

MICHELLE A. HURST, Ph.D.

Rutgers University - New Brunswick
 Department of Psychology • Rutgers Center for Cognitive Science
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Academic Appointments

Assistant Professor	Sept 2023 – Present
Rutgers University, New Brunswick	
Department of Psychology	
Rutgers Center for Cognitive Science (RuCCS)	

Training and Education

Postdoctoral Scholar	2017 - 2023
University of Chicago	
Advisor: Susan Levine	
Ph.D. in Developmental Psychology	2012 – 2017
Boston College	
Advisor: Sara Cordes	
M.A. in Developmental Psychology	2012 – 2014
Boston College	
Advisor: Sara Cordes	
B.Sc. Mathematics and Statistics, Minor in Psychology (Honors)	2008 – 2012
McMaster University	
Thesis Advisor: Miroslav Lovric	

Additional Training

Science Communication Online Programme	Fall 2021
Northwestern, https://ciera.northwestern.edu/programs/scope/	
Apprenticeship in College Teaching Certificate	2017
Boston College, Center for Teaching Excellence	

Research Grants

The Paradox of Proportional Thinking	
NSF, Role: PI	8/1/2026 – 7/31/2029 (\$507,644)
Cognitive Processes Underlying Ratio Representation Across Development	
NICHD R00, Role: PI	9/15/2023 – 5/31/2026 (\$741,576)
NICHD K99, Role: PI	8/1/2021 – 7/31/2023 (\$177,709)

Awards and Fellowships

Gorilla Grants: Diamond Tier Winner (https://gorilla.sc/grants/winners2020)	2020
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
NSERC Postgraduate Scholarship	2014 – 2016
NIH Sponsored Travel Award: Math Cognition and Learning Conference	2015
NSF Sponsored Poster Award: IMBES Conference	2014
NSERC Undergraduate Student Research Award, Advisor: Daniel Ansari	2011

Peer-Reviewed Journal Publications

- Zhang, R., **Hurst, M.A.**, & Chernyak, N. (2026) Cognitive predictors of equity-based social evaluation: dissociation between proportional reasoning and cognitive control, *Child Development*, *aacag050*, <https://doi.org/10.1093/chidev/aacag050>
- Hurst, M. A.** & Levine, S.C. (2026). Spatial feature impact proportion strategy selection. *Journal of Experimental Psychology: General*, *155*(4), 961–984. <https://doi.org/10.1037/xge0001903>
- Hurst, M.A.**, Dadika, P., Oswald, M., & Levine, S.C (2025). Children’s Interpretation of “Before” And “After” For Consecutive and Non-Consecutive Numbers and Events. *Journal of Cognition and Development*, 1–21. <https://doi.org/10.1080/15248372.2025.2560861>. <https://osf.io/u4m5t/>
- Hurst, M. A.** & Piantadosi, S. T. (2024). Continuous and discrete proportion elicit different cognitive strategies. *Cognition*, *252*, 105918. <https://doi.org/10.1016/j.cognition.2024.105918> <https://osf.io/2rtdq>
- Hurst, M. A.**, Boyer, T., & Cordes, S. (2023). Spontaneous and Directed Attention to Number and Proportion, *Journal of Experimental Psychology: Learning, Memory, and Cognition*. *Doi:10.1037/xlm0001084*. <https://osf.io/56r8z/>.
- Wagge, J., **Hurst, M. A.**, Brandt, M., Lazarevic, L., Legate, N., Grahe, J. (2023). Teaching Research in Principle and in Practice: What Do Psychology Instructors Think of Research Projects in Their Courses? *Psychology Learning and Teaching*. doi: 10.1177/14757257221101942
- Eason, S. H., **Hurst, M. A.**, Kerr, K., Claessens, A., & Levine, S. C. (2022). Enhancing Parent and Child Shape Talk During Puzzle Play. *Cognitive Development*, *64*. doi: 10.1016/j.cogdev.2022.101250
- Hurst, M. A.**, & Levine, S. C. (2022). Children’s Understanding of Most is Dependent on Context. *Cognition*, *225*, 105149. doi: 10.1016/j.cognition.2022.105149 <https://osf.io/vhj5q/>
- Hurst, M. A.**, Greene, A., Eason, S. H., Claessens, A., & Levine, S. C. (2022). Children’s Interpretation of Relational Language for Numerical Comparisons, *Cognitive Development*, *63*, 101214. doi: 10.1016/j.cogdev.2022.101214. <https://osf.io/e9y76/>

