H. Moriah Sokolowski

CURRICULUM VITAE

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Professional Appointments

July 2023- Present	Assistant Professor (Tenure-Track) Department of Psychology, Toronto Metropolitan University
July 2023- Present	Adjunct Scientist Rotman Research Institute, Baycrest Hospital.
Jan 2020-June 2023	Post-Doctoral Fellow Rotman Research Institute, Baycrest Hospital. (<i>Advisor:</i> Brian Levine)
Oct-Dec 2019	Post-Doctoral Fellow Brain and Mind Institute, Western University. (<i>Advisor:</i> Daniel Ansari)
Education	
2015-2019	PhD, Developmental Psychology Department of Psychology, Brain and Mind Institute, Western University Advisor: Daniel Ansari.
2013-2015	MSc, Developmental Psychology Department of Psychology, Brain and Mind Institute, Western University Advisor: Daniel Ansari.
2009-2013	BSc, Psychology Department of Psychology, Brain and Mind Institute, Western University <i>Advisor:</i> Daniel Ansari.
Grants	
2024-2030	Natural Sciences and Engineering Research Council of Canada - Discovery Grant (NSERC-DG) (\$145 000) Title: Mapping Developmental Trajectories of Early Number Systems.

Role: Principal Investigator.

Sokolowski, HM

2024-2025

Natural Sciences and Engineering Research Council of Canada - Discovery
Launch Supplement (NSERC-DG) (\$12500)

Title: Mapping Developmental Trajectories of Early Number Systems.

Role: Principal Investigator.

2024-2026 Social Sciences and Humanities Research Council – Insight Development Grant (SSHRC-IDG) (\$57031)

Title: Fostering resilient students: developing evidence-based interventions to combat fear of failure and support equitable help-seeking in undergraduate science courses

Role: Co-Applicant

2020-2022 Social Sciences and Humanities Research Council – Insight Development

Grant (SSHRC-IDG) (\$67,866)

Title: Cognitive and neural factors that relate to success in STEM

professions across gender.

Role: Co-written with Brian Levine.

Awards, Fellowships, and Scholarships

2022-2023	Canadian Institutes of Health Research (CIHR) Postdoctoral Fellowship Award (\$45 000)
2020-2022	Banting Postdoctoral Fellowship, Awarded by the Social Sciences and Humanities Research Council (SSHRC) (\$140 000)
2020	Governor General's Gold Medal
2018-2019	Ontario Graduate Scholarship (OGS) (\$15 000)
2018-2019	Western Graduate Research Scholarship (\$13 217)
2015-2018	Alexander Graham Bell Canada Graduate Scholarship (CGS-D), Awarded by
	Natural Sciences and Engineering Research Council (NSERC) (\$105,000)
2017-2018	Doctoral Excellence Research Award (\$10 000)
2016-2017	Doctoral Excellence Research Award (\$10 000)
2016-2017	Western Graduate Research Scholarship (\$5900)
2016	Marilyn (Pack) McClelland Award in Psychology (\$750)
2015-2016	Western Graduate Research Scholarship (\$8000)
2014-2015	Western Graduate Research Scholarship (\$10 000)
2013-2014	Alexander Graham Bell Canada Graduate Scholarship (CGS-M), Awarded by
	the Natural Sciences and Engineering Research Council (NSERC) (\$17,500)
2013-2014	Western Graduate Research Scholarship (\$1500)
2013	Clark and Mary J. Wright Award in Psychology at Western University (\$1000)
2012	Summer Undergraduate Research Scholarship, Institute of Medical
	Sciences, University of Toronto Mississauga (\$2400)
2012	Institute of Medical Sciences, University of Toronto, Best Poster Award
2011	Summer Undergraduate Research Scholarship, Institute of Medical Sciences
	(IMS), University of Toronto Mississauga (\$2400)

2010	Summer Undergraduate Research Scholarship Institute of Medical Sciences,
	Center for Addiction and Mental Health (CAMH) (\$2400)
2009	University of Western Ontario Entrance Scholarship (\$2000)
2009	David Oucherlony Leadership Award

Publications

Summary: I have published 28 peer-reviewed journal articles (16 as first author) and 3 book chapters (2 as first author). I have an h-index of 16 and 1200 citations as calculated using *Google Scholar*. I currently have 3 additional manuscripts under review and 3 in preparation.

