

# Elizabeth S. Norton, Ph.D.

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## CURRENT APPOINTMENTS

### Northwestern University, Evanston, IL

2015-present

**Associate Professor**, Department of Communication Sciences & Disorders

Charles McCormick Deering Professor of Teaching Excellence (2023-present)

Jane Steiner Hoffman and Michael Hoffman Assistant Professor (2015-2022)

Courtesy appointment, Department of Medical Social Sciences, Feinberg School of Medicine

Affiliate, Northwestern University Interdepartmental Neuroscience (NUIN) program

**Principal Investigator**, Language, Education and Reading Neuroscience (LEARN) Lab

**Associate Director for Neurodevelopmental Innovation and Impact**, (2023-present)

**Director**, Neurodevelopmental Core, and **Executive Committee member**, (2016-present)

Northwestern Institute for Innovations in Developmental Sciences (DevSci)

### Massachusetts Institute of Technology, Cambridge, MA

2015-present

**Research Affiliate**, McGovern Institute for Brain Research

## EDUCATION and TRAINING

### Post-Doctoral Fellowship, MIT, Cambridge, MA

2012–2015

McGovern Institute for Brain Research/Department of Brain & Cognitive Sciences

*PI*: John Gabrieli, PhD

*Research areas*: Neural correlates and biomarkers of reading, dyslexia and autism;

MRI and ERP methods for developmental research; rapid automatized naming (RAN)

### Ph.D., Tufts University, Medford, MA

2006–2012

Eliot-Pearson Department of Child Study and Human Development

*Advisor*: Maryanne Wolf, PhD

*Dissertation*: Using Cognitive Neuroscience to Predict Dyslexia in Kindergarten

Children: Toward MRI and EEG Predictors of Reading Disabilities

### A.B. with high honors, Dartmouth College, Hanover, NH

2001–2005

Language and Brain Development (self-designed major)

*Advisor*: Laura-Ann Petitto, PhD

*Honors thesis*: The Spelling Brain: An fMRI Study of Cognitive Processes in Spelling

## RESEARCH GRANTS

### Current Grants as PI/Site PI

NIH – NIDA U01 DA055355 (MPIs Norton & L. Wakschlag)

2021-

9/24- *Healthy Brain and Child Development National Consortium*

2026

NU Site for national HBCD Study

Site Direct Costs: \$4,958,799

NIH – NIDCD R01 DC016273 (MPIs Norton & L. Wakschlag) 2018-  
*The When to Worry about Language Study (W2W-L): Joint consideration of developmental* 2024  
*patterning and neurodevelopmental context for enhancing early identification of language* (NCE)  
*impairment. Original direct costs: \$2,498,151*  
 - 2 diversity supplements for post-baccalaureate research staff  
 - COVID-19 supplement to study the effect of COVID pandemic on participants, 2020-2021  
 Additional direct costs: \$124,737

NIH - NIMH R01 MH123716 (Site PI; Consortium PI R. Knickmeyer, Michigan State) 2021-  
*Genetic influences on infant brain development: Understanding the developmental origins of* 2026  
*mental illness*  
 Site direct costs: \$233,810

Northwestern Memorial Foundation Dixon Translational Research New Investigator Award 2018-  
*Neural biomarkers of language in preterm infants* 2024  
 Direct costs: \$34,851 (NCE)

### **Current Grants as Co-Investigator or Consultant**

NIH – NIMH R01 MH121877 (Co-Investigator; PIs L. Wakschlag, J. Luby, C. Rogers) 2020-  
*Optimizing Prediction of Preschool Psychopathology from Brain: Behavior Markers of Emotion* 2025  
*Dysregulation from Birth: A Computational, Developmental Cognitive Neuroscience Approach*

TALK Initiative late talker research supplement (Lead Co-Investigator) 2023-  
 Direct Costs: \$285,723 2024

### **Grants Under Review/Revision**

NIH - NIAID R03 AI178380 (Co-Investigator; PI L. Mithal, Lurie Children's) 2023-  
*Characterizing the early childhood neurodevelopmental impact of infants exposed to* 2025  
*maternal SARS-CoV-2 infection during pregnancy*

NIH – NIDCD R01 DC020947 (Co-Investigator; PI R. Braga, Northwestern) 2023-  
*Detailed mapping of the cortical visual-language hierarchy in individuals* 2028  
 Direct Costs Requested: \$1,833,296

### **Completed Grants and Fellowships**

NIH – NIMH R01 MH107652 (Co-Investigator/Lead neuroscientist; PI L. Wakschlag) 2016-  
*Generating an earlier science of when to worry: A neurodevelopmental, transactional* 2022  
*approach to characterizing irritability patterns beginning in infancy*

University of Connecticut Research Excellence Grant (Consultant; PI M. Briggs-Gowan) 2021-  
*Auditory threat processing in children at-risk for posttraumatic stress disorder* 2022

NIH – NIDCD R21 DC017210 (PI) 2018-  
*Parent-toddler EEG neural synchrony as a window into social communication deficits in* 2022  
*autism. Total direct costs: \$275,000*

NIH – NIDA R34 DA050266 (Co-Investigator; PI L. Wakschlag) 2019-  
*Optimizing access, engagement and assessment to elucidate prenatal influences on* 2021  
*neurodevelopment: The Brains Begin Before Birth (B4) Midwest Consortium* (NCE)

NIH – NICHD R03 HD096098 (Consultant; PI T. Perrachione, Boston University) 2018-  
*Cortical development and neuroanatomical anomalies in developmental dyslexia.* 2020

AHA Strategically-Focused Research Network Grant (Co-Investigator/Mentor; PI B. Marino) <i>Cardiovascular health in children – Healthier, earlier.</i>	2017-2020
NIH – NICHD R01 HD083310 (Co-Investigator; PI S. Waxman) <i>Linking language and cognition in infancy: Entry points and developmental change.</i>	2017-2020
Delaney Fund for Research and Communication Grant, Northwestern University (PI) <i>'Beginning with Babble' to improve language development and communication health in low-SES toddlers and their parents: a randomized control pilot intervention study.</i> Direct costs: \$46,304	2017-2019
Alumnae of Northwestern University Grant (PI) <i>Predicting children's response to intensive summer language intervention</i> Direct costs: \$4,081	2016
Simons Center for the Social Brain, Schwinn Family Postdoctoral Fellowship, MIT Role: Fellow, 2 years salary + \$10,000 research expenses	2013-15
National Science Foundation Graduate Research Fellowship Role: Fellow, 3 years stipend + tuition + \$10,000 research expenses	2007-10
Evans Literacy Fellowship, Tufts University Role: Fellow, 1 year stipend + tuition	2006-07
Filene Fellowship in Psychological & Brain Sciences, Dartmouth College, \$4,000	2004-05
Hodgson Grant for Cognitive Neuroscience Research, Dartmouth College, \$2,000	2004
Waterhouse Research Grant, Dartmouth College, \$1,500	2003
Rothenburg Research Grant, Dartmouth College, \$1,000	2002

## PUBLICATIONS

### **Published Peer-Reviewed Manuscripts**

**NOTES:** ^Indicates mentee student/postdoc/RA author. Titles are hyperlinks. Where noted, [SJ]R journal quartile, Clarivate journal impact factor for publication year, citations]

58. Dufford, A. J., MacNeill, L., Zhang, Y., Nielsen, A. N., Smyser, C., Luby, J., Rogers, C., **Norton, E. S.**, & Wakschlag, L. (accepted, 2024). Caudate volume is prospectively associated with irritability in toddlerhood. *Developmental Psychobiology*. [medRxiv Preprint](#).
57. Norton, E. S. (2024). Practice doesn't make perfect: Repeated reading is no more effective than continuous reading for improving fluency and comprehension in school-age struggling readers. *The Reading League Journal*, Jan/Feb 2024, 45-49.
56. McDermott, C. L., **Norton, E. S.**, & Mackey, A. P. (2023). [A systematic review of interventions to ameliorate the impact of adversity on brain development](#). *Neuroscience and Biobehavioral Reviews*, 153, 105391. [Q1, 8.2, 0]
55. ^McWeeny, S. & **Norton, E. S.** (2023). [Auditory processing and reading disability: a systematic review and meta-analysis \[Registered report\]](#). *Scientific Studies of Reading*. [OSF Preregistration](#). [Q1, 3.7, 0]
54. Wiggins, J. L., Rosario, A., Zhang, Y., MacNeill L., Yu, Q., Krogh-Jespersen, S., **Norton, E. S.**, Smith, J. D., & Wakschlag, L. (2023). [Advancing earlier transdiagnostic identification of mental health risk: A pragmatic approach at the transition to toddlerhood](#). *International Journal of Methods in Psychiatric Research*, 32, e1989. [Q2, 3.1, 7]
53. Neel, M. L, Jeanvoine, A., Key, A., Stark, A., **Norton, E. S.**, Relland, L., Hay, K., & Maitre, N. (2023).