- Hurst, M. A.** Butts, J. R. & Levine, S. C. (2022). Connecting Symbolic Fractions to Their Underlying Proportions Using Iterative Partitioning, *Developmental Psychology*, 58(9), 1702–1715. doi: 10.1037/dev0001384 <https://osf.io/ths6m/>
- Hurst, M. A.**, Wong, A., Gordon, R., Alam, A., & Cordes, S. (2022). Children's Gesture use Provides Insight into Proportional Reasoning Strategies. *Journal of Experimental Child Psychology*, 214, 105277. doi: 10.1016/j.jecp.2021.105277. <https://osf.io/43p5g/>.
- Braithwaite, D., McMullen, J., & **Hurst, M. A.** (2022). Cross-Notation Knowledge of Fractions and Decimals, *Journal of Experimental Child Psychology*, 213, 105210. doi:10.1016/j.jecp.2021.105210
- Hurst, M. A.**, Shaw, A., Chernyak, N., & Levine, S.C. (2020). Giving a Larger Amount or a Larger Proportion: Stimulus Format Impacts Children's Social Evaluations, *Developmental Psychology*, 56(12), 2212–2222. doi:10.1037/dev0001121. <https://osf.io/5g34d/>.
- Hurst, M. A.**, Massaro, M., & Cordes, S. (2020). Fraction Magnitude: Mapping between symbolic and spatial representations of ratio, *Journal of Numerical Cognition*, 6(2), 204–320. <https://osf.io/eycdk/>
- Savelkouls, S., **Hurst, M. A.**, & Cordes, S. (2020). Relative Salience of Number: Preschoolers' Number Knowledge Relates to Spontaneous Focusing on Number for Small, but not Large, Sets, *Developmental Psychology*, 56(10), 1879. doi: 10.1037/dev0001099
- Hurst, M. A.**, Polinsky, N., Haden, C. A., Levine, S. C., & Uttal, D. H. (2019). Leveraging Research on Informal Learning to Inform Policy on Promoting Early STEM. *Social Policy Report*, 32(3), 1–33.
- Hurst, M. A.**, & Cordes, S. (2019). Talking about proportion: Fraction labels impact numerical interference in non-symbolic proportional reasoning, *Developmental Science*, 22(4). doi: 10.1111/desc.12790. <https://osf.io/z4xhv/>
- Hurst, M. A.**, & Cordes, S. (2018). Children's understanding of fraction and decimal symbolic magnitudes and its relationship to pre-algebra ability, *Journal of Experimental Child Psychology*, 168, 32–48. doi: 10.1016/j.jecp.2017.12.003.
- Hurst, M. A.**, & Cordes, S. (2018). Attending to Relations: Proportional reasoning in 3- to 6-year-old children, *Developmental Psychology*, 54(3), 428–439. doi: 10.1037/dev0000440
- Hurst, M.** & Cordes, S. (2017). A systematic investigation of the relationship between rational number processing and algebra ability. *British Journal of Psychology*, 109(1), 99–117. doi: 10.1111/bjop.12244
- Hurst, M.**, & Cordes, S. (2017). Working Memory Strategies During Rational Number Magnitude Processing. *Journal of Educational Psychology*. 109(5), 694. 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.1216

Chapters

Hurst, M. & Cordes, S. (2017). 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*.