Refereed Publications

- 1. Lau N. T. T., Ansari, D., **Sokolowski, H. M.** (2024) Unraveling the Interplay Between Math Anxiety and Math Achievement. *Trends in Cognitive Sciences*. Online Ahead of Print. DOI: 10.1016/j.tics.2024.07.006. [Impact Factor (IF): 16.7]
- 2. Fioriti, C. M., Martell, R. N., Daker, R. J., Malone, E. P., **Sokolowski, H. M.,** Green, A. E., Levine, S. C., Maloney, E. A., Ramirez, G., Lyons, I. M., (2024) Examining the interplay between the cognitive and emotional aspects of gender differences in spatial processing. *Journal of Intelligence*. *12*(3). 1-30. DOI: 10.3390/jintelligence12030030. [IF: 2.8]
- 3. Yu, J.* **Sokolowski, H. M.***, Rao, K. S., Moraglia, L. E., Khoubrouy, S. A.., Abdi, H., & Levine, B. (2024) Visualization of Latent Components Assessed in O*Net Occupations (VOLCANO): A robust method for standardized conversion of occupational labels to ratio scale format. 56(1):417-432. *Behavioural Research Methods*. 1-17. [IF: 7.86]
 - a. *Co-first authors
- 4. Fan C., **Sokolowski H. M.,** Rosenbaumb, S., Levine, B., (2023) What about "space" is important for episodic memory? *WIRES Cognitive Science*. E1645. [Impact Factor (IF): 3.48]
- 5. **Sokolowski, H. M.** & Levine, B. (2022). Common neural substrates of diverse neurodevelopmental disorders. *Brain.* 146(2), 438-447. 1-10 DOI: 10.1093/brain/awac387. [IF: 15.26]
- 6. **Sokolowski, H. M.,** Hawes, Z., Ansari, D. (2022) The neural correlates of retrieval and procedural strategies in mental arithmetic: A functional neuroimaging meta-analysis. *Human Brain Mapping*. 1-16. DOI: 10.1002/hbm.26082. [IF: 5.04]
- 7. **Sokolowski, H.M.,** Matejko, A. A., & Ansari, D. (2023) The role of the angular gyrus in arithmetic processing: A literature review. *Brain Structure and Function*. 1-12. [IF: 3.27]
- 8. **Sokolowski, H. M.,** Hawes, Z., Leibovitch, T., Ansari, D. (2022) Number symbols are processed more automatically than nonsymbolic numerical magnitudes: Findings from a symbolic-nonsymbolic Stoop task. *Actapsychologia*. 1-48. [IF: 1.73]
- 9. **Sokolowski, H. M.,** Merkley, R., Bray Kingissepp, S. S., Vaikuntharajan, P., Ansari, D. A. (2022) Children's attention to numerical quantities relates to verbal number knowledge: An introduction to the Build-A-Train task. *Developmental Science*. *00*. 1-17, DOI:10.1111/desc.13211 [IF: 5.13]
- 10. Daker R. J., Gattas, S., **Sokolowski, H. M.,** Green, A. E. & Lyons, I. (2021) First-year students' math anxiety predicts STEM avoidance and underperformance throughout university, independently of math ability. *nature partner journals Science of Learning*. *6*(1). pp. 1-17. [IF: 5.51]
- 11. Henik, A., Salti, M., Avitan, A., Oz-Cohen, E., Shilat, Y., & **Sokolowski, H. M.** (2021). Numerical cognition: Unitary or diversified system(s)? *Behavioral and Brain Sciences, 44*, E191. doi:10.1017/S0140525X21001035 [IF: 17.33]

12. **Sokolowski H. M.**, Hawes Z., Peters L., Ansari D. (2021) Symbols are special: An fMRI adaptation study of symbolic, nonsymbolic, and non-numerical magnitude processing in the human brain. *Cerebral Cortex Communications*. 23;2(3):tgab048. doi: 10.1093/texcom/tgab048. [IF: 1.80]

- 13. **Sokolowski, H. M.,** (2021) Women in science: A daughter's perspective. *Journal of Neurogenetics*. 1-5. [IF: 1.54]
- 14. Colling, L., Holcombe, A. O., ... Goffin, C., **Sokolowski, H. M.,** Ansari, D. ... (2020). Registered replication report of Fischer, Castel, Dodd, and Pratt (2003). *Advances in Methods and Practices in Psychological Science*. *3*(2), 143-162, DOI: 10.1177/2515245920903079 [IF: 15.82]
- 15. Goffin, C., **Sokolowski, H. M.,** Slipenkyj, M., Ansari, D. (2019). Does writing handedness affect neural representation of symbolic number? An fMRI Adaptation Study. *Cortex.* Registered Report. *10*. 27-43. DOI: 10.1016/j.cortex.2019.07.017. [IF: 4.02]
- 16. Hawes, Z., Sokolowski, H. M., Ansari, D. (2019). Neural underpinnings of numerical and spatial cognition: An fMRI meta-analysis of brain regions associated with symbolic number, arithmetic, and mental rotation. *Neuroscience & Biobehavioral Reviews*. 103, 316-336. DOI: 10.1016/j.neubiorev.2019.05.007. [IF: 8.99]
- 17. **Sokolowski, H. M.,** Hawes, Z., Lyons, I. M. (2019). What explains sex differences in math anxiety? A closer look at the role of spatial processing. *Cognition*. 182. 193-212, DOI: 10.1016/j.cognition.2018.10.005 [IF: 3.65]
- 18. **Sokolowski, H. M.,** Ansari, D. (2018). Understanding the effects of education through the lens of biology. *Nature Partner Journals Science of Learning*. 3(17). 1-10. DOI: 10.1038/s41539-018-0032-y [IF: 5.51]
- 19. Anreiter, I., **Sokolowski, H.M.,** Sokolowski, M. B., (2017). Gene-environment interplay and individual differences in behaviour. *Mind, Brain, and Education*.12(4). 1-12, DOI:10.1111/mbe.12158 [IF: 1.63]
- 20. **Sokolowski, H. M.,** Ansari, D. (2017). Who Is Afraid of Math? What Is Math Anxiety? And What Can You Do about it?. Frontiers for Young Minds. 5. 1-7. DOI: 10.3389/frym.2017.00057. [IF: 1.00]
- 21. **Sokolowski, H. M.,** Fias, C., Ononye, A, & Ansari, D. (2017). Are numbers grounded in a general magnitude processing system? A functional neuroimaging meta-analysis. *Neuropsychologia*. 105, 50-69, DOI: 10.1016/j.neuropsychologia.2017.01.019 [IF: 3.14]
- 22. **Sokolowski, H. M.,** Fias, W., Mousa, A, & Ansari, D. (2017). Common and distinct brain regions in both parietal and frontal cortex support symbolic and nonsymbolic number processing in humans: A functional neuroimaging meta-analysis. *Neuroimage*. 1(146), 376-394. DOI: 10.1016/j.neuroimage.2016.10.028 [IF: 7.40]
- 23. **Sokolowski H. M.,** Vasquez, O. E., Unternaehrer, E., Sokolowski, D. J., Biergans, S. D., Atkinson, L., Gonzalex, A., Silveira, P. P., Levitan, R., O'Donnell, K. J., Steiner, M. Kennedy, J. Meany, M. J., Fleming, A. S., Sokolowski, M. B. on behalf of the MAVAN and Toronto Longitudinal Cohort research teams. (2017). The Drosophila foraging gene human orthologue PRKG1 predicts individual differences in the effects of early adversity on maternal sensitivity. *Cognitive Development*. *42*, 62-73, DOI:*10.1016/j.cogdev.2016.11.001*. [IF: 2.98]
- 24. **Sokolowski, H. M.,** & Necka, E. A. (2016). Remediating math anxiety through cognitive training: Potential roles for math ability and social context. *Journal of Neuroscience*. *36*(5), 1439-1441. DOI: https://doi.org/10.1523/JNEUROSCI.4039-15.2016. [IF: 6.71]
- 25. Necka, E. A., **Sokolowski, H. M.**, Lyons, I.M. (2015). The role of self-math overlap in understanding math anxiety and the relation between math anxiety and performance. *Frontiers in Psychology Cognition*. *6*: 1542, 1-12. DOI: 10.3389/fpsyg.2015.01543. [IF: 2.99]

