

Tanya M. Evans, Ph.D.

Curriculum Vitae

10/2024

University of Virginia
School of Education and Human Development
Center for Healthy Brain Development
Center for Advanced Study of Teaching and Learning
Ridley Hall 126, 405 Emmet Street South
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Charlottesville, VA 22904
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EDUCATION

Ph.D., Neuroscience, 2013

Georgetown University, Washington, D.C.

Dissertation: *The brain basis of arithmetic, reading and reading disability*

B.S., Chemical Engineering, 2003

Lehigh University, Bethlehem, PA

PROFESSIONAL APPOINTMENTS

2024 – present	Associate Professor Department of Education Leadership, Foundations and Policy School of Education and Human Development University of Virginia
2022 – present	Co-Director Center for Healthy Brain Development University of Virginia
2022 – present	Department of Neurology Faculty (by courtesy) School of Medicine University of Virginia
2019 – present	Department of Psychology Faculty (by courtesy) School of Arts & Sciences University of Virginia
2017 – 2024	Assistant Professor Center for Advanced Study of Teaching and Learning School of Education and Human Development University of Virginia

2013 – 2017 Postdoctoral Fellow
Stanford University School of Medicine
Child and Adolescent Psychiatry

PUBLICATIONS

Evans, T.M., Lipscomb, D.W.**, Earle, F.S., Del Tufo, S.N., Lum, J.A.G., Ullman, M.T.*, & Cutting, L.E.* (2024). Declarative memory supports children’s math skills: a longitudinal study. *PLOS ONE*. *equal contributions doi: [10.1371/journal.pone.0304211](https://doi.org/10.1371/journal.pone.0304211)

Marzoratti, A.**, **Evans, T.M.** (2024). Why and how to collect representative study samples in educational neuroscience research. *Trends in Neuroscience and Education*, 35. doi: [10.1016/j.tine.2024.100231](https://doi.org/10.1016/j.tine.2024.100231)

Grissmer, D., Buddin, R., Berends, M., Willingham, D., DeCoster, J., Duran, C., Hulleman, C., Murrah, W., **Evans, T.** (2024). How building knowledge boosts literacy and learning. *Education Next*, 24(2).

Hao, L., Zhou, Y., Chen, X., Qiu, J., Luo, W., Zhuang, L., Xu, J., Chen, M., Wang, Y., Luo, J., Tan, S., Gao, J., He, Y., **Evans, T.M.**, Fan, J., Tao, S., Dong, Q., & Qin, S. (2024). Neural specialization with generalizable representations underlies children’s cognitive development of attention. *American Psychologist*. doi: [10.1037/amp0001283](https://doi.org/10.1037/amp0001283)

Snetkov, G.**, Youngkin, A.**, Liu, M.**, Marzoratti, A.**, **Evans, T.M.** (2023). Anxiety as a predictor of movement during a math task in elementary school children. *American Journal of Undergraduate Research*. doi: [10.33697/ajur.2023.098](https://doi.org/10.33697/ajur.2023.098)

Marzoratti, A.**, Liu, M.**, Krol, K., Sjobeck, G., Lipscomb, D.**, Hofkens, T.L., Boker, S.M., Pelphrey, K., Connelly, J., **Evans, T.M.** (2023). Epigenetic modification of the oxytocin receptor gene is associated with child-parent neural synchrony during competition. *Developmental Cognitive Neuroscience*. doi: [10.1016/j.dcn.2023.101302](https://doi.org/10.1016/j.dcn.2023.101302)

Grissmer, D., Buddin, R., Berends, M., Willingham, D., DeCoster, J., Duran, C., Hulleman, C., Murrah, W., **Evans, T.** (2023). A kindergarten lottery evaluation of core knowledge charter schools: should building general knowledge have a central role in educational and social science research and policy? *Ed Working Papers*. doi: [10.26300/nsbq-hb21](https://doi.org/10.26300/nsbq-hb21)

Jirout, J., Eisen, S., Robertson, Z., **Evans, T.M.** (2022). Mother-child synchrony is high across child executive function levels for both physical and digital spatial play. *Trends in Neuroscience and Education*. doi: [10.1016/j.tine.2022.100183](https://doi.org/10.1016/j.tine.2022.100183)

Marzoratti, A.**, **Evans, T.M.** (2022). Measurement of interpersonal physiological synchrony in dyads: A review of timing parameters used in the literature. *Cognitive, Affective, & Behavioral Neuroscience*. doi: [10.3758/s13415-022-01011-1](https://doi.org/10.3758/s13415-022-01011-1)

Janacsek, K., **Evans, T.M.**, Kiss, M., Shah, L.**, Blumenfeld, H., & Ullman, M.T. (2022). Subcortical cognition: the fruit below the rind. *Annual Review of Neuroscience*. doi: [10.1146/annurev-neuro-110920-013544](https://doi.org/10.1146/annurev-neuro-110920-013544)

