

Dominic J. Gibson, PhD

Department of Psychology
University of Washington
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EMPLOYMENT

- 2019-Present **Postdoctoral Researcher**, University of Washington, Seattle, WA
Advisor: Kristina Olson, Social Cognitive Development Lab
- 2017-2019 **Postdoctoral Teaching Fellow**, University of Chicago, Chicago, IL
Instructed introductory and upper-level courses in psychology and the social sciences while continuing my research program.

EDUCATION

- 2011-2017 **Ph.D., Developmental Psychology**, University of Chicago, Chicago, IL
Dissertation: *Gesture's Role in Bridging Symbolic and Nonsymbolic Representations of Number*
Advisor: Susan C. Levine
- 2006-2010 **B.A., Psychology**, Wesleyan University, Middletown, CT
High Honors, Phi Beta Kappa
Thesis: *Two's Company: Examining children's early meanings for the word "two"*
Advisor: Anna Shusterman

AWARDS, FELLOWSHIPS AND GRANTS

- 2017 Dewey Lectureship
- 2016-2017 National Academy of Education/Spencer Dissertation Fellowship
- 2014-2015 Council of Advanced Studies Speaker Series Grant:
Interdisciplinary Research and Professional Development in the Psychological Sciences (\$10,000)
- 2013-2015 Milgrom Foundation Grant: Children's Acquisition of Number Concepts: Exploring the Challenges of Early Number Learning (\$50,000)
- 2011-2014 National Science Foundation (NSF) Graduate Research Fellowship
Institute for Education Sciences (IES) Pre-Doctoral Fellowship in Education Research
- 2011-2015
- 2010 Walkley Prize for Original Research
- 2009 Howard Hughes Research Fellowship

Updated January 2019

PUBLISHED & ACCEPTED MANUSCRIPTS

Gibson, D. J., Gunderson, E. A., Spaepen, E., Goldin-Meadow, S. & Levine, S. C. (2018) Number gestures predict number word learning. *Developmental Science*.

Gunderson, E. A., **Gibson, D.J.**, Spaepen, E., Goldin-Meadow, S. & Levine, S. C. (2018) Meaning before order: Cardinal principle knowledge predicts improvement in understanding the successor principle and exact ordering. *Cognition*.

Glenn, D.E., Demir-Lira, Ö.E., **Gibson, D.J.**, Congdon, E.L. & Levine, S.C. (2018) Resilience in mathematics after early brain injury: The roles of parental input and early plasticity. *Developmental Cognitive Neuroscience*.

Gunderson, E. A., Spaepen, E., **Gibson, D. J.**, Goldin-Meadow, S. & Levine, S. C. (2015) Gesture as a window onto children's number knowledge. *Cognition*.

Gibson, D. J., Congdon, E. L. & Levine, S. C. (2014). Effects of word-learning biases on children's concept of angle. *Child Development*.

MANUSCRIPTS UNDER REVIEW & IN PREPARATION

Gibson, D. J., Gunderson, E. A., & Levine, S. C. (under review) Causal Effects of Parent Number Talk on Preschoolers' Number Knowledge.

Gibson, D. J., Butts, J., Berkowitz, T., Goldin-Meadow, S. & Levine, S. C. (in prep) Children enumerate number gestures using configural cues rather than the actual number of fingers.

Gibson, D. J., Berkowitz, T., Goldin-Meadow, S. & Levine, S. C. (in prep) Number Gestures are more than just collections of fingers to young children.

Gibson, D., J., Berkowitz, T., & Levine, S. C. (in prep) Contrastive but not comparative evidence promote numerical comprehension.

Gibson, D. J., Shusterman, A., Cheung, P. (in prep) Evidence for an early understanding that "two" means "a pair".

Berkowitz, T., **Gibson, D. J.**, Goldin-Meadow, S., & Levine, S. C. (in prep) Math Anxiety Predicts Early Number Talk.

