Coordination. *Kinesiology Review* 7: 10-17. doi: 10.1123/kr.2017-0052
- Presentations**    Vaziri-Pashkam, M., Woodward, K., **McMahon, E.**, & Ungerleider, L.G. Representations for Grasp Relevant Parts of Objects in the Human Intraparietal Sulcus. *Vision Science Society*; June 19 - 24, 2020; Virtual.
- Woodward, K., **McMahon, E.**, Ungerleider, L.G., & Vaziri-Pashkam, M. Similarity of objects based on the way they are grasped. *Vision Science Society*; June 19 - 24, 2020; Virtual.
- McMahon, E.**, Zheng, C. Y., Pereira, F., Gonzalez, R., Ungerleider, L.G., & Vaziri-Pashkam, M. Humans and Machine Learning Classifiers Can Predict the Goal of an Action Regardless of Social Motivations of the Actor. *Vision Science Society*; May 17 - 22, 2019; St. Petersburg, FL.

**McMahon, E.**, Zheng, C. Y., Pereira, F., Gonzalez, R., Ungerleider, L.G., & Vaziri-Pashkam, M. Exploring Predictive Information in Action with Psychophysics and Machine Learning. *Society for Neuroscience*; Nov. 3 - 7, 2018; San Diego, CA.

**McMahon, E.**, Gonzalez, R., Nakayama, K., Ungerleider, L.G., & Vaziri-Pashkam, M. Understanding Action Prediction with Machine Learning and Psychophysics. *Conference on Cognitive Computational Neuroscience*; Sept. 5 – 8, 2018; Philadelphia, PA. link (**Oral**)

Corbetta, D., Wiener, R.F., **McMahon, E.**, & Thurman, S.L. Duration of object visual encoding on precision reaching in 9-month-old infants. *International Congress of Infant Studies*, June 30 – July 3, 2018; Philadelphia, PA.

**McMahon, E.**, Wiener, R., DiMercurio, A., Connell, J., & Corbetta, D. An Analysis of Prospective Reaching in 9-Month-Old Infants Using Eye-Tracking. *North American Society for Psychology of Sport and Physical Activity*; June 4 – 7, 2017; San Diego, CA.

**TEACHING** *Johns Hopkins University* Fall 2020  
Role: Teaching Assistant  
Course: Introduction to Neuropsychology  
Instructor: Michael McCloskey

*Johns Hopkins University* Spring 2020  
Role: Teaching Assistant  
Course: Visual Cognition  
Instructor: Leyla Isik

**SERVICE** *JHU Cognitive Science Representation Committee* 2020  
Department Culture Subcommittee

**AWARDS** National Science Foundation Graduate Research Fellowship 2019-*current*  
Cognitive Computational Neuroscience Student Travel Award 2018  
National Institutes of Health Research Training Award 2017-2019  
University of Tennessee Neuroscience Outstanding Graduate 2017  
University of Tennessee Chancellor’s Honors Scholarship 2013-2017

**RESEARCH TECHNIQUES** Proficient in Python, MATLAB  
Experience with BASH, R, L<sup>A</sup>T<sub>E</sub>X  
Machine learning tools PyTorch, Scikit-learn  
Psychophysics PsychToolbox, PsychoPy, JavaScript  
fMRI analysis FreeSurfer, AFNI