- Xiong, B., Chen, C., Tian, Y., Zhang, S., Liu, C., **Evans**, T.M., Fernández, G., Wu, J., & Qin, S. (2021). Brain preparedness: The proactive role of the cortisol awakening response. *Prog. Neurobiol.* 102127. doi: [10.1016/j.pneurobio.2021.102127](https://doi.org/10.1016/j.pneurobio.2021.102127)
- Lampi, A.J., Jaswal, V.K., & **Evans**, T.M. (2021). How closely related are parent and child reports of child alexithymia? *Frontiers in Psychology*. doi: [10.3389/fpsyg.2020.588001](https://doi.org/10.3389/fpsyg.2020.588001)
- Earle, F.S., Del Tufo, S.N., **Evans**, T.M., Lum, J.A.G., Cutting, L.E.*, & Ullman, M.T.* (2020). Domain-general learning and memory substrates of reading acquisition. *Mind, Brain and Education*. *equal contributions doi: [10.1111/mbe.12234](https://doi.org/10.1111/mbe.12234)
- Jirout, J., LoCasale-Crouch, J., Turnbull, K., Gu, Y., Cubides, M., Garziona, S., **Evans**, T.M., Weltman, A., & Kranz, S. (2019). How lifestyle factors affect cognitive and executive function and the ability to learn in children. *Nutrients*, 11(8), 1953. doi: [10.3390/nu11081953](https://doi.org/10.3390/nu11081953)
- Krafnick, A.J. & **Evans**, T.M. (2019). Neurobiological sex differences in developmental dyslexia. *Frontiers in Psychology*, 219(3), 1041–1054. doi: [10.3389/fpsyg.2018.02669](https://doi.org/10.3389/fpsyg.2018.02669)
- Skeide, M.A., **Evans**, T.M., Mei, E.Z.**, Abrams, D.A., & Menon, V. (2018). Neural signatures of co-occurring reading and mathematical deficits. *Developmental Science*, e12680. doi: [10.1111/desc.12680](https://doi.org/10.1111/desc.12680)
- Botham, C.M., **Evans**, T.M. (2018). How to design a winning fellowship proposal. *Nature Careers*. doi: [10.1038/d41586-018-07297-x](https://doi.org/10.1038/d41586-018-07297-x)
- Battista, C.*, **Evans**, T.M.*, Ngoon, T.J.**, Chen, T., Chen, L., Kochalka, J., & Menon, V. (2018). Mechanisms of interactive specialization and emergence of functional brain circuits supporting cognitive development in children. *Nature Partner Journals: Science of Learning*, 3(1). doi: [10.1038/s41539-017-0017-2](https://doi.org/10.1038/s41539-017-0017-2) *equal contributions
- Chen, L., Bae, S.R., Battista, C., Qin, S., Chen, T., **Evans**, T.M., & Menon, V. (2018). Positive attitude toward math supports early academic success: behavioral evidence and neurocognitive mechanisms. *Psychological Science*. doi: [10.1177/0956797617735528](https://doi.org/10.1177/0956797617735528)
- Evans**, T.M., Flowers, D.L., Luetje, M.M., Napoliello, E., & Eden, G.F. (2016). Functional neuroanatomy of arithmetic and word reading and its relationship to age. *NeuroImage*, 143, 304–315. doi: [10.1016/j.neuroimage.2016.08.048](https://doi.org/10.1016/j.neuroimage.2016.08.048)
- Evans**, T.M. & Ullman, M.T. (2016). An extension of the procedural deficit hypothesis from developmental language disorders to mathematical disability. *Frontiers in Psychology*, 7, 1318. doi: [10.3389/fpsyg.2016.01318](https://doi.org/10.3389/fpsyg.2016.01318)
- Jolles, D.*, Ashkenazi, S.*, Kochalka, J., **Evans**, T.M., Richardson, J., Rosenberg-Lee, M., Zhao, H., Supekar S., Chen, T., & Menon, V. (2016). Parietal hyper-connectivity, aberrant brain organization, and circuit-based biomarkers in children with mathematical disabilities. *Developmental Science*, 19(4), 613–631. doi: [10.1111/desc.12399](https://doi.org/10.1111/desc.12399) *equal contributions

Evans, T.M., Kochalka, J., Ngoon, T.J.**, Wu, S.S., Qin, S., Battista, C., & Menon, V. (2015). Brain structural integrity and intrinsic functional connectivity forecast 6 year longitudinal growth in children's numerical abilities. *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience*, 35(33), 11743–11750. doi: [10.1523/JNEUROSCI.0216-15.2015](https://doi.org/10.1523/JNEUROSCI.0216-15.2015)

Eden, G.F., Olulade, O.A., **Evans, T.M.**, Krafnick, A.J., & Alkire, D.R. (2015). Imaging studies of reading and reading disability. In A. W. Toga (Ed.), *Brain Mapping* (pp. 571–578). Academic Press. doi: [10.1016/B978-0-12-397025-1.00065-8](https://doi.org/10.1016/B978-0-12-397025-1.00065-8)

Eden, G.F., Olulade, O.A., **Evans, T.M.**, Krafnick, A.J., & Alkire, D.R. (2015). Developmental dyslexia. In G. Hickok & S. L. Small (Eds.), *The Neurobiology of Language* (pp. 815-822). Academic Press. doi: [10.1016/B978-0-12-407794-2.00065-1](https://doi.org/10.1016/B978-0-12-407794-2.00065-1)

Evans, T.M., Flowers, D.L., Napoliello, E.M., Olulade, O.A., & Eden, G.F. (2014). The functional anatomy of single-digit arithmetic in children with developmental dyslexia. *NeuroImage*, 101, 644–652. Academic Press. doi: [10.1016/j.neuroimage.2014.07.028](https://doi.org/10.1016/j.neuroimage.2014.07.028)

Evans, T.M., Flowers, D.L., Napoliello, E.M., & Eden, G.F. (2014). Sex-specific gray matter volume differences in females with developmental dyslexia. *Brain Structure & Function*, 219(3), 1041–1054. doi: [10.1007/s00429-013-0552-4](https://doi.org/10.1007/s00429-013-0552-4)

Ullrich, L., Dumanis, S.B., **Evans, T.M.**, Jeannotte, A.M., Leonard, C., Rozzi, S.J., Taylor, C.M., Gale, K., Kanwal, J. S., Maguire-Zeiss, K.A., Wolfe, B.B., & Forcelli, P.A. (2014). From student to steward: the Interdisciplinary Program in Neuroscience at Georgetown University as a case study in professional development during doctoral training. *Medical Education Online*, 19, 22623. doi: [10.3402/meo.v19.22623](https://doi.org/10.3402/meo.v19.22623)

**mentee co-author

MANUSCRIPTS UNDER REVIEW

Youngkin, A.**

, Snetkov, G.**, Grady, C.**, Puglia, M., Frazier, K., Pelphrey, K., Fairchild, K., Goodkin, H., **Evans, T.M.** (in revision) Neural correlates of executive functioning in preterm children and adults and school readiness: An ALE meta-analysis.

