

Stephen Ferrigno

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Education

University of Rochester, Rochester, NY

PhD Candidate, Brain and Cognitive Sciences, 2014 - Present

Primary Advisor: Jessica Cantlon, PhD

University of Massachusetts, Amherst, MA

Bachelors of Science in Biology & Psychology with a neuroscience concentration

Advisor: Agnes Lacreuse, PhD

Award Date: May 2011

Research Experience

University of Rochester – Rochester, NY

Concepts, Actions, and Objects Laboratory

Lab Manager, July 2012 – Sept. 2014

Graduate Student Researcher, Sept. 2014 - Present

- Investigating the role of language, education, and cultural influences on cognitive processes such as numerical cognition, metacognition, and categorization in non-human primates, children, US adults, and cross culturally with Tsimane' adults.

University of Massachusetts - Amherst, MA

Center for Neuroendocrine Studies

Laboratory Technician/Coordinator, Sept. 2010 – June 2012

- Conducted research on the role of testosterone and estrogen on cognitive aging. Designed and programmed cognitive tasks for use with non-human primate behavioral testing. Performed assays to measure hormone levels in humans and non-human primates. Assisted in acclimation for awake functional neuroimaging of non-human primates.

Publications

Ferrigno, S., Jara-Ettinger, J., Piantadosi, S. T., Cantlon, J. F. (2017) Universal and uniquely human factors in spontaneous numerical perception. *Nature Communications*. 10.1038/NCOMMS13968

Ferrigno, S., & Cantlon, J. F. (2017) Evolutionary Constraints on the Emergence of Human Mathematical Concepts. In: Kaas, J (ed.), *Evolution of Nervous Systems 2e*. vol. 3, pp. 511-521. Oxford: Elsevier.

Ferrigno, S., Hughes, K. D., & Cantlon, J. F. (2015). Precocious quantitative cognition in monkeys. *Psych. Bulletin & Review*.

Cantlon, J. F., Piantadosi, S. T., **Ferrigno, S.**, Hughes, K. D., & Barnard, A. M. (2015). The origins of counting algorithms. *Psychological Science*. 26(6) 853-865.

Kelly, B., Maguire-Herring, V., Rose, C. M., Gore, H. E., **Ferrigno S.**, Novak, M. A., Lacreuse, A. (2015). Short-term testosterone manipulations do not affect cognition or motor function in young and older male rhesus monkeys. *Hormones and Behavior*.

Public Presentations

Ferrigno, S., Kornell, N., & Cantlon, J. C. (2016). Metacognitive Illusions in Monkeys: The effects of perceptual fluency on confidence judgments. Talk presented at the Comparative Cognition Society. Boston, MA.

Ferrigno, S., Kornell, N., & Cantlon, J. C. (2016). Metacognitive Illusions in Monkeys: The effects of perceptual fluency on confidence judgments. Poster presented at the 57th Annual meeting of the Psychonomic Society. Boston, MA.

Haslinger, A., **Ferrigno, S.**, Piantadosi, S. T., Cantlon, J. C. (2016). Is center embedded sequencing the limiting factor of language?. Poster presented by A. Haslinger (*Mentee*) at the University of Rochester Undergraduate Research Expo, Rochester, NY.

Bueno, G., **Ferrigno, S.**, Cantlon, J. C. (2016). Metacognitive Illusions in Monkeys. Poster presented by G. Bueno (*Mentee*) at the University of Rochester Undergraduate Research Expo, Rochester, NY.

Ferrigno, S., Jara-Ettinger, J., Piantadosi, S. T., & Cantlon, J. C. (2015). A universal number bias in monkeys, children, and innumerate adults. Poster presented at the Cognitive Development Society. Columbus, OH.

Qiu, Y., **Ferrigno, S.**, Piantadosi, S.T., & Cantlon, J.F. (2015). Recursive thinking in monkeys. Poster presented by Y. Qiu (*Mentee*) at the University of Rochester Undergraduate Research Expo, Rochester, NY.

Hughes K.D., Litovsky, C., Barnard, A.M., **Ferrigno, S.**, & Cantlon, J.F. (2015). The shape bias for spontaneous category formation is not human unique. Paper presented at the 107th Annual Meeting of the Southern Society of Philosophy and Psychology, New Orleans, LA.

