

## Kerry E. Jordan

UTAH STATE UNIVERSITY  
DEPARTMENT OF PSYCHOLOGY  
487 EDUCATION BUILDING, 2810 OLD MAIN HILL  
LOGAN, UT 84322  
(435) 797-1111; KERRY.JORDAN@USU.EDU

### ACADEMIC APPOINTMENTS

**Utah State University**, Logan, UT  
Assistant Professor, Department of Psychology  
2007-

### EDUCATION

**Duke University**, Durham, NC  
Ph.D. in Psychology and Neuroscience, with specialization in Cognitive Development, 2007  
*Dissertation*: The multisensory nature of nonverbal number representations  
*Committee*: Elizabeth Brannon (chair), Warren Meck, Steve Mitroff, Amy Needham, Steve Nowicki  
**Harvard University**, Cambridge, MA  
B.A. (magna cum laude) in Psychology and Biology, with specialization in Cognitive Neuroscience, 2001  
*Senior Honors Thesis Advisor*: Marc Hauser

### RESEARCH INTERESTS

- The representation of abstract concepts such as number
- Development and mechanisms of inter-sensory perception
- Applications of the above to cognitive development: e.g., can attention, learning, and memory be facilitated in domains such as numerical cognition by using stimuli that a) provide redundant information in multiple sensory modalities? b) are non-arbitrarily related across the sensory modalities and thus socially/ecologically relevant? How can any such effects be translated for educational benefits?

### RESEARCH EXPERIENCE

**Infant Cognition Center and Primate Cognition Lab**, *Ph.D. Student*, Duke University  
Used a suite of convergent behavioral methods to study the development and evolution of numerical cognition.  
With Elizabeth Brannon, 2002-2007.

**Visual Cognition Lab**, *Ph.D. Collaboration*, Duke University  
Investigated visual object/number processing in infants and multisensory, object-based attention in adult humans.  
With Stephen Mitroff, 2005-2007.

**Infant Perception Lab**, *Ph.D. Collaboration*, Duke University  
Investigated how experience shapes preverbal infant perception of number and object boundaries.  
With Amy Needham, 2003-2007.

**The Max Planck Institute for Biological Cybernetics**, *Ph.D. Collaboration*, Tuebingen, Germany  
Investigated multi-modal number processing in rhesus macaques.  
With Asif Ghazanfar and Nikos Logothetis, 2004.

**Avian Cognition Lab**, *Research Assistant and Lab Manager*, MIT Media Lab  
Conducted comparative research on topics such as numerical cognition with African Grey parrots.  
With Irene Pepperberg, 2001-2002

**Shark Bay Dolphin Research Project**, *Field Research Assistant*, Shark Bay, Western Australia  
Examined mating strategies and effects of a sexually coercive mating system on wild female dolphins.  
With Janet Mann, 2001

**Project on the Development of Canid Social Cognition**, *Research Assistant*, Harvard University  
Conducted comparative social cognition research with infant domestic dogs.  
With Brian Hare, 2001

**Primate Cognitive Evolution Lab**, *Honors Undergraduate Thesis*, Harvard University  
Used a playback paradigm to study individual vocal recognition in cotton-top tamarins.  
With Marc Hauser, 1999-2001

**Neural Genetics Lab**, *Research Assistant*, Harvard University  
Conducted research on axon projection in the visual system of *Drosophila*.  
With Samuel Kunes, 1998-1999

## AWARDS AND RESEARCH GRANTS

- 2006 APA Dissertation Research Award
- 2006 Fellow, Preparing Future Faculty Program
- 2006 Sigma Xi Grant-in-Aid of Research
- 2005 Fellowship to the Summer Institute in Cognitive Neuroscience, Dartmouth College
- 2005 Vision Sciences Society Student Travel Fellowship
- 2005-2007 Conference Travel Fellowships, Duke University
- 2004-2007 National Science Foundation Predoctoral Fellowship
- 2003 Department of Defense Graduate Fellowship Honorable Mention
- 2002 Annie Aitken Fellowship in Animal Behavior and Neuroscience, Duke University
- 2000-2001 Harvard College Research Program grants
- 2000 Harvard College Mind/Brain/Behavior Senior Thesis Research grant