26. **Sokolowski, H. M.,** Clouston, B. J., Gill, G., Kim, C. & Worgan, R. (2013). Grass type, vegetation cover, and predation affect abundance of *Microtus californicus* and *Thomomys bottae* in costal Mediterranean ecosystem. *Immediate Science Ecology*. 2, 11-7. DOI: 10.7332/ise2013.2.2.dsc.

- 27. Menon, M., Quilty, L. C., Zawadzki, J. A., Woodward, T. S., **Sokolowski, H. M.,** Boon, H. S. & Wong, A. H. (2013). The role of cognitive biases and personality variables in subclinical delusional ideation. *Cognitive Neuropsychiatry*. *18*(3),208-218. DOI: 10.1080/13546805.2012.692873. [IF: 1.87]
- 28. Zawadzki, J. A., Woodward, T. S., **Sokolowski, H. M.,** Boon, H. S., Wong, A. H., & Menon, M. (2012). Cognitive factors associated with subclinical delusional ideation in the general population. *Psychiatry Research.* 197(3), 345-349. DOI: 10.1016/j.psychres.2012.01.004. [IF: 11.22]

Refereed Book Chapters

- 1. Fan, C.L., Simpson, S., **Sokolowski, H.M.,** Levine, B. (2024) Autobiographical Memory. In Kahana, M. & Wagner, A. (Eds.), Handbook of Human Memory. Oxford University Press. 1-56.
- 2. **Sokolowski, H. M.,** Peters, L. (2022) Persistence and fadeout of responses to reading and mathematical interventions. Chapter 21 in Skeide, M. (Eds.), The Cambridge Handbook of Dyslexia and Dyscalculia. Cambridge University Press. 1-35
- 3. **Sokolowski, H.M.** & Ansari, D. (2016). Symbolic and nonsymbolic representation of number in the human parietal cortex: a review of the state-of-the art, outstanding questions and future directions. Continuous Issues in Numerical Cognition, San Diego, CA: Elsevier. 376-394. DOI: 10.1016/B978-0-12-801637-4.00015-9

Work in Progress (under review)

- 1. **Sokolowski, H. M.,** Fan, C. L., Yu, J.-C., Daker, R. J., Lyons, I. M., Zeman, A., Abdi, H., & Levine, B. (Submitted, Personality and Individual Differences). *Visual Imagery and Stem Occupational Attainment: Gender Matters*. Preprint -DOI: 10.31234/osf.io/c5uey
- 2. Yeung, R. C., **Sokolowski, H. M.,** Fan, C. L., Fernandes, M., & Levine, B. (Under Review, Clinical Psychological Science). *The Curse of Imagery: Trait Object and Spatial Imagery Differentially Relate to Trauma and Stress Outcomes*. Preprint <u>DOI: 10.31234/osf.io/6fp9w</u>
- 3. Martell, R. N., Daker, R. J., **Sokolowski, H. M.,** Ansari, D., Lyons, I. M., (Under Review, Journal of Psychological Research) Implications of neural integration of spatial and mathematical comprehension for math ability and math anxiety.

Nonrefereed Publications

- Sokolowski, H. M. (2020) Equity and Individual Differences in Education. BOLD Blog. 1-2. https://bold.expert/how-can-education-systems-better-support-kids-from-diverse-backgrounds/
- 2. **Sokolowski, H. M.** (2014) Child and Brain Development program meeting: Brain development, cognition and education. Report for the 30th program meeting held in London UK written for the Canadian Institute for Advanced Research (CIFAR).

National and International Invited Talks

1. King V., Hawes, Z., **Sokolowski H.M.** (2024, May) The neural correlates of spatial and object imagery; A neuroimaging Meta Analysis. *Toronto Area Memory Group*. Toronto, ON.