Fioriti, C.M.

, Pizzie, R.G., **Evans, T.M.**, Green, A.E., Lyons, I.M. (in revision). Math anxiety and math learning: evidence for impaired procedural memory and enhanced declarative memory.

Shah, L.**

, Marzoratti, A.**, Hofkens, T.L., Nevill, R., Pianta, R.C., Pelphrey, K.A., Krafnick, A.J., **Evans, T.M.** (under review). Child-parent behavioral attunement shows opposite relationships with language comprehension skill and autistic symptom severity.

Youngkin A.**

, **Evans, T.M.**, Conner, C., Shea, K., Axeen, E.T., Solari, E., Goodkin, H.P. (under review). Reading risk in SeLECTs: leveraging longitudinal in-school assessments to understand disease etiology.

Canada, K., **Evans**, T.M., Pelphrey, K. (under review). The microbiome's effect on white matter in autism.

**mentee co-author

RESEARCH FUNDING

Ongoing

- 2022 – 2027 National Institute of Mental Health/
National Institute of Neurological Disorders and Stroke
Autism Center of Excellence Network: Neurodevelopmental Biomarkers of Late
Diagnosis in Female and Gender Diverse Autism
Objective: accelerate identification of adolescents and adults with ASD who have
traditionally been missed or misdirected in the diagnostic process
Role: Co-Investigator
PI: Kevin Pelphrey
R01MH100028
\$12,331,452
- 2020 – 2025 National Institute of Child Health and Human Development
Longitudinal Investigation into Declarative and Procedural Memory Brain
Systems Supporting the Development of Math Skills
Objective: conduct longitudinal fMRI investigation of brain substrates underlying
math, declarative and procedural memory in elementary school children
Role: Principal Investigator
Multi-PI: Ian Lyons
R01HD100429
\$2,983,880

Completed

- 2019 – 2021 Supporting Transformative Autism Research Pilot Award
University of Virginia
Parent-Child Brain Synchrony in Autism Spectrum Disorders
Objective: evaluate dyadic brain synchrony as a potential biomarker for social
engagement in parents and children with autism
Role: Principal Investigator
\$99,424
- 2019 – 2021 National Center for Advancing Translational Sciences
Brain Synchrony in Autism Spectrum Disorders
Objective: train in mobile EEG data acquisition for dyadic experiments
Role: KL2 Scholar Investigator
Mentors: Kevin Pelphrey & Steven Boker
KL2TR003016
\$282,515

- 2018 – 2020 Smith Richardson Foundation
A Kindergarten-Based Lottery Evaluation of Core Knowledge Charter Schools
Objective: evaluate the impact of a core knowledge curriculum on children’s math and reading skills
Role: Co-Investigator
PI: David Grissmer
\$328,728
- 2018 – 2019 3 Cavaliers
University of Virginia
Brain Synchrony During Student-Teacher Interactions
Objective: conduct feasibility testing for subsequent in-classroom mobile EEG work, apply for external funding to fund full study
Role: Co-Principal Investigator
Co-PIs: Robert Pianta, Wynn Legon
\$60,000
- 2017 – 2019 National Science Foundation
Developmental Skills Linked to Math and Science Achievement: An Interdisciplinary Data-Intensive Approach to Identification and Improvement Through Experimental Intervention
Objective: evaluate the impact of a core knowledge curriculum on children’s math and reading skills
Role: Co-Investigator
PI: David Grissmer
\$2,499,248
- 2015 – 2017 Ruth L. Kirschstein National Research Service Award
Neurodevelopmental Basis of Persistent Mathematical Learning Disabilities
National Institute of Child Health and Human Development
Objective: examine the cognitive and neural profile of persistent low math skills from childhood to adolescence
Role: Principal Investigator
Mentor: Vinod Menon
F32HD080367
\$170,166
- 2014 – 2015 Stanford Child Health Research Institute Postdoctoral Fellowship
Neurodevelopmental Basis of Persistent Mathematical Learning Disabilities
Objective: examine the cognitive and neural profile of persistent low math skills from childhood to adolescence
Role: Principal Investigator
\$50,000

AWARDS and HONORS

2022 – 2024	National Institutes of Health Loan Repayment Program Renewal Award
2019 – 2021	Integrated Translational Health Research Institute of Virginia (iTHRIV) KL2 Career Development Award
2017 – 2019	National Institutes of Health Loan Repayment Program Award
2015 – 2017	NIH NRSA Postdoctoral Fellow
2014 – 2015	Children’s Health Research Institute (CHRI) Postdoctoral Fellow, Stanford University
2013	Apprenticeship in Teaching, Georgetown University
2007 – 2009	Graduate Dean’s Pre-thesis Fellow, Georgetown University

INVITED TALKS

Liu, M.**, Marzoratti, A.**, Fuhrmann, E., Nevill, R., Pelphrey, K., Puglia, M., Evans, T.M. (2024, June). *Autism Symptom Severity, Math Skills, and Neural and Behavioral Measures of Social Skills*. Mathematical Cognition and Learning Society, Washington, DC.

Evans, T.M. (2020, October). *School Readiness and Brain Development*. International Max Planck Research School on the Life Course (LIFE) Academy, Berlin, Germany (virtual).

Evans, T.M. (2018, October). *Longitudinal Profiles of Brain Networks Supporting Children’s Academic Skills*. Georgetown University, Department of Psychology, Washington, DC.

Evans, T.M. (2018, October). *Longitudinal Profiles of Brain Networks Supporting Children’s Academic Skills*. University of Delaware, School of Education, Newark, DE.

Evans, T. M. & Grissmer, D. (2018, September). *Domain-General Skills in Education: Psychology, Education and Neuroscience Perspectives*. International Mind, Brain and Education Society, University of Southern California, Los Angeles, CA.