## PUBLICATIONS

- Jordan, K.E.,** & Brannon, E.M. (2006). The multisensory representation of number in infancy. *Proceedings of the National Academy of Sciences, 103*, 3486-3489.
- Jordan, K.E.,** & Brannon, E.M. (2006). Weber's Law influences numerical representations in rhesus macaques (*Macaca mulatta*). *Animal Cognition, 9*, 159-172.
- Jordan, K.E.,** & Brannon, E.M. (2006). A common representational system governed by Weber's Law: Nonverbal numerical similarity judgments in six-year-old children and rhesus macaques. *Journal of Experimental Child Psychology, 95*, 215-229.
- Jordan, K.E.,** Brannon, E.M., Logothetis, N.K., & Ghazanfar, A.A. (2005). Monkeys match the number of voices they hear to the number of faces they see. *Current Biology, 15*, 1-5.
- Jordan, K.,** Weiss, D., Hauser, M., & McMurray, B. (2004). Antiphonal responses to loud contact calls produced by cotton-top tamarins (*Saguinus oedipus*). *International Journal of Primatology, 25*, 465-475.

## UNDER REVIEW AND IN PREPARATION

- Jordan, K.E.,** Suanda, S., & Brannon, E.M. (Under review). Intersensory redundancy accelerates preverbal numerical competence.
- Jordan, K.E.,** MacLean, E., & Brannon, E.M. (Under review). Monkeys match and tally quantities across senses.
- Jordan, K.E.,** & Brannon, E.M. (In preparation). Exploring the representation of number from a comparative approach. In *The Origins of Object Knowledge*, Eds., B. Hood, L. Santos.

## CONFERENCE PRESENTATIONS

- Jordan, K.,** & Brannon, E.M. (2007). Developmental changes in numerical matching performance across stimulus format and modality. Poster presented at the biennial meeting of the Society for Research in Child Development, Boston, MA.
- 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.
- Jordan, K.E.,** & Brannon, E.M. (2006). Infants' multisensory representation of number. Paper presented at the International Conference on Infant Studies, Kyoto, Japan.
- Jordan, K.E.,** Maclean, E., & Brannon, E.M. (2006). Monkeys match sequentially presented sets with simultaneously presented arrays based on numerosity. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.
- Jordan, K.E.,** & Brannon, E.M. (2005). Infants match numerosities across the visual and auditory modalities. Poster presented at the biennial meeting of the Cognitive Development Society, San Diego, CA.
- Jordan, K.E.,** Brannon, E.M., Logothetis, N.K., & Ghazanfar, A.A. (2005). Monkeys match the number of voices they hear to the number of faces they see. *Journal of Vision, 5*, 887a.
- Jordan, K.E.,** Fink, R., & Brannon, E.M. (2005). Nonverbal number representation in monkeys and children: A number bisection task. Poster presented at the biennial meeting of the Society for Research in Child Development, Atlanta, GA.
- Jordan, K.E.,** & Brannon, E.M. (2004). Rhesus macaques' performance on a number bisection task. *Proceedings and Abstracts of the Annual Meeting of the Eastern Psychological Association, 75*, 45.
- Jordan, K.E.,** & Brannon, E.M. (2004). Cardinal number representation in rhesus macaques. *Proceedings of the 11<sup>th</sup> Annual International Conference on Comparative Cognition*.
- Jordan, K.E.,** & Brannon, E.M. (2003). Cardinal number representation in rhesus monkeys. Poster presented at the annual meeting of the North Carolina Cognition Group, Durham, NC.

## INVITED TALKS

- Abstract numerical thought without language*, Appalachian State University, Department of Psychology, February 2007 (Declined).
- Abstract numerical thought without language*, University of California at San Diego, Department of Cognitive Science, February 2007 (Declined).
- Abstract numerical thought without language*, Utah State University, Department of Psychology, January 2007.
- Abstract numerical thought without language*, East Tennessee State University, Department of Psychology, December 2006.
- The development of nonverbal numerical representations*, Duke University, Cognitive Development Seminar Series, December 2006.
- Does intersensory redundancy enhance numerical cognition?* Duke University, Development Group Seminar Series, November 2006.
- The development of nonverbal numerical cognition*, Stanford University, Department of Psychology Developmental Brownbag Series, April 2006.
- Nonverbal number representation in human infants and non-human primates*, guest lecturer in Primate Cognition, Washington University Department of Anthropology, February 2006.
- The multisensory representation of number in infancy*, Duke University, Center for Cognitive Neuroscience Seminar Series, October 2005.
- Does experience with number bias infants' parsing of ambiguous object displays?* Duke University, Development Group Seminar Series, December 2004.
- Monkeys match number across the visual and auditory modalities*, Duke University Lunchbox Seminar series, Department of Psychological and Brain Sciences, October 2004.
- Cardinal number representation in rhesus macaques: Bisection and match-to-sample studies*, Duke University, Center for Cognitive Neuroscience Seminar Series, April 2004.
- Cardinal number representations in rhesus monkeys*, Duke University Lunchbox Seminar Series, Department of Psychological and Brain Sciences, April 2003.