- 2. **Sokolowski, H. M.,** (2024, May) Development of the Mathematical Mind: Individual Differences and Implications for Lifespan Cognition. *York University,* Toronto, ON.
- 3. **Sokolowski, H. M.,** (2024, April) Development of the Mathematical Mind: Individual Differences and Implications for Lifespan Cognition. *Western University*, London, ON.
- 4. **Sokolowski, H. M.,** (2024, January) Bayesian Statistics for Psychologists. SMART Lab. *Toronto Metropolitan University*. Toronto, ON.
- 5. **Sokolowski, H. M.,** & Moulson, M. (2023, May) Infusing a Consideration of Culture and Context into the teaching of Child Development. Toronto Metropolitan University Learning and Teaching Conference. *Toronto Metropolitan University*. Toronto, ON.
- 6. Yeung, R., **Sokolowski, H. M.,** Fan, C., Levine, B. (2023, May) Individual Differences in Imagery and Response to Trauma (TAMEG), *York University*, Toronto ON.
- 7. **Sokolowski, H. M.,** (2023, January) Development of the Mathematical Mind: Individual Differences and Implications for Lifespan Cognition. *Toronto Metropolitan University,* Toronto ON.
- 8. **Sokolowski, H. M.,** (2022, November) Real-world outcomes from Developmental Cognitive Neuroscience Research. Cognitive Science and Artificial Intelligence Students' Association (CASA), *University of Toronto*, Toronto ON.
- 9. **Sokolowski, H. M.,** (2022, May) Cognitive Predictors of Occupation: Gender Matters. Toronto Area Memory Group (TAMEG), *York University*, Toronto ON.
- 10. **Sokolowski, H. M.,** (2021, June). The Learning Brain on Science, Technology, Engineering and Mathematics. Invited Speaker, Summer Rounds, *Rotman Research Institute*, Toronto ON.
- 11. **Sokolowski, H. M.,** (2021, February). The building blocks of mathematical thinking. Invited Speaker, Applied Cognitive Neuroscience Seminar, *Ryerson University*, Toronto ON.
- 12. **Sokolowski, H. M.,** (2020, January). The building blocks of mathematical competence. Invited Speaker, *University of Toronto, Ontario Institute for Studies in Education (OISE),* Toronto ON.
- 13. **Sokolowski, H. M.,** (2019, November). The cognitive and neural mechanisms that support number processing across development. Invited Speaker, *University of Toronto, Developmental Psychology Research Group,* Toronto ON.
- 14. **Sokolowski, H. M.,** (2018, April). Learning verbal number words relates to how children attend to numerical quantity. Invited Speaker *Mathematical Cognition and Learning Society,* Oxford, UK.
- 15. Lyons, I., Daker, R. J., **Sokolowski, H. M.,** Hawes, Z., Ramierez, G., Maloney, E. A., Rendinia, D. N., Levine, S. C., Beilock, S. L. (2018, April). Spatial anxiety scale A novel tool with applications for STEM education. *Mathematical Cognition and Learning Society*, Oxford, UK.
- 16. **Sokolowski. H. M.**, Ansari, D. (2016, April). Developmental changes in the neural correlates of symbolic number processing: A functional neuroimaging meta-analysis. Invited Speaker at the "Typical and atypical development of numerical cognition: evidence from brain and behaviour", Jerusalem, Israel.
- 17. **Sokolowski, H. M.,** Sokolowski, M. B., Fleming, A. (2013, December). Gene-environment interplay: A MAVAN Study, *University of Toronto*.

National and International Poster Presentations

1. Mastarciyan, H. Yu, J.-C., Sodums, D., Abdi, H., Levine, B. **Sokolowski, H. M.,** (July 2024) Investigating Neural Predictors of Academic Achievement Across the Lifespan. *International Mind, Brain, and Education Society.* Leuven, Belgium.

- 2. Mastarciyan, H. Yu, J.-C., Sodums, D., Abdi, H., Levine, B. **Sokolowski, H. M.,** (June 2024) Investigating Neural Predictors of Academic Achievement Across the Lifespan. *Mathematical Cognition and Learning Society*. Washington, DC, USA.
- 3. Mastarciyan, H. Yu, J.-C., Sodums, D., Abdi, H., Levine, B. **Sokolowski, H. M.**, (April 2024) Investigating Neural Predictors of Academic Achievement Across the Lifespan. *Cognitive Neuroscience Society*. Toronto, ON, Canada.
- 4. **Sokolowski, H. M.,** Fan, C., Yu, J.-C., Sodums, D., Abdi, H., Levine, B. (April 2024) Occupation on the brain: Linking resting-state network segregation to occupation dimensions across the lifespan. *Cognitive Neuroscience Society*. Toronto, ON, Canada.
- 5. **Sokolowski, H. M.,** Fan, C., Yu, J. -C., Daker, R., Lyons, I. M., Abdi, H., Levine, B. (July 2022) Cognitive Predictors of STEM Occupations: Gender matters. *Rotman Research Institute Research Day*, North York, ON Canada.
- 6. **Sokolowski, H. M.,** Fan, C., Yu, J. -C., Daker, R., Lyons, I. M., Abdi, H., Levine, B. (July 2022) Cognitive Predictors of STEM Occupations: Gender matters. *International Mind Brain and Education Society (IMBES)*, Montreal, QC, Canada.
- 7. Martell, R. N., Daker, R. J., **Sokolowski, H. M.,** Ansari, D., Lyons, I. M., (June 2022) Implications of Neural Integration of Spatial and Mathematical Comprehension for Math Ability and Math Anxiety. *Mathematical Cognition and Learning Society Conference*. Leuven, Belgium.
- 8. **Sokolowski, H. M.,** Fan, C., Yu, J.-C., Abdi, H., Levine, B. (April 2022) Cognitive Predictors of STEM Occupations: Gender matters. *Cognitive Neuroscience Society*. San Francisco, USA.
- 9. **Sokolowski, H. M.,** Fan, C., Yu J. -C., Daker, R., Lyons, I. M., Abdi, H., Levine, B. (2022, March). Cognitive predictors of STEM occupations: Gender matters. *Aging and the Brain: Sensory & Cognitive Interactions in the Aging Brain.* North York, ON, Canada. *Award Winning Poster
- 10. **Sokolowski, H. M.,** Hawes, Z., Peters, L., Ansari, D., (2019, June). Neural correlates of symbolic, nonsymbolic, and non-numerical magnitude processing: An fMRI adaptation study. *Mathematical Cognition and Learning Society,* Ottawa, ON, Canada.
- 11. Goffin, C., **Sokolowski, H. M.,** Slipenkyj, M., Ansari, D., (2019, June). Does writing handedness affect neural representation of symbolic number? An fMRI adaptation study. *Mathematical Cognition and Learning Society,* Ottawa, ON, Canada
- 12. Hawes, Z., **Sokolowski, H. M.,** Ononye, C., Ansari, D., (2019, June). Neural underpinnings of numerical and spatial cognition: An fMRI meta-analysis of brain regions associated with symbolic number, arithmetic, and mental rotation. *Mathematical Cognition and Learning Society*, Ottawa, ON, Canada
- 13. **Sokolowski, H. M.,** Merkley, R., Bray Kingissepp, S. S., Vaikuntharajan, P., Ansari, D. A. (2018, September). Learning verbal number words relates to how children attend to numerical quantity. *International Mind, Brain and Education Society (IMBES)*, Los Angeles, USA.
- 14. **Sokolowski, H. M.*,** Goffin, C.*, Matejko, A. A., Bugden, S., Lyons, I. M., Ansari, D. (2018, September). Assessing knowledge translation in the field of mind, brain, and education in preservice teachers. *International Mind, Brain and Education Society (IMBES)*, Los Angeles, USA.
 - a. *These authors contributed equally to the work
- 15. Gattas, S., Daker, R. J., Sokolowski, H. M., Lyons, I. M., (2018, September). Predicting STEM-