Peer Reviewed Conference Proceedings

Singh, A., Howell, M., & **Hurst, M.A.** (2026). Quantitative reasoning is facilitated by cross-format comparison. *To appear in the 2026 CogSci Proceedings*.

Hurst, M. A. & Dadika, P. (2025). Variation in Adults' Judgements about Relative Proportional Magnitude and Proportional Equivalence. In D. Barner, N.R. Bramley, A. Ruggeri and C.M. Walker (Eds.), *Proceedings of the 47th Annual Conference of the Cognitive Science Society* (pp. 3582 - 3588).

Hurst, M. A. & Piantadosi, S. T. (2022). Investigating Adults' Strategy Use During Proportional Comparison. In J. Culbertson, A. Perfors, H. Rabagliati, & V. Ramenzoni (Eds.), *Proceedings of the 44th Annual Conference of the Cognitive Science Society* (pp. 2774 - 2781).

Hurst, M. A., Denison, S., Park, Y., Matthews, P. & Cantlon, J. (2020). Toward a Unified Theory of Proportion. In S. Denison, M. Mack, Y. Xu, & B. Armstrong (Eds.), *Proceedings of the 42nd Annual Conference of the Cognitive Science Society* (pp. 21 - 22).

Hurst, M. & Cordes, S. (2018). Labeling Common and Uncommon Fractions Across Education and Notation. In T.T. Rogers, M. Rau, X. Zhu, & C. W. Kalish (Eds.), *Proceedings of the 40th Annual Conference of the Cognitive Science Society* (pp. 1841-1846).

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).

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).

Manuscripts (preprints/drafts available by request)

Singh, A., Dadika, P., Quilty-Dunn, J., & **Hurst, M.A.** (under review). Relative perceptual saliency of quantitative sets impacts proportional reasoning.

Hurst, M.A., & Quilty-Dunn, J. (under review). Investigating the Nature of Absolute Magnitude Interference in Proportional Thinking.

Buffonge, S., Kenny, J., **Hurst, M.A.**, & Ferrigno, S. (under review) The Role of Counting Fluency in Children's Later-Greater Knowledge.

Abreu-Mendoza, R. A., ... **Hurst, M.A.**, ... Gunderson, E.A. (2024). ManyNumbers 1: A multi-lab international study of early number knowledge. *Registered Report: In Principle Acceptance at Developmental Science*.

Yu, Y., ... **Hurst, M.A.**, ... Barner, D. (2026). ManyNumbers 3: A multi-lab study of demographic correlates of early number knowledge. *Registered Report: In Principle Acceptance at Developmental Science*.

Invited Academic Talks

New York University, Department of Psychology, Developmental Series	2025
Rutgers University, Center for Cognitive Science	2023
University at Albany, Department of Psychology	
Northwestern University, Infant and Child Development Center (PI: Sandra Waxman)	
University of Arkansas, Department of Psychology	
Boston University, Developing Minds Lab Meeting (PI: Melissa Kibbe)	
University of Nevada, Las Vegas, Department of Psychology	
University of Chicago, Joint Cognitive Lab Meeting (PIs: Akram Bakkour, YC Leong)	2022
Kent State University, Educational Psychology	
University of Chicago, Developmental Psychology Brownbag	
Northwestern University, Cognitive Psychology Brownbag	
UC Berkeley, The Computation and Language Lab Meeting (PI: Steven Piantadosi)	
University of Wisconsin, Madison, Cognitive Origins Lab Meeting (PI: Stephen Ferrigno)	
North Dakota State University, Department of Psychology	2021
Wilfrid Laurier University, Department of Psychology	
University of Wisconsin, Madison, Wisconsin Ideas in Education Lecture Series	2019
Worcester Polytechnic Institute, Learning Sciences & Technologies	
York University, Department of Psychology	

Northwestern University, Cognitive Psychology Brownbag 2018
 University of Chicago, NSF Science of Learning Collaborative Grant Network Meeting
 University of Chicago, Developmental Brownbag
 University of Chicago, Cognitive Development Lab (PI: Susan Levine) 2016

Conference Talks (* Symposium organizer and Chair)

Hurst, M.A. (2024, June). Adults and Children's use of a Numerator Strategy for Comparing Proportions of Different Kinds. Presented within the symposium, *Understanding strategy use in math problem solving and learning*, at the Mathematical Cognition and Learning Society conference.

