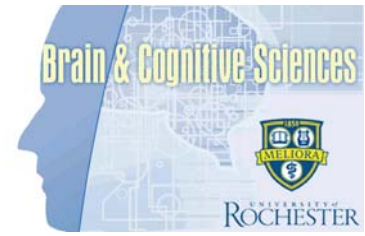

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Education**Duke University**, Durham, NC

Ph.D., Psychology, 2007

Dissertation: The Cognitive and Neural Roots of Mathematical Knowledge

Committee: Elizabeth Brannon (chair), Kevin Pelphrey, Amy Needham, Roberto Cabeza

Columbia University, New York, NY

Courses in Anthropology, Psychology, Computer Science, and French, 2001-2003

Indiana University, Bloomington, IN

B.A. Anthropology, focus on non-human primate behavioral ecology, 1999

Undergraduate Advisor: Kevin D. Hunt

Academic Employment

July 2009-present	Assistant Professor, University of Rochester, Brain & Cognitive Sciences Department
October 2007-August 2009	Postdoctoral Researcher, Carnegie Mellon University (Kevin Pelphrey) and INSERM, Paris (Stanislas Dehaene)
May 2001 – Aug 2003	Research Assistant, Department of Psychology, Columbia University (Herb Terrace)
July 1999 – Sept 2000	Research/Field Assistant, Karisoke Research Center, Rwanda

Publications (in peer-reviewed journals)

Cantlon, J. F., Cordes, S., Libertus, M. E., & Brannon, E. M. (in press). Numerical abstraction: It ain't broke. (commentary). *Behavioral and Brain Sciences*.

Cantlon, J. F., & Safford, K. E., Brannon, E. M. (in press). Spontaneous analog number representations in 3-year-old children. *Developmental Science*.

Cantlon, J. F., Libertus, M. E., Pinel, P., Dehaene, S., Brannon, E.M., & Pelphrey, K. P. (2009). The neural development of an abstract concept of number. *Journal of Cognitive Neuroscience*.

Cantlon, J. F., Platt, M., & Brannon, E.M (2009). Beyond the Number Domain. *Trends in Cognitive Sciences*, 13(2), 83-91.

Cantlon, J. F., Cordes, S., Libertus, M. E., & Brannon, E. M. (2009). Comment on 'Log or Linear? Distinct intuitions of the number scale in Western and Indigene cultures'. *Science*, 323, 38b.

Hubbard, E. M., Diester, I., **Cantlon, J. F.**, Ansari, D., van Opstal, F., & Troiani, V. (2008). The evolution of numerical cognition: From number neurons to linguistic quantifiers. *Journal of Neuroscience*, 26(46), 11819-11824.

Cantlon, J. F., & Brannon, E. M. (2007). Basic math in monkeys and college students. *PLoS Biology*, 5(12), e328.

Subiaul, F., Romansky, K., **Cantlon, J. F.**, Klein, T, and Terrace, H. (2007). Cognitive imitation in 2-year-old children: A comparison with rhesus monkeys. *Animal Cognition*, 10(4), 1435-9448.

Cantlon, J. F., Fink, R., Safford, K. E., & Brannon, E. M. (2007). Heterogeneity affects numerical matching but not numerical ordering in preschool children. *Developmental Science*, 10(4), 431-440.

Cantlon, J. F., & Brannon, E. M. (2007). How much does number matter to a monkey? *Journal of Experimental Psychology: Animal Behavior Processes*, 33(1), 32-41.

- Cantlon, J. F., & Brannon, E. M. (2007).** Adding up the effects of cultural experience on the brain. *Trends in Cognitive Sciences*, 11(1), 1-4.
- Cantlon, J. F., Brannon, E. M., Carter, E. J., & Pelphrey, K. P. (2006).** Functional imaging of numerical processing in adults and 4-y-old children. *PLoS Biology*, 4(5), e125.
- Cantlon, J. F., & Brannon, E. M. (2006).** Shared system for ordering small and large numbers in monkeys and humans. *Psychological Science*, 17(5), 401-406.
- Needham, A., **Cantlon, J. F., & Ormsbee, S. (2006).** Infants' use of category knowledge and object attributes when segregating objects at 8.5 months of age. *Cognitive Psychology*, 53(4), 345-360.
- Cantlon, J. F. & Brannon, E. M. (2006).** The effect of heterogeneity on numerical ordering in rhesus monkeys. *Infancy*, 9(2), 173-189.
- Brannon, E. M., **Cantlon, J. F., & Terrace, H. S. (2006).** The role of reference points in ordinal numerical comparisons by rhesus macaques. *Journal of Experimental Psychology: Animal Behavior Processes*, 32(2), 120-134.
- Cantlon, J. F., & Brannon, E.M. (2005).** Semantic congruity affects numerical judgments similarly in monkeys and humans. *Proceedings of the National Academy of Sciences*, 102 (45), 16507-16511.
- Subiaul, F., **Cantlon, J. F., Holloway, R., and Terrace, H. S. (2004).** Cognitive imitation in rhesus macaques. *Science*, 305(5682), 407-410.

