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EDUCATION

- Doctor of Philosophy**, Developmental Psychology, University of Chicago 2012
Dissertation: *Individual differences in early number knowledge: Variation in the learner and the learning environment*
- Bachelor of Arts**, Computer Science & Psychology, Yale University 2005
Honors: *Magna Cum Laude*, Phi Beta Kappa

FACULTY POSITIONS

- Associate Professor** (with tenure), Department of Psychology 2019-present
Temple University, Philadelphia, PA
- Assistant Professor** (tenure track), Department of Psychology 2013-2019
Temple University, Philadelphia, PA

RESEARCH POSITIONS

- Postdoctoral Scholar**, Department of Psychology, University of Chicago 2012
Chicago, IL, Laboratory of Dr. Susan Levine
- Graduate Student**, Department of Psychology, University of Chicago 2007-2012
Chicago, IL, Laboratory of Dr. Susan Levine

ONGOING GRANTS

- NSF ECR**, DRL-2201964, PI of Temple University site: Gunderson 2022-2026
PIs: Barner (Lead PI), Cordes, Feigenson, Hyde, Kibbe, Libertus, Sullivan, vanMarle
Collaborative Research: A Multi-Lab Investigation of the Conceptual Foundations of Early Number Development
Total Costs (Temple University site): \$552,712
- James S. McDonnell Foundation Scholar Award**, Sole PI: Gunderson 2018-2024
Developing Mathematical Skills and Motivation
Total Costs: \$600,000
- NSF ECR**, DRL-1760144, PI: Gunderson 2018-2023
Co-Is: Hindman, Newcombe, Newton, Weinraub
Developing STEM Achievement and Motivation: The Role of Spatial Skills and Parent-Child Interactions
Total Costs: \$2,434,948

COMPLETED GRANTS

NSF CAREER Award, DRL-1452000, Sole PI: Gunderson 2015-2021
CAREER: Spatial Foundations of Symbolic Numeracy Skills in Young Children
Total Costs: \$1,227,559

AWARDS, HONORS, & FELLOWSHIPS

Excellence in Undergraduate Mentoring, Temple University Psychology Honors Program	2022
Learning Sciences Exchange (LSX) Fellowship	2020-2022
Boyd McCandless Award, APA Division 7 (Developmental Psychology)	2020
International Mind, Brain, and Education Society (IMBES) Early Career Award	2018
James S. McDonnell Foundation Scholar Award	2018
Excellence in Undergraduate Mentoring, Temple University Psychology Honors Program	2018
APS Rising Star Award	2015
APA Achievement Award for Early Career Psychologists	2014
Institute for Education Sciences (IES) Outstanding Pre-Doctoral Fellow Award	2012
Institute for Education Sciences (IES) Pre-Doctoral Fellowship	2007-2012
Norman H. Anderson Research Fund	2011
Yale College Dean's Research Fellowship	2003

PUBLICATIONS

(Mentee Roles: ^Post-doc, **Graduate Student, *Post-Bac, †Undergraduate Student)

1. ^Tian, J., **Ren, K., Newcombe, N. S., Weinraub, M., Vandell, D. L., & **Gunderson, E. A.** (in press). Tracing the origins of the STEM gender gap: The contribution of childhood spatial skills. *Developmental Science*.
2. **Gunderson, E. A.** (2022). Early prediction of learning outcomes in mathematics. In M. A. Skeide (Ed.), *The Cambridge Handbook of Dyslexia and Dyscalculia* (pp. 318-332). Cambridge University Press. <https://doi.org/10.1017/9781108973595.025>
3. **Ren, K., *Wang, Y., Weinraub, M., Newcombe, N. S., & **Gunderson, E. A.** (2022). Fathers' and mothers' praise and spatial language during play with first graders: Patterns of interaction and relations to math achievement. *Developmental Psychology*. Advance online publication. <https://doi.org/10.1037/dev0001410>
4. Dearing, E., Casey, B., Davis-Kean, P. E., Eason, S., **Gunderson, E.**, Levine, S. C., Laski, E. V., Libertus, M., Lu, L., Lombardi, C. M., Nelson, A., Ramani, G., & Susperreguy, M. I. (2022). Socioeconomic variations in the frequency of parent number talk: A meta-analysis. *Education Sciences*, 12(5). <https://doi.org/10.3390/educsci12050312>
5. ^Tian, J., †Dam, S., & **Gunderson, E. A.** (2022). Spatial skills, but not spatial anxiety, mediate the gender difference in number line estimation. *Developmental Psychology*, 58(1), 138-151. <https://doi.org/10.1037/dev0001265>, [10.1037/dev0001265.supp](https://doi.org/10.1037/dev0001265.supp) (Supplemental)
6. **Gunderson, E. A.**, & *Hildebrand, L. (2021). Relations among spatial skills, number line estimation, and exact and approximate calculation in young children. *Journal of Experimental Child Psychology*, 212, 105251. doi:<https://doi.org/10.1016/j.jecp.2021.105251>