Hurst, M.A., Wong, A., Gordon, R., Alam, A., & Cordes, S. (2021, April). Children's Gesture use Provides Insight into Proportional Reasoning Strategies. Presented within the symposium *From Proportions to Symbolic Rational Numbers* at the Virtual Society for Research in Child Development Biennial Meeting.

Hurst, M. A. & Levine, S. C. (2021, April). Children's Proportional Interpretation of Most is Facilitated in Continuous Area-Based Contexts. Data Blitz presented at the Virtual Society for Research in Child Development Biennial Meeting.

Hurst, M. A. (2020, August). Proportion as one source of information. Presented within the symposium* *Toward a Unified Theory of Proportion* at the Virtual Cognitive Science Society conference.

Hurst, M.A., Lepic, R., Levine, S. C., Church, B. R. & Goldin-Meadow. (2019, June). Spontaneous Gesture During Fraction Comparison. Data Blitz presented at the *Math Cognition Learning Society Conference*, Ottawa, ON, Canada.

Hurst, M.A. Boyer, T. & Cordes, S. Spontaneous and Directed Attention to Number and Proportion (2019, April). Talk presented at the *Midwestern Psychological Society Annual Meeting*, Chicago, IL.

Hurst, M. A., Greene, A., Praus-Singh, T., Eason, S., Mazzocco, M., Claessens, A., & Levine, S. C. (2019, March). Quantity and Variety of Children's Relational Language During a Semi-Structured Counting Activity. Talk presented within the symposium* titled *Relational Language and Math: Variation Across Types of Language and Math Activities* at the *Society for Research in Child Development Biannual Meeting*, Baltimore, MD.

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

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

Hurst, M.A. (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 Poster Presentations

§ graduate student; º undergraduate student or post-bac; postdoc * presenting author(s)

*§ Guan, X., & **Hurst, M.A.** (2026, June) In the moment or persistent? Strategy use in proportional reasoning. Poster presented at the Society for Philosophy and Psychology, Baltimore, MD.

***Hurst, M. A.**, Quilty-Dunn, J., & ºSanfillippo, R. (2025, Nov) Deliberative and Intuitive Responding When Absolute Number and Proportion Conflict. Poster presented at the Society for Judgement and Decision-Making Conference, Denver, CO.

Hurst, M. A. & ºDadika, P. (2025, July) Variation in Adults' Judgements about Relative Proportional Magnitude and Proportional Equivalence. Poster presented at 47th Annual Conference of the Cognitive Science Society, San Francisco, USA.

*Singh, A., ºDadika, P., Quilty-Dunn, J., & **Hurst, M.A.** (2025, July). Does spatial separation impede encoding of the whole? Poster presented at 47th Annual Conference of the Cognitive Science Society, San Francisco, USA.

***Hurst, M. A.**, Quilty-Dunn, J., & ºSanfillippo, R. (2025, June) Attribute Substitution as an Explanation for Proportional Reasoning Errors. Poster presented at the Society for Philosophy and Psychology Conference, Ithaca, NY.

*Singh, A., ºDadika, P., Quilty-Dunn, J., & **Hurst, M.A.** (2025, June). Does spatial separation impede encoding of the whole? Poster presented at the Society for Philosophy and Psychology Conference, Ithaca, NY.