Publications (in prep or currently under peer-review)

Cantlon, J. F., Pinel, P., Dehaene, S. & Pelphrey (revision invited). Pruning Back Symbol and Face Representations in the Fusiform Gyrus during Early Childhood. *Current Biology*.

Book Chapters

Brannon, E.M, & **Cantlon, J. F. (2009).** A comparative perspective on the origin of numerical thinking. *In Cognitive Biology: Evolutionary and Developmental Perspectives on Mind, Brain, and Behavior*, Luca Tomasi, Mary A. Peterson, and Lynn Nadel (Eds.). Cambridge: MIT Press.

Cantlon, J. F., & Brannon, E. M. (in press). Animal Arithmetic. *Encyclopedia of Animal Behavior*. Oxford: Elsevier Press.

Talks

The Oldest Numbers in the World

Summer Institute in Cognitive Neuroscience, UCSB, June 2009

Cortical Organization of Visual Categories in Early Childhood

Cognitive Neuroscience Society, San Francisco, March 2009.

The Evolution of Numerical Cognition: Evidence from Non-human Primates

AAAS Annual Meeting, Chicago, IL, March 2009

The Oldest Numbers in the World

The L.O.V.E. Conference, Niagara Falls, CA, February 2009

Basic Math...in Monkeys

Society for Neuroscience, Washington D.C, November 2008.

The Oldest Numbers in the World

Psychology Department Colloquium, University of Iowa, April 2008.

The Oldest Numbers in the World

Psychology Department Colloquium, University of Wisconsin, April 2008.

The Oldest Numbers in the World

Psychology Department Colloquium, Harvard University, March 2008.

The Oldest Numbers in the World

Brain & Cognitive Science Department Colloquium, University of Rochester, March 2008.

The Oldest Numbers in the World

Psychology Department Colloquium, Stanford University, January 2008.

The Oldest Numbers in the World

Psychology Department Colloquium, University of Wisconsin, December 2007.
The Oldest Numbers in the World
Developmental Brownbag Series, Carnegie Mellon University, November 2007.
Numerical Computations in Non-human Primates
APA, San Francisco, August 2007.
Numerical Primitives in the Brain and Cognition
Developmental Brownbag Series, Yale University, November 2006.
Numerical Primitives in the Brain and Cognition
Cognitive Neuroscience Series, Duke University, August 2006.
A Dissociation in Children's Nonverbal Number Abstraction
Developmental Series, Duke University, November 2004.

Posters and Abstracts

Cantlon, J. F., & Pelphrey, K. A.. Cortical organization of visual categories in preschool children (2009). Poster presented at the annual meeting of the SRCD, Denver.

Cantlon, J. F., & Pelphrey, K. A.. Cortical organization of visual categories in preschool children (2008). Poster presented at the annual meeting of the APA, Boston.

Cantlon, J. F., Brannon, E. M., & Pelphrey, K. A.. Cortical organization of visual categories in preschool children (2008). Poster presented at the annual Concepts Objects and Actions meeting, Rovereto, Italy.

Cantlon, J. F., & Brannon, E. M. Numerical computations in non-human primates (2007). Paper presented at the annual meeting of the APA, San Francisco.

Cantlon, J. F., Davis, S. W., Libertus, M. E., Brannon, E. M., & Pelphrey, K. A. The integrity of white matter pathways and numerical cognition in adults and young children. Poster presented at Human Brain Mapping, June 2007.

Cantlon, J. F., Libertus, M. E., Brannon, E. M., & Pelphrey, K. A. Symbolic & Non-symbolic Number in the Developing Brain. Poster presented at Cognitive Neuroscience Society, May 2007.

Cantlon, J. F., Libertus, M. E., Brannon, E. M., & Pelphrey, K. A. The development of abstract numerical processing in parietal cortex. Poster presented at Vision Science Society, May 2007.

Brannon, E.M., **Cantlon, J.F.**, Cordes, S., Jordan, K.E., Libertus, M., MacLean, E., & Suanda, U. (2006). Comparative and developmental approach to studying nonverbal numerical cognition. Paper presented at the annual meeting of the Psychonomic Society, Houston, TX.

Cantlon, J. F., Ormsbee, S., & Needham, A. Object knowledge influences the perception of occluded displays at 8.5 months of age. Poster presented at International Conference on Infant Studies, Kyoto, June 2006.

Cantlon, J. F., Brannon, E. M., & Pelphrey, K. A. Numerical processing of visual arrays in the brains of adults and four-year-old children. Poster presented at Vision Science Society, May 2006.

Cantlon, J. F., Brannon, E. M., Pelphrey, K. Notation-Independent Number Processing in Adults and Four-year-old Children. Poster presented at Cognitive Neuroscience Society, April 2006.