7. Fuhs, M. W., **Tavassolie, N., *Wang, Y., *Bartek, V., Sheeks, N. A., & **Gunderson, E. A.** (2021). Children's flexible attention to numerical and spatial magnitudes in early childhood. *Journal of Cognition and Development*, 22(1), 22-47. doi:10.1080/15248372.2020.1844712
8. **Ren, K., & **Gunderson, E. A.** (2021). The dynamic nature of children's strategy use after receiving accuracy feedback in decimal comparisons. *Journal of Experimental Child Psychology*, 202, 105015. https://doi.org/10.1016/j.jecp.2020.105015
9. ^Tian, J., *Bartek, V., †Rahman, M. Z., & **Gunderson, E. A.** (2021). Learning improper fractions with the number line and the area model. *Journal of Cognition and Development*, 22(2), 305-327. https://doi.org/10.1080/15248372.2021.1890603
10. Gibson, D. J., **Gunderson, E. A.**, & Levine, S. C. (2020). Causal effects of parent number talk on preschoolers' number knowledge. *Child Development*, 91(6), e1162-e1177. doi:https://doi.org/10.1111/cdev.13423
11. ^Tian, J. & **Gunderson, E. A.** (2020). Teaching fractions to young children. *Young Children*, 75(4), 62-67.
12. **Ren, K., & **Gunderson, E. A.** (2019). Malleability of whole-number and fraction biases in decimal comparison. *Developmental Psychology*, 55(11), 2263–2274. doi:10.1037/dev0000797
13. †Ham, L., & **Gunderson, E. A.** (2019). Utilizing analogical reasoning to aid children's proportional reasoning understanding. *Journal of Numerical Cognition*, 5(2), 140-157. doi:10.5964/jnc.v5i2.193
14. **Gunderson, E. A.**, **Hamdan, N., *Hildebrand, L., & *Bartek, V. (2019). Number line unidimensionality is a critical feature for promoting fraction magnitude concepts. *Journal of Experimental Child Psychology*, 187, 104657. doi:10.1016/j.jecp.2019.06.010
15. §**Ren, K., §*Lin, Y., & **Gunderson, E. A.** (2019). The role of inhibitory control in strategy change: The case of linear measurement. *Developmental Psychology*, 55(7), 1389-1399. doi:10.1037/dev0000739
§Both authors contributed equally.
16. Gibson, D. J., **Gunderson, E. A.**, Spaepen, E., Levine, S. C., & Goldin-Meadow, S. (2019). Number gestures predict learning of number words. *Developmental Science*, 22(3), e12791. doi:10.1111/desc.12791
17. Newcombe, N. S., Booth, J. L., & **Gunderson, E. A.** (2019). Spatial skills, reasoning, and mathematics. In J. Dunlosky & K. Rawson (Eds.), *Cambridge Handbook on Cognition and Education*. Cambridge, UK: Cambridge University Press.
18. Ramirez, G., Fries, L., **Gunderson, E.**, Schaeffer, M. W., Maloney, E. A., Beilock, S. L., & Levine, S. C. (2019). Reading anxiety: An early affective impediment to children's success in reading. *Journal of Cognition and Development*, 20(1), 15-34. doi:10.1080/15248372.2018.1526175
Winner of 2019 Journal of Cognition and Development Editor's Choice Award.

19. §Spaepen, E., §**Gunderson, E. A.**, Gibson, D., Goldin-Meadow, S., & Levine, S. C. (2018). Meaning before order: Cardinal principle knowledge predicts improvement in understanding the successor principle and exact ordering. *Cognition*, *180*, 59-81. doi:<https://doi.org/10.1016/j.cognition.2018.06.012>
§Both authors contributed equally.
20. **Gunderson, E. A.**, Donnellan, M. B., Robins, R. W., & Trzesniewski, K. H. (2018). The specificity of parenting effects: Differential relations of parent praise and criticism to children's theories of intelligence and learning goals. *Journal of Experimental Child Psychology*, *173*, 116-135. doi: 10.1016/j.jecp.2018.03.015
21. **Gunderson, E. A.**, Sorhagen, N. S., Gripshover, S., Dweck, C., Goldin-Meadow, S., & Levine, S. C. (2018). Parent praise to toddlers predicts fourth grade academic achievement via children's incremental mindsets. *Developmental Psychology*, *54*(3), 397-409. doi: 10.1037/dev0000444, 10.1037/dev0000444.supp (Supplemental)
22. **Gunderson, E. A.**, Park, D., Maloney, E. A., Beilock, S. L., & Levine, S. C. (2018). Reciprocal relations among motivational frameworks, math anxiety, and math achievement in early elementary school. *Journal of Cognition and Development*, *19*(1), 21-46. doi: 10.1080/15248372.2017.1421538
23. **Gunderson, E. A.**, **Hamdan, N., Sorhagen, N. S., & *D'Esterre, A. P. (2017). Who needs innate ability to succeed in math and literacy? Academic-domain-specific theories of intelligence about peers versus adults. *Developmental Psychology*, *53*(6), 1188-1205. doi: 10.1037/dev0000282
24. **Hamdan, N., & **Gunderson, E. A.** (2017). The number line is a critical spatial-numerical representation: Evidence from a fraction intervention. *Developmental Psychology*, *53*(3), 587-596. doi: 10.1037/dev0000252, 10.1037/dev0000252.supp (Supplemental)
25. Park, D., **Gunderson, E. A.**, Tsukayama, E., Levine, S. C., & Beilock, S. L. (2016). Young children's motivational frameworks and math achievement: Relation to teacher-reported instructional practices, but not teacher theory of intelligence. *Journal of Educational Psychology*, *108*(3), 300-313. doi: 10.1037/edu0000064
26. Suskind, D. L., Leffel, K. R., Graf, E., Hernandez, M. W., **Gunderson, E. A.**, Sapolich, S. G., Suskind, E., Leininger, L., Goldin-Meadow, S., & Levine, S. C. (2016). A parent-directed language intervention for children of low socioeconomic status: a randomized controlled pilot study. *Journal of Child Language*, *43*(02), 366-406. doi: 10.1017/S0305000915000033
27. **Gunderson, E. A.**, Spaepen, E., Gibson, D., Goldin-Meadow, S., & Levine, S.C. (2015). Gesture as a window onto children's number knowledge. *Cognition*, *144*, 14-28. doi: <http://dx.doi.org/10.1016/j.cognition.2015.07.008>
28. **Gunderson, E.A.**, Spaepen, E., & Levine, S.C. (2015). Approximate number word knowledge before the cardinal principle. *Journal of Experimental Child Psychology*, *130*, 35-55. doi: 10.1016/j.jecp.2014.09.008
29. Maloney, E. A., Ramirez, G., **Gunderson, E. A.**, Levine, S. C., & Beilock, S. L. (2015). Intergenerational effects of parents' math anxiety on children's math achievement and anxiety. *Psychological Science*, *26*(9):1480-1488. doi: 10.1177/0956797615592630