- related academic outcomes with math anxiety and attitudes in university students. *International Mind, Brain and Education Society (IMBES),* Los Angeles, USA.
- 16. Daker, R. J., Gattas, S., **Sokolowski, H. M.,** Lyons, I. M., (2018, April). Effects of math anxiety and math ability on university mathematics engagement. *Mathematical Cognition and Learning Society*, Oxford, UK
- 17. **Sokolowski, H. M.,** Hawes, Z, Leibovich, T. Ansari, D. A. (2017, May). The interference of symbolic and nonsymbolic numbers in a novel enumeration Stroop task. *Association for Psychological* Science, Boston, USA.
- 18. **Sokolowski. H. M.**, Ansari, D. (2016, June). Developmental changes in the neural correlates of number processing: A functional neuroimaging meta-analysis. *The European Association for Research on Learning and Instruction (EARLI) Special Interest Group 22 "Neuroscience and Education"*, Amsterdam, Netherlands.
- 19. **Sokolowski. H. M.**, Fias, W., Ansari, D. (2015, October). Common and distinct brain regions support symbolic and nonsymbolic numerical magnitude processing: A functional neuroimaging meta-analysis. *Education and Neuroscience Symposium*, Hannover, Germany.
- 20. **Sokolowski. H. M.,** Fias, W., Ansari, D. (2015, September). Common and distinct brain regions support symbolic and nonsymbolic numerical magnitude processing: A functional neuroimaging meta-analysis. *Inaugural Brain and Mind Institute Symposium*, University of Western Ontario, London, ON.
- 21. **Sokolowski. H. M.,** Fias, W., & Ansari, D. (2015, May). Are numbers specialized or grounded in a generalized for magnitude representation: A functional neuroimaging meta-analysis. *NIH Math Conference*, St. Louis, Missouri, USA.
- 22. **Sokolowski. H. M.,** Fias, W., Ansari, D. (2014, January). Are numbers specialized or grounded in a general magnitude system? A quantitative meta-analysis. *Lake Ontario Visionary Establishment (LOVE)*, Niagara Falls, Ontario Canada.
- 23. Matejko, A., **Sokolowski, H. M.,** Ansari, D. (2013, April). Early numeracy skills in preschool and kindergarten children: an iPad pilot study. *Biennial Meeting of the Society for Research in Child Development*, Seattle, WA, USA.
- 24. **Sokolowski, H. M.,** Matejko, A., Ansari, D. (2013, April). Training of early numeracy skills in preschool and kindergarten: An iPad training study. *University of Western Ontario Honours Thesis Poster Day*, London Ontario.
- 25. Matejko, A., Erdeg, B., Lefcoe, A., **Sokolowski, H. M.,** Ansari, D. (2012, September). Training early numeracy skills in Kindergarten children: and iPad pilot study. *Connaught Global Challenge Symposium, Institute for Human Development*, Toronto, Ontario. *Award Winning Poster
- 26. Browne, D.T., Agrati, D., Akbari, E., de Medeiros, C., **Sokolowski, H.M.,** Sokolowski, M.B., Kennedy, J., Meaney, M., Steiner, M., Fleming, A.S. (2012, September). Maternal anxiety from pregnancy to two years post-partum: Examining the interactive roles of 5-HTTLPR and early child trauma. *Connaught Global Challenge International Symposium, Institute for Human Development,* Toronto, Ontario.
- 27. **Sokolowski, H.M.,** Mileva-Seitz V., Kennedy, J.L., Meaney, M. J. Sokolowski, M. B., Fleming, A. S. (2012, August). Corticotrophin Releasing Hormone Receptor 1 (CRHR1), life events and maternal behavior: A MAVAN Project. *University of Toronto Institute of Medical Sciences Research Day, Toronto Ontario*. *Award Winning Poster

28. Wonch, K.E., Steiner, M, de Medeiros, C.B., Barrett, J.A., **Sokolowski, H.M.,** Fleming, A.S., Hall, G. (2012, October). The neural correlates of responsiveness to infant cues in mothers with and without postpartum depression. *McMaster Brain and Body Conference*, Hamilton, Ontario.