- Behavioral and neural measures of infant responsivity increase with maternal multisensory input in non-irritable infants. *Brain and Behavior*, 13(11), e3253. [Q2, 3.1, 0]
52. Zhang, Y., MacNeill, L., Edwards, R., Burns, J., Zola, A., Poleon, R., Nili, A., Giase, G., Ahrenholtz., R., Wiggins, J., **Norton, E. S.**, & Wakschlag, L. (epub ahead of print). Developmental trajectories of irritability across the transition to toddlerhood: Associations with effortful control and psychopathology. *Research on Child and Adolescent Psychopathology*. [Q2, 3.6, 6]
51. Zarubin, V. C., Damme, K. S. F., Vargas, T., Osborne, K. J., **Norton, E. S.**, Briggs-Gowan, M., Allen, N. R., Wakschlag, L., & Mittal, V. A. (epub ahead of print). Neurodevelopmental vulnerability to psychosis: Developmentally-based methods enable detection of early life inhibitory control deficits that predict psychotic-like experiences at the transition to adolescence. *Psychological Medicine*. [Q1, 6.9, 0]
50. Roberts, M. Y., Sone, B., Jones, M., Standley, M., Conner, T., Lee, E. D., **Norton, E. S.**, Roman, J., Speights Atkins, M., Young, R., & Weisleder, A. (epub ahead of print). What the evidence does (and does not) show for the Centers for Disease Control and Prevention child development milestones: an illustrative example using expressive vocabulary. *Journal of Speech, Language, and Hearing Research*. [Q1, 2.60, 0]
49. Wakschlag, L. S., MacNeill, L. A., Pool, L., Smith, J. D., Adam, H., Barch, D. M., **Norton, E. S.**, ... Luby, J. L., & Allen, N. B. (2023). Predictive utility of irritability “in context”: Proof-of-principle for an early childhood mental health risk calculator. *Journal of Clinical Child & Adolescent Psychology*. [Q1, 4.20, 2]
48. Shah, S. K., Perez-Cardona, L., Helner, K., Massey, S. H., Premkumar, A., Edwards, R., **Norton, E. S.**, Rogers, C. E., Miller, E. S., Smyser, C. D., Davis, M. M., & Wakschlag, L. S. (2023). How penalizing substance use in pregnancy affects treatment and research: A qualitative examination of researchers’ perspectives. *Journal of Law and the Biosciences*, 10(2). [Q1, 3.4, 0]
47. Mues, M., Zuk, J., **Norton, E. S.**, Gabrieli, J., Hogan, T. P., & Gaab, N. (2023). Preliteracy skills mediate the relation between early speech sound production abilities and subsequent reading outcomes. *Journal of Speech, Language, and Hearing Research*, 66(8), 2766-2782. [Q1, 2.60, 0]
46. LaTourrette, A., Waxman, S., Wakschlag, L. S., **Norton, E. S.**, & Weisleder, A. (2023). From word recognition to word learning: Comparing online speech processing in typically developing and late-talking 2-year-olds. *Journal of Speech, Language, and Hearing Research*, 66(5), 1658-77. [Q1, 0.84, 0]
45. Alex, A. M., Buss, C., Davis, E. P., de los Campos, G., ... **Norton, E. S.**, ... & Knickmeyer, R., for the ENIGMA ORIGINS group (2023). Genetic influences on the developing young brain and risk for neuropsychiatric disorders. *Biological Psychiatry*, 93(10), 905-920. [Q1, 4.22, 2]
44. Davison, K., Zuk, J., Mullin, L., Ozernov-Palchik, O., **Norton, E. S.**, Gabrieli, J. D. E., Yu, X., & Gaab, N. (2023). Examining shared reading and white matter organization in kindergarten in relation to subsequent language and reading abilities: A longitudinal investigation. *Journal of Cognitive Neuroscience*, 35(2), 259–275. [Q1, 1.27, 3]
43. ^Nielsen, A. N., Kaplan, S., Meyer, D., Alexopoulos, D., Kenley, J. K., Smyser, T. A., Wakschlag, L. S., **Norton, E. S.** ... & Smyser, C. D. (2023). Maturation of large-scale brain systems over the first month of life. *Cerebral Cortex*, 33(6) 2788–2803. [Q1, 2.07, 5]
42. MacNeill, L. A., Krogh-Jespersen, S., Zhang, Y., Giase, G., Edwards, R., Petitclerc, A., Mithal, L. B., Mestan, K., Grobman, W., **Norton, E. S.**, Alshurafa, N., Moskowitz, J. T., Tandon, D., & Wakschlag, L. S. (2023). Liability of prenatal stress during the COVID-19 pandemic links to negative affect in infancy. *Infancy*, 28(1), 136-157. [Q1, 0.84, 5]
41. Spann, M.N., Wisnowski, J. L., HBCD Phase I Scanning Young Populations Working Group (**Norton as member author**), Smyser, C. D., FIT’NG, Howell, B., & Dean, D. C. (2022). The science, art, and secrets of scanning young children. *Biological Psychiatry*, 93(10), P858-860. [Q1, 4.22, 8]
40. Ozernov-Palchik, O., Sideridis, G. D., **Norton, E. S.**, Beach, S. D., Wolf, M., Gabrieli, J. D. E., & Gaab, N.

- (2022). On the cusp of predictability: Disruption in the typical association between letter and word identification at critical thresholds of RAN and phonological skills. *Learning and Individual Differences*, 97, 102166. [Q1, 1.55, 4]
39. ^McWeeny, S., ^Choi, S. J., LaTourette, A., ^Choe, J., Roberts, M. Y., & **Norton, E. S.** (2022). Rapid automatized naming as a kindergarten predictor of future reading in English: A systematic review and meta-analysis. *Reading Research Quarterly*, 57(4), 1187-1211. [Q1, 2.24, 26]
  38. Krok, W., **Norton, E. S.**, ^Harriott, E., Buccheit, M. K., Wakschlag, L. S., & Hadley, P. (2022). Using animated action scenes to remotely assess sentence diversity in toddlers. *Topics in Language Disorders*, 42(2), 156-172. [Q1, 0.38, 2]
  37. **Norton, E. S.**, ^Manning, B. L., ^Harriott, E., ^Nikolaeva, J., ^Nyabingi, O., ^Fredian, K., ^Page, J., ^McWeeny, S., Krogh-Jespersen, S., MacNeill, L., & Wakschlag, L. (2022). Social EEG: A novel approach to studying brain-behavior links and brain-to-brain synchrony during naturalistic toddler-parent interactions. *Developmental Psychobiology*, 64(3), e2240. [Q2, 3.04, 13]
  36. Damme, K. S. F., **Norton, E. S.**, Briggs-Gowan, M., Wakschlag, L. S., & Mittal, V. (2022). Developmental patterning of irritability enhances prediction of psychopathology in pre-adolescence: Improving RDoC with developmental science. *Journal of Psychopathology and Clinical Science* (formerly the *Journal of Abnormal Psychology*), 131(6), 556–566. [Q1, 2.64, 28]
  35. Krogh-Jespersen, S., MacNeill, L., Anderson, E. L., Stroup, H. E., ^Harriott, E. M., ^Gut, E., ^Blum, A., Fareedi, E., ^Fredian, K. M., ^Wert, S., Wakschlag, L. S., & **Norton, E. S.** (2022). Disruption leads to methodological and analytic innovation in developmental sciences: Recommendations for remote administration and dealing with messy data. *Frontiers in Psychology*, 12, 732312. [Q2, 2.99, 6]
  34. ^Nili, A., Krogh-Jespersen, S., Perlman, S., Estabrook, R., Petitclerc, A., Briggs-Gowan, M., **Norton, E. S.**, & Wakschlag, L. S. (2022). Joint consideration of inhibitory control and irritability in young children: Contributions to emergent psychopathology. *Research on Child and Adolescent Psychopathology* (formerly *Journal of Abnormal Child Psychology*). [Q1, 1.71, 3]
  33. ^Page, J. M., Wakschlag, L. S., & **Norton, E. S.** (2021). Non-rapid eye movement sleep characteristics and relations with motor and cognitive ability from birth to preadolescence. *Developmental Psychobiology*, 63(8), e22202. [Q2, 3.04, 8]
  32. **Norton, E. S.**, MacNeill, L., ^Harriott, E. M., Allen, N., Krogh-Jespersen, S., Smyser, C. D., Rogers, C., Smyser, T., Luby, J., & Wakschlag, L. S. (2021). EEG/ERP as a pragmatic method to expand the reach of infant-toddler neuroimaging in HBCD: Promises and challenges. *Developmental Cognitive Neuroscience*, 51, 100988. [Q1, 6.46, 12]
  31. ^Nielsen, A., Wakschlag, L. S., & **Norton, E. S.** (2021). Linking irritability and functional brain networks: a case for expanding consideration of development and environment in RDoC. *Neuroscience and Biobehavioral Reviews*, 129, 231-244. [Q1, 8.98, 19]
  30. MacNeill, L. A., Allen, N., Poleon, R., Vargas, T., Osborne, K. J., Damme, K., Barch, D., Krogh-Jespersen, S., **Norton, E. S.**, ... & Wakschlag, L. S. (2021). Translating RDoC to real-world impact in developmental psychopathology: A neurodevelopmental framework for application of mental health risk calculators. *Development and Psychopathology*, 33, 1665–1684. [Q1, 4.15, 12]
  29. **Norton, E. S.**, Beach, S. D., Eddy, M., ^McWeeny, S., Ozernov-Palchik, O., Gaab, N., & Gabrieli, J. (2021). ERP mismatch negativity amplitude and asymmetry reflect phonological and rapid automatized naming skills in English-speaking kindergartners. *Frontiers in Human Neuroscience*, 15. [Q1, 3.17, 10]
  28. Woodruff Carr, K. L., Perszyk, D. R., **Norton, E. S.**, Voss, J. L., Poeppel, D., & Waxman, S. R. (2021). Developmental changes in auditory-evoked alpha activity underlie the increasing precision with which infants link language and cognition. *Developmental Science*, 24(6), e13121. [Q1, 5.13, 7]
  27. Wakschlag, L., Tandon, D., Krogh-Jespersen, S., Petitclerc, A., ^Nielsen, A., ... **Norton, E. S.**, ... & Alshurafa, N. (2021). Moving the dial on prenatal stress mechanisms of neurodevelopmental