30. **Gunderson, E. A.**, Gripshover, S. J., Romero, C., Dweck, C. S., Goldin-Meadow, S., & Levine, S. C. (2013). Parent praise to 1- to 3-year-olds predicts children's motivational frameworks 5 years later. *Child Development, 84*(5), 1526-1541. doi: 10.1111/cdev.12064
31. **Gunderson, E. A.**, Ramirez, G., Beilock, S. L., & Levine, S. C. (2013). Teachers' spatial anxiety relates to 1st- and 2nd-graders' spatial learning. *Mind, Brain, and Education, 7*(3), 196-199. doi: 10.1111/mbe.12027
32. Ramirez, G., **Gunderson, E. A.**, Levine, S. C., & Beilock, S. L. (2013). Math anxiety, working memory, and math achievement in early elementary school. *Journal of Cognition and Development, 14*(2), 187-202. doi: 10.1080/15248372.2012.664593
33. **Gunderson, E. A.**, Ramirez, G., Beilock, S. L., & Levine, S. C. (2012). The relation between spatial skill and early number knowledge: The role of the linear number line. *Developmental Psychology, 48*(5), 1229-1241. doi: 10.1037/a0027433
34. **Gunderson, E. A.**, Ramirez, G., Levine, S. C., & Beilock, S. L. (2012). New directions for research on the role of parents and teachers in the development of gender-related math attitudes: Response to commentaries. *Sex Roles, 66*(3), 191-196. doi: 10.1007/s11199-011-0100-8
35. **Gunderson, E. A.**, Ramirez, G., Levine, S. C., & Beilock, S. L. (2012). The role of parents and teachers in the development of gender-related math attitudes. *Sex Roles, 66*(3), 153-166. doi: 10.1007/s11199-011-9996-2
36. Ramirez, G., **Gunderson, E. A.**, Levine, S. C., & Beilock, S. L. (2012). Spatial anxiety relates to spatial abilities as a function of working memory in children. *The Quarterly Journal of Experimental Psychology, 65*(3), 474-487. doi: 10.1080/17470218.2011.616214
37. **Gunderson, E. A.**, & Levine, S. C. (2011). Some types of parent number talk count more than others: Relations between parents' input and children's number knowledge. *Developmental Science, 14*(5), 1021-1032. doi: 10.1111/j.1467-7687.2011.01050.x
38. Levine, S. C., **Gunderson, E. A.**, & Huttenlocher, J. (2011). Number development in context: Variations in home and school input during the preschool years. In N. L. Stein & S. W. Raudenbush (Eds.), *Developmental Cognitive Science Goes to School* (pp. 189-202). New York: Taylor and Francis.
39. Beilock, S. L., **Gunderson, E. A.**, Ramirez, G., & Levine, S. C. (2010). Reply to Plante et al.: Girls' math achievement is related to their female teachers' math anxiety. *Proceedings of the National Academy of Sciences, 107*(20), E80. doi: 10.1073/pnas.1003899107
40. Beilock, S. L., **Gunderson, E. A.**, Ramirez, G., & Levine, S. C. (2010). Female teachers' math anxiety affects girls' math achievement. *Proceedings of the National Academy of Sciences, 107*(5), 1860-1863. doi: 10.1073/pnas.0910967107
41. Levine, S. C., Suriyakham, L. W., Rowe, M. L., Huttenlocher, J., & **Gunderson, E. A.** (2010). What counts in the development of young children's number knowledge? *Developmental Psychology, 46*(5), 1309-1319. doi: 10.1037/a0019671

MANUSCRIPTS SUBMITTED FOR PUBLICATION

(Mentee Roles: [^]Post-doc, ^{**}Graduate Student, ^{*}Post-Bac, [†]Undergraduate Student)

1. ^{*}Bennett-Pierre, G. & **Gunderson, E. A.** (under review). Fiber arts require spatial skills: How a feminine-stereotyped practice can help us understand spatial skills and improve spatial learning.
2. ^{*}Hildebrand, L., Jirout, J., Newcombe, N. S., & **Gunderson, E. A.** (under revised review). Development of children's implicit, indirect, and explicit gender stereotypes of spatial, mathematical, and verbal achievement.
3. Park, D., **Gunderson, E. A.**, Maloney, E. A., Tsukayama, E., Beilock, S. L., Duckworth, A. L., & Levine, S. C. (under review). Intrusive parental homework support and children's math achievement: Relation to children's theories of intelligence.
4. [^]Tian, J., ^{**}Ren, K., & **Gunderson, E. A.** (under review). Verbal labels influence children's processing of decimal magnitudes.

INVITED TALKS

Psychology Department Colloquium, University of Pittsburgh	Dec. 2021
Applied Developmental & Educational Psychology (ADEP) Colloquium Series, Boston College	Oct. 2021
Psychology Department Colloquium, University of Chicago	Mar. 2020
Developmental Psychology Brown Bag, University of Pennsylvania	Feb. 2020
Psychology Brown Bag, University of the Sciences	Feb. 2019
Michael S. Goodman '74 Memorial Colloquium Series, Department of Cognitive, Linguistic, & Psychological Sciences, Brown University	Jan. 2019
Psychology Department Colloquium, Stanford University	Jan. 2019
Campaign for Grade Level Reading (GLR) Week, Philadelphia, PA	July 2018
Character Lab Research Seminar, University of Pennsylvania	May 2017
Psychology Brownbag, Rutgers University-Camden	Mar. 2017
Keynote speaker, Southeastern-Massachusetts Quantitative Engagement & Literacy (SEQuEL) Conference, Bridgewater State University	Jan. 2017
Workshop on Education, University of Chicago	May 2016
Psychology Department Colloquium, Villanova University	Mar. 2016
" <i>Space and Mathematics: What's the Connection?</i> ", University of Chicago	Nov. 2015
Center for Children, Relationships, and Culture Seminar Series, University of Maryland	Oct. 2015
TeenSHARP Parent Network	Oct. 2015
Grand Rounds, Department of Psychiatry, University of Vermont	May 2015
Current Work in Developmental Psychology Seminar, Yale University	Oct. 2013
Institute of Education Sciences Principal Investigators Meeting	Sep. 2013
Developmental Seminar, University of Illinois at Urbana-Champaign	Nov. 2011
Harvard Achievement Gap Initiative (AGI) Research-to-Practice Conference,	Jun. 2011

Harvard University	
Workshop on Education, University of Chicago	Apr. 2011
Developmental Psychology Seminar, University of Chicago	Feb. 2011
Spatial Intelligence and Learning Center Research Seminar, Temple University	Feb. 2011
Spatial Intelligence and Learning Center Research Seminar, Northwestern University	Feb. 2011
Comparative Human Development Workshop on Culture, University of Chicago	Feb. 2011
Research Seminar, Stanford University	May 2010
Developmental Psychology Seminar, Stanford University	May 2010
Workshop on Education, University of Chicago	Jan. 2010
Developmental Psychology Seminar, University of Chicago	Nov. 2009

