

MICHELLE HURST

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Education

Boston College, Ph.D. Candidate, Developmental Psychology Advisor: Sara Cordes; Expected completion: Spring 2017	2012 – Present
Boston College, M.A. in Developmental Psychology Advisor: Sara Cordes	2012 – 2014
McMaster University, Honors B.Sc. Mathematics and Statistics Minor in Psychology	2008 – 2012

Skills

Programming: REALBasic (now called Xojo), Visual Basic for Applications (VBA), Python (learning)
 Statistical Analysis: R, SPSS, LISREL
 Other: Qualtrics, Amazon Mechanical Turk, Filemaker Pro

Awards

Engelhard Pingree Fellow Graduate School of Arts and Science, Boston College	2017
NIH Sponsored Travel Award Math Cognition and Learning Conference	2017
Boston College Dissertation Fellowship	Spring 2017
Natural Science and Engineering Research Council of Canada (NSERC) Postgraduate Scholarship	2014 – 2016
Qualtrics Behavioral Research Grant (\$2000, Role: PI)	2015
NIH Sponsored Travel Award Math Cognition and Learning Conference	2015
NSF Sponsored Poster Award International Mind, Brain, and Education Society Conference	2014
NSERC Undergraduate Student Research Award	2011

Journal Articles

Hurst, M. & Cordes, S. (2017). A systematic investigation of the relationship between rational number processing and algebra ability. *British Journal of Psychology*. doi: 10.1111/bjop.12244

Hurst, M., & Cordes, S. (2017). Working Memory Strategies During Rational Number Magnitude Processing. *Journal of Educational Psychology*. doi: 10.1037/edu0000169

Hurst, M., Anderson, U., & Cordes, S. (2017). The Acquisition of Mappings Among Number Words, Written Numerals, and Quantities in Preschoolers, *Journal of Cognition and Development*, 18(1), 41-62. doi: 10.1080/15248372.2016.1228653

Hurst, M., & Cordes, S. (2016). Rational Number Comparison Across Notation: Fractions, Decimals, and Whole Numbers. *Journal of Experimental Psychology: Human Perception and Performance*, 42(2), 281-293. doi: 10.1037/xhp0000140

This paper was also featured in the May 2016 issue of APA PeePs (Particularly exciting experiments in Psychology), entitled *Magnitude Comparison with Fractions*.

Hurst, M., Monahan, K.L., Heller, E., & Cordes, S. (2014). 123s & ABCs: Developmental Shifts in Logarithmic to Linear Responding Reflect Fluency with Sequence Values, *Developmental Science*, 17(6), 892-904. doi: 10.1111/desc.12165

Chapters

Hurst, M. & Cordes, S. (in press). When being good at math isn't enough: How students' beliefs about the nature of mathematics impact decisions to pursue optional math education. In U. Xolocotzin (Ed.), *Understanding Emotions in Mathematical Thinking and Learning*.

Conference Proceedings

Hamamouche, K., **Hurst, M.,** & Cordes, S. (2016). The Effect of Emotion and Induced Arousal on Numerical Processing. In Papafragou, A., Grodner, D., Mirman, D., & Trueswell, J.C. (Eds.), *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 1733-1738). Philadelphia, PA: Cognitive Science Society.

Hurst, M., Relander, C., & Cordes, S. (2016). Biases and Benefits of Number Lines and Pie Charts in Proportion Representation. In Papafragou, A., Grodner, D., Mirman, D., & Trueswell, J.C. (Eds.), *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 586-591). Philadelphia, PA: Cognitive Science Society.

Manuscripts

Hurst, M., & Cordes, S. (under review). Children's understanding of fraction and decimal symbolic magnitudes and its relationship to pre-algebra ability.

Hurst, M., & Cordes, S. (under review). Attending to Relations: Proportional reasoning in 3- to 6-year-old children

Academic Talks

Hurst, M.*, & Cordes, S. (2017, May). The role of verbal fraction labels in children's whole number bias. Talk to be presented within the symposium titled *Language and Math: Guiding Attention in Numerical Contexts* at the *Association for Psychological Science Annual Meeting*, Boston, MA.

*Symposium organizer and Chair

Hurst, M. (2016, October). Children's and Adults' Reasoning about Informal Proportions and Formal Fractions. Presented to Susan Levine's *Cognitive Development Lab* at University of Chicago, Chicago, IL.

Hurst, M. (2016, August). Representing Proportion: How people process proportional information in symbolic and non-symbolic forms. Presented at *Temple University*, Philadelphia, PA.

Hurst, M. (2016, May). Proportion Representation: Biases and Benefits of Number Lines and Pie Charts. Presented at the *Annual Boston College Graduate Research Day*, Chestnut Hill, MA.