- vulnerability to mental health problems: a personalized prevention proof of concept. *Developmental Psychobiology*, 63(4), 622-640. [Q2, 3.04, 14]
26. Zuk, J., Dunstan, J., **Norton, E. S.**, Yu, X., Ozernov-Palchik, O., Wang, Y., Hogan, T., Gabrieli, J., & Gaab, N. (2021). Multifactorial pathways facilitate resilience among kindergarteners at risk for dyslexia: A longitudinal behavioral and neuroimaging study. *Developmental Science*, 24, e12983. [Q1, 5.13, 39]
  25. ^Manning, B. L., ^Harpole, A., ^Harriott, E., ^Postolowicz, K., & **Norton, E. S.** (2020). Taking language samples home: Feasibility, reliability and validity of child language samples conducted remotely with video chat versus in-person. *Journal of Speech, Language, and Hearing Research*, 63(12), 3982-3990. [Q1, 2.30, 64]
  24. **Norton, E. S.** (2020). What educators need to know about rapid automatized naming (RAN). *Learning Difficulties Australia Bulletin*, 52(1), 25-28. [Q1, not yet ranked, 5]
  23. ^McWeeny, S., & **Norton, E. S.** (2020). Understanding event related potentials (ERPs) in clinical and basic and language and communication disorders research: a tutorial. *International Journal of Language and Communication Disorders*, 55(4), 445-457. [Q1, 3.02, 13]
  22. Yu, X., Zuk, J., Purdue, M. V., Ozernov-Palchik, O., Raney, T., Beach, S., **Norton, E. S.**, Ou, Y., Gabrieli, J., & Gaab, N. (2020). Putative protective neural mechanisms in pre-readers with a family history of dyslexia who subsequently develop typical reading skills. *Human Brain Mapping*, 41(10), 2827-2845. [Q1, 5.04, 25]
  21. ^Manning, B. L., Roberts, M. Y., Estabrook, R., Petitclerc, A., Burns, J., Briggs-Gowan, M., Wakschlag, L. S., & **Norton, E. S.** (2019). Relations between toddler expressive language and temper tantrums in a community sample. *Journal of Applied Developmental Psychology*, 65, 101070. [Q1, 2.00, 44]
  20. Luby, J., Allen, N., Estabrook, R., Pine, D., Rogers, C., Krogh-Jespersen, S., **Norton, E. S.**, & Wakschlag, L. (2019). Mapping infant neurodevelopmental precursors to mental disorder: Enhancing prediction of early childhood psychopathology via synthetic cohort & computational approaches. *Behaviour Research and Therapy*, 123, 103484. [Q1, 4.50, 21]
  19. ^Nayar, K., McKinney, W., Hogan, A., Martin, G., La Valle, C., Sharp, K., Berry-Kravis, E., **Norton, E. S.**, Gordon, P., & Losh, M. (2019). Language processing skills linked to FMR1 variation: A study of gaze-language coordination during rapid automatized naming among women with the FMR1 premutation. *PLoS One*, 14(7), e0219924. [Q1, 2.74, 11]
  18. Centanni, T. M.\*, **Norton, E. S.\***, Park, A., Beach, S. D., Halverson, K., Gaab, N., & Gabrieli, J. D. (2019). Disrupted left fusiform response to print in kindergartners is associated with subsequent reading impairment. *NeuroImage: Clinical*, 22, 101715. (\*Co-first authors) [Q1, 4.35, 69]
  17. Wakschlag, L., Roberts, M., Flynn, R., Smith, J., Krogh-Jespersen, S., Kaat, A., Gray, L., ... **Norton, E. S.**, & Davis, M. (2019). Future directions for early childhood prevention of mental disorders: A healthier, earlier roadmap. *Journal of Clinical Child and Adolescent Psychology*, 48, 539-554. [Q1, 3.66, 102]
  16. Ozernov-Palchik, O., **Norton, E. S.**, Wang, Y., Beach, S. D., Zuk, J., Wolf, M., Gabrieli, J. D. E., & Gaab, N. (2019). The relationship between socioeconomic status and white matter structure in pre-reading children: A longitudinal investigation. *Human Brain Mapping*, 40, 741-754. [Q1, 4.42, 77]
  15. Deveney, C. M., Briggs-Gowan, M. J.,... **Norton, E. S.**, Pine, D. S., Brotman, M., Leibenluft, E., & Wakschlag, L. S. (2019). Temporally sensitive neural measures of inhibition in preschool children with varying irritability symptoms. *Developmental Psychobiology*, 61, 216-227. [Q2, 2.02, 24]
  14. Roberts, M. Y., Curtis, P., Estabrook, R., **Norton, E. S.**, Davis, M., Burns, J., Briggs-Gowan, M., Petitclerc, A., & Wakschlag, L. S. (2018). Talking tots and the terrible twos: Generating a developmental understanding of the relationships between early language and disruptive behavior in toddlers. *Journal of Developmental & Behavioral Pediatrics*, 39(9), 709-714. [Q1, 2.26, 26]
  13. ^Nayar, K., Gordon, P., Martin, G., Hogan-Brown, A., La Valle, C., McKinney, W., Lee, M., **Norton, E. S.**, & Losh, M. (2018). Links between looking and speaking in autism and first-degree relatives: Insights into the expression of genetic liability to autism. *Molecular Autism*, 9, 51. [Q1, 5.71, 35]

12. Centanni, T. M.\*, **Norton, E. S.\***, Park, A., Beach, S., Halverson, K., Gaab, N., & Gabrieli, J. D. E. (2018). Early development of letter specialization in left fusiform is associated with better word reading and smaller fusiform face area. *Developmental Science*, 21(5), e2658. (\*Co-first authors) [Q1, 4.1, 79]
11. Ozernov-Palchik, O., **Norton, E. S.**, Sideridis, G., Beach, S. D., Gabrieli, J. D. E., & Gaab, N. (2017). Longitudinal stability of pre-reading skill profiles of kindergarten children: Implications for early screening and theories of reading. *Developmental Science*, 20(5). [Q1, 4.10, 158]
10. Saygin, Z. M., Osher, D., **Norton, E. S.**, Youssoufian, D., Beach, S. D., Feather, J., Gaab, N., Gabrieli, J. D. E., & Kanwisher, N. (2016). Connectivity precedes function in the development of the visual word form area. *Nature Neuroscience*, 19, 1250–1255. [Q1, 17.84, 357]
9. Vandermosten, M., Hoeft, F., & **Norton, E. S.** (2016). Integrating MRI brain imaging studies of pre-reading children with current theories of developmental dyslexia: A review and quantitative meta-analysis. *Current Opinion in Behavioral Sciences*, 10, 155-161. [Q1, 3.42, 125]
8. **Norton, E. S.**, Beach, S. D., & Gabrieli, J. D. E. (2015). Neurobiology of dyslexia. *Current Opinion in Neurobiology*, 30, 73-78. [Q1, 6.37, 386]
7. **Norton, E. S.**, Black, J. M., Stanley, L. M., Tanaka, H., Gabrieli, J. D. E., Sawyer, C., & Hoeft, F. (2014). Functional neuroanatomical evidence for the double-deficit hypothesis of developmental dyslexia. *Neuropsychologia*, 61, 235-246. [Q1, 3.30, 162]
6. Saygin, Z. M.\*, **Norton, E. S.\***, Osher, D., Beach, S. D., Cyr, A., Ozernov-Palchik, O., Yendiki, A., Fischl, B., Gaab, N., & Gabrieli, J. D. E. (2013). Tracking the roots of reading ability: White matter volume and integrity correlate with phonological awareness in pre- and early-reading kindergarten children. *The Journal of Neuroscience*, 33, 13251-13258. (\*Co-first authors) [Q1, 6.75, 278]
5. **Norton, E. S.**, & Wolf, M. (2012). Rapid automatized naming (RAN) and reading fluency: Implications for understanding and treatment of reading disabilities. *Annual Review of Psychology*, 63, 427-452. [Q1, 15.27, 993]
4. Gabrieli, J. D. E. & **Norton, E. S.** (2012). Reading abilities: Importance of visual-spatial attention. *Current Biology*, 22(9), 298-299. [Q1, 9.49, 103]
3. Kovelman, I., **Norton, E. S.**, Gaab, N., Christodoulou, J., Triantafyllou, C., ... Wolf, M., Whitfield-Gabrieli, S., & Gabrieli, J. D. E. (2011). Brain basis of phonological awareness for spoken language in children and its disruption in dyslexia. *Cerebral Cortex*, 22(4), 754-764. [Q1, 6.54, 221]
2. Wolf, M., Barzillai, M., Gottwald, S., Miller, L., Spencer, K., **Norton, E.**, Lovett, M., & Morris, R. (2009). The RAVE-O intervention: Connecting neuroscience to the classroom. *Mind, Brain, and Education*, 3(2), 84-93. [Q2, 1.28, 116]
1. **Norton, E. S.**, Kovelman, I., & Petitto, L. A. (2007). Are there separate neural systems for spelling? New insights into the role of rules and memory in spelling from fMRI. *Mind, Brain, and Education*, 1(1), 48-59. [Q2, 1.28, 56]

### **Publication Metrics**

In Google Scholar as of 1/3/2024: Citations: 3,851 | H-index: 24 | i-10 index: 35

### **Current Preprints/Registered Reports/Publications Under Review**

(^Student/postdoc mentee author)

1. ^Nikolaeva, J. I., ^Kwok, E., ^Choi, S., ^Manning, B. L., Wakschlag, L. S., & **Norton, E. S.** (submitted). Associations between frontal EEG gamma power and late talking status and expressive language ability during toddlerhood.
2. ^Manning, B. L., Roberts, M., Wakschlag, L., & **Norton, E. S.** (under review). Neural correlates of naturalistic face-to-face parent-child interaction in typical child development and autism.
3. ^Clement-Lam, S., Grieco-Calub, T., & **Norton, E. S.** (revise and resubmit). Letter-sound integration is

modulated by automaticity demands and related to reading performance in English-speaking children.

4. Nayar, K., Guilfoyle, J. L., Stevens, C. J., Elahi, S., ^Clement-Lam, S., \*Norton, E. S., & \*Losh, M. (submitted). The neurocognitive underpinnings of global perception in ASD and first-degree relatives: A neurophysiological study of illusory contour processing. (\*co-senior authors)
5. Letkiewicz, A. M., Wakschlag, L., Briggs-Gowan, M. J., Cochran, A. L., Wang, L., Norton, E. S., & Shankman, S. (submitted). Preadolescent externalizing and internalizing symptoms are differentially related to drift-diffusion model parameters and neural activation during a go/no-go task.