CONFERENCE PRESENTATIONS (SINCE 2016)

(Mentee Roles: ^Post-doc, **Graduate Student, *Post-Bac, †Undergraduate Student)

1. *D'Antonio, E. & **Gunderson, E. A.** (July 2022). Do Mom and Dad both talk about school? Longitudinal relations between parent involvement equality and children's academic achievement. Poster presented at the Annual Conference of the International Mind, Brain, and Education Society (IMBES), Montreal, Canada.
2. *Sylverne, A. & **Gunderson, E. A.** (July 2022). Spatial skills and number line estimation skills in low math achieving children. Poster presented at the Annual Conference of the International Mind, Brain, and Education Society (IMBES), Montreal, Canada.
3. **Bennett-Pierre, G., Weinraub, M., Newcombe, N., & **Gunderson, E. A.** (April 2022). "This is hard!": Children and parents talk about difficulty during dyadic interactions in two observational datasets. Poster presented at the 2022 Cognitive Development Society Biennial Conference, Madison, WI.
4. ^Tian, J., **Ren, K., Newcombe, N. S., Weinraub, M., Vandell, D. L., & **Gunderson, E. A.** (April 2022). Tracing the origins of the STEM gender gap: Childhood spatial skills contribute to women's underrepresentation in STEM college majors. Poster presented at the 2022 Cognitive Development Society Biennial Conference, Madison, WI.
5. **Tavassolie, N. & **Gunderson, E. A.** (April 2022). Flexible attention to magnitudes: Investigating specificity in dimensional attention. Poster presented at the 2022 Cognitive Development Society Biennial Conference, Madison, WI.
6. **Zhang, X. & **Gunderson, E. A.** (April 2022). The interactive effect of working memory and spatial anxiety on spatial skills changes with children's age. Poster presented at the 2022 Cognitive Development Society Biennial Conference, Madison, WI.
7. **Bennett-Pierre, G., Weinraub, M., Newcombe, N., & **Gunderson, E. A.** (April 2021). "This is hard!": Children's and parents' talk about difficulty during a dyadic interaction. Poster presented at the Society for Research in Child Development (SRCD) Virtual Biennial Meeting.
8. Dearing, E., Casey, B., Davis-Kean, P., Eason, S., **Gunderson, E. A.**, Levine, S., Lombardi, C., Nelson, A., Ramani, G., & Susperreguy, M. I. (April 2021). Synthesizing mixed evidence

on associations between parent number talk and SES. Talk presented at the Society for Research in Child Development (SRCD) Virtual Biennial Meeting.

9. Park, D., **Gunderson, E. A.**, Maloney, E., Tsukayama, E., Beilock, S., Duckworth, A., & Levine, S.C. (April 2021). Intrusive parental homework support and children's math achievement: Relation to children's theories of intelligence. Talk presented at the Society for Research in Child Development (SRCD) Virtual Biennial Meeting.
10. **Ren, K., Sorhagen, N., & **Gunderson, E. A.** (April 2021). Incremental theorists are less dependent on their math achievement when forming their competence self-concepts. Talk presented at the Society for Research in Child Development (SRCD) Virtual Biennial Meeting.
11. **Tavassolie, N., *Wang, Y., **Gunderson, E. A.**, Sheeks, N., Vrabec, A., & Fuhs, M. W. (April 2021). Young children's flexible attention to numerical and spatial magnitudes. Poster presented at the Society for Research in Child Development (SRCD) Virtual Biennial Meeting.
12. ^Tian, J., †Rahman, M., & **Gunderson, E. A.** (April 2021). Do children understand fraction magnitudes? Sometimes yes, and sometimes no. Talk presented at the Society for Research in Child Development (SRCD) Virtual Biennial Meeting.
13. †Ueki, P., **Bennett-Pierre, G., & **Gunderson, E. A.** (March 2021). Children's statements about difficulty relate to duration of parent-child dyads' task engagement. Poster presented at the Eastern Psychological Association Virtual Annual Meeting.
14. **Tavassolie, N., *Wang, Y., **Gunderson, E. A.**, Sheeks, N., Vrabec, A., & Fuhs, M. W. (June 2020). Young children's flexible attention to numerical and spatial magnitudes. Poster accepted for presentation at the 3rd Mathematical Cognition and Learning Society (MCLS) Conference (cancelled), Dublin, Ireland.
15. ^Tian, J., †Rahman, M., *Bartek, V., **Gunderson, E. A.** (June 2020). Intervention on improper fractions with number lines versus area models. Paper accepted for presentation at the 3rd Mathematical Cognition and Learning Society (MCLS) Conference (cancelled), Dublin, Ireland.
16. *Carvalho Pereira, J., & **Gunderson, E. A.** (October 2019). Socioeconomic status moderates the relation between spatial and numerical skills in children. Poster presented at the 2019 Cognitive Development Society Biennial Conference, Louisville, KY.
17. †Dam, N., *Carvalho Pereira, J., & **Gunderson, E. A.** (October 2019). Spatial skills, but not spatial anxiety, partially account for the gender gap in number line estimation. Poster presented at the 2019 Cognitive Development Society Biennial Conference, Louisville, KY.
18. **Ren, K., & **Gunderson, E. A.** (October 2019). The dynamic nature of children's strategy use after receiving feedback in decimal comparisons. Talk presented at the 2019 Cognitive Development Society Biennial Conference, Louisville, KY.
19. *Wang, Y., & **Gunderson, E. A.** (October 2019). Does parents' spatial language relate to parent and child gender? Poster presented at the 2019 Cognitive Development Society Biennial Conference, Louisville, KY.

