

Neon Blue Brooks

Harvard University
Department of Psychology
33 Kirkland St.
Cambridge, MA 02138

Phone: 503.737.5353
Email: neonbrooks@fas.harvard.edu

EDUCATION

University of Chicago, Chicago, IL 2009-2014

Ph.D. in Developmental Psychology received August 2014

Dissertation: *Movements for Doing, Thinking, and Speaking: The Relationship Between Motor Experience and Gesture in Novice Mental Abacus Users.*

M.A. in Psychology received September 2011.

Wellesley College, Wellesley, MA

2004 – 2008

B.A. in Psychology received May 2008

ACADEMIC POSITIONS

Postdoctoral Researcher, Harvard University, Cambridge, MA 2014-Present
Laboratory for Developmental Studies (Advisor: Dr. Elizabeth Spelke)

Graduate Student Researcher, University of Chicago, Chicago, IL 2009 – 2014
Advisor: Dr. Susan Goldin-Meadow.

Laboratory Coordinator, University of California, San Diego, La Jolla, CA 2008 - 2009
Language and Development Lab (Supervisor: Dr. David Barner).

Research Assistant, Harvard University, Cambridge MA 2007 - 2008
Laboratory for Developmental Studies (Supervisors: Dr. Mathieu LeCorre and Dr. Susan Carey).

Research Assistant, Wellesley College, Wellesley, MA Winter 2007 – Spring 2008
Imaginary Companions Project (Supervisor: Dr. Tracy Gleason).

Research Assistant, Wellesley College, Wellesley, MA Winter 2006 – Spring 2007
Supervisor: Dr. Steven Schiavo.

Research Assistant, Children's Hospital, Boston, MA Summer 2006
Neurodevelopmental Disorders Phenotyping Program (Supervisor: Dr. Ellen Hanson).

PUBLICATIONS

Published Journal Articles

Brooks, N., Audet, J. & Barner, D. (2013). Pragmatic Inference, Not Semantic Competence, Guides 3-Year-Olds' Interpretation of Unknown Number Words. *Developmental Psychology*, 49(6), 1066.

Caponigro, I., Pearl, L., Brooks, N., & Barner, D. (2012). On the Acquisition of Maximality in Free Relative Clauses and Plural Definite Descriptions. *Journal of Semantics*, 29(2), 261-293.

Barner, D., Brooks, N., & Bale, A. (2011). Accessing the Unsaid: The role of scalar

alternatives in children's pragmatic inference. *Cognition*, 118(1), 84-93.

Brooks, N., Pogue, A., & Barner, D. (2011). Piecing Together Numerical Language: Children's Use of Default Units in Early Counting and Quantification. *Developmental Science*, 14(1), 44-57.

Submitted and In Preparation

Barner, D., Alvarez, G., Sullivan, J., Brooks, N., Srinivasan, M., & Frank, M. C. (Under Review) Learning Mathematics in a Visuospatial Format: A Randomized, Controlled Trial of Mental Abacus Instruction. *Psychological Science*.

Brooks, N., & Goldin-Meadow, S. (Under Review) Moving to learn: How guiding the hands can set the stage for learning. *Cognitive Science*.

Brooks, N., Barner, D., Frank, M., & Goldin-Meadow, S. (in preparation) Motor Planning of Gesture Supports Numerical Computation in Mental Abacus.

Congdon, E. L., Novack, M. A., Brook, N., Hemani-Lopez, N., O'Keefe, L., & Goldin-Meadow, S. (In Preparation). Better Together: Simultaneous Presentation of Speech and Gesture in Math Instruction Supports Generalization and Retention.

PRESENTATIONS

Invited Talks

Brooks, N. & Spelke, E. "Mechanisms Behind Action Learning Effects in Infancy". Invited Talk at Child Cognition Lab, Boston University (October 2014)

Brooks, N., Barner, D., Frank, M., & Goldin-Meadow, S. "Investigating the Function of Gesture in Mental Abacus". Invited Talk at The University of Illinois Developmental Brown Bag, University of Illinois, Urbana Champaign (November 2013)

Brooks, N., Barner, D., Frank, M., & Goldin-Meadow, S. "Investigating the Mechanisms of Gesture's Influence on Thought". Invited Talk at Stephen Franconeri's lab meeting, Northwestern University (October 2013)

Brooks, N., Barner, D., & Frank, M. "Gesture and Mental Representation in Abacus Problem Solving". Invited Talk at the Learning Sciences Research Institute, University of Illinois, Chicago (October 2012)

Brooks, N. & Barner, D. "Integer Acquisition as a Case Study in Word Learning." Invited Talk at Ming Xiang's Language Processing Lab Meeting, University of Chicago (November 2011)

Conference Talks

Brooks, N., Barner, D., Frank, M., & Goldin-Meadow, S. "The Function of Gesture in Mental Abacus Computation". Talk to be given at the Annual Meeting of the Cognitive Science Society, Quebec City, CA (July 2014)

Brooks, N., Barner, D., & Frank, M. "Gesture and Mental Representation in Abacus Problem Solving". International Society on Gesture Studies Biannual Meeting, Lund, Sweden (July 2012)

Brooks, N., Barner, D., Frank, M., & Goldin-Meadow, S. "Gesture and Mental Abacus Computation". Cognitive Science Society Annual Meeting, Boston (July 2011)

Barner, D., Brooks, N., & Bale, A. Accessing the Unsaid: The role of scalar alternatives in children's pragmatic inference. Cognitive Science Society Annual Meeting, Portland

OR (August 2010)

Brooks, N., & Goldin-Meadow, S. "Gesture and Implicit Knowledge." Chicago Psychology Graduate Student Research Symposium at the University of Chicago (April 2010)