*Dadika, P., & **Hurst, M.**, (2024, June). Do people rely on symbolic number strategies in discrete proportional reasoning? Poster presented at the Mathematical Cognition and Learning Society conference, Washington, D.C.

*Zhang, R., **Hurst, M.**, Chernyak, N. (2023, June). Proportional reasoning promotes children's preferences for equity. Talk presented at the Society for Philosophy and Psychology, Pittsburgh, PA.

*Oswald, M., **Hurst, M.**, Levine, S. (2022, April) *Children restrict meaning of ordinal vocabulary in numeric but not temporal contexts*. Poster presented at the 2022 Biennial Meeting of the Cognitive Development Society, Madison, WI

***Hurst, M. A.**, Piantadosi, St. T. (2022, April). Strategies for proportional reasoning differ across display formats and development. Poster presented at the *Cognitive Development Society Meeting*, Madison, WI.

*Butts, J., **Hurst, M.A.**, & Levine, S. C. (2021, April). Connecting Symbolic Fractions to Continuous Proportion Using a Fraction Card Game. Virtual Society for Research in Child Development Biennial Meeting.

- *Chernyak, N., Zhang, R., & **Hurst, M.** (2021, April). Proportional Reasoning Predicts Reasoning about Disadvantage in Preschool-Aged Children. Virtual Society for Research in Child Development Biennial Meeting.
- *Oswald, M., **Hurst, M.**, [§]Thompson, K., & Levine, S.C. (2021, April). Parents' and Children's use of Magnitude and Ordinal Relational Vocabulary. Virtual Society for Research in Child Development Biennial Meeting.
- *Braithwaite, D., McMullen, J., **Hurst, M.** (2021, April). Cross-Notation Knowledge of Rational Numbers Predicts Rational Number Arithmetic. Virtual Society for Research in Child Development Biennial Meeting.
- ***Hurst, M. A.**, ^pGreen, A., & Levine, S. C. (2020, August). Children's Understanding of Relational Vocabulary for Ordinal and Magnitude Relations. Virtual poster and recorded talk presented at Cognitive Science Society conference.
- ***Hurst, M. A.**, Eason, S. H., Claessens, A., & Levine, S. C. (2019, October). Children's Understanding of Quantitative Relations Across Stimulus Formats. Poster presented at the *Cognitive Development Society Meeting*, Louisville, KY.
- ***Hurst, M. A.**, ^uMassaro, M., Cordes, S. (2019, October). Fraction Magnitude: Mapping between Symbolic and Spatial Representations of Ratio. Poster presented at the *Cognitive Development Society Meeting*, Louisville, KY.
- [§]*Butts, J. R., ***Hurst, M. A.**, & Levine, S. C. (2019, June). Fraction Card Game for Connecting Area Models and Symbols. Poster presented at the *Math Cognition Learning Society Conference*, Ottawa, ON, Canada.
- ^p*Greene, A., *Eason, S. H., **Hurst, M.**, ^pKassie, K., Claessens, A., & Levine, S. C. (2019, April). Home-Based Caregivers Attitudes about Children's Learning. Poster presented at the *Midwestern Psychological Society Annual Meeting*, Chicago, IL.
- ***Hurst, M. A.**, Shaw, A., Chernyak, N., & Levine, S. (2019, March). Discrete versus Continuous Perceptual Features Impact Children's Moral Evaluations of Others. Poster presented at the *Society for Research in Child Development Biannual Meeting*, Baltimore, MD.
- *Eason, S., ^pKerr, K., **Hurst, M.**, Claessens, A., & Levine, S. (2019, March). How do Puzzle Features Influence Parent and Child Spatial Talk? Talk presented at the *Society for Research in Child Development Biannual Meeting*, Baltimore, MD.
- ^p*Kerr, K., Eason, S. ***Hurst, M.**, Dulaney, A., Claessens, A., & Levine, S. (2018, July). When Less is More: Fewer Shape Types Result in Higher Quality Parent-Child Shape Talk. Poster presented at the *Cognitive Science Society*, Madison, WI.
- ***Hurst, M.** & Cordes, S. (2018, July). Labeling Common and Uncommon Fractions Across Education and Notation. Poster presented at the *Cognitive Science Society*, Madison, WI.
- ***Hurst, M.**, DeWolf, M. & Cordes, S. (2017, October). Aligning Fractions and Decimals with Discrete and Continuous Contexts in 3rd to 5th grade children. Poster presented at the *Biennial Meeting of the Cognitive Development Society*, Portland, OR.