20. Fuhs, M., *Wang, Y., *Bartek, V., & **Gunderson, E. A.** (June 2019). Flexible attention to numerical and spatial magnitudes in early childhood. Poster presented at the 2nd Mathematical Cognition and Learning Society (MCLS) Conference, Ottawa, ON, Canada.
21. **Ren, K., & **Gunderson, E. A.** (June 2019). The impact of decimal labeling on decimal comparison biases. Talk presented at the 2nd Mathematical Cognition and Learning Society (MCLS) Conference, Ottawa, ON, Canada.
22. *Bartek, V., Fuhs, M., & **Gunderson, E.A.** (March 2019). Flexible attention to numerical and spatial magnitudes in pre-K through first graders. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
23. †Cannon, A., *Hildebrand, L., & **Gunderson, E.A.** (March 2019). Self-reported proportional reasoning strategies as predictors of performance. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
24. **Gunderson, E.A.** (March 2019). Longitudinal relations among spatial and numerical skills in pre-k to fourth grades. Talk presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
25. *Hildebrand, L. & **Gunderson, E.A.** (March 2019). Proportional reasoning as a spatial foundation of number line estimation. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
26. *Hildebrand, L., Jirout, J., Newcombe, N. S., & **Gunderson, E.A.** (March 2019). The development of gender stereotypes about spatial, math, and reading domains. Talk presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
27. †Pepper, S., **Ren, K., *Bartek, V., & **Gunderson, E.A.** (March 2019). Mothers' and fathers' motivational talk to first-graders: Praise, enjoyment, and high expectations. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
28. **Ren, K. & **Gunderson, E.A.** (March 2019). Malleability of whole-number and fraction biases in decimal comparison. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
29. **Ren, K., Newcombe, N. S., & **Gunderson, E.A.** (March 2019). Parent praise during spatial tasks: Mothers, fathers, and longitudinal relations to math and spatial skills. Talk presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Baltimore, MD.
30. **Gunderson, E. A.** (April 2018). Number line uni-dimensionality is key to promoting fraction representations. Talk presented at the 1st Mathematical Cognition and Learning Society Conference, Oxford, UK.
31. **Gunderson, E. A.**, Park, D., Maloney, E. A., Beilock, S. L., & Levine, S. C. (April 2018). Reciprocal relations among motivational frameworks, math anxiety, and math achievement in early elementary school. Talk presented at the 1st Mathematical Cognition and Learning Society Conference, Oxford, UK.

32. †Ham, L., & **Gunderson, E. A.** (March 2018). Utilizing analogical reasoning to aid children's proportional reasoning understanding. Poster presented at the 2018 Eastern Psychological Association Meeting, Philadelphia, PA.
Winner of Psi Chi Eastern Regional Research Award.
33. †Ham, L., ^Hallinen, N., & **Gunderson, E. A.** (October 2017). The influence of narrative context on children's proportional reasoning performance. Poster presented at the 2017 Cognitive Development Society Biennial Conference, Portland, OR.
34. **Hamdan, N., *Bartek, V., *Hildebrand, L., & **Gunderson, E. A.** (October 2017). The role of number line unidimensionality in young children's fraction magnitude learning. Poster presented at the 2017 Cognitive Development Society Biennial Conference, Portland, OR.
35. *Hildebrand, L., Jirout, J., Newcombe, N., & **Gunderson, E. A.** (October 2017). The development of gender stereotypes about spatial skills, reading, and general academic ability. Poster presented at the 2017 Cognitive Development Society Biennial Conference, Portland, OR.
36. *Lin, Y., **Ren, K., & **Gunderson, E. A.** (October 2017). Inhibitory control predicts improvement in elementary school students' measurement strategies. Poster presented at the 2017 Cognitive Development Society Biennial Conference, Portland, OR.
37. **Ren, K., *Lin, Y., & **Gunderson, E. A.** (October 2017). Inhibitory control and the development of fraction concepts: The role of the whole-number bias. Poster presented at the 2017 Cognitive Development Society Biennial Conference, Portland, OR.
38. *Hildebrand, L., Jirout, J., Newcombe, N., & **Gunderson, E. A.** (October 2017). The development of gender stereotypes about spatial skills, reading, and general academic ability. Poster presented at the NSF ADVANCE/GSE Program Workshop, Washington, DC.
39. **Gunderson, E. A.** (September 2017). Young children's spatial skills and number line estimation. Roundtable talk presented at the NSF ECR PI Convening, Washington, DC.
40. *Black, C., ^Hallinen, H., & **Gunderson, E. A.** (April 2017). High working memory hinders initial performance on approximate symbolic calculation, but practice leads to a strategy shift. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Austin, TX.
41. **Hamdan, N., †Ham, L., ^Hallinen, H., & **Gunderson, E. A.** (April 2017). The mediating role of linear measurement skill in the relation between mental transformation and number line estimation in young children. Poster presented at the Society for Research in Child Development (SRCD) Biennial Meeting, Austin, TX.
42. †Ham, L., *Hildebrand, L. & **Gunderson, E. A.** (March 2017). Number line performance predicts magnitude comparison fluency in young children. Poster presented at the Annual Meeting of the Eastern Psychological Association, Boston, MA.
43. *Hildebrand, L. & **Gunderson, E. A.** (March 2017). Spatial predictors of number line performance: A case for non-symbolic proportional reasoning. Talk presented at the Annual Meeting of the Eastern Psychological Association, Boston, MA.

44. †Wrobel, A., *Hildebrand, L., & **Gunderson, E.A.** (March 2017). ANS as a predictor of spatial and numerical skills. Poster presented at the Annual Meeting of the Eastern Psychological Association, Boston, MA.
45. **Gunderson, E. A.** (February 2017). Parents' impact on early math learning and motivation. Talk presented at the American Association for the Advancement of Science (AAAS) 2017 Annual Meeting, Boston, MA.
46. *Black, C., †Brandley, J., & **Gunderson, E. A.** (September 2016). More is not always better: High working memory hinders performance on an approximate symbolic calculation task. Poster presented at the 2016 International Mind, Brain, and Education Society (IMBES) Conference, Toronto, Ontario, CA.
47. **Hamdan, N., †Ham, L., & **Gunderson, E. A.** (September 2016). Linear measurement mediates the relation between mental transformation and number line estimation in young children. Poster presented at the 2016 International Mind, Brain, and Education Society (IMBES) Conference, Toronto, Ontario, CA.
48. *Hildebrand, L., †Wrobel, A., & **Gunderson, E. A.** (September 2016). Spatial predictors of number line performance: A case for non-symbolic proportional reasoning. Poster presented at the 2016 International Mind, Brain, and Education Society (IMBES) Conference, Toronto, Ontario, CA.
Winner of IMBES Best Poster Award.
49. *Lin, Y., †Brown, R. L., & **Gunderson, E. A.** (September 2016). Mental rotation and verbal confounding: Comparing the relations of different mental rotation tasks to early arithmetic calculation. Poster presented at the 2016 International Mind, Brain, and Education Society (IMBES) Conference, Toronto, Ontario, CA.
50. **Gunderson, E. A.**, *Hildebrand, L., *Black, C., *Lin, Y., & **Hamdan, N. (August 2016). Development of gender differences in children's number line estimation, but not spatial skills. Poster presented at Spatial Cognition 2016, Philadelphia, PA.
51. **Gunderson, E. A.** (May 2016). Gender differences in children's number line estimation, but not spatial skills. Poster presented at the 2016 NSF ADVANCE/GSE Program Workshop, Baltimore, MD.