Brooks, N., Pogue, A., & Barner, D. "Piecing Together Numerical Language: Children's Use of Default Units in Early Counting and Quantification." Symposium on Cognitive and Language Development at the University of California, Los Angeles (May 2009)

Brooks, N., & Gleason, T. "Children's Reports of Relationships With Real Friends and Imaginary Companions", Ruhlman Conference, Wellesley College (May 2008)

Poster Presentations

Brooks, N., Goldin-Meadow, S., Barner, D., & Frank, M. "Gesture is in the Mind, Not in the Hands: How Gesture Influences Children's Mental Abacus Performance". Inter-Science of Learning Centers Conference, Pittsburgh, PA (February 2014)

Brooks, N., Goldin-Meadow, S., Barner, D., & Frank, M. "Gesture is in the Mind, Not in the Hands: How Gesture Influences Children's Mental Abacus Performance." Cognitive Development Society Annual Conference, Memphis, TN (October 2013)

Brooks, N., Novack, M., Sehic, E., Goldin-Meadow, S., & Levine, S. "Using Action and Gesture to Improve Mental Rotation". Society for Research on Child Development Biannual Conference, Seattle, WA (April 2013)

Brooks, N., Frank, M., Barner, D., & Goldin-Meadow, S. "The Role of Gesture in Cognition: The Case of Mental Abacus Calculation". Inter-Science of Learning Centers Conference, San Diego, CA (April 2012)

Brooks, N., Barner, D., Frank, M., & Goldin-Meadow, S. "Gesture and individual differences in mental abacus performance". Jean Piaget Society Conference, Berkeley, CA (June 2011)

Brooks, N., Alvarez, G., Barner, D., Frank, M., & Goldin-Meadow, S. "Individual Differences in the Gesture of Abacus Experts", Spatial Cognition Conference, Mt. Hood, Oregon (August 2010)

Brooks, N., & Deering, B. "Gender Differences and Across-Task Consistency in Preschoolers' Private Speech", Ruhlman Conference, Wellesley College (May 2006)

AWARDS

University of Chicago Center in Delhi Fall 2014

Awarded \$30,000 for salary and travel to Delhi to conduct research on the effects of gesture and language on children's mathematical reasoning.

Psychology Graduate Student Organization Travel Award Spring 2014

Awarded \$350 for travel to attend the Annual Meeting of the Cognitive Science Society in Quebec City, Canada

Norman Henry Anderson Award January 2014

Awarded \$1000 from the Norman Henry Anderson Research Fund to fund pilot data collection for a 10-session training study.

Norman Henry Anderson Award November 2013

Awarded \$900 from the Norman Henry Anderson Research Fund to help fund a collaborative ERP research project on math learning and gesture in children with fellow graduate students Miriam Novack and Eliza Congdon.

Norman Henry Anderson Award	April 2013
Awarded \$754 from the Norman Henry Anderson Research Fund to travel to the Society for Research in Child Development Biannual Meeting in Seattle, WA.	
Joseph G. Dawson Jr. Fellowship	Fall 2012 – Spring 2013
Graduate research fellowship.	
Doolittle-Harrison Fellowship	July 2012
Awarded a \$750 fellowship for travel to the International Society on Gesture Studies Biannual Meeting in Lund, Sweden.	
Norman Henry Anderson Award	January 2012
Awarded \$942 from the Norman Henry Anderson Research Fund to conduct a collaborative research project on kinesthetic ability with fellow graduate student Carly Kontra.	
Joseph G. Dawson Jr. Fellowship	Fall 2011 – Spring 2012
Graduate research fellowship.	
Psychology Graduate Student Organization Travel Award	Spring 2011
Wellesley College Summer Research Program	May 2007
Selected to participate in the program, offered a stipend to serve as a summer research assistant.	
Wellesley College First-Year Academic Distinction	May 2005

SERVICE

NSF SILC Student Coordinator , University of Chicago	2011-2014
Interface with faculty and students from the throughout the Spatial Intelligence Learning Center (including members at Northwestern University and Temple University) to coordinate Center-wide events. Disseminate information to students through emails and in-person communication, arrange for guest speakers and regular SILC meetings on campus.	
University of Chicago Psychology Graduate Student Association	2009-2014
Member (2009 – 2014)	
Social Committee Member (2011-2012)	
Professional Development Committee Member (2010-2011)	
R Group, University of Chicago	2009-2012
Founding member. Met with other graduate students to share knowledge about statistics and the R programming language.	
Ad-Hoc Journal Article Reviewer	
For Cognitive Science, Journal of Experimental Psychology: General, Developmental Psychology, Cognition and Instruction, Journal of Experimental Child Psychology, PLoS ONE, Nonverbal Behavior, Perceptual and Motor Skills, Brain Research.	

TEACHING

Lecturer , <i>The Mind</i> (University of Chicago)	Winter 2014
Teaching Intern , <i>The Mind</i> (University of Chicago)	Winter and Spring 2013

Teaching Assistant, Experimental Design (University of Chicago)

Winter and Spring 2012

Guest Lecturer, Early Adolescent Psychology (Seminars for Endorsement of Science and Mathematics Educators Program at the University of Chicago)

May 2012

MENTORSHIP

Graduate Mentor, Goldin-Meadow Laboratory

2009-2014

Supervised and supported undergraduate research assistants and full-time employees in coding and analyzing gesture, designing studies, and testing subjects. Worked with 11 undergraduate students, one masters student, and 4 full-time staff members between 2009 and 2014. Two students were included as authors on conference submissions, one staff member has gone on to a Ph.D. program in Psychology.