Ferrigno, S., Piantadosi, S.T., & Cantlon, J.F. (2014). Proto-counting in baboons. Poster presented at the Comparative Cognition Conference, Melbourne, Fl.

Ferrigno, S. & Cantlon, J.F. (2013). Quantity representations in olive baboons. Talk presented at the Seneca Park Zoological Conference, Rochester, NY.

Ferrigno, S., Hughes, K., & Cantlon, J.F. (2013). A cognitive precursor to counting in monkeys. Poster presented at NIH Math Consortium, Bethesda, MD.

Ganesan, S., **Ferrigno, S.**, Rose, C., & Lacreuse, A. (2012). Training for memory recall in young and older male rhesus monkeys (*Macaca mulatta*). Poster presented by S. Ganesan (*Mentee*) at the Veterinary & Animal Sciences Science Day, University of Massachusetts, Amherst, MA.

Chang, J., Palamara, E., Wilbar, E., **Ferrigno, S.**, Ferris, C., Meyer, JS., Metevier, C., & Lacreuse, A.

(2011). Neurocognitive effects of estrogens: a project in middle-aged female marmosets. Poster presented at the Center for Neuroendocrine Symposium, University of Massachusetts, Amherst, MA.

Grants and Awards

- 2016 Young Investigator Award, American Psychological Association Div. 3 & Comparative Cognition Society
- 2016 Honorable Mention, National Science Foundation Graduate Research Fellowship
- 2014 Travel Grant, National Institute of Health Math Consortium, Bethesda, MD

Teaching Experience

Graduate Teaching Assistant:

- Fall 2015: Neuropsychology, Dr. Miriam Weber (University of Rochester)
- Spring 2016: Foundations of Cognitive Science, Sarah Bibyk (University of Rochester)
- Fall 2016: Animal Minds, Dr. Jessica Cantlon (University of Rochester)

Guest Lectures:

- Fall 2014: *“Metacognition and Metacognitive Illusions in Monkeys.”* Animal Minds, University of Rochester (J. Cantlon)
- Fall 2015: *“Arousal, Awareness, and Attention.”* Neuropsychology, University of Rochester (M. Weber)
- “Comparative and Developmental Cognition”* Neuropsychology, University of Rochester (M. Weber)
- “Metacognition and Metacognitive Illusions in Monkeys.”* Animal Minds, University of Rochester (J. Cantlon)
- Spring 2016: *“Long Term Memory”* Foundations of Cognitive Science, University of Rochester (S. Bibyk)
- Fall 2016: *“Recursion and non-human minds”* Animal Minds, University of Rochester (J. Cantlon)
- “Metacognition and Metacognitive Illusions in Monkeys.”* Animal Minds, University of Rochester (J. Cantlon)

Undergraduate Research Mentorships:

- Summer 2014: Yinghui Qiu (REACH Summer Fellowship)
- Fall 2014: Yinghui Qiu (Independent Study), Gabrielle Bueno (Independent Study),
- Spring 2015: Alyssa Arre (Independent Study), Gabrielle Bueno (Independent Study), Yinghui Qiu (Senior Project)
- Summer 2015: Abigail Haslinger (REACH Summer Fellowship)
- Summer 2016: Abigail Haslinger (Discover Fellowship)
- Spring 2017: Gabrielle Bueno (Honors Thesis Project)

Mentee Awards:

- Alyssa Arre: President’s Choice Award for Undergraduate Research (2015)
- Yinghui Qiu: Professor’s Choice Award for Undergraduate Research (2015)

Substitute Teacher & Paraprofessional

- June 2007–June 2012: River Street School – Autism Program, Windsor, CT
- Taught individuals age 3 to 21 with a variety of behavioral, communicative and neurological

disorders. Aided behavior analysts in the design and execution of behavior and individualized education plans. Certified in non-violent crisis prevention.

Technical Skills

MATLAB, Psychtoolbox, Xoj (REALBasic), R, E-Prime, SPSS, FSL (Familiar), Adobe Photoshop, Adobe Illustrator, Gimp, Motic Image plus, JWatcher, Endnote, Microsoft Office, Windows, Mac OS