- 29. Zawadzki, J.A., Menon, M., Quilty, L.C., Woodward, T.S., **Sokolowski, H.M.,** Boon, H.S., Wong, A.H.C. (2012, July). Predictors of sub-clinical delusional ideation in the general population. Center for Addiction and Mental Health. *Gordon Conference on the Neurobiology of Cognition*, Lucca (Barga), Italy.
- 30. **Sokolowski, H.M.,** Wonch, K., De Medeiros, D., Barrett, J., Hall, G., Steiner, M., Fleming, A.S. (2011, August). fMRI activation patterns in new mothers suffering from post-partum depression in response to infant pictures. *University of Toronto Institute of Medical Sciences*, Toronto Ontario.
- 31. **Sokolowski, H.M.,** Zawadzki, J.A., Boon, H.S., Menon, M., Wong, A.H.C. (2010, August). Cognitive factors associated with belief formation in the general population. *University of Toronto Institute of Medical Sciences*, Toronto Ontario.

Teaching Experience

Courses

PSY324 Biopsychology. Course Instructor. (Fall 2024) Toronto Metropolitan University (TMU).

PSY324 Biopsychology. Course Instructor. (Winter 2024) Toronto Metropolitan University (TMU).

PSY324 Biopsychology. Course Instructor. (Fall 2023) Toronto Metropolitan University (TMU).

PSY908 Advanced Developmental Seminar. *Course Instructor*. (Winter 2023) Toronto Metropolitan University (TMU).

Psy302 Child Development. Course Instructor. (Fall 2022) Toronto Metropolitan University (TMU).

Invited Guest Lectures

- **Sokolowski, H. M.,** (2023, January) 'Are you thinking what I'm thinking?' Social Cognitive Development in Early Childhood. Teaching Demonstration. *Toronto Metropolitan University,* Toronto ON.
- **Sokolowski, H. M.** (2022, September) Gender Differences in Developmental Psychology. PSYC2200 Developmental Psychology I: Fundamentals Course, University of Winnipeg, Winnipeg, Manitoba.
- **Sokolowski, H. M.** (2022, March) Gender Differences in Developmental Psychology. PSYC2200 Developmental Psychology I: Fundamentals Course, University of Winnipeg, Winnipeg, Manitoba.
- **Sokolowski, H. M.,** Bugden, S (2022, January) Genes to Behaviour. Provided all lecture material for online lecture in Behaviour-genetics for PSYC2200 Developmental Psychology I: Fundamentals Course, University of Winnipeg, Winnipeg, Manitoba.
- **Sokolowski, H. M.** (2020, October) Genetics and the Brain. Online Guest Lecture in Course 3440F Developmental Cognitive Neuroscience, University of Western Ontario, London Ontario.
- **Sokolowski, H. M.** (2018, February) From Gene to Brain. Guest Lecture in Course 3440G Developmental Cognitive Neuroscience, University of Western Ontario, London Ontario.
- **Sokolowski, H. M.** (2015, Winter) Independently conducted a weekly tutorial on research methods in developmental psychology.

Tutorial topics: 1) Introduction to Research in Developmental Psychology, 2) Observational Research, 3) Collecting Data, 4) Interrater Reliability, 5) Data Entry and Analyses in SPSS

Sokolowski, H. M. (2014, October) Language Development. Guest Lecture in Course 2043A Exceptional Child: Developmental Disorders, University of Western Ontario, London Ontario.

Sokolowski, H. M. (2014, Winter) Independently conducted a weekly tutorial on research methods in developmental psychology.

Tutorial topics: 1) Introduction to Research in Developmental Psychology, 2) Observational Research, 3) Collecting Data, 4) Interrater Reliability, 5) Data Entry and Analyses in SPSS

Sokolowski, H. M. (2013, October) The development of early numeracy. Guest Lecture in Course 2043A Exceptional Child: Developmental Disorders, University of Western Ontario, London Ontario.

Teaching Assistantships

Winter 2019	Teaching Assistant for Psychology 3912G – Psychology of the Arts
Winter 2015	Teaching Assistant for Psychology 3480G – Research in Developmental Psychology
Fall 2014	Teaching Assistant for Psychology 2042A- Exceptional Children: Behaviour Disorders
Fall 2014	Teaching Assistant for Psychology 2043A- Exceptional Children: Developmental Disorders Teaching Assistant for Psychology 3480G – Research in Developmental
Winter 2014	Psychology
Fall 2013	Teaching Assistant for Psychology 2042A- Exceptional Children: Behaviour Disorders
Fall 2013	Teaching Assistant for Psychology 2043A- Exceptional Children: Developmental Disorders

<u>Supervisory Experience</u>

Formal

Supervisor of Hillary Mastarciyan's Master of Science

Project Title: Exploring the directionality of symbolic number learning and attention to quantities: A microgenetic study. (Sept 2024-Ongoing)

Supervisor of Samantha Corion's Honours Thesis Project

Project Title: Examining the link between hippocampal connectivity and math achievement across the lifespan. (Sept 2024-April 2025)

Supervisor of Charlie Bellman's Honours Thesis Project

Project Title: Examining how the association between cognition and achievment is moderated by ADHD. (Sept 2024-April 2025)

Supervisor of Hillary Mastarciyan's Honours Thesis Project

Project Title: Exploring the link between neural segregation and of academic achievement across the lifespan. (Sept 2023-April 2024)

Supervisor of Kalee Kiluu's Honours Thesis Project

Project Title: Unravelling the association between autism spectrum disorder and occupation. (Sept 2023-April 2044)

Co-supervisor of Marcus Meng's Summer Project

Project Title: An examination of the link between cognition and occupation. (May-Aug 2022)

Co-supervisor of Aymee Alvarez's M.Sc.