Cantlon, J. F., & Brannon, E. M. Relative Salience of Number, Shape, Color, and Surface Area in Rhesus Monkeys. Poster presented at Vision Science Society, May 2005.

Cantlon, J. F., & Brannon, E.M. Shared system for ordering small and large numbers in monkeys and humans. Poster presented at Yale Conference on Object Perception and Looking-Time as a Dependent Measure, April 2005.

Cantlon, J. F., Fink, R., & Brannon, E. M. The effect of heterogeneity on numerical judgments in monkeys and young children. Poster presented at Society for Research on Child Development, April 2005.

Cantlon, J. F., Lewis, K., and Brannon, E. Monkeys count up and count down: Conditional numerical ordering in rhesus monkeys. Poster presented at Comparative Cognition Conference, April, 2004.

Subiaul, F., **Cantlon, J. F.**, Holloway, R., and Terrace, H. Cognitive imitation in rhesus macaques. Poster presented at Comparative Cognition Conference, April, 2004.

Subiaul, F., **Cantlon, J. F.**, Holloway, R., and Terrace, H. (2003). A re-evaluation of human imitation: No statistical difference between monkeys and 2- and 3-year olds on a copying task. *Journal of Cognitive Neuroscience*, Supplement 2003.

Subiaul, F., **Cantlon, J. F.**, Holloway, R., and Terrace, H. (2002). Copying Information: Rhesus macaques learn novel 3-item lists by observing an experienced subject. *Journal of Cognitive Neuroscience*, Supplement 2002, 15.

Subiaul, F., **Cantlon, J. F.**, Holloway, R., and Terrace, H. (2002). Learning by watching: Macaques copy a 3-item list from an experienced model. *American Journal of Physical Anthropology*, Supplement 34, 151-152.

Grants and Awards

2008	Biology of Cognition Conference, Cell Press, Travel award
2007-2009	National Research Service Award (NRSA) individual postdoctoral fellowship, NICHD
2007	Elizabeth Munsterberg Koppitz Child Psychology Fellowship, American Psychological Foundation
2007	Duke International Travel Dissertation Research Award
2006-2007	Duke Vertical Integration Mentorship Fellow
2006	Sigma Xi, Sally Hughes-Schrader Award
2005	Dartmouth Summer Institute in Cognitive Neuroscience Fellowship
2004-2007	National Science Foundation (NSF) Graduate Research Fellowship
1997-1999	Ronald E. McNair Scholarship for Underprivileged Groups (US Department of Education)
1994-1996	Indiana Business and Professional Women's Undergraduate Scholarship

Ad hoc Reviewer

<i>Animal Cognition</i>	<i>Journal of Cognitive Neuroscience</i>
<i>Cerebral Cortex</i>	<i>Neuroimage</i>
<i>Cognition</i>	<i>Neuropsychologia</i>
<i>Cognitive Neuropsychology</i>	<i>Proceedings of the Royal Society</i>
<i>Current Biology</i>	<i>Psychological Review</i>
<i>Human Brain Mapping</i>	<i>Psychological Science</i>

Teaching & Mentoring Experience

Fall 2008	<u>Mentor</u> , Intel Science Talent Search Program (Washington, D. C.)
Summer 2007	<u>Mentor</u> , Duke Vertical Integration Program Advisor for Undergraduate honors student Responsibilities included training student in DTI data collection and analysis and assisting student in producing a presentation of data.
Summer 2007	<u>Instructor</u> , Developmental Psychology, Undergraduate Survey Responsibilities included designing course content, lecturing, and evaluating student work.
Fall 2006	<u>Instructor</u> , Teaching & Research Ethics, Graduate Seminar Responsibilities included designing course content and leading student discussion.
Summer 2006	<u>Mentor</u> , Undergraduate honors student Responsibilities included training student in fMRI data collection and analysis and assisting student in producing honors thesis.
Summer 2006	<u>Mentor</u> , Duke Vertical Integration Program Advisor for Undergraduate honors student Responsibilities included training student in fMRI data collection and analysis and assisting student in producing a presentation of data.
Spring 2006	<u>Teaching Assistant</u> , Cognitive Psychology, Roberto Cabeza Responsibilities included leading discussion sections once a week, organizing student projects, and grading student work.
Fall 2005	<u>Teaching Assistant</u> , Developmental Psychology, Amy Needham Responsibilities included leading discussion sections once a week, organizing student projects, and grading student work.

Spring 2005 Instructor, Teaching & Research Ethics, Graduate Seminar
 Responsibilities included designing course content and leading student discussion.

Fall 2004 Teaching Assistant, Developmental Psychology, Elizabeth Brannon
 Responsibilities included leading discussion sections once a week, organizing student projects,
 and grading student work.

Academic Service

Spring 2006 Representative, Graduate & Professional Student Council, Psychology

References

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