Evans, T. M. & Grissmer, D. (2018, April). *Early Childhood General Knowledge: A Domain-General Mechanism for Long-Term Achievement in Arithmetic and Reading*. Mathematical Cognition and Learning Society, University of Oxford, UK.

Evans, T.M. (2017, August). *A Formula for Success*. Science and Art of Grant Writing Symposium, Stanford University, Palo Alto, CA

Evans, T.M. (2016, February). *Brain Bases of Longitudinal Growth in Math Abilities and Positive Mindset*. Learning and the Brain, San Francisco, CA.

Evans, T.M. (2015, November). *Brain Networks Supporting the Acquisition of Skilled Reading and Arithmetic*. Yale University, Haskins Laboratories, New Haven, CT.

Evans, T.M. (2015, October). *Brain Networks Supporting the Acquisition of Skilled Reading and Arithmetic*. University of Wisconsin, Department of Psychology, Madison, WI.

Evans, T.M. (2015, August). *Brain Networks Supporting the Acquisition of Skilled Reading and Arithmetic*. Johns Hopkins University, CogNeuro Research Lab, Baltimore, MD.

Evans, T.M. (2015, January). *The Learning Brain: Cognitive Neuroscience for the Educational System*. Winter Conference on Brain Research, Big Sky, MT (virtual).

Evans, T.M. (2014, September). *Intact Language Networks Support the Acquisition of Both Skilled Reading and Arithmetic*. University of Oxford Department of Experimental Psychology Seminar, Oxford, UK.

Evans, T.M. (2014, September). *Intact Language Networks Support the Acquisition of Both Skilled Reading and Arithmetic*. Cardiff University Brain Research Imaging Centre, Cardiff, UK.

Evans, T.M. (2013, March). *Common Neural Substrates of Arithmetic and Reading*. Inter-Science of Learning Center Conference, Philadelphia PA.

CONFERENCE ACTIVITY

Lawson, S.M.**, Morrel, J.M.**, Gupta, T.H.**, Krafnick, A.J., **Evans**, T.M. 2024. Familial history of dyslexia is associated with functional brain differences in children: a meta-analysis of fMRI studies. Society for Neuroscience, Chicago, IL.

Lawson, S.M.**, Morrel, J.M.**, Gupta, T.H.**, Krafnick, A.J., **Evans**, T.M. 2024. Children with familial history of dyslexia exhibit functional brain differences: a meta-analysis of fMRI studies. FLUX: The International Society for Integrated Developmental Cognitive Neuroscience.

Liu, M.**, Marzoratti, A.**, Fuhrmann, E., Nevill, R., Pelphrey, K., Puglia, M., **Evans**, T.M. 2024. Child autism symptom severity moderates the association between similarities in child-parent behavior and neural metrics of social cognition. FLUX: The International Society for Integrated Developmental Cognitive Neuroscience, Baltimore, MD.

Marzoratti, A.**, Liu, M.**, Fuhrmann, E., Nevill, R., Pelphrey, K., Puglia, M., **Evans**, T.M. 2024. *Relationships among children's autistic symptom severity, gamma frequency neural entropy, and social behavior with parents*. FLUX: The International Society for Integrated Developmental Cognitive Neuroscience, Baltimore, MD.

Marzoratti, A.**, Youngkin, A.**, Lyons, I.M., Ullman, M.J., **Evans**, T.M. 2024. *Influences of long-term memory systems on individual neural differences in early language processing*. Organization for Human Brain Mapping, Seoul, Korea.

Marzoratti, A.**, Youngkin, A.**, Lyons, I.M., Ullman, M.J., **Evans**, T.M. 2023. *Interrogating individual differences in the neural basis of language processing among elementary-aged children using a multilevel modeling approach*. Society for Neuroscience, Washington, DC.

Marzoratti, A.**, Liu, M.E.**, Sjobeck, G.A., Krol, K.M., Hofkens, T.L., Boker, S.R., Connelly, J.J., **Evans**, T.M. 2023. *Links between children's math-related attitudes and performance and neural and epigenetic markers of their social processing capacity*. FLUX: The International Society for

Integrated Developmental Cognitive Neuroscience, Santa Rosa, CA.

Maquera, E., Marzoratti, A.** , Fuhrmann, E., Nevill, R., Liu, M.E.** , Hofkens, T.L., Boker, S.R., Pelphrey, K.A., **Evans**, T.M. 2023. *The differences in performance, anxiety and EEG activity in children with and without autism during mathematics*. FLUX: The International Society for Integrated Developmental Cognitive Neuroscience, Santa Rosa, CA.

Fuhrmann, E., Nevill, R., Maquera, E., Marzoratti, A.** , Liu, M.E.** , Sjobeck, G.R., Hofkens, T.L., Boker, S.R., Pelphrey, K.A., **Evans**, T.M. 2023. *Exploring differences between movement and math performance in timed and untimed math tasks and its relationship with anxiety*. FLUX: The International Society for Integrated Developmental Cognitive Neuroscience, Santa Rosa, CA.

Nevill, R., Maquera, E., Fuhrmann, E., Marzoratti, A.** , Liu, M.E.** , Sjobeck, G.R., Hofkens, T.L., Boker, S.R., Pelphrey, K.A., **Evans**, T.M. 2023. *The relationship between autism symptom severity, anxiety, and stimming as a coping mechanism during a socially-mediated math activity*. FLUX: The International Society for Integrated Developmental Cognitive Neuroscience, Santa Rosa, CA.

Shah, L.** , Marzoratti, A.** , Sjobeck, G., Boker, S., Krafnick, A., **Evans**, T.M. 2023. *Parent-child neural synchrony differentially predicts aspects of children's literacy*. Organization for Human Brain Mapping, Montreal, Canada.

Marzoratti, A.** , Sjobeck, G., Lampi, A., Boker, S., Pelphrey, K., **Evans**, T.M. 2023. *Parent-child neural synchrony predicts child socioemotional behavior in autism spectrum disorder*. Organization for Human Brain Mapping, Montreal, Canada.