BOOK CHAPTERS

Levine, S.C., **Gibson, D.**, & Berkowitz, T. (in press). Mathematical development in the early home environment. In D. Geary, D. Berch, & K.M. Koepke (Eds.), *Mathematical Cognition and Learning, Volume 5*.

Gibson, D., Berkowitz, T., Levine, S.C. (in press). Designing Effective Number Input: Lessons from Cognitive Science. In P. K. Kuhl, S. Lim, S. Guerriero, D. van Damm (Eds.), *21st Century Education: The Learner, The Environment*.

TEACHING EXPERIENCE: INSTRUCTOR

MIND: Dimensions of Individual Behavior

Fall 2015, 2017, 2018

Drawing on examples from psychology, neuroscience and animal behavior this is an introductory course aimed at providing students with a foundation for the scientific study of the mind.

Mathematical Development

Spring 2019

This upper level seminar explores the evolutionary and cultural origins of humans' ability to reason about numbers and geometry as well as the individual and social factors that explain the variability in students' math abilities.

Conceptual Development

Spring 2017, 2018

Through years of education and experience, humans come to understand increasingly complex and accurate theories of how the world works. This course dives into the major debates concerning how humans accomplish these feats of learning by exploring the various mechanisms proposed as drivers of conceptual development.

Beyond the Individual: The Social Mind

Spring 2018, 2019

This course looks at the social and environmental factors that shape human thinking and behavior.

Mechanisms of the Mind

Winter 2017

This course examines the cognitive and neurological mechanisms that underlie human behavior with a focus on how scientists determine causal explanations of human behavior.

ADDITIONAL TEACHING EXPERIENCE

Language Development, Teaching Assistant

2014

Developmental Psychology, Teaching Assistant

2013

Mechanisms of the Mind, Teaching Intern

Winter 2014

MIND: Dimensions of Individual Behavior, Teaching Intern

Fall 2014

Woodrow Wilson Middle School, Tutor

2010

Introductory Psychology, Wesleyan University Teaching Assistant

2007

CONFERENCE PRESENTATIONS

Gibson, D. J., Berkowitz, T., Butts, J., Goldin-Meadow, S. & Levine, S. C. (2018)
Children's Conception of Number Gestures. Talk presented at the 8th
Conference of the International Society for Gesture Studies, Cape Town, South
Africa.

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- Gibson, D. J., Levine, S. C., Berkowitz, T., Goldin-Meadow. (2017) Analogy and Early Number Learning. Talk presented at the 4th Analogy Conference, Paris, France.
- Gibson, D. J. & Levine, S. C. (2017) Addressing and Preventing Misconceptions on a Proportional Reasoning Task. Talk presented at the Association for Psychological Sciences (APS) 29th Annual Convention, Boston, MA.
- Gibson, D. J., Berkowitz, T. & Levine, S. C. (2017). The Effects of Context and Labeling on Children's Number Learning. Talk presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Berkowitz, T., Gibson, D. J. & Levine S. C. (2017). Math anxiety and parents' use of number words with their children. Talk presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- Gibson, D. J., Berkowitz, T. & Levine S. C. (2015). The relative effectiveness of comparison and contrast to teach number words. The 9th Biennial Meeting of the Cognitive Development Society, Columbus, OH.
- Gibson, D. J., Berkowitz, T. & Levine S. C. (2015). Children's comprehension of number gestures. The 8th Biennial Meeting of the Cognitive Development Society, Columbus, OH.
- Gibson, D. J., Gunderson, E. A. & Levine S. C. (2015). Number Word Learning: A Parent-Driven Training Study. Talk presented at the Biennial Meeting of the Society for Research in Child Development, Philadelphia, PA.
- Gunderson, E. A., Spaepen, E., Gibson, D., Goldin-Meadow, S., & Levine, S. C. (2015). Numerical approximation in preschool using number gestures and number words. Talk presented at the Society for Research on Child Development Biennial Meeting, Philadelphia, PA.
- Gibson, D. J., Gunderson, E. A. & Levine S. C., (2013). Number Word Learning: A Parent-Driven Training Study. The 8th Biennial Meeting of the Cognitive Development Society, Memphis, TN.
- Congdon, E.L., Novack, M.A., Gibson, D.J., Goldin-Meadow, S. & Levine, S.C. (July 2014) Does Early Gesture Production Relate to Later Spatial Thinking? Talk presented at the 6th Conference of the International Society for Gesture Studies, San Diego, California.
- Shusterman, A., Gibson, D. J., Berkowitz, T., & Melvin, S. (2014). Exact Understanding of Small Number Language in Toddlers: Evidence from Looking Time Measures. Poster presented at the Biennial International Conference on Infant Studies, Berlin, Germany.