### **Publications in Preparation**

6. Norton, E. S., ^Page, J. M., ^Manning, B. L., Zola, A., Zhang, Y., Sherlock, P., & Wakschlag, L. S. The impact of parent factors on toddlers' language and irritable behavior: a latent profile analysis.
7. ^Mon, S., ^Manning, B. L., Wakschlag, L. S., & Norton, E. S. Leveraging trial-level mixed effects modeling to assess the ERP mismatch negativity's psychometric properties, brain-behavior associations, and intergenerational similarity in toddler-parent dyads.
8. ^McWeeny, S., ^Choe, Y. J., & Norton, E. S. SnowGlobe: A tool for streamlining forward and backward searching for systematic reviews and meta-analyses. [OSF Page](#).
9. ^Clement-Lam, S., ^McWeeny, S., ^Manning, B. L., & Norton, E. S. The neural correlates of letter-sound integration and its relation to children's reading performance.

### **Published Chapters**

3. Norton, E. S. (2019). Bringing together multiple methods and measurements to improve our understanding of dyslexia. In J. Washington, D. Compton, & P. McCardle (Eds.), *Dyslexia 101: Revisiting etiology, diagnosis, treatment, and policy*. Baltimore, MD: Brookes.
2. Norton, E. S., Gabrieli, J. D. E., & Gaab, N. (2019). Neural predictors of dyslexia. In L. Verhoeven, C. Perfetti & K. Pugh (Eds.), *Developmental dyslexia across languages and writing systems: A handbook* (pp. 253-276). Cambridge, UK: Cambridge University Press. [9 citations]
1. Wolf, M., Gottwald, S., Galante, W., Norton, E., & Miller, L. (2009). How the origins of reading inform reading instruction. In P. McCardle & K. Pugh (Eds.), *How children learn to read: Current issues and new directions in the integration of cognition, neurobiology and genetics of reading and dyslexia research and practice*. New York: Routledge.

<b>AWARDS and HONORS</b>
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<b>Charles McCormick Deering Teaching Excellence Award</b> , Northwestern University <i>Awarded to ~4 faculty across the university per year, including title and salary stipend</i>	2023
<b>Meritorious Poster Award, ASHA Convention</b> ( <i>awarded to &lt;5% of posters</i> )	2022, 2023
<b>Recognition for Outstanding Undergraduate Research Mentoring</b> Northwestern Office of Undergraduate Research	2022
<b>Clarence Simon Award for Outstanding Teaching and Mentoring</b> School of Communication, Northwestern University	2020
<b>ASHA Lessons for Success</b> , <i>Invited alumni speaker</i>	2019
<b>Searle Fellow</b> , Searle Center for Teaching and Learning, Northwestern University	2017
<b>ASHA Lessons for Success</b> , <i>Invited participant (competitive)</i>	2017
<b>MIT Postdoctoral Association Travel Award</b> <i>Ranked 1<sup>st</sup> of over 300 applicants from all of MIT, \$600 award to present at SSSR</i>	2015



<b>ERP Boot Camp Fellowship</b> , UC Davis Center for Mind and Brain <i>Full tuition/travel award (competitive) for 10-day EEG/ERP training workshop</i>	2013
<b>Outstanding Young Investigator Award</b> (The Rebecca Sandak Award) <i>Awarded by Society for the Scientific Study of Reading to one postdoc or junior faculty member per year who shows outstanding promise in research</i>	2012
<b>Outstanding Research Presentation</b> , Tufts Graduate Research Symposium <i>Best research presentation among Ph.D. students of all disciplines</i>	2012
<b>Graduate Travel Award</b> , Tufts University, <i>Awarded five times</i>	2007-2012
<b>Sigma Xi Outstanding Thesis Award</b> , Dartmouth College	2005

## SOFTWARE DEVELOPED

**SnowGlobe** (<https://snowglobe.soc.northwestern.edu/>) is an open-source tool for academic literature searching, specifically for conducting rigorous forward and backward (“snowball”) searches, crucial for systematic reviews and meta-analyses. This novel software, developed by students Sean McWeeny & June Choe in my lab, automates the forward and backward searching process from a paper or set of papers, tracking duplicates between sources or in subsequent searches. This allows researchers to identify the maximum number of relevant sources and saves potentially hundreds of person hours per review. NU Libraries support costs to provide free public access to this software.

## INVITED LECTURES / COLLOQUIA

### *Invited Academic Colloquia*

University of Indianapolis, Center for Excellence in Learning	2023
UCSF, Department of Psychiatry	2023
Boys Town National Research Hospital	2022
University of Toronto, Department of Psychology	2021
Lurie Children’s Hospital, Neuroscience of Disease Series	2021
University of Connecticut, Brain Imaging Research Center	2021
University of Wisconsin-Madison, Waisman Center, John D. Wiley Colloquium	2020
University of Michigan, Department of Psychology, Developmental Colloquium	2020
MIT, Department of Brain & Cognitive Sciences/Simons Center for the Social Brain	2019
Chinese University of Hong Kong, The Brain and Mind Institute Annual Symposium	2019
Washington University in St. Louis, Department of Psychiatry	2018
Harvard University, Department of Psychology, Language and Cognition Seminar Series	2015
MIT, Simons Center for the Social Brain, Simons Social Talk Series	2013
Children’s Hospital Boston, Laboratories of Cognitive Neuroscience	2011
Dartmouth College, Psychological and Brain Sciences Department, Cognitive Brown Bag Series	2008

### *Invited Conference Presentations*

American Academy of Child and Adolescent Psychiatry annual meeting	2022
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International Congress on Infant Studies (ICIS) social neuroscience pre-conference	2022
Missouri Speech-Hearing-Language Association annual conference	2022
International Congress on Infant Studies (ICIS) annual conference, held virtually	2020
NIH HEALThy Brain and Child Development Study Phase I PI Meeting	2020
Illinois Speech-Hearing-Language Association (ISHA) Conference, Rosemont, IL	2021, 2020
ASHA Convention	2017, 2019
Netherlands Institute for Advanced Study, Wassenaar, Netherlands	2014
<i>Invited presentation at Cross-Linguistic Perspectives on Dyslexia workshop</i>	
MIT, Simons Center for the Social Brain, <i>Workshop on The Social Brain: Opportunities for Discovery &amp; Technology Development</i>	2014

***Invited Talks for Professional and Educational Organizations***

Dyslexia Training Institute (virtual)	2024
The Dyslexia Foundation, Boston, MA	2023
Learning MATTERS, New Zealand	2023
The Reading League – Illinois Chapter (virtual)	2023
Professionals In Learning Disabilities and Special Education, Chicago, IL	2023
Landmark School, Pride’s Crossing, MA	2023, 2011
Dutch Dyslexia Week, the Netherlands (virtual)	2022
Hyde Park Day School, Bellick Family Community Education Program, Hyde Park, IL	2021
Commonwealth of Virginia, Department of Education (Series of 3 lectures)	2021
Northwestern Medicine: Women in Medicine Seminar Series, <i>MD-PhD partnerships</i>	2020
AVOCA West School District, Wilmette, IL	2021, 2020
SLANT Literacy Summer Institute, Buffalo Grove, IL	2019
Association of Educational Therapists Conference, Chicago, IL	2019
Everyone Reading Illinois Annual Conference, Naperville, IL	2016-17, 2020
Jobs for Dyslexics, Annual Gala, Chicago, IL	2016
Watertown Public Schools, Watertown, MA	2012

***Invited Talks at Northwestern University***

Provost’s Office Panel on Navigating Tenure	2023
DevSci Institute, Annual Scientific Exchange	2021, 2017
Family Weekend	2019
Women in Science and Engineering Research (WISER)	2019
Department of Communication Sciences & Disorders, Alumni Conference	2016, 2018
Center for Talent Development, <i>Invited presentation to teachers/families</i>	2017
Cognitive Brain Mapping Group, <i>Colloquium</i>	2015

## PEER-REVIEWED CONFERENCE PRESENTATIONS (SELECTED)

### Talks

(*^Student/research staff mentee author*)