TEACHING EXPERIENCE

Graduate

Instructor, Topical Seminar in Developmental Psychology: Mathematical Development, PSY 8510, *Temple University*, Philadelphia, PA, Spring 2014, Spring 2018

Instructor, Topical Seminar in Developmental Psychology: Cognitive Development, PSY 8510, *Temple University*, Philadelphia, PA, Fall 2020

Undergraduate

Instructor, Capstone: Psychology in Education, PSY 4696, *Temple University*, Philadelphia, PA, Spring 2016, Fall 2017, Spring 2018, Spring 2020, Spring 2021, Spring 2022

Instructor, Phases of Development: Infancy, PSY 3301, *Temple University*, Philadelphia, PA, Spring 2015, Fall 2018

Instructor, Cognitive and Language Development, PSY 3305, *Temple University*, Philadelphia, PA, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2019, Fall 2021

Instructor, Capstone: Mathematical Cognition & Development, PSY 4596, *Temple University*, Philadelphia, PA, Spring 2013

UNDERGRADUATE HONORS STUDENTS AND PROJECTS/THESES SUPERVISED

Rawan Altamimi, Undergraduate Honors Thesis	Completed Spring 2022
Khushi Sibal, Undergraduate Honors Thesis	Completed Spring 2022
Sarah Pepper, Undergraduate Honors Thesis	Completed Spring 2019
Alysa Cannon, Undergraduate Honors Thesis	Completed Fall 2018
Lillian Ham, Undergraduate Honors Thesis	Completed Spring 2018
Brooke Singer, Undergraduate Honors Thesis	Completed Spring 2015

MASTER'S STUDENTS AND PROJECTS/THESES SUPERVISED

Corey Elise Young, Master's Student, Neuroscience Program, Temple University	2017-2019
Co-mentors: Gunderson & Reilly	
Lindsey Hildebrand, M.Ed. in Urban Education, Temple University	2015-2018
Mentor of Master's Thesis research project. <i>Note</i> : Ms. Hildebrand completed her M.Ed. while concurrently working as a full-time research assistant in my lab.	

DOCTORAL STUDENTS AND PROJECTS/DISSERTATIONS SUPERVISED

Xinhe Zhang, Doctoral Student, Temple University	2021-present
Grace Bennett-Pierre, Doctoral Student, Temple University	2019-present
Committee Chair, Preliminary Exam	
	Jan. 2022
Nadia Tavassolie, Doctoral Student, Temple University	2019-present
Committee Chair, Preliminary Exam	
	May 2022
Kexin (Cathy) Ren, Doctoral Student, Temple University	2016-2021
Dissertation Advisor	
	Defended May 2021
Committee Chair, Preliminary Exam	
	Oct. 2019
Noora Hamdan, Doctoral Student, Temple University	2013-2018
Committee Chair, Preliminary Exam	
	Dec. 2016

MENTORING: DOCTORAL STUDENT COLLABORATORS

Nicole Sorhagen, Laboratory of Dr. Marsha Weinraub, Temple University,	2013-2014
Mentor of Research Assistantship	

PRELIMINARY EXAM AND DISSERTATION COMMITTEE SERVICE: TEMPLE UNIVERSITY

Elias Blinkoff, Preliminary Exam Committee, Dept. of Psychology	Defended Dec. 2021
Rebekah Banerjee, Preliminary Exam Committee, Dept. of Psychology	Defended May 2021
Natalie Evans, Dissertation Committee, Dept. of Psychology	Defended April 2021
Preliminary Exam Committee, Dept. of Psychology	
	Defended April 2019
Molly Scott, Dissertation Committee, Dept. of Psychology	Defended Jun. 2020
Staci Weiss, Dissertation Committee, Dept. of Psychology	Defended Mar. 2020
Rachel Myer, Preliminary Exam Committee, Dept. of Psychology	Defended April 2018
Jill Rabinowitz, Dissertation Committee, Dept. of Psychology	Defended April 2017
Laura Young, Dissertation Committee, College of Education	Defended April 2017
Ashley Drew, Dissertation Committee, Dept. of Psychology	Defended April 2017
Preliminary Exam Committee, Dept. of Psychology	
	Defended April 2015
Corinne Holmes, Dissertation Committee, Dept. of Psychology	Defended Jan. 2017

Preliminary Exam Committee, Dept. of Psychology	Defended June 2014
Junko Kanero, Dissertation Committee, Dept. of Psychology	Defended July 2016
Preliminary Exam Committee, Dept. of Psychology	Defended Feb. 2015
Jessa Reed, Dissertation Committee, Dept. of Psychology	Defended June 2015
Steve Weisberg, Dissertation Committee, Dept. of Psychology	Defended Dec. 2014
Nicole Sorhagen, Dissertation Committee, Dept. of Psychology	Defended Aug. 2014
Ilyse Resnick, Dissertation Committee, Dept. of Psychology	Defended May 2013

MENTEE AND STUDENT AWARDS

Joei Camarote, Temple University Diamond Award	2022
Lillian Ham, Psi Chi Eastern Regional Research Award	2018
Lindsey Hildebrand, Poster Award, International Mind, Brain, and Education Society	2016