Thesis Title: The neural representation of mirror numbers: An fMRI adaptation study. (September 2018-December 2020)

Co-supervisor of Sarah Samantha Bray Kingissepp's Fourth Year Honours B.Sc.Thesis

Thesis Title: Does cardinal principle knowership predict the amount of number strategy used? (2017, April)

*Trainee earned authorship on: Sokolowski et al., 2021, Developmental Science

Informal

Mentored multiple undergraduate students on several projects

Sokolowski Lab Students: Hillary Mastarciyan, Kalee Kiluu-Ngila, Vlad King, Samantha Corion, Priyanthi Paramananthan, Nathan Lau, Kale Allison, Charlie Bellman, Mariana Zapounidis,

Levine Lab Students: Nardeen Yalda, Marcus Meng, Ali Abdoli Zadeh, Amina Shmanova, Jordynn Burnett, Maddie Gravelle, Maryam Sorkhou, Sara Wilson

Ansari Lab Students: Praja Vaikuntharajan*, Zaid Salaheed, Chuka Ononye*, Sarah Samantha Bray Kingissepp*, Irene Zhang, Emma Williamson, Ellen Stevenson, Emma Williamson, Rajiv Sanwal, Ahmad Mousa*, Calvin Diep, Dakshan Krishnapalan, Jash Parkin, Nivetha Govindaraju, Robert Nanni

*Trainees earned authorship on relevant publications

Advanced Courses/Workshops in Statistical Methods

Advanced Statistical Methods 3, (Fall 2020), University of Texas at Dallas.

Introduction to R, Datacamp. (Spring, 2020). Online.

FMRIB Software Library (FSL) Course, Oxford University. (Summer, 2017). Vancouver, Canada.

Statistical Horizons, Structural Equation Modeling. (Summer, 2016). Chicago, Illinois.

Scientific Computing (Winter, 2016). Western University. London, Canada.

Stats Using R (Fall, 2015). Western University. London, Canada.

Research Design and Statistical Modelling (2013-2014). Western University. London, Canada

Community Outreach

Media Contributions

"Turning to His Left" Podcast interview with Amanda Cupido for the Silver Podcast Network, New York City, January 2024

"A Brief Conversation" Radio Interview with Stephen Hurley at voicEd Radio, June 2019

"Learning Number Words in Preschool" Article in the Language, Reading & Math in Children Newsletter, University of Western Ontario, Volume 11, January 2018

Invited Community Talks

Sokolowski, H. M., (2024, May) Development of the Mathematical Mind. *Toronto Behavioural Sciences Meetup,* Toronto, ON.

- **Sokolowski, H. M.** (2021, December) Cognitive Predictors of Occupation. Invited speaker in the TD Bank Applied Research Group, Toronto, ON.
- **Sokolowski, H. M.** (2021, September) Academic Scholarship Writing Workshop. Invited speaker in a Rotman Training Center Workshop, North York, ON.
- **Sokolowski, H. M.** (2021, April) Career Trajectories. Invited speaker in a Rotman Research Institute Day of Service (DOS) at Lawrence Heights Middle School, Toronto, ON.
- **Sokolowski, H. M.** (2021, March) Academic Careers Panel. Invited speaker in a professional development graduate course. University of Toronto, Toronto, ON.
- **Sokolowski, H. M.** (2020, April) Cognitive factors and their relationships to success in STEM professions across gender. Invited talk for trainee Speakeasy and Social. Rotman Research Institute, Baycrest Hospital, Canada.
- **Sokolowski, H. M.** (2020, March) Academic Careers Panel. Invited speaker in a professional development graduate course. University of Toronto, Toronto, ON.
- **Sokolowski, H. M.** (2015, October) Symbolic and nonsymbolic numbers in the brain: A neuroimaging meta-analysis. High School Outreach Talk, London, ON.
- **Sokolowski, H.M.**, Matejko, A. (2012, November) Early development of numeracy skills through technology. Presentation for teachers at London District School Board Professional Development Day.

Academic Service

- Committee Member. Psychological Science Committee. Toronto Metropolitan University (TMU), September 2024-Current, Toronto, ON, Canada
- Committee Member. SONA Pool Committee. Toronto Metropolitan University (TMU), September 2023-2024, Toronto, ON, Canada
- Trainee Representative. Rotman Research Institute (RRI) Graduate Open House, November 2022, Baycrest Hospital, North York, ON, Canada.
- Co-Organizer. Public Speaking Workshop, Rotman Training Center (RTC) at the Rotman Research Institute, December 2022, Baycrest Hospital, North York, ON, Canada.
- Trainee Representative. Rotman Training Center (RTC) Fall Trainee Orientation at the Rotman Research Institute, September 2022, Baycrest Hospital, North York, ON, Canada.
- Organizer. Annual General Meeting (AGM), Rotman Training Center (RTC) at the Rotman Research Institute, February 2022, Baycrest Hospital, North York, ON, Canada.
- Co-organizer. Academic Scholarship Writing Workshop, Rotman Training Center (RTC) at the Rotman Research Institute, September 2021, Baycrest Hospital, North York, ON, Canada.
- Post-Doctoral Fellow Representative for the Rotman Training Center (RTC) Steering Committee at the Rotman Research Institute, April 2020-Present, Baycrest Hospital, North York, ON, Canada.
- Poster Judge at the Rotman Research Institute Virtual Conference on Aging and Brian Health, March 2021, Toronto, ON.
- Co-reviewer of the submitted cognitive posters for the Association for Psychological Science, May 2018, San Francisco, USA.