Marzoratti, A.** , Sjobeck, G., Boker, S., **Evans**, T.M. 2023. *Effects of differing degrees of direct parental support during arithmetic problem solving on children's performance*. Mathematical Cognition and Learning Society, Loughborough, U.K.

Liu, M.** , Marzoratti, A**., Krol, K., Sjobeck, G., Boker, S., Connelly, J., Pelphrey, K. **Evans**, T.M. 2023. *Methylation of the parental oxytocin receptor gene is associated with parent-child neural synchrony during gameplay*. Association for Psychological Science, Washington, D.C.

Ullman, M.T., **Evans**, T.M., Kiss, M., Shah, L.** , Blumenfeld, H., Janacsek, K. 2022. *Subcortical contributions to language: the fruit below the rind*. Society for the Neurobiology of Language, Philadelphia, PA.

Marzoratti, A.** , Sjobeck, G.R., **Evans**, T.M. 2022. *Examining the mechanisms for the effects of parent-child neural synchrony during child mathematical processing*. Organization for Human Brain Mapping, Glasgow, Scotland, U.K.

Marzoratti, A.** , Sjobeck, G.R., **Evans**, T.M. 2022. *Characterizing the associations between parent-child neural synchrony and child math processing*. Mathematical Cognition and Learning Society, Antwerp, Belgium.

- Jordan, R., Sukhodolsky, D.G., Wolff, J., **Evans**, T.M., Pelphrey, K., Eilbott, J. 2022. *Task-based functional connectivity predicts language ability of autistic and typically-developing adolescents using connectome-based predictive modeling*. International Society for Autism Research, Austin, TX (virtual).
- Morrel, J.**, Krafnick, A., J., **Evans**, T.M. 2021. *Functional brain differences due to familial history of dyslexia: a meta-analysis*. Society for Neuroscience, Chicago, IL (virtual).
- Xia, R.**, Chen, R.**, Stockwell, K.M., Hofkens, T., **Evans**, T.M. 2020. *Characterizing social interaction via dyadic hyperscanning techniques*. Cognitive Neuroscience Society, Boston, MA (virtual).
- Lampi, A.J., Shah, L.**, Jaswal, V.K., **Evans**, T.M. 2019. *Educating about Neurodiversity: Incorporating Autistic Perspectives into the Classroom*. Society for Neuroscience, Chicago, IL.
- Krafnick, A.J., & **Evans**, T.M. 2019. *Sex and DYX1C1 genotype effects on pediatric cortical thickness and surface area*. Organization for Human Brain Mapping, Rome, Italy.
- Ullman, M.T., **Evans**, T.M., Shah, L.**, Kiss, M., Blumenfeld, H., Janacsek, K. 2018. *The fruit below the rind: The importance of subcortical structures in cognition*. Cognitive Neuroscience Society, San Francisco, CA.
- Grissmer, D.W., & **Evans**, T.M. 2018. *Early childhood general knowledge: A domain-general mechanism for long-term achievement in arithmetic and reading*. EARLI Special Interest Group (SIG) 22: Neuroscience and Education, London, UK.
- Mei, E.Z.**, **Evans**, T.M., Skeide, M.A., Kochalka, J., Chen, L., Beidelman, M., Schaer, M., Menon, V. 2018. *Reading ability modulates the brain network of children with mathematical difficulties*. EARLI Special Interest Group (SIG) 22: Neuroscience and Education, London, UK.
- Abrams, D.A., Kochalka, J., Chen, T., Bhide, S., **Evans**, T.M., Ryali, S., & Menon, V. 2017. *Intrinsic functional architecture of Wernicke's, Broca's, and Geschwind's areas of the human speech network*. Organization for Human Brain Mapping, Vancouver, BC, Canada.
- Evans**, T.M., & Ullman, M.T. 2017. *An extension of the procedural deficit hypothesis from developmental language disorders to mathematical disability*. Cognitive Neuroscience Society, San Francisco, CA.
- Evans**, T.M., Abrams, D.A., Kochalka, J., Chen, L., Kaushal, S.**, Battista, C., & Menon, V. 2016. *Multiple cognitive networks anchored in the visual word form area*. Organization for Human Brain Mapping, Geneva, Switzerland.
- Evans**, T.M.*, Schaer, M.*, Kochalka, J., Ngoon, T.J.**, Chen, L., Battista, C., & Menon, V. 2015. *Cortical maturation accompanying individual differences in longitudinal development of children's reading ability*. Neurobiology of Language, Chicago, IL. *equal contributions
- Battista, C., Ngoon, T.J.**, Chen, T., Chen, L., Baker, A., Kochalka, J., **Evans**, T.M., & Menon, V. 2015. *Interactive specialization and the development of functional systems supporting complex cognitive skills in children*. Society for Neuroscience, Chicago, IL.

Bae, S., Schaer, M., Beidelman, M., **Evans**, T.M., Zeineh, M., Battista, C., & Menon, V. 2015. *Dorsal damage - ventral compensation: A longitudinal case study examining structural reorganization of left superior temporal and bilateral fusiform gyri induced by perinatal infarct in occipito-parietal cortex*. Society for Neuroscience, Chicago, IL.

Chen, L., Bae, S., Battista, C., **Evans**, T.M., & Menon, V. 2015. *Behavioral and neurobiological correlates of positive mindset in children*. Society for Neuroscience, Chicago, IL.

Bae, S., Schaer, M., Beidelman, M., **Evans**, T. M., Zeineh, M., Battista, C., & Menon, V. 2015. *Dorsal damage - ventral compensation: structural reorganization of left superior temporal and bilateral fusiform gyri induced by perinatal infarct in occipito-parietal cortex*. International Conference on Pediatric Acquired Brain Injury, Liverpool, U.K.