MENTEE GRANTS / FUNDING FOR MENTORED RESEARCH

Liberal Arts Undergraduate Research Awards (LAURA) , Temple University	2022
Mentor: Gunderson, Undergraduate Student Mentee: Camarote (\$2,000)	
<i>Improving preschoolers' spatial skills through an at-home parent-led intervention</i>	
Building Research Independence by Developing Goals and Hands-on Experiences (BRIDGE) , Temple University	2022
Mentor: Gunderson, Undergraduate Student Mentee: DiSalvo (\$3,000)	
Creative Arts, Research and Scholarship (CARAS) Travel Award , Temple University	2019
Mentor: Gunderson, Undergraduate Student Mentee: Dam (\$626)	
<i>Poster presentation at the Cognitive Development Society (CDS) Conference</i>	
Creative Arts, Research and Scholarship (CARAS) Project Grant , Temple University	2019
Mentor: Gunderson, Undergraduate Student Mentee: Rahman (\$2,025)	
<i>Number-line Improper Fraction Training in Youth (NIFTY)</i>	
National Study of Learning Mindsets Early Career Fellowship , PI: Sorhagen	2018-2019
<i>Relations Between Motivation, Math Anxiety, and Math Achievement</i>	
Total Costs: \$8,000	
Role: Collaborator	
Creative Arts, Research and Scholarship (CARAS) Project Grant , Temple University	2018
Mentor: Gunderson, Undergraduate Student Mentee: Pepper (\$2,925)	
<i>Gender differences in parents' motivational praise during spatial activities</i>	
Creative Arts, Research and Scholarship (CARAS) Travel Award , Temple University	2017
Mentor: Gunderson, Undergraduate Student Mentee: Ham (\$1,000)	
<i>Poster presentation at the Cognitive Development Society (CDS) Conference</i>	
Liberal Arts Undergraduate Research Awards (LAURA) , Temple University	2017
Mentor: Gunderson, Undergraduate Student Mentee: Wrobel (\$2,000)	
<i>The importance of parent language and gesture for children's spatial reasoning</i>	
Diamond Research Scholars Program , Temple University	2017
Mentor: Gunderson, Undergraduate Student Mentee: Ham (\$4,000)	
<i>The influence of familiarity on children's proportional reasoning knowledge</i>	

Creative Arts, Research and Scholarship (CARAS) Travel Award, Temple University 2017
Mentor: Gunderson, Undergraduate Student Mentee: Wrobel (\$1,000)
Poster presentation at the Eastern Psychological Association (EPA) Conference

Creative Arts, Research and Scholarship (CARAS) Travel Award, Temple University 2016
Mentor: Gunderson, Undergraduate Student Mentee: Ham (\$994)
Poster presentation at the International Mind, Brain, and Education Society (IMBES)

MENTORING: UNDERGRADUATE STUDENTS, TEMPLE UNIVERSITY

Elisabetta DiSalvo, Summer Intern	Summer 2022-present
Sherese Bennett, Research Intern	Spring 2022-present
Katie Probst, Research Intern	Spring 2022-present
Natasha Vahora, Research Intern & Summer Intern	Spring 2022-present
Ashley Bontempo, Research Intern	Fall 2021-present
Joel Camarote, Research Intern & Summer Intern	Fall 2021-present
Taylor Chernuta, Research Intern & Summer Intern	Fall 2021-present
Sevila Temirova, Research Intern & Summer Intern	Fall 2021-present
Asravi Chilakamari, Research Intern	Fall 2021-Spring 2022
Rawan Altamimi, Research Intern & Honors Thesis	Spring 2020-Spring 2022
Khushi Sibal, Research Intern & Summer Intern & Honors Thesis	Fall 2019-Spring 2022
Lexi Sylverne, Research Intern & Summer Intern	Fall 2020-Summer 2021
Kim Bohl, Research Intern & Summer Intern	Fall 2020-Summer 2021
Paula Ueki, Research Intern & Summer Intern	Fall 2019-Spring 2021
Jennifer Dooher, Research Intern	Spring 2020
Nadhia Engle, Research Intern	Fall 2019-Spring 2020
Su Dam, Research Intern & Summer Intern	Spring 2019-Spring 2020
Dianna Wambach, Research Intern & Summer Intern	Spring 2019-Spring 2020
Maya Rahman, Research Intern & Summer Intern	Spring 2018-Spring 2020
Madysyn Kolbes, Research Intern & Summer Intern	Fall 2018-Fall 2019
Clem Paolantonio, Research Intern & Summer Intern	Fall 2018-Summer 2019
Sarah Pepper, Research Intern, Summer Intern, & Honors Thesis	Spring 2018-Spring 2019
Daniel Keefer, Research Intern & Summer Intern	Spring 2018-Fall 2018
Alysa Cannon, Research Intern, Summer Intern, & Honors Thesis	Fall 2017-Fall 2018
Carrie Weaver, Research Intern	Spring 2018
Sania Latif, Research Intern	Fall 2017-Spring 2018
Kyle McCloskey, Research Intern	Fall 2017-Spring 2018
RJ Nair, Research Intern	Fall 2017-Spring 2018
Marly Pred, Research Intern	Fall 2017-Spring 2018
Anza Thomas, Research Intern	Fall 2017-Spring 2018
Lillian Ham, Research Intern, Summer Intern, & Honors Thesis	Spring 2016-Spring 2018
Jaeyong Sung, Research Intern	Fall 2016-Spring 2018
Audrey Wrobel, Research Intern & Summer Intern	Fall 2015-Fall 2017
Cory Ardekani, Research Intern & Summer Intern	Fall 2016-Fall 2017
Christin Kim, Research Intern	Spring 2017-Fall 2017
Amma-Sika Adomako, Research Intern	Fall 2017
Stephy Sebastian, Research Intern	Fall 2017
Elizabeth Kohlbrenner, Research Intern & Summer Intern	Fall 2016-Summer 2017
Synclair Arthur, Research Intern	Fall 2016-Spring 2017
Tyler Burger, Research Intern	Fall 2016-Spring 2017
Olivia Dermody, Research Intern	Fall 2016-Spring 2017