- Dufford, A., MacNeill, L., ^Nielsen, A., Smyser, C., Norton, E. S., & Wakschlag, L. (2023). Infant hippocampal volume is prospectively associated with irritability in toddlerhood. Society for Research in Child Development, Salt Lake City, UT.
- Zhang, Y., MacNeill, L., Edwards, R. C., ... ^Nili, A., ^Giase, G., ^Ahrenholtz, R., Wiggins, J. L., Norton, E. S., & Wakschlag, L. (2023). "When to Worry" about early irritability: Developmental trajectories of irritability at the transition to toddlerhood. Society for Research in Child Development, Salt Lake City, UT.
- ^McWeeny, S., ^Choi, S.J., ^Choe, J., Roberts, M. & **Norton, E. S.** (2022). Rapid automatized naming (RAN) as a kindergarten predictor of future reading: A systematic review and meta-analysis. Society for the Scientific Study of Reading, Newport Beach, CA.
- LaTourette, A., Waxman, S., **Norton, E. S.**, & Weisleder, A. (2021). From word recognition to word learning: Comparing online speech processing in typically developing and late-talking 2-year-olds. BU Conference on Child Language Development.
- ^Nielsen, A., Gratton, C., Rogers, C., Smyser, C., Wakschlag, L., & **Norton, E.** (2020). Investigating whether dissociable types of hubs integrate brain function in infants. Flux Congress for Developmental Cognitive Neuroscience, virtual conference.
- Norton, E. S.** (2020). What can the brain tell us about parent-child interaction? In symposium: Advances and roadblocks in measuring parent-child interactions. Conference on Research Innovations in Early Intervention, San Diego, CA.
- Smith, N., **Norton, E.**, Gottfred, C., Lybolt, J., ^Manning, B., ^Baime, E., ^Harriott, E., & Holton, J. (2019). Promises and challenges of converting your skills/ideas into an app. ASHA Convention, Orlando, FL.
- Norton, E.**, ^Lam, S., ^Gillespie, T., ^Harriott, E., & ^Postolowicz, K. (2019). Atypical neural correlates of letter-sound integration in dyslexia. Society for the Scientific Study of Reading, Toronto, Canada.
- Gottfred, C., Smith, N., **Norton, E.**, Robinson, T., Lybolt, J., & Hornback, J. (2018). Beginning with Babble: Technology maximizes impact of SLP skills with parents, professional collaborators, and communities. ASHA Convention, Boston, MA.
- ^Cook, K., Kessler, C., Briggs-Gowan, M., Wakschlag, L., **Norton, E. S.** (2018). How multiple indicators of socio-economic skills and parent psychosocial factors relate to language abilities in a diverse sample of young children. Symposium on Research in Child Language Disorders, Madison, WI.
- ^Manning, B., ^Harriott, E., ^Nuttall, C., & **Norton, E. S.** (2018). A pilot investigation of the efficacy of an app-based, parent-implemented language intervention for toddlers of varying SES. Symposium on Research in Child Language Disorders, Madison, WI.
- Gottfred, C., **Norton, E.**, Lybolt, J., Smith, N., & Robinson, T. (2017). Addressing the language impact of growing up from a background of poverty/low resources. ASHA Convention, Los Angeles, CA.
- Norton, E. S.**, Saygin, Z. M., Beach, S. D., Ozernov-Palchik, O., Gaab, N., & Gabrieli, J. D. E. (2017). The utility of EEG and MRI brain measures for predicting future reading difficulty. Society for Research in Child Development, Austin, TX.
- Yu, X., Raney, T., **Norton, E. S.**, Saygin, Z. M., Ozernov-Palchik, O., Beach, S. D., Gabrieli, J. D. E., & Gaab, N. (2017). The neural compensatory mechanisms in prereaders with a family history of dyslexia who subsequently develop typical reading skills. Society for Research in Child Development, Austin, TX.
- Norton, E. S.**, Beach, S. D., Saygin, Z. M., Ozernov-Palchik, O., Park, A., Robinson, S., Gaab, N., & Gabrieli, J. D. E. (2016). Brain measures identify which kindergartners at risk for reading difficulties go on to develop dyslexia. Society for the Scientific Study of Reading, Porto, Portugal.
- Norton, E. S.**, Beach, S. D., Ozernov-Palchik, O., Gaab, N., & Gabrieli, J. D. E. (2015). Brain structure differences associated with risk for dyslexia: Different patterns of phonological awareness and RAN deficit subtypes. Society for the Scientific Study of Reading, Kona, HI.
- Norton, E. S.** (2014). Predicting 1<sup>st</sup> grade reading from kindergarten ERP, MRI and behavior: Toward accurate early identification of dyslexia. New England Research on Dyslexia Society, Boston, MA.
- Norton, E. S.**, Beach, S., Saygin, Z., Ozernov-Palchik, O., Cyr, A., Halverson, K., Gaab, N., & Gabrieli, J. D. E. (2014). Linking brain structure and function with reading: Relations among arcuate fasciculus structure, ERP mismatch negativity response, and reading-related skills in kindergarten and 1<sup>st</sup> grade. Society for the Scientific Study of Reading, Santa Fe, NM.
- Norton, E. S.**, Beach, S., Cyr, A., Ozernov-Palchik, O., Perrachione, T., Wolf, M., Gabrieli, J. D., & Gaab, N. (2012). Brain differences in kindergarten children with and without behavioral risk for dyslexia: Toward fMRI and EEG predictors of reading difficulties. Society for the Scientific Study of Reading, Montreal, Canada.
- Norton, E. S.**, Spencer, K. E., & Wolf, M. (2009). Improving reading fluency and comprehension for students with reading disabilities: Comparing phonology-only with multi-componential intervention on key reading outcomes. International Dyslexia Association, Orlando, FL.
- Wolf, M., **Norton, E.S.**, Barzillai, M., Ullman, C., & Orkin, M. (2009). Understanding diverse readers: Assessing the unique abilities of each child. International Dyslexia Association, Orlando, FL.
- Norton, E. S.**, Barzillai, M. & Wolf, M. (2008). How the components of RAVE-O instruction simulate the reading brain. International Dyslexia Association, Seattle, WA.

- Gaab, N., Kovelman, I., Christodoulou, J. A., Lieberman, D. A., Weinberg, A., Hostetter, M. K., **Norton, E.**, ... & Gabrieli, J. D. E. (2007). Learning to read changes the developing brain: Comparing phonological and semantic processing between prereaders and readers. Society for Neuroscience, San Diego, CA.
- Petitto, L. A., Baker, S., Baird, A., Kovelman, I., & **Norton, E.** (2004). Near-infrared spectroscopy studies of children and adults during language processing. International Workshop on Near-Infrared Spectroscopy, Cambridge, MA.

## Posters

- Preza, T., Krok, W., Wakschlag, L., **Norton, E.**, & Hadley, P. (2023). Short Sentences aren't so simple: What might they tell us about late-talking toddlers? American Speech-Language-Hearing Association, Boston, MA.
- Zhang, Y., MacNeill, L. A., Edwards, R. C., Burns, J. L., Zola, A. R., Poleon, R. B., Nili, A. N., Giase, G. M., Ahrenholtz, R. M., Wiggins, J. L., **Norton, E. S.**, & Wakschlag, L. S. (2023). Irritability trajectories at the transition to toddlerhood: Associations with effortful control and psychopathology risk. In Flash Talk Session: Transitions in early childhood: Longitudinal links to later internalizing symptoms. Society for Research in Child Development 2023 Biennial Meeting, Salt Lake City, UT.
- Hansen, E., Henry, L., Erjo, T., Roszypal, J., Pine, D., **Norton, E. S.**, Wakschlag, L. S., & Brotman, M. A. (2023). Creating a 'Fingerprint' to Predict Early Childhood Psychopathology Using Naturalistic Cry Audio Poster]. Accepted to the Association for Behavioral and Cognitive Therapies 2023 Convention, Seattle, WA.
- Henry, L., Lee, K., Roszypal, J., Erjo, T., Hansen, E., Curtis, P., Pereira, F., Pine, D. S., **Norton, E. S.**, Wakschlag, L. S., & Brotman, M. A. (2023). Naturalistic infant vocalizations at 12 months: Concurrent and predictive validity with irritability and psychopathology. In M. Brotman & N. Kalin (Chairs), A translational, multimethod perspective on early risk markers for later psychopathology. 62nd Annual Meeting of the American College of Neuropsychopharmacology, Tampa, FL.
- Wong, J. N., Walter, J., Conrad, E., & **Norton, E. S.** (2023). Linear association between age and key EEG power spectra from infancy in epilepsy. Fetal, Infant, and Toddler Neuroimaging Group, Santa Rosa, CA.
- Nayar, K., Shic, F., Guilfoyle, J., Winston, M., Stevens, C., Elahi, S., ^Clement-Lam, S., **Norton, E. S.**, & Losh, M. (2023). Distinct attentional, perceptual, and neural phenotypes in autism and first degree relatives: Neurocognitive insights from a multi-method, family study of visual perception and attention. International Society for Autism Research, Stockholm.
- Hansen, E., Henry, L., Erjo, T., Roszypal, J., Pine, D., **Norton, E. S.**, Wakschlag, L. S., Brotman, M. A. (2023, submitted). Creating a 'fingerprint' to predict early childhood psychopathology using naturalistic cry audio. Poster submitted to the Association for Behavioral and Cognitive Therapies Convention, Seattle, WA.
- ^Choi, S., ^Clement-Lam, S., & **Norton, E. S.** (2023). Examining phonological awareness and reading impairment in school age children with resting EEG. International Workshop on Reading and Developmental Dyslexia, San Sebastian, Spain.
- Hadley, P., Harrington, E., Krok, W., Preza, T., Wakschlag, L., & **Norton, E. S.** (2022). Sentence-focused diversity measures: A comparison of late-talking toddlers and typical peers. American Speech-Language-Hearing Association, New Orleans, LA.
- ^Choi, S., ^Clement-Lam, S., ^Kwok, E., ^Manning, B., ^McWeeny, S., ^Nikolaeva, J., & **Norton, E. S.** (2022). Can EEG theta inform us about reading impairment and phonological awareness? Society for the Scientific Study of Reading, Newport Beach, CA.
- Krok, W., Harrington, E., Preza, T., Buccheit, M., ^Harriott, E. M., ^Fredian, K., Wakschlag, L., **Norton, E. S.**, & Hadley, P. A. (2022). The sentence diversity priming task: An efficient tool for assessing toddlers' sentence production. Symposium on Research in Child Language Disorders, Madison, WI.
- ^Nikolaeva, J., ^Kwok, E., ^Choi, S. J., ^Manning, B. L., Wakschlag, L. S., & **Norton E. S.** (2022). A multi-contextual examination of predictors of expressive vocabulary among late and typical talking toddlers using a machine learning approach. Symposium on Research in Child Language Disorders. Madison, WI.
- ^Licht, H., ^Choi, S. J., ^Nikolaeva, J., ^Kwok, E., ^Manning, B. L., ^McWeeny, S., & **Norton E. S.** (2022). Comparing manual and automated EEG data processing methods for analyzing developmental EEG Data. Cognitive Neuroscience Society, San Francisco, CA.
- Letkiewicz, A., Wakschlag, L., Briggs-Gowan, M., Norton, E., & Shankman, S. (2022). Computational and neural evidence of aberrant inhibitory control in preadolescents with an internalizing and/or externalizing disorder. Society for Biological Psychiatry, New Orleans, LA.
- ^Nikolaeva, J. I., ^Manning, B. L., ^Choi, S. J., ^Harriott, E. M., ^Fredian, K. M., Wakschlag, L. S. & **Norton, E. S.** (2021). Assessing how EEG gamma power and SES explain variability in language skills among late and typical talking toddlers. Flux Congress on Developmental Cognitive Neuroscience.
- ^Nyabingi, O. S., ^Manning, B., ^Jo, Y., ^Liang, W., & **Norton, E. S.** (2021). Does joint engagement influence the relation between home environmental factors and child vocabulary development? Symposium on Research in Child Language Disorders.
- ^Clement-Lam, S. S. Y., ^Manning, B., ^McWeeny, S., & **Norton, E. S.** (2020, conference cancelled). The unique contribution of letter-sound integration to English-speaking children's reading performance. Society for the Scientific Study of Reading.
- ^Choi, J., ^McWeeny, S., Roberts, M. Y., & **Norton, E. S.** (2020, conference cancelled). Rapid automatized naming as a kindergarten predictor of future reading: A Meta-analysis. Symposium on Research in Child Language Disorders, Madison, WI.