Evans, T.M.*, Schaer, M.*, Kochalka, J., Ngoon, T.J.**, Mei, E.Z.**, Menon, A.**, Sarukkai, M.**, Beidelman, M., Battista, C., & Menon, V. 2015. *Cortical maturation accompanying individual differences in longitudinal development of children's mathematical ability*. Organization for Human Brain Mapping, Honolulu, Hawaii. *equal contributions

Battista, C., Ngoon, T.J.**, Chen, T., Chen, L., Kochalka, J., **Evans**, T.M., & Menon, V. 2015. *Emerging brain systems supporting cognition: A longitudinal study of mental arithmetic*. Organization for Human Brain Mapping, Honolulu, Hawaii.

Chen, L., Bae, S., Battista, C., **Evans**, T.M., & Menon, V. 2015. *When good meets bad: The neural correlates of positive attitude and anxiety towards math in young children*. Organization for Human Brain Mapping, Honolulu, Hawaii.

Evans, T.M., Kochalka, J., Ngoon, T.J.**, Qin, S., Battista, C., & Menon, V. 2014. *Predicting longitudinal gains in math skills with brain structure and intrinsic connectivity*. Society for Neuroscience, Washington, D.C.

Battista, C., **Evans**, T.M., Ngoon, T.J.**, Chen, T., & Menon, V. 2014. *Six-year longitudinal growth-curve modeling of functional brain changes during problem solving in children*. Society for Neuroscience, Washington, D.C.

Evans, T.M., Kochalka, J., Vellanki, N.**, Ngoon, T.J.**, Battista, C., & Menon, V. 2014. *Intrinsic connectivity to the visual word form area and the putative visual number form area*. Society for the Neurobiology of Language, Amsterdam, The Netherlands.

Evans, T.M., Olulade, O.A., Koo, D.S., & Eden, G.F. 2012. *Effects of sensory and signed language experience on the neural basis of visual motion processing*. Society for Neuroscience, New Orleans, LA.

Forcelli, P.A., Connor, T., Dumanis, S.B., **Evans**, T.M., Krafnick, A. J., Smirnov, M., Ullrich, L., & Gale, K. 2012. *Teaching as a "Want-To" Rather Than a "Have-To."* Society for Neuroscience, New Orleans, LA.

Evans, T.M., Ingala, E., Flowers, D.L., & Eden, G.F. 2012. *Common neural substrates of reading and arithmetic*. Organization for Human Brain Mapping, Beijing, China.

Evans, T.M., Flowers, D.L., Napoliello, E.M., Einbinder, E., & Eden G.F. 2011. *Developmental changes underlying calculation: an fMRI study*. Society for Neuroscience, Washington, D.C.

Evans, T.M., Flowers, D.L., Luetje, M., Napoliello, E.M., & Eden, G.F. 2011. *Operation specific-development of arithmetic processing and its relationship to word reading*. Neurobiology of Language, Annapolis, MD.

Gerner, T.M., Brar, J., Kalbfleisch, M.L., & Vanmeter, J.W. 2009. *Classification of subtypes in a pediatric sample with autism spectrum disorders*. Organization for Human Brain Mapping, San Francisco, CA.

Gerner, T.M., Wall, A.E., Napoliello, E.M., Flowers, D.L., & Eden, G.F. 2008. *The anatomical profile of dyslexic females: a voxel-based morphometry study*. Society for Neuroscience, Washington, D.C.

**mentee co-author

NEWS and MEDIA

“Brain Science is Data Science,” *UVA Data Points: A Data Science Podcast*, May 30, 2023.

“Dramatic New Evidence That Building Knowledge Can Boost Comprehension and Close Gaps,” *Forbes*, April 9, 2023.

“Looking Into the Brain to Help Understand Math Learning and Memory,” *CBS19 News*, May 4, 2021.

“Study: What Brain Scans Reveal About Learning Math,” Laura Hoxworth, *UVA Today*, May 4, 2021.

“iTHRIV Scholar Spotlight: Tanya Evans, 2019 Cohort,” Keith Jones, *integrated Translational Health Research Institute of Virginia Newsletter*, Fall 2020.

“Q&A: Predicting Academic Outcomes: Neuroimaging Provides Novel Insights,” Meeri Kim, *Blog on Learning & Development*, November 2018.

“Q&A: What Can the Brain Teach Us About How Children Learn?” Laura Hoxworth, *UVA Today*, March 7, 2018.

“Math and Dyslexia,” interviewed by Dr. Fernet Eide, co-founder of *Dyslexia Advantage* charitable organization, October 31, 2016.

“Struggled in Algebra Class? You May Have a ‘Math Disability,’” interviewed on WNYC Public Radio International’s program *The Takeaway* with John Hockenberry, October 5, 2016.

“Math Difficulties May Reflect Problems in a Crucial Learning System in the Brain,” *Science Daily*, September 15, 2016.

“This is Your Brain on Math,” Kevin Hartnett, *Boston Globe*, September 17, 2015.

“Brain Scans May Predict Math Gains in Children, Study Finds,” Maggie Fox, *NBC News*, August 18, 2015.

“Dyslexic Brain May Solve Some Math Problems in a Roundabout Way,” Laura Sanders, *Science News*, September 23, 2014.

“Brain Anatomy of Dyslexia is Not the Same in Men and Women, Boys and Girls,” *Science Daily*, May 8, 2013.