- Gibson, D. J., Berkowitz, T., Melvin, S. & Shusterman, A., (2013). Exact Understanding of the Word “Two” in Toddlers. Poster presented at the 38th Annual Boston University Conference on Language Development, Boston, MA.
- Gibson, D. J., Gunderson, E. A. & Levine S. C., (2013). Number Word Learning: A Parent-Driven Training Study. Poster presented at the 8th Biennial Meeting of the Cognitive Development Society, Memphis, TN.
- Gibson, D., Flombaum, J. & Feigenson, L. (2013). Capacity and resolution of children’s spatial working memory. *Spatial Memory: Bayes and Beyond*, Richmond, VA.
- Gibson, D., Congdon, E. L. & Levine, S. C. (2013). Spatial language and misconceptions in early mathematics. Talk presented at the Biennial Meeting of the Society for Research on Child Development, Seattle, WA.
- Gibson, D., Congdon, E. L., Ping, R. & Levine, S. C. (2013). Training preschool children on angles through mutual exclusivity. Poster presented at the Biennial Meeting of the Society for Research on Child Development, Seattle, WA.
- Gibson, D., Schmitt, E., Flombaum, J. & Feigenson, L. (2012) Measuring capacity and resolution in children’s spatial working memory. Poster presented at the Biennial International Conference on Infant Studies, Minneapolis, MN.
- Gibson, D. & Shusterman, A (2009). Evidence for very early understanding that “two” means “a pair”. Poster presented at the Biennial Meeting of the Society for Research on Child Development, Denver, CO.
- Shusterman, A., Gibson, D. & Funder, B. (2009). The developmental trajectory of children’s meanings for “two”. Paper presented at the Boston University Conference on Language Development, Boston, MA.

INVITED TALKS

- Project on Child Development Meeting, Northwestern University, February 2017
- Developmental Psychology Seminar, University of Illinois Urbana-Champaign, February 2015
- Spatial Intelligence and Learning Center Joint Meeting, Northwestern University, April 2013

UNIVERSITY SERVICE

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| Research and Professional Dev. in the Psych. Sciences, Coordinator | 2013-2015 |
| UChicago Psychology Graduate Student Organization (PGSO), President | 2013-2014 |
| U. of Chicago Workshop on Education, Coordinator | 2012-2013 |

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| U. of Chicago Graduate Mentorship Program, Mentor | 2012-2013 |
| PGSO, Social Committee Member | 2012-2014 |
| PGSO, Academic Life Committee Member | 2012-2013 |

PROFESSIONAL SERVICE

Reviewer, *Cognitive Psychology*
 Reviewer, *Child Development*
 Reviewer, *Cognitive Neuropsychology*
 Co-Reviewer, *Early Childhood Research Quarterly*

PREVIOUS RESEARCH POSITIONS

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| Johns Hopkins University Lab for Child Development, Lab Coordinator | 2010-2011 |
| Wesleyan University Cognitive Development Lab, Research Assistant | 2008-2010 |
| Wesleyan University Quantitative Analysis Center, Apprentice | 2008 |
| Harvard University Lab for Developmental Studies, Research Intern | 2007 |

PROFESSIONAL AFFILIATIONS

Cognitive Development Society
 Society for Research on Child Development
 The International Society on Infant Studies