- ^Nikolaeva, J., Roberts, M. Y., & **Norton, E. S.** (2020, conference cancelled). Evaluating reliability and validity of an automated measure of verbal responsiveness among parents of children with autism spectrum disorder. Symposium on Research in Child Language Disorders, Madison, WI.
- Woodruff Carr, K., Perszyk, D. R., **Norton, E. S.**, Voss, J. L., & Waxman, S. R. (2019). Alpha oscillatory activity reflects infants' emerging link between sounds and cognition. Society for Neuroscience, Chicago, IL.
- ^Manning, B., Hampton, L., Roberts, M., & **Norton, E.** (2019). EEG correlates of social engagement during naturalistic parent-child interaction in typical development and ASD. Society for Research in Child Development, Baltimore, MD.
- Kessler, C., Sabol, T. J., **Norton, E.**, Heard-Garris, N., Briggs-Gowan, M., & Wakschlag, L. (2019). Effects of early life stress on children's disruptive behaviors: Perceptions matter. Society for Research in Child Development, Baltimore, MD.
- Norton, E. S.**, Sideridis, G., Ozernov-Palchik, O., Beach, S. D., Wolf, M., Gabrieli, J. D. E., & Gaab, N. (2018). Both low phonological and low rapid naming skills disrupt typical patterns of reading development: A cusp catastrophe model. Society for the Scientific Study of Reading, Brighton, UK.
- ^Lam, S. S. Y., Ozernov-Palchik, O., Gaab, N., & Gabrieli, J. (2018). Modeling relations among rapid automatized naming, processing speed, and reading fluency in reading development. Society for the Scientific Study of Reading, Brighton, UK.
- ^Harriott, E., ^Manning, B., & **Norton, E.** (2018). Examining how parents' language abilities relate to toddler language abilities and growth after a pilot app-based language intervention. Symposium on Research in Child Language Disorders, Madison, WI.
- ^McWeeny, S., ^Manning, B., ^Harriott, E., ... Gabrieli, J., Gaab, N., & **Norton, E. S.** (2018). Reliability of the mismatch negativity in a kindergarten population oversampled for dyslexia risk. Cognitive Neuroscience Society, Boston, MA.
- Ozernov-Palchik, O., Brown, M., **Norton, E. S.**, Perrachione, T., Beach, S., Wolf, M., Kuperberg, G., Gaab, N., & Gabrieli, J. (2017). Investigating lexical and perceptual learning effects on phonetic processing in young children with dyslexia. Society for the Scientific Study of Reading, Halifax, Canada.
- Norton, E. S.**, ^Harriott, E. M., ^Brown, S., ^Isaacs, S. H., ^Kaufer, S., ^Selph, L., Gaab, N., & Gabrieli, J. D. E. (2016). How response time variability during a rapid automatized naming task relates to pre-reading skills and future reading ability. Psychonomic Society Annual Meeting, Boston, MA.
- Nayar, K., Hogan-Brown, A., La Valle, C., Gordon, P., Martin, G., **Norton, E. S.**, & Losh, M. (2016). Rapid automatized naming as a marker of genetic liability to autism: An eye tracking study. International Meeting for Autism Research, Baltimore, MD.
- Zuk, J., Becker, B., **Norton, E.**, Ozernov-Palchik, O., Mauer, M., Beach, S., Hogan, T., Gabrieli, J., & Gaab, N. (2016). Structural brain alterations in kindergarteners with speech sound disorders. Cognitive Neuroscience Society, New York, NY.
- Norton, E. S.**, Beach, S. D., Cyr, A., Ozernov-Palchik, O., Gaab, N., & Gabrieli, J. D. (2014). Kindergarten pre-reading skills and ERP mismatch negativity predict 1st grade connected text reading fluency. Cognitive Neuroscience Society, Boston, MA.
- Litt, R., de Jong, P., **Norton, E. S.**, & Nation, K. (2014). To repeat or not to repeat? The effect of item repetition on RAN performance. Society for the Scientific Study of Reading, Santa Fe, NM.
- Ozernov-Palchik, O., **Norton, E. S.**, Beach, S. D., Langer, N., Cyr, A., Gabrieli, J., & Gaab, N. (2013). Subcomponents of early reading correlate with cortical thickness in distinct reading network areas. Organization for Human Brain Mapping, Seattle, WA.
- Norton, E. S.**, Beach, S., Ozernov-Palchik, O., Cyr, A., Gaab, N., & Gabrieli, J. (2013). Rapid automatized naming skill is associated with brain activation for orthographic processing in kindergarteners. Cognitive Neuroscience Society, San Francisco, CA.
- Saygin, Z., **Norton, E. S.**, Beach, S., Cyr, A., Ozernov-Palchik, O., Gaab, N., & Gabrieli, J. D. E. (2012). Structural connectivity predicts risk for dyslexia in kindergarteners. Society for Neuroscience, New Orleans, LA.
- Norton, E. S.**, Eddy, M., Perrachione, T., Cyr, A., Wolf, M. & Gabrieli, J. D. (2011). ERP mismatch negativity predicts reading fluency in young children. Cognitive Neuroscience Society, San Francisco, CA.
- Perrachione, T., Kovelman, I., Ostrovskaya, I., **Norton, E.**, Ghosh, S., & Gabrieli, J. (2009). Temporal and prefrontal cortical contributions to phonological working memory for words and pseudowords. Society for Neuroscience, Chicago, IL.
- Norton, E. S.**, Kovelman, I., Gaab, N., Christodoulou, J. A., Triantafyllou, C., Lieberman, D. A., ... & Gabrieli, J. D. E. (2009). Evidence for different neural processing of auditory language phonological awareness in children with developmental dyslexia. Society for the Scientific Study of Reading, Boston, MA.
- Ullman, C., **Norton, E. S.**, Gottwald, S., Spencer, K., & Wolf, M. (2009). Evidence for a fluency-specific deficit in developmental dyslexia. Society for the Scientific Study of Reading, Boston, MA.
- Norton, E. S.**, Kovelman, I., Gaab, N., Christodoulou, J. A., Lieberman, D.A., Whitfield-Gabrieli, S., Wolf, M., & Gabrieli, J. D. E. (2009). Neural correlates of auditory phonological processing in typical reading development and dyslexia. Cognitive Neuroscience Society, San Francisco, CA.

## TEACHING

### *At Northwestern University*

**Cognitive Neuroscience of Human Communication, CSD 369/395**

2018-present

This undergraduate seminar includes didactic discussions of published papers and critical reflections in order to help students become critical readers of cognitive neuroscience literature. Students design and execute an ERP study as part of the course. Enrollment 4-8 students (capped at 8).

**Language Development and Usage, CSD 392** 2017-present  
This undergraduate course gives an overview of language development from birth through adulthood, in typical development and in children who are bilingual, acquiring a signed language, in poverty, or have a language disorder. Research methods and inquiry are highlighted. Enrollment 25-37 students.

**PhD Seminar: Experimental and Theoretical Aspects of Audiology, CSD 516** 2017-2022  
The goal of this PhD student seminar is to review major and emerging issues in hearing sciences and their relation to broader communication. Students engage in a journal club format to evaluate articles from the literature in terms of their rigor and argumentation.

**Pediatric Language Disorders, CSD 492** 2016-2017  
This course for MS-SLL students provides an overview of the etiology, characteristics, and treatment approaches for children with primary and secondary language disorders. Students complete assignments designed to develop their practical skills, such as weighing the evidence for different treatment approaches for a particular child's profile. Enrollment 25-37 students.

**CSD Honors Thesis Seminar** 2016-present  
I lead 4 workshops and work with students individually to complete their honors thesis. Workshops focus on development of their projects from communicating methods and results to developing an effective spoken presentation. 2-6 students per year typically complete the honors thesis.

### ***Other teaching***

**Harvard University**, Department of Psychology, 2010-11, Social Development, Teaching Fellow

**Tufts University**, Department of Child Development, 2007-10, Introduction to Child Development, Lead Teaching Assistant, Language Development, Teaching Assistant

**Landmark School**, Beverly, MA, 2005-06, Teacher for two sections each of Chemistry, Biology, and 1-on-1 reading tutorials for high school students with language-based learning disabilities.