TEACHING and MENTORING

University of Virginia

School of Education & Human Development

Teaching

Fall 2024

Educational Psychology (graduate students)

Spring 2024

Education and Neuroscience (undergraduate and graduate students)

Ad hoc lectures

2023

Introduction to Child Growth and Development, “Parenting & Socialization” (undergraduate students)

2021

Cognitive Psychology and Education, “Neuroscience in Education” (undergraduate and graduate students)

2020

Cognitive Psychology and Education, “Technology & Learning: Mobile EEG Demo” (undergraduate and graduate students)

2018 – 2019

Neurodevelopmental Disorders, “Co-morbid Learning Disabilities in Reading and Mathematics” (undergraduate students)

Mentoring

Graduate Students

2024 – present

Mentor, Yixin Ding (master’s student, Educational Psychology – Applied Developmental Science)

2023 – present

Co-Mentor, Katherine Canada (Ph.D. student, Neuroscience)

2023 – 2024

Mentor, Laura Janssen (master’s student, Educational Psychology – Applied Developmental Science)

2021 – present

Mentor, Analia Marzoratti (Ph.D. student, Educational Psychology – Applied Developmental Science)

2019 – 2020

Mentor, Ruohan Xia (master’s student, Educational Psychology – Applied Developmental Science)

2018 – 2020

Mentor, Runzhi Chen (master’s student, Educational Psychology – Applied Developmental Science)

Undergraduate Students

2024 – present

Mentor, Clariann Sanchez

2024 – present

Mentor, Will Rousseau

2024 – present

Mentor, Christiana Ogbolu

2024 – present

Mentor, Grace Flynn

Tanya M. Evans, Ph.D.

2024 – present	Mentor, Alexandria Stein (Behavioral Neuroscience)
2024 – present	Mentor, Edric Han (Biology)
2024 – present	Mentor, Chandler Tribble (Interdisciplinary)
2024 – present	Mentor, Madeline King (Biology)
2024 – present	Mentor, Caden Cleffi (Neuroscience)
2023 – present	Mentor, Emily Kiser (Behavioral Neuroscience)
2023 – present	Mentor, Tanvee Gupta (Neuroscience)
2023 – present	Mentor, Jack Hill (Neuroscience)
2023 – present	Mentor, Geoffrey Lawrence (Neuroscience)
2022 – present	Mentor, Elyse Lanquaye (Neuroscience)
2022 – present	Mentor, Mia Tan (Neuroscience/Statistics)
2022 – present	Mentor, Songy Choi (Biology)
2022 – 2024	Mentor, Emma Diehl (Cognitive Science)
2022 – present	Mentor, Gabby Snetkov (Neuroscience)
2022 – 2024	Mentor, Gavin Ryno (Neuroscience)
2022 – 2023	Mentor, Sarah Song (Neuroscience/Music)
2022 – 2023	Mentor, Raj Joshi (Biology/Pre-Med)
2022 – 2023	Mentor, Isabelle Meeks (Biology/Computer Science)
2021 – 2024	Mentor, Nathan Geng (Neuroscience)
2021 – present	Mentor, Ava Hogan (Neuroscience)
2021 – 2024	Mentor, Lucas Huynh (Neuroscience)
2021 – 2024	Mentor, Renee Pen (Biology)
2021 – 2023	Mentor, Cara Grady (Biology)
2021 – 2022	Mentor, Christina Cucolo (Chemistry)
2020 – 2022	Mentor, Jessica Morrel (Psychology)
2019 – 2023	Mentor, Megan Liu (Neuroscience)
2019 – 2022	Mentor, Y-Minh Nguyen (Kinesiology)
2019 – 2020	Mentor, Sarah Paquette (Kinesiology)
2018 – 2021	Mentor, Leela Shah (Echols Interdisciplinary Major – Developmental Cognitive Neuroscience)

Staff

2023 – present	Co-Mentor, Sophie Lawson (research assistant)
2022 – 2024	Co-Mentor, Anna Youngkin (research assistant)
2020 – present	Mentor, Anna Ballantyne (lab manager)
2018 – 2021	Co-Mentor, Daniel Lipscomb (research assistant)

Committee Membership

2023 – present	Comprehensives and Dissertation Committee Member, Katherine Canada (Ph.D. student, Neuroscience)
2023 – present	Comprehensives and Dissertation Committee Member, Kenn Dela Cruz (Ph.D. student, Developmental Psychology)
2023	Dissertation Committee Member, Adam Fenton (Ph.D. student, Cognitive Psychology)
2022 – present	Dissertation Committee Member, Johanna Chajes (Ph.D. student, Developmental Psychology)
2021	Dissertation Committee Member, Sara Medina-DeVilliers (Ph.D. student, Clinical

	Psychology)
2020 – 2022	Comprehensives and Dissertation Committee Member, Ian Becker (Ph.D. student, Developmental Psychology)
2020 – 2022	Dissertation Committee Member, Nauder Namaky (Ph.D. student, Clinical Psychology)
2020 – 2022	Dissertation Committee Member, Gus Sjobeck (Ph.D. student, Quantitative Psychology)
2020	Dissertation Committee Member, Robert Moulder (Ph.D. student, Quantitative Psychology)

Stanford University
Child & Adolescent Psychiatry

Teaching

2015	Senior Instructor, Grant Writing Academy, Writing Compelling Fellowships and Career Development Awards (graduate students and postdoctoral fellows)
2014	Instructor, Grant Writing Academy, Writing Compelling Fellowships and Career Development Awards (graduate students and postdoctoral fellows)

Ad hoc lectures

2015	Brain Training: Hype or Help? “Developmental Dyslexia: Neuroanatomy, Training and Co-morbidity” (undergraduate students)
2013	Mathematical Cognition, “Cognitive Neuroscience of Numerical Abilities” (undergraduate students)

Mentoring

Students

2015 – 2018	Mentor, Edward Mei (undergraduate student)
2015	Co-Mentor, Adi Menon (high school student)
2014 – 2016	Co-Mentor, Mayuka Sarukkai (undergraduate student)
2014	Co-Mentor, Mounika Narayanan (high school student)
2014	Mentor, Neha Vellanki (undergraduate student)
2014	Co-Mentor, Samantha Hoffman (undergraduate student)

Staff

2016 – 2017	Co-Mentor, Julia Kang (research assistant)
2015 – 2016	Co-Mentor, Shivani Kaushal (research assistant)
2013 – 2015	Co-Mentor, Tricia Ngoon (research assistant)

Georgetown University
Interdisciplinary Program in Neuroscience

Teaching

2009 – 2013	Course Coordinator, Introduction to Cognitive Science (undergraduate students)
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Ad hoc lectures

2013 – 2015	Introduction to Cognitive Science, “Numerical Cognition and Dyscalculia” (undergraduate students)
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Tanya M. Evans, Ph.D.