## TEACHING INTERESTS

- Cognitive Psychology
- Developmental Psychology
- Introductory Psychology
- Comparative Psychology/Animal Behavior
- Evolutionary and Developmental Origins of Mathematics
- Inter-sensory Perception
- Thought Without Language

## TEACHING EXPERIENCE

- Fall, 2007                      Instructor, General Psychology, USU
- Fall, 2005                      Co-Instructor, Teaching, Ethics, and Professional Development graduate seminar, Duke
- Summer, 2005                Co-Instructor, NSF-REU Mechanisms of Behavior undergraduate research internship and seminar program, Duke
- Spring, 2005                 Teaching Assistant, Biological Bases of Behavior (including labs), Duke
- Spring, 2004                 Teaching Assistant, Cognitive Psychology, Duke
- Fall, 2003 and Fall, 2004    Teaching Assistant, Developmental Psychology, Duke

## PROFESSIONAL SERVICE

- 2007-2008    Doctoral committee member for Ana A. L. Baumann Neves, USU
- 2006-2007    Member, Graduate School Recruitment Team, Duke
- 2005-2006    Undergraduate honors thesis committee member for thesis titled "Infants' discrimination of redundant stimuli", Duke
- 2003-2006    Member, Carnegie Initiative on the Doctorate Neuroscience Leadership Team, Duke

## AD-HOC REVIEWING

- Animal Cognition*  
*Cognition*  
*Ethology*  
*Journal of Comparative Psychology*

Kerry Jordan CV

*Journal of Experimental Psychology: Animal Behavior Processes*  
*Proceedings of the National Academy of Sciences*

### PROFESSIONAL AFFILIATIONS

Cognitive Development Society (CDS)  
International Society for Infant Studies (ISIS)  
Sigma Xi, Scientific Research Society  
Society for Research in Child Development (SRCD)  
Vision Sciences Society (VSS)

### PRESS COVERAGE

- 2006 Sample coverage of my paper in *Proceedings of the National Academy of Sciences*:  
*CNN*, “Study: Babies know a little math”  
<http://www.cnn.com/2006/TECH/science/02/14/babies.math.reut/index.html>  
*Scientific American*, “Babies do the math on voices and faces”  
<http://www.sciam.com/article.cfm?chanID=sa003&articleID=000E7B5F-0B08-13F1-8B0883414B7F0000>  
*NSF*, “And baby counts three...”  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=105841](http://www.nsf.gov/news/news_summ.jsp?cntn_id=105841)  
*BBC*, “How babies do maths at 7 months”  
<http://news.bbc.co.uk/2/hi/science/nature/4713714.stm>
- 2005 These provide examples of coverage for my *Current Biology* paper:  
*Science News*, “Monkeys keep track of small numbers”  
<http://www.sciencenews.org/articles/20050702/note14.asp>  
*Scientific American*, “Monkey hear, monkey count”  
<http://www.sciam.com/article.cfm?chanID=sa003&articleID=00091022-CB1F-12A0-895D83414B7FFE87>  
*Forbes*, “Language may not be needed for number sense”  
<http://www.forbes.com/lifestyle/health/feeds/hscout/2005/06/10/hscout526175.html>  
*Duke Dialogue*, “Monkeys understand numbers across senses”  
<http://www.dukenews.duke.edu/2005/06/BrannonCurrBio.html>

### REFERENCES

Dr. Elizabeth Brannon  
Assistant Professor, Duke University Department of Psychology and Neuroscience  
Levine Science Research Center, Center for Cognitive Neuroscience, B203  
Durham, NC 27708  
Tel: 919 668 6201  
E-mail: [brannon@duke.edu](mailto:brannon@duke.edu)

Dr. Stephen Mitroff  
Assistant Professor, Duke University Department of Psychology and Neuroscience  
Levine Science Research Center, Center for Cognitive Neuroscience, B249  
Durham, NC 27708  
Tel: 919-681-0660  
E-mail: [mitroff@duke.edu](mailto:mitroff@duke.edu)

Dr. Amy Needham  
Associate Professor, Duke University Department of Psychology and Neuroscience  
Sociology-Psychology Building  
9 Flowers Drive, Box 90086  
Durham, NC 27708  
Tel: 919 660 5714  
E-mail: [needham@psych.duke.edu](mailto:needham@psych.duke.edu)