## **PROFESSIONAL ACTIVITIES AND SERVICE**

- Grant review panels:*** NIH Language and Communication (LCOM) Grant Review Panel, Standing member 2022-2023; Ad-hoc member June 2018  
US Department of Defense (DoD) Congressionally Directed Medical Research Programs, October 2022  
NIH Behavioral Neuroscience Fellowship Review Panel (F02A), March 2022  
NIH Voice, Speech and Language Fellowship Review Panel (ZDC1 SRB-Z41L), June 2021  
ASHA Grants Review Panel, 2018, 2019, 2020
- Ad-hoc grant review:*** Research Grants Council of Hong Kong, 2022, 2023  
University of Rochester Del Monte Neuroscience grants, 2022  
Hong Kong Innovation and Technology Commission, 2018  
NIH Building Infrastructure Leading to Diversity Initiative (U54), 2017  
NSF Developmental and Learning Sciences Research Program, 2016  
Graduate Women in Science Research Awards, 2016  
US-Israel Binational Science Foundation, 2014

**Journal editorial boards:** *Scientific Studies of Reading*, 2019-present  
*Journal of Learning Disabilities*, 2017-present  
*Journal of Speech, Language, and Hearing Research*, 2018-2019

**Ad-hoc journal review** (past 3 years):

<i>American Journal of Speech-Language Pathology</i>	<i>Journal of Research in Reading</i>
<i>Brain Structure &amp; Function</i>	<i>Journal of Speech, Language, and Hearing Research</i>
<i>Cerebral Cortex</i>	
<i>Child Development Perspectives</i>	<i>Mind, Brain &amp; Education</i>
<i>Developmental Cognitive Neuroscience</i>	<i>NeuroImage</i>
<i>Developmental Psychobiology</i>	<i>Neuropsychologia</i>
<i>Developmental Science</i>	<i>PLoS One</i>
<i>Journal of the American Academy of Child &amp; Adolescent Psychiatry</i>	<i>Psychophysiology</i>
<i>Journal of Educational Psychology</i>	<i>The Journal of Neuroscience</i>
<i>Journal of Experimental Child Psychology</i>	<i>Trends in Neuroscience &amp; Education</i>

**Conference program committees:** Cognitive Neuroscience Society, Poster Committee, 2021, 2022  
Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG), 2022, 2023

**Outside thesis examiner:** University of Western Ontario, Department of Psychology, 2020  
University of Western Australia, School of Psychological Science, 2017

**Advisory boards:** The Reading League, Illinois Chapter, 2023-  
Home Visiting Applied Research Collaborative (HARC), Johns Hopkins University (consultant), 2021-2022  
EEG and MRI workgroups, Healthy Brain and Child Development (HBCD) national study, 2020-present  
Illinois State Board of Education, Reading Teacher/Reading Specialist Certification Advisory Panel, 2017  
LEAP (Language Empowers All People), Chicago IL, Academic advisory panel, 2016-present  
"Bridging the word gap" grant project, 2015-2016

**Continuing education/trainings:** The coaching model approach to mentorship, 2023  
Opioid Overdose Prevention and Response Training, Chicago Recovering Communities Coalition, February 2023  
Certificate in Leadership and Management Strategies for Clinical Investigators, NU Kellogg School of Management, May 2022

**Society memberships:** Cognitive Neuroscience Society  
Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG)  
Society for the Scientific Study of Reading, Voting Member, 2015-present  
Society for Research in Child Development  
Society for Neuroscience

**Conferences and symposia organized:**

"Understanding the autism spectrum: Clinical, biological, and cultural perspectives," Conference at Northwestern University, co-organized with Molly Losh and Megan Roberts, 2019.

"Learning and learning disabilities," Symposium co-organized with Steve Zecker for Northwestern CSD Connect Conference, 2018.

“New insights into reading development and disorders from diverse brain imaging modalities”  
Symposium co-organized with Robin Litt at the Society for the Scientific Study of Reading  
conference, Porto, Portugal, 2016.

“Neurobiology, neurochemistry, and genetics of dyslexia” Symposium co-organized with Nicole  
Landi at the Society for the Scientific Study of Reading conference, Kona, Hawaii, 2015.

## NORTHWESTERN UNIVERSITY SERVICE

<b>University service:</b>	Northwestern University Institute for Innovations in Developmental Sciences (DevSci), Executive committee member and Director of Neurodevelopmental Core, 2016–present, Associate Director for Neurodevelopmental Innovation and Impact, 2023–present Co-founder and co-director, Northwestern University Autism Research and Clinical Collaborative (NUARCC), 2019–present Provost’s new faculty mentoring program, 2023-present Interviewer, Physician Scientist Training Program and Medical Scientist Training Program, Feinberg School of Medicine, 2019-present Advisor, Desire 2 Aspire (mentoring group for undergraduate women to support elementary-age girls), 2019–present Faculty search committee (developmental MRI focus), Department of Medical Social Sciences, 2021-2022 Provost’s Pandemic Faculty Impact Response Workgroup, 2021-2023 Faculty search committee, Department of Psychology, 2017-2018
<b>School / departmental service:</b>	Director of Undergraduate Studies, CSD Department, 2020–present Module designer and coordinator, The Communicating Brain, 2018–present Module coordinator, Children and Communication, 2019–present CSD Undergraduate committee, Chair, 2018–present, member 2015–present CSD PhD program and admissions committee, 2015–2023 Search committee, NTE faculty/academic advisor in SoC, 2022, 2023 Review committee, Mancosh Pathways to the Professorate program, 2021 Committee on the first-year experience, SoC, 2017 CSD faculty search committee, 2016–2017
<b>Preceptor for training grants:</b>	Neuroscience of Human Cognition T32 (NINDS, PI Paller, 2019-present, Steering committee, 2022-present) Mental Health Earlier T32 (NIMH, PIs Wakschlag/Shankman, 2021-present)

## STUDENT MENTORING

**Northwestern PhD students, primary mentor (8 total, 5 current)**

**Current PhD students:**

Jinnie (Soujin) Choi (2019-present)  
Jiyoon Kim (2023-present)  
Hudi (Judith) Licht (2021-present)  
Serena Mon (2022-present)  
Julia Nikolaeva (2019-present)



**PhD student alumni and their subsequent roles:**

Silvia Clement-Lam, Ph.D. '19 (2015-19) – Associate director of research, University of Connecticut Waterbury, previous F32 postdoc w/Fumiko Hoeft, University of Connecticut  
Brittany Manning, CCC-SLP Ph.D. '21 (2016-21) – T32 postdoc w/Laurie Wakschlag, Northwestern, previous postdoc with Sophy Kim, Weill Cornell Medicine  
Sean McWeeny, Ph.D. '22 (2016-2022) – postdoc w/Laurel Trainor, LIVE Lab, McMaster University

**Northwestern PhD students, doctoral rotation or program/thesis committee member (25)**

*CSD students unless noted (NUIN: Northwestern Interdisciplinary Neuroscience PhD)*

Krystal Alvarez-Hernandez (2023-present)	Kailyn McFarlane (2021-present)
Peiyao Chen, Ph.D. '19 (2015-19)	Kritika Nayar, Ph.D. '20, Clinical Psych.(2015-20)
Phillip Curtis, Ph.D. '21 (2016-19)	Amanda Nili, Ph.D. '24 Clinical Psych. (2017-23; NIH diversity supplement co-mentor)
Donnisa Edmonds, NUIN (2022-present; lab rotation)	Alejandra Reinoso (2022-present)
Hannah Feiner (2022-present)	Bailey Sone, Ph.D. '24 CCC-SLP (2019-24)
Hannah Fipp-Rosenfield (2021-present)	Yael Stern, Ph.D. '21 (2016-present)
Kahla Graham CCC-SLP (2022-present)	Devin St. John (2015-16; lab rotation)
Lisa Gresch CCC-SLP (2017-19; lab rotation)	Murielle Standley (2021-present)
Milton Guendica (2023-present)	Kenya Thomas (2019)
Ania Holubecki, NUIN (2024 lab rotation)	Anele Villanueva (2019-2023)
Allison Hilger CCC-SLP, Ph.D. '20 (2017-18; lab rotation)	Kristi Ward, Ph.D.-Au.D. '20 (2017-20; NIH F31 co-sponsor)
Maranda Jones (2019-present)	Matthew Zellner CCC-SLP (2021-present)
Jordan Lee (2021-present)	

**Northwestern postdoctoral scholars, primary mentor (3) and current roles:**

Elaine Kwok, Ph.D. CCC-SLP (2021-2022) – Research Scientist, University of Pittsburgh  
Ashley Nielsen, Ph.D. (2019-2021) – Senior postdoc, Washington University in St. Louis  
Jessica Page, Ph.D. (2018-2020) – Fellow, Boston Children's Hospital, previous Research Fellow, American Academy of Sleep Medicine

**Northwestern MS-SLL (speech-language pathology) student research assistants (16)**

Biya Ahmed, '19 (2017-18)	Caitlin Hertzendorf '22 (2021)
Emma Baime '20 (diagnostic clinical placement, 2018-20)	Ann Lee '17 (2017)
Maggie Boland, '19 (2017-19)	Shradha Mehta '18 (2017)
Sara Brown '17 (2016-17)	Camille Nuttall '20 (2018-20)
Celia Kaufer '17 (2016-17)	Heather Turnbull '17 (2017)
Eliana Cashman '19 (2017-19)	Gabrielle Schwarte, '18 (diagnostic clinical placement, 2018)
Kiera Cook '18 (honors thesis, 2017-18)	Linda Selph '17 (2016)
Shauna Czarnik '17 (2017)	Jiaxin Alice Wang '21 (2019-21)
Alexandra Harpole '20 (honors thesis, diagnostic clinical placement, 2018-20)	

**Northwestern undergraduate students (34)**

*Noted honors/grants/awards: early research experience award (EREA), undergraduate research assistant (URAP), undergraduate research grant (URG), summer internship grant program (SIGP)*

**Current undergraduate students:**

Victor Chen (2022-present, indep study)	Bari Lewkowitz (2023-present)
Victor Criollo (URG, 2022-present)	Melany Morales (2023-present)
Lyla Heising (EREA, 2022-present)	Maggie Stanton (2023-present)
Pooja Krishnan (2023-present)	Vivianna White (EREA, 2021-present)