2009 – 2013	Systems & Cognitive Neuroscience, “Human Cognition Lab” (graduate students)
2012	Drugs, Brain & Behavior, “Executive Function” (undergraduate students)
2010 – 2012	Introduction to Cognitive Science, “Neuroanatomy and Neural Circuits” (undergraduate students)
2009 – 2012	Neuroscience Summer Course, “Neuroanatomy Laboratory” (graduate students)
2009	Diseases/Disorders of the Brain, “Developmental Language Disorders” Graduate Student Directed Course (undergraduate students)

K-12 Teaching

2006 – 2007	Substitute Instructor, Kelly Educational Staffing (K-12 students)
2005 – 2006	Private Tutor, Self Employed (K-12 students)
2005	Classroom and Private Tutor, Kaplan Test Prep (high school students)

SERVICE TO PROFESSION

2024, October	Reviewer, National Institute of Child Health and Human Development, Child Psychopathology and Developmental Disabilities Study Section
2024, June	Reviewer, National Institute of Child Health and Human Development, Child Psychopathology and Developmental Disabilities Study Section
2023	Reviewer, National Institute of Child Health and Human Development, Complex Mental Function Study Section
2022, October	Reviewer, National Institute of Child Health and Human Development, Biobehavioral and Behavioral Sciences Study Section
2022, March	Reviewer, National Institute of Child Health and Human Development, Biobehavioral and Behavioral Sciences Study Section
2022	Reviewer, National Institute of Child Health and Human Development, Special Emphasis Panel: Learning Disabilities Innovation Hubs Reissue
2021	Reviewer, National Institute of Child Health and Human Development, Human Complex Mental Function Study Section
2020	Reviewer, Israel Science Foundation
2019	Reviewer, integrated Translational Health Research Institute of Virginia (iTHRIV) Community Seed Grant Program
2019	Ad hoc reviewer, National Science Foundation
2015	Invited Workshop Participant, Science of Learning: Integration and Synthesis, National Science Foundation, Arlington, VA
2013	Invited Workshop Participant, Science of Learning: Prospects, National Science Foundation, National Science Foundation, Arlington, VA
2011 – 2012	Chair, Student Grant Review Committee, National Science Foundation Visual Language Visual Learning Science of Learning Center

UNIVERSITY SERVICE

University of Virginia

2024	Member, Search Committee, Neuroscience & Exercise Faculty Position
2024 – present	Faculty Advisor, Youth and Social Innovations Program
2024 – present	Near-Peer Mentor, Physician Scientist Training Program

Tanya M. Evans, Ph.D.

- 2023 – present Member, Student Advisory Committee, Neuroscience Graduate Program
- 2023 – present Member, Admissions Committee, Neuroscience Graduate Program
- 2022 – present Co-Director, Center for Healthy Brain Development
- 2021 – present Member, iTHRIV (Integrated Translational Health Research Institute of Virginia) Scientific Advisory Board
- 2020 – present Member, Admissions Committee, Educational Psychology – Applied Developmental Science Ph.D. Program

Stanford University

- 2015 – 2016 Member, Stanford University Faculty Senate Committee on Research
- 2014 – 2016 Council Member, Stanford University Postdoctoral Association
- 2014 Planning Committee Member, Stanford University Teaching Academy

Georgetown University

- 2009 – 2013 Program Coordinator, Interdisciplinary Program in Cognitive Science
- 2007 – 2011 Member, Executive Committee, Interdisciplinary Program in Neuroscience
- 2008 – 2010 President, Interdisciplinary Program in Neuroscience Student Organization

COMMUNITY OUTREACH

- 2021 – present Special Education Advisory Committee Representative, Family Council, Albemarle County Public Schools, VA
- 2017 – present Community Representative, Special Education Advisory Committee, Albemarle County, VA
- 2015 Invited Panelist, “A Panel on Developmental Disorders: Identifying and Tackling Children’s Learning Challenges,” Stanford Professional Women, Palo Alto, CA
- 2013 – 2014 Volunteer, Science is Elementary, Mountain View, CA
- 2012 Anatomy Demonstrator, Howard Hughes Pre-college Program, Washington, D.C.
- 2010 – 2012 Judge, Key School Science Fair, Washington, D.C.
- 2007 – 2009 Tutor, EVOL (Education + VOLunteers is a reflection of LOVE), Washington, D.C.

INDUSTRY EXPERIENCE

- 2015 – 2017 Consultant, eCarrot
- 2003 – 2005 Engineer, Akzo Nobel Chemicals Inc., Dobbs Ferry, NY
- 2002 – 2003 Systems Engineer, Diagnostic Products Corporation, Flanders, NJ

AD HOC REVIEWER

- Applied Psycholinguistics*
- Brain and Behavior*
- Brain and Language*
- Cerebral Cortex*
- Child Development*
- Cortex*
- Developmental Cognitive Neuroscience*

Developmental Psychology
European Journal of Neuroscience
Frontiers in Human Neuroscience
Frontiers in Neuroscience
Frontiers in Psychology
Human Brain Mapping
Imaging Neuroscience
Journal of Abnormal Psychology
Journal of Cognitive Education and Psychology
Journal of Experimental Psychology: Learning, Memory and Cognition
Neurobiology of Stress
NeuroImage
Neuropsychologia
Mind, Brain and Education
PLOS ONE
Psychonomic Bulletin and Review
Science Advances
Trends in Neuroscience and Education

PROFESSIONAL MEMBERSHIPS

EARLI Special Interest Group (SIG) 22: Neuroscience and Education
FLUX: The International Society for Integrated Developmental Cognitive Neuroscience
Organization for Human Brain Mapping
The Mathematical Cognition and Learning Society
International Mind, Brain and Education Society
Society for the Neurobiology of Language
Society for Neuroscience