- ***Hurst, M.,** & Cordes, S. (2017, May). The Role of Verbal Fraction Labels in Children's Whole Number Bias. Poster 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

Professor, Rutgers University

Data to Science Communication in R (Cognitive Science Major)	Fall 2023/24
Infant and Child Development (Psychology Department)	Spring 2024/25

Instructor of Record, Boston College

Introduction to Behavioral Research and Statistics I (undergraduate level)	Summer 2016
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Teaching Assistant, Boston College

Sensation and Perception (undergraduate level)	Fall 2016
Introduction to Behavioral Research and Statistics II (undergraduate level)	Spring 2014
<i>Lectures: two sections taught weekly</i>	
Psychology of Morality (upper-level seminar)	Fall 2013
<i>Lecture: "Development of Morality: Infants and Toddlers"</i>	
Introduction to Behavioral Research and Statistics II (undergraduate level)	Spring 2013
<i>Lectures: one section taught weekly</i>	
Introduction to Psychology as a Natural Science (introductory undergraduate)	Fall 2012

Guest Lectures

FIGS Seminar: Exploring Health & Medicine, Rutgers University	Fa2024
Prosem in Cog Sci (Graduate Class), Rutgers University	Fa2024
Undergraduate Seminar in Cognitive Science, Rutgers University	Sp2024
Department of Comparative Human Development, University of Chicago	Fa2019
Psychology of Morality, Boston College	Sp2016

Student Mentorship and Committees

Rutgers University

PhD Thesis Students

Garg, A. (current student)

Guan, X.G. (current student)

Student Committees

Hauss, J. (Masters), defense date TBD

Rinzler, A. (PhD), defense date TBD

Vero, J. (Qualifying Exam), defense date TBD

Undergraduate Thesis Supervisor

* Received Henry Rutgers Scholar Award

*Howell, M. (2025/2026). Proportional Comparison Strategies Across & Within Formats

Kraemer, A. (2025/2026). Do more preschoolers understand most without direct comparison?

Bitla, A., (2025/2026). The Impact of a Verbal Dual-task on Children's Proportional Reasoning

Amparo, S. (2025/2026). Comparing Fractions and Non-Symbolic Ratios

*Roldan, A. (2024/2025). Investigating the Influence of Visual Features on Children's Proportional Reasoning.

University of Chicago

Master of Arts Program in the Social Sciences (MAPSS) Supervisor

Kang, M. J. (2020/2021). Understanding the Effects of Sibling Dynamics on Parents' Math Talk at Home

Thompson, K. (2019/2020). Parent Input and Child Talk: Numerical Relational Language.

Gao, C. (2018/2019). Predictive Link of Math Ability, Relational Language, and Executive Function Among Preschoolers

Undergraduate Thesis Supervisor

Hockett, S. (2020/2021). All in a Day's Work: Decision-Making and the Appraisal of Mental Effort

Boston College

Undergraduate Thesis Supervisor

Alam, A. (2017/2018; co-advised with Raychel Gordon). Exploring the Effects of Gesture on Children's Proportional Reasoning

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

Professional Service and Activities

Grant Reviewing:

SBE Panel Reviewer, National Science Foundation (NSF)	2026
CAREER Panel Reviewer, National Science Foundation (NSF)	2026
EDU Panel Reviewer, National Science Foundation (NSF)	2025
External Reviewer, Social Sciences and Humanities Research Council of Canada (SSHRC)	2024