Co-reviewer of the submitted cognitive posters for the Association for Psychological Science, May 2017, Boston, USA.

- Assistant Conference Organizer of the International Mind, Brain and Education Conference, September 2016, Toronto Ontario.
- Co-Organizer of the Developmental Brown Bag Series 2015/16 in the Department of Developmental Psychology at The University of Western Ontario, Canada.

Invited Ad Hoc Reviewer

Journal of Neuroscience; Memory; Journal of Educational Psychology; Wires Cognitive Science; Neuropsychologia; Developmental Cognitive Neuroscience; Psychonomic Bulletin & Review; Brain Structure and Function; Cognitive, Affective, & Behavioural Neuroscience; PLoS ONE; Journal of Experimental Psychology: Learning, Memory, and Cognition; Mind, Brain & Education; British Journal of Educational Psychology; Frontiers in Psychology; Frontiers for Young Minds (Science Mentor); Language Learning and Development

Other Research Experience

Summer 2014	Reporter for Child and Brain Development program meeting on brain development, cognition and education (London, UK). Canadian Institute for Advanced Research (CIFAR).
Summer 2013	Research Assistant in Maternal Behavioural Neuroscience Laboratory at the University of Toronto Mississauga with Dr. Alison Fleming
Winter 2013	Research Assistant in the Numerical Cognition Laboratory at the University of Western Ontario with Dr. Daniel Ansari
Summer 2012	Research Assistant in Maternal Behavioural Neuroscience Laboratory at the University of Toronto Mississauga with Dr. Alison Fleming
Summer 2011	Research Assistant in Maternal Behavioural Neuroscience Laboratory at the University of Toronto Mississauga with Dr. Alison Fleming
2010-2011	Research Assistant in the Cerebral Systems Laboratory, Department of Physiology and Pharmacology and Department of Psychology at the University of Western Ontario with Dr. S. Lomber
Summer 2010	Research Assistant in the Molecular Neuroscience of Schizophrenia Laboratory at the Center for Addiction and Mental Health, Department of
2009-2010	Psychiatry, Department of Pharmacology, with Dr. Albert Wong Research Assistant in the Insect Cold Tolerance Laboratory, Department of Biology, University of Western Ontario with Dr. Brent Sinclair

Collaborators

International

- Dr. Avishai Henik, Distinguished Professor, Ben-Gurion University of the Negev, Israel
- Dr. Adam Zeman, Full Professor, University of Exeter, UK

• Dr. Tanya Procyshyn, Research Associate, University of Cambridge, UK

- Dr. Hervé Abdi, Full Professor, University of Texas Dallas, USA
- Dr. Markus Hausmann, Full Professor, Durham University, UK
- Dr. Wim Fias, Full Professor, Ghent University, Belgium
- Dr. Ian Lyons, Assistant Professor, Georgetown University, USA
- Dr. Anna Matejko, Assistant Professor, Durham University, UK
- Dr. Eric Wilkey, Assistant Professor, Louisiana State University, USA
- Dr. Tali Leibovich-Raveh, Senior Lecturer, Department of Mathematics Education, Haifa University, Israel
- Dr. Simon Baron-Cohen, Fellow, Trinity College, Cambridge University, UK

National

- Dr. Alison Fleming, Distinguished Professor, University of Toronto Mississauga, Canada
- Dr. Zachary Hawes, Assistant Professor, University of Toronto (OISE), Canada
- Dr. Rebecca Merkley, Assistant Professor, Carleton University, Canada
- Dr. James Dankert, Full Professor, University of Waterloo, Canada
- Dr. Ina Anreiter, Assistant Professor, University of Toronto Scarborough, Canada
- Dr. Stephanie Bugden, Assistant Professor, University of Winnipeg Manitoba, Canada
- Dr. Ju-Chi Yu, Post-doctoral Fellow, Center for Addiction and Mental Health, CAMH

Academic Referees

Name: Daniel Ansari, M.Sc., Ph.D.

Job Title: Full Professor, Canada Research Chair (Tier I), Jacobs Foundation Fellow Institution: Brain and Mind Institute, Department of Psychology & Faculty of Education,

University of Western Ontario

Phone Number: (519)-661-2111 Ext. 80548
Email: daniel.ansari@uwo.ca
Relationship: Ph.D. and M.Sc. Advisor

Name: Brian Levine, Ph.D., C.Psych, ABPP-cn

Job Title: Senior Scientist, Full Professor

Institution: Rotman Research Institute at Baycrest Hospital & University of Toronto

Phone Number: (416) 785-2500 x.3593

Email: <u>blevine@research.baycrest.org</u>

Relationship: Post-Doctoral Advisor

Name: Alison Fleming, Ph.D., FRSC

Job Title: Distinguished Professor of Psychology

Institution: University of Toronto at Mississauga (TUM)

Phone Number: 905-828-3961

Email: alison.fleming@utoronto.ca
Relationship: Undergraduate Advisor

Name: Avishai Henik, Ph.D.

Job Title: Distinguished Professor of Psychology Institution: Ben-Gurion University of the Negev

Phone Number: (08)-647-2677 Email: henik@bgu.ac.il

Relationship: Senior Scientist and arm's length mentor