

Sarah Koopman
Department of Brain & Cognitive Sciences
University of Rochester
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EDUCATION

PhD Candidate, Brain & Cognitive Sciences 2013 - present
University of Rochester Rochester, NY

Master of Arts in Brain & Cognitive Sciences 2016
University of Rochester Rochester, NY
Committee: Jessica Cantlon (advisor), Brad Mahon, Steve Piantadosi

Bachelor of Arts in Neuroscience 2011
Wellesley College Wellesley, MA

AWARDS AND HONORS

Curtis Award for Excellence in Teaching by a Graduate Student 2016
University of Rochester

NSF Graduate Research Fellowship 2014-2017
Sproull Fellowship 2013-2014
University of Rochester

Neuroscience Department Honors 2011
Wellesley College

Sigma Xi 2011

Hubel Thesis Writing Prize 2011
Wellesley College

Amabel Boyce James Fund for Summer Research in the Sciences Award 2010
Wellesley College

RESEARCH EXPERIENCE

Concepts, Actions, and Objects Lab (University of Rochester)

Graduate Research Assistant 2013 - present

Investigating the fundamental influences on conceptual organization and numerical cognition by comparing conceptual structures in humans and non-human primates. Currently analyzing data comparing semantic similarities between concepts in humans, macaques, and baboons; examining anatomical and ecological factors related to numerical precision across avian and mammalian species; and evaluating the understanding of numerical equivalence by baboons and orangutans.

Miller Lab, Picower Institute for Learning and Memory (MIT)

Technical Assistant 2011 - 2013

Assisted in research on the role of PFC in rule-switching and categorization, using a macaque model. Set up daily behavioral training and assisted in analysis of previously acquired and current data. Wrote programs to analyze and visualize data using MATLAB and MonkeyLogic. Assisted in neuron recordings using multi-electrode arrays. Supported maintenance of macaque health.

Human Variation Lab (Wellesley College)

Honors Thesis

2010 - 2011

Conducted research on the effects of playing Ultimate Frisbee on the precision of smooth pursuit eye movements. Designed experiment and drafted all materials submitted to Institutional Review Board. Wrote MATLAB programs to analyze data. Presented results at the 2011 Ruhlman Conference at Wellesley College and at the 2011 Vision Sciences Society Annual Meeting. Wrote and successfully defended honors thesis.

Research Assistant

2009 - 2011

Conducted research on face memory and personality in human subjects. Analyzed data in Excel and SPSS and presented in poster format at the 2010 Ruhlman Conference at Wellesley College. Also conducted research on smooth pursuit eye movements in human participants. Designed experiments and drafted all materials submitted to Institutional Review Board. Wrote MATLAB programs to analyze data. Analyzed data and presented in poster format.

TEACHING EXPERIENCE

Guest Lectures

“Understanding of 1-to-1 Correspondence by Non-Human Primates”
Animal Minds (J. Cantlon) Fall 2016

“Conceptual Organization in Primates”
Animal Minds (J. Cantlon) Fall 2016

“Comparative Cognition”
Development of Mind and Brain (R. Aslin & C. Kidd) Spring 2016

“Conceptual Organization in Primates”
Animal Minds (J. Cantlon) Fall 2015

“Comparative Cognition”
Development of Mind and Brain (R. Aslin & C. Kidd) Spring 2015

“Conceptual Organization in Primates”
Animal Minds (J. Cantlon) Fall 2014

Graduate Teaching Assistant

Animal Minds (J. Cantlon) Fall 2016
Development of Mind and Brain (R. Aslin & C. Kidd) Spring 2016
Development of Mind and Brain (R. Aslin & C. Kidd) Spring 2015

RESEARCH TALKS

“The Origins of Numerical Cognition.”
Brain & Cognitive Sciences Department Lunch Series, Rochester, NY. March 2017.

“The Evolutionary Foundation of Numerical Cognition.”

Brain & Cognitive Sciences Department Lunch Series, Rochester, NY. April 2016.

“Keep Your Eye on the Ball: Playing and Watching Sports Linked to Smooth Pursuit Precision.”

Ruhlman Conference, Wellesley College, MA. April 2011.

POSTERS

“Common Signatures of Conceptual Processing in Monkeys and Humans.”

Biennial Meeting of the Cognitive Development Society, Columbus, OH. October 2015.

“Common Conceptual Structures in Monkeys and Humans.”

International Conference on Comparative Cognition, Melbourne, FL. March 2014.

“Keep Your Eye on the Ball: Playing and Watching Sports Linked to Smooth Pursuit Precision.”

Vision Sciences Society Annual Meeting, Naples, FL. May 2011.

“Factors Correlated with Smooth Pursuit Eye Movements.”

Summer Research Joint Poster Session, Wellesley College, MA. August 2010.

“You Look So Familiar! A Study of the Relationship Between Personality and Face Memory.”

Ruhlman Conference, Wellesley College, MA. April 2010.

PUBLICATIONS

Koopman, S. E., Cantlon, J. F., Piantadosi, S. T., MacLean, E. L., et al. (under review). The Evolution of Quantitative Sensitivity.

Koopman, S. E., Mahon, B. Z., & Cantlon, J. F. (2016). Evolutionary constraints on human object perception. *Cognitive Science*.

UNDERGRADUATE MENTORSHIP

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| Tomas Waz (Research Assistant) | 2016-Present |
| Yiyun Huang (Research Assistant) | 2016 - Present |
| Abigail Haslinger (Research Assistant) | 2015-Present |
| Gabrielle Bueno (Research Assistant) | 2014-Present |
| Alyssa Arre (Research Assistant) | 2013-2015 |
| Yinghui Qiu (Research Assistant) | 2013-2015 |

Mentee Awards

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| President’s Award for Undergraduate Research (University of Rochester): Alyssa Arre | 2015 |
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| Professor’s Choice Award for Undergraduate Research (University of Rochester): Yinghui Qiu | 2015 |
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SCIENCE OUTREACH**Brain Awareness Week Student Representative**

2014-Present

Neuroscience Department, University of Rochester

SKILLS AND QUALIFICATIONS

Software: Microsoft Office, MATLAB, R.

Languages: Basic knowledge of French and Japanese.