Journal Reviewing: (total ~ 25/year)

Editorial Board Member, <i>Journal of Cognition and Development</i>	Jan 2025 – Present
Editorial Board Member, <i>Journal of Experimental Child Psychology</i>	Jan 2022 – Present
Principal Reviewer, <i>Journal of Educational Psychology</i>	Jan 2022 – 2026
Ad Hoc Peer-Reviewer	

Limited list: Child Development – Cognitive Development – Cognitive Science - Contemporary Educational Psychology - Developmental Psychology - Developmental Science - Experimental Psychology - Journal of Experimental Psychology: LMC - Journal of Numerical Cognition - Mind, Brain, and Education - Nature Communications

Conference Reviewing:

Society for Philosophy and Psychology	2026
Cognitive Science Society	2024-2026

Highlighted External Service:

Collaborative Replications and Education Project (CREP: https://osf.io/wfc6u/)	
Executive Reviewer	2017 – 2025
Member of Executive Team	2019 – 2025
Cognitive Science Society Mentor Program	2025
Faculty Volunteer	Fall 2023/2024/2025
Discovering Psychology Day, Rutgers University Psychology Department	
Volunteer Editor	Fall 2024
Applicant Statement Feedback Program (ASFP; https://www.asfp.io/)	

Internal Rutgers Service:

Cognitive Area Requirements Committee, Dept. of Psychology (AY25 – present)
 Developmental Colloquium Committee, Department of Psychology (AY24 – present)
 Chair, Events Committee, Rutgers Center for Cognitive Science (AY24 – present)
 Advisory Committee, Rutgers Center for Cognitive Science (AY24 – present)
 Honors Committee, Department of Psychology (AY23 – present)
 Admissions Committee, Cognitive Area, Dept. of Psychology (AY23, AY24)

Science Communication and Translational Work

Editorials

Levine, S. C., & Hurst, M.A. (2021, February). Kids' math skills have taken a hit during the pandemic. Here's how parents can help. Perspective at The Washington Post, On Parenting <https://www.washingtonpost.com/lifestyle/2021/02/16/kids-math-skills-have-taken-hit-during-pandemic-heres-how-parents-can-help/>

Blog Posts

Help Children Build Positive Math Attitudes (2021, February). <https://dreme.stanford.edu/news/help-children-build-positive-math-attitudes-video>. Co-Authored: Cristina Carrazza, Michelle Hurst, Susan Levine.

Math at your Fingertips! Easy Counting Activities Using Number Gestures (2020, January). <https://dreme.stanford.edu/news/math-your-fingertips-easy-counting-activities-using-number-gestures>. Co-Authored: Madeleine Oswald, Michelle Hurst, Susan C. Levine

Math with Paper: Fold Some Math into Your Day! (2019, April). <https://dreme.stanford.edu/news/math-paper-fold-some-math-your-day>. Co-Authored: Sarah Eason, Michelle Hurst, Madeleine Oswald, Kassie Kerr, Abrea Greene, Susan Levine, & Amy Claessens.

Math Talk: Measurement at Home (2018, November). <https://dreme.stanford.edu/news/math-talk-measurement-home>. Co-authored: Michelle Hurst & Susan Levine

Empow Summer Camp Kids Help Science (2014, August). <https://empow.me/empow-summer-camp-kids-help-science>.

Presentations and Workshops

Exploring Math with Paper (2019, May). DREME resource table at National Math Festival, Washington, DC.

Shared resources with families, children, and teachers about using math talk during play activities and provided hands-on activities that involve doing math games with paper.

Math Games for Improving Number Sense and Geometry (2018, August). Presented at *Ready... Set... Teach!*, Chicago Public Schools Summer Institute 2018, Chicago, IL. Co-presented with Madeleine Oswald (graduate student).