Hurst, M. (2015, May). Young Children's Proportional Reasoning: The Case of Counting Interference. Presented at the *Annual Boston College Graduate Research Day*, Chestnut Hill, MA.

Hurst, M. (2014, May). Working Memory Strategies in a Rational Number Magnitude Task. Presented at the *Annual Boston College Graduate Research Day*, Chestnut Hill, MA.

Hurst, M. (2013, May). Adults Understanding of Fractions and Decimals. Presented at the *Annual Boston College Graduate Research Day*, Chestnut Hill, MA.

Hurst, M. (2011, June). A Fundamental Number Sense: an introduction to numerical comprehension in children. Presented at the *Canadian Undergraduate Mathematics Conference*, Université Laval, Quebec City, Quebec.

Conference Posters

Hurst, M., & Cordes, S. (2017, May). The Role of Verbal Fraction Labels in Children's Whole Number Bias. Poster to be presented at the *Math Cognition Conference*, Nashville, TN.

Hurst, M., Relander, C., & Cordes, S. (2016, August). Biases and Benefits of Number Lines and Pie Charts in Proportion Representation. Poster presented at the *Cognitive Science Society*, Philadelphia, PA.

Hurst, M., & Cordes, S. (2015, October). Reasoning with Continuous and Discrete Proportions in 4 to 8 year old Children. Poster presented at the *Biennial Meeting of the Cognitive Development Society*, Columbus, OH.

Hurst, M., & Cordes, S. (2015, May). Working Memory Strategies During Rational Number Magnitude Processing Predict Algebraic Ability. Poster presented at the *Math Cognition Conference*, St. Louis, MO.

Hurst, M., & Cordes, S. (2014, November). The Impact of Working Memory Interference on Fraction and Decimal Magnitude Processing. Poster presented at the *International Mind, Brain, and Education Society Conference*, Fort Worth, TX.

Hurst, M. & Cordes, S. (2013, October). An integrated rational number system and its relationship to algebra ability. Poster presented at the *Biennial Meeting of the Cognitive Development Society*, Memphis, TN.

Teaching Experience

*Full Teaching Portfolio available upon request

Apprenticeship in College Teaching (ACT) Program 2013 - 2017
 Boston College, Center for Teaching Excellence
 Certificate Completion: Spring 2017

Instructor, Boston College
 PS120: Introduction to Behavioral Research and Statistics I Summer 2016

Teaching Assistant, Boston College, for the following courses:
 PS274: Sensation and Perception Fall 2016
 PS121: Introduction to Behavioral Research and Statistics II Spring 2014

Lectures: two sections taught weekly
 PS341: Psychology of Morality Fall 2013

Lecture: "Development of Morality: Infants and Toddlers"
 PS121: Introduction to Behavioral Research and Statistics II Spring 2013

Lectures: one section taught weekly
 PS110: Introduction to Psychology as a Natural Science Fall 2012

Guest Lecture, Boston College
 PS341: Psychology of Morality Spring 2016
Lecture: "Moral Development: Infants and Toddlers"

Mentorship

Undergraduate Thesis Advisor, Boston College 2013 – Present

Kuron, A. (2016/2017). The Impact of Verbal Labels on Fraction Understanding.

Santry, M. (2016/2017). Spontaneous Alignment Between Symbolic and Spatial Representations of Fractions.

Brosnan, N. (2015/2016). The Relationship Between Abstract Thinking and Parent Instructional Choices for Teaching About Fractions.

Slotter, C. (2015/2016). The Subjectivity of Math Attitudes: An investigation into student attitudes toward math oriented subjects.

Greisser, C. (2014/2015). Fraction Distraction: The Effect of Rational Numbers in Word Problems.

Miller, K. (2014/2015). Examining the Perceived Association between Antisocial Personalities and Math Professions.

Massaro, M. (2013/2014). Mental Representations of Rational Numbers and How External Visual References Impact Them.

Szczerepa, A. (2013/2014). "Who Got More?" The Effects of Ownership and Perceived Deservingness on Children's Number Estimates.

Activities

Ad Hoc Reviewer

Cognitive Science - Contemporary Educational Psychology - Experimental Psychology - Journal of Educational Psychology - Journal of Experimental Psychology: Learning, Memory, and Cognition - Journal of Numerical Cognition - Psychonomic Bulletin and Review

Graduate Research Day Organizing Committee 2012 – Present

Organizer and facilitator for Boston College's Graduate Research Day, a one-day conference for graduate students to present their research to department faculty, students, and staff

Graduate Student Mentor and Volunteer 2012 – Present

Occasional volunteering for science outreach and mentorship events, including Brain Awareness Week for elementary school children, Resume workshops and Q&A panels for undergraduates

References

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