Nicole Lee, Research Intern	Fall 2016-Spring 2017
Samantha McLaughlin, Research Intern	Fall 2016-Spring 2017
Jessica Palmarini, Research Intern	Fall 2016-Spring 2017
Yesha Dave, Research Intern	Spring 2017
Brittany Worthington, Research Intern	Spring 2017
Najah Young, Research Intern	Spring 2017
Jiai Jung, Research Intern	Fall 2015- Fall 2016
Gabriella Riccardo, Research Intern	Spring 2016-Fall 2016
Sherly Smith, Research Intern	Fall 2016
Riley Brown, Research Intern & Summer Intern	Fall 2015-Summer 2016
Jennifer Brandley, Research Intern & Summer Intern	Spring 2016-Summer 2016
John Durison, Research Intern	Fall 2015-Spring 2016
Maya Johnson, Research Intern	Fall 2015-Spring 2016
Shuo Liu, Research Intern	Fall 2015-Spring 2016
Victoria McLaughlin, Research Intern	Fall 2015-Spring 2016
Sumaiya Nusrath, Research Intern	Fall 2015-Spring 2016
LiaJo DeStefano, Research Intern	Spring 2016
Mahala Femovich, REU Summer Intern	Summer 2015
Courtney Gray, REU Summer Intern	Summer 2015
Brooke Singer, Research Intern & Honors Thesis	Fall 2013-Spring 2015
Alaina Chlebek, Research Intern	Fall 2014-Spring 2015
Marisol Savage, Research Intern	Fall 2014-Spring 2015
Kate Knebels, Research Intern	Fall 2013-Spring 2014

SERVICE TO THE DEPARTMENT, TEMPLE UNIVERSITY

Outreach and Translation Committee Chair , Psychology Department	2019-present
Student Awards Committee Member , Psychology Department	2017-2019, 2020-present
Clinical Faculty Search Committee Member , Psychology Department	2019-2020
Outreach and Translation Committee Member , Psychology Department	2017-2019
Cognitive Faculty Search Committee Member , Psychology Department	2014-2016
Diversity Committee Member , Psychology Department	2015-2016
Faculty Awards Committee Member , Psychology Department	2014-2015
Colloquium Committee Member , Psychology Department	2013-2015
Undergraduate Committee Member , Psychology Department	2013-2014

SERVICE TO THE PROFESSION

Member , 2023 Boyd McCandless Award Committee (APA Division 7)	2021-2022
Panelist , NSF Workshop for EHR CAREER Applicants	2021
Co-Chair , 2022 Boyd McCandless Award Committee (APA Division 7)	2020-2021
Mentor , Cognitive Development Society (CDS) Diversity Mentorship Program	2019

JOURNAL EDITING AND REVIEWING

Associate Editor, <i>Developmental Psychology</i> (2022-present)
Associate Editor, <i>Journal of Cognition and Development</i> (2021-present)
Guest Editor, <i>Proceedings of the National Academy of Science (PNAS)</i> (2021)
Consulting Editor, <i>Journal of Cognition and Development</i> (2016-2021)
Consulting Editor, <i>Child Development</i> (2017-2021)

Ad-hoc reviewer:
Assessment

Journal of Educational Psychology

<i>Behavioral and Brain Functions</i>	<i>Journal of Experimental Child Psychology</i>
<i>Child Development Research</i>	<i>Journal of Experimental Education</i>
<i>Cognition</i>	<i>Journal of Numerical Cognition</i>
<i>Cognitive Development</i>	<i>Journal for Research in Mathematics Education</i>
<i>Cognitive Processing</i>	<i>Learning and Instruction</i>
<i>Cognitive Psychology</i>	<i>Learning and Individual Differences</i>
<i>Cognitive Research: Principles and Implications</i>	<i>Mind, Brain, and Education</i>
<i>Cognitive Science</i>	<i>Personality and Social Psychology Bulletin</i>
<i>Contemporary Educational Psychology</i>	<i>Perspectives on Psychological Science</i>
<i>Developmental Psychology</i>	<i>PLoS ONE</i>
<i>Developmental Science</i>	<i>Proceedings of the National Academy of Sciences</i>
<i>Early Education and Development</i>	<i>Psychological Research</i>
<i>Educational Psychology</i>	<i>Psychological Science</i>
<i>Educational Psychology Review</i>	<i>Psychonomic Bulletin & Review</i>
<i>European Journal of Developmental Psychology</i>	<i>Quarterly Journal of Experimental Psychology</i>
<i>Fields Mathematics Education Journal</i>	<i>Review of Philosophy and Psychology</i>
<i>Frontiers in Psychology: Developmental Psychology</i>	<i>Sex Roles</i>
<i>Infant and Child Development</i>	<i>Social Science Research</i>
<i>Journal of Abnormal Child Psychology</i>	

GRANT REVIEWER

Review panel member , National Science Foundation (NSF) CAREER Program, Division of Research on Learning in Formal and Informal Settings (DRL)	2019
Ad hoc reviewer , Israel Science Fund	2019
Review panel member , Institute for Education Sciences (IES), Early Intervention and Early Childhood Education	2015
Ad hoc reviewer , Austrian Science Fund	2015
Ad hoc reviewer , National Science Foundation (NSF), Social, Behavioral and Economic Sciences (SBE) and Education and Human Resources (EHR)	2013-present

CONFERENCE REVIEWER

Conference reviewer, Biennial Meeting of the Cognitive Development Society	2019
Program committee member, 41 st Annual Meeting of the Cognitive Science Society	2019
Conference reviewer, Society for Research on Child Development Biennial Meeting	2018
Program committee member, 40 th Annual Meeting of the Cognitive Science Society	2018
Conference reviewer, Biennial Meeting of the Cognitive Development Society	2017
Program committee member, 38 th Annual Meeting of the Cognitive Science Society	2016
Conference reviewer, Society for Research on Child Development Biennial Meeting	2012
Conference reviewer, Third Annual inter-Science of Learning Center (iSLC) Conference	2010

PROFESSIONAL AFFILIATIONS

Mathematical Cognition and Learning Society	2018-present
American Psychological Association	2013-present
Association for Psychological Science	2009-present
Cognitive Development Society	2009-present
Society for Research in Child Development	2009-present

PROFESSIONAL POSITIONS HELD

Consultant, Oliver Wyman	2005-2007
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