***Undergraduate alumni and their subsequent roles:***

Emma Baime '18 (2017-18) – MS-SLP at Northwestern '21; SLP early intervention provider  
Elaine Botros '22 (2020-22) – Medical student, Medical College of Wisconsin  
June Choe '20 (2019-20) – PhD student in Linguistics, University of Pennsylvania  
Nathalie Diaz-Lopez (EREA, 2020-2022)  
Emily Harriott '19 (EREA, URAP, URG, advanced URG, all-school outstanding sophomore honor, alumnae award, honors thesis, UG 2015-19, full-time research assistant, 2019-21) – PhD Student, Neuroscience (Laurie Cutting lab), Vanderbilt University  
Shelby Isaacs '18 (independent study, honors thesis, 2016-18) – resident physician, MD '23, Hofstra University  
Yuri Jo '21 (independent study, 2018-22) – SLP master's student, USC  
Jissmaria Karickal '20 (SIGP, independent study, 2019-20) – Medical student, St. Louis University  
Haroon Khan '20 (2019) – Applying to medical school  
Natalia Kolek '22 (SIGP, honors thesis, 2020-2022) – Current RA, HBCD study at Northwestern  
Winnie Liang '22 (EREA, all-school outstanding sophomore honor, independent study, 2018-2022) – Applying to medical school  
Gabriella Leibowitz '21 (URAP, 2020-22) - SLP master's student, Northwestern  
Anabel Marre (2020-2021)  
Jade Tierra Mitchell '18 (independent study, 2017-18) - SLP master's program, Vanderbilt, CCC-SLP  
Amira Mohamed (2022-2023)  
Olufemi Nyabingi '21 (Weinberg summer research grant, URG, honors thesis, 2019-21) – Incoming PhD student in Psychology, UC Davis; previous Research Assistant, Nathan Fox lab, University of Maryland College Park  
Skylar Ngozichukwu Ozoh '19 (URG, 2017-19) – applying to medical school  
Meakailyn Philips (EREA, 2019-2020)  
Kamila Postolowicz '20 (EREA, undergraduate language grant, independent study, 2017-2020) – SLP '23, University of Wisconsin-Madison, current SLP  
Anuradha Raife '20 (2019-20, 2023-present) – consultant/computer scientist, applying to MS-SLP  
Smitha Ramesh (URAP, 2020-2021)  
Cadence Reed-Bippen '20 (EREA, 2016-20) – SLP master's program  
Tessneem Shahbandar (2021-22), dental school  
Ola Wicko (independent study, SIGP, URG, honors thesis, 2020-22) - SLP master's student, Northwestern  
Ambreen Zaidi '20 (2019-20) – applying to medical school  
Kevin Zhang '19 (URG, 2016-17) – Researcher, St. Jude Children's Research Hospital

***Research staff mentees and subsequent roles:***

Tose Akinmola (NIH diversity supplement) – Human Development PhD student at UT Austin  
Abby Blum – clinical psychology PhD student at Vanderbilt University  
Kaitie Fredian – clinical psychology PhD student at Marquette University  
Ellen Grimes – school psychology PhD student at Baylor University  
Corey Richier – clinical psychology PhD student at University of Illinois Urbana-Champaign  
Tosin Shenbanjo (NIH diversity supplement) –policy analyst, Mathematica  
Stephanie Wert – psychology PhD student at University of California, Los Angeles

***Other students/mentees:***

Rick Qian (HS), Fall 2021-Spring 2022	Blair Daniel (Wellesley), 2014-2015
Jolie Davidson (Tufts), Summer 2019	Lucy Cronin-Golomb (Tufts), Summer 2015
Remi Weibel (Middlebury) Summer 2019	Madlyn Kates (HS), Summer 2014
Naomi Fischhoff (HS) Summer 2018	Ebenezer Nkwate (MIT), Summer 2014
Camille Nuttall (BYU), Summer 2017	Maria Ruiz (MIT), 2014
Elizabeth Hasseltine (UVA), Summer 2014, 2015	Andrew Peach (SLP clinical fellowship), 2013

Cirkine Sherry (HS), Summer 2013  
Candice Coulter (post-baccalaureate), 2012

Gina DiStefano (HS), Summer 2012  
Jessie Hild (HS), Summer 2012

### ***Trainee grants mentored***

Jinnie Choi, Dingwall Foundation Fellowship in language neuroscience, 2023-24  
Julia Nikolaeva, DevSci Graduate Student Fellowship, 2023-24  
Silvia Clement-Lam, DevSci Graduate Student Fellowship, 2018-2019  
Alice Wang, ASHA SPARC (Students Preparing for Academic Research Careers), 2020  
Rose Donohue, PhD (Washington University in St. Louis), consultant on K23MH125023:  
*Neurodevelopmental emergence of callous-unemotional behavior beginning in infancy: Neural markers and environmental risk and protective Factors, 2021-2026*  
Mary Lauren Neel, MD (Nationwide Children's Hospital/Ohio State), consultant on K23 application (resubmitted), *Early multimodal measures of preterm infant-parent emotional connection*

## **MEDIA and PRESS COVERAGE**

- Coverage of “Lability of prenatal stress” paper** 2022  
[Northwestern News](#), Mothers’ stress rollercoaster while pregnant linked to negative emotions in babies  
[CNN.com](#), Stress during pregnancy may have a negative emotional impact on babies, study finds  
[USA Today](#), Stress levels during pregnancy linked to 3-month-old babies who cry, fuss more, study finds  
[The Onion](#) (satire is an extreme form of flattery)
- “Doing Good Science and Doing Good”** 2022  
[Holderness School Today](#) alumni profile
- General info on child/brain development**  
[Fatherly.com](#), ‘Your kid’s brain development in the first 1,000 days’ 2021
- HBCD Study Launch** 2021  
[Northwestern News](#), ‘One of the largest-ever early-brain development studies has just launched’
- Work on impact of COVID-19 on child language learning** 2021-22  
[Honolulu Civil Beat](#), 6/22/2022, ‘Here’s what we know and don’t know about the impact of masks on kids’  
[Axios Today Podcast](#), 9/14/2021, ‘How the pandemic might be changing young kids’ learning’  
[Illinois NPR station WILL](#), 217 broadcast and podcast, also carried on [WFYI Indianapolis](#)  
[Illinois Public Media’s Illinois Newsroom](#), ‘Will the pandemic have lasting effects on child development?’  
[The Southern Illinoisan](#), ‘Concerned about your toddler’s speech development? Don’t delay seeking help’  
[The Southern Illinoisan](#), ‘Masks are necessary but pose a challenge for speech therapists working with young children’  
[Chicago Tribune](#) and [syndicated](#), ‘In these times of COVID-19, how does adults wearing masks affect children’s speech development?’  
[Northwestern News](#), ‘Remote data collection study offers promise for continuing research during the pandemic’
- Coverage of “Taking language samples home” paper** 2020  
[SALT Software Blog/Newsletter](#), ‘Desperate Time Calls for Desperate Measures: Take a Language Sample’  
[ASHA Now Newsletter](#), January 11, 2021, ‘Remote Versus In-Person Child Language Samples’  
#1 “Most Read” paper on ASHA Journals with over 5,800 downloads on that platform, 2021  
As of May 2022, over 11,000 combined downloads/views from ASHA and Psyrxiv
- Coverage of “Relations between toddler expressive language & temper tantrums” paper** 2019  
[NBC Chicago](#), ‘Researchers look into link between delayed speech, severe tantrums in toddlers’  
[Parents magazine](#) ‘Late talkers have more tantrums, according to new study’

ASHA Leader, 'Study indicates possible link between speech delays and Tantrums'  
Fatherly.com, 'Do your toddler's tantrums point to a bigger problem? Here's how to know'  
Northwestern News, Top 10 most-read story of the year, 'Late talkers twice as likely to have severe, frequent temper tantrums'  
Reddit: #1 post on /r/science, #15 on r/all on November 17, 2019; 39.7k upvotes  
 Also covered by Science Daily, Consumer Affairs, ecounseling.com, the Daily Northwestern, others.  
 International: Times of Malta, The Sector (Australia), Babyology (Australia), Southern Weekly (China).

**"Blame it on Gutenberg" Documentary**, featured expert, Black Pearl Productions/  
 Filmmakers Collaborative, <https://vimeo.com/342004109> 2019

**Interview on myths about dyslexia, Society for Neuroscience's brainfacts.org** 2018

**Coverage of "Connectivity Precedes Function in the VWFA" paper** 2016  
 Covered by Ars Technica, Science Daily, and others.  
MIT News Office article  
Commentary in journal issue by Dehaene & Dehaene

**NPR, "Here and Now" story on dyslexia prediction research** 2014  
Story about dyslexia and brain imaging research with kindergarteners produced by WBUR Boston

**Coverage of "Tracking the Roots of Reading Ability" paper** 2013  
MIT News Office article and video  
 Covered by the BBC, CBS News, US News and World Report, Boston Public Radio/WBUR, Fox, Boston Magazine, and others.

**Newsweek, "Is Brain-Based Learning a Myth?"** 2012  
Discussed findings from "Are There Separate Neural Systems for Spelling?" paper

<b>PUBLIC OUTREACH AND ADVOCACY</b>
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**Illinois Early Literacy Coalition/grassroots science of reading legislation**

- Provided input on reading screening and intervention bill HB 1124, 2023
- Prepared expert testimony for IL house

**Hyde Park Day Schools, Illinois**

- Provided consultation and talk for parents and teachers, 2019-present

**Avoca West Illinois School District 37**

- Worked with school leaders to provide training on evidence-based practices in reading instruction and develop literacy screening battery, 2020-present

**Decoding Dyslexia - Virginia branch**

- Provided consultation on screening for dyslexia in kindergarten, 2019-2020

**Northwestern National High School Institute summer program in CSD and Neuroscience**

- Program organizing committee, 2019
- Presented workshops on scientific communication and brain imaging tools to diverse students

**Illinois State Board of Education**

- Served as a member of workgroup on revision of Reading Specialist and Reading Teacher licensing and endorsement standards, 2017

**Jobs for Dyslexics**

- Delivered invited keynote at yearly fundraising dinner

- Provided consultation on science of dyslexia

### **Everyone Reading Illinois**

- Presented to annual conference for teachers, clinicians and parents, 2016 and 2017

### **Decoding Dyslexia - Massachusetts branch**

- Provided expert testimony regarding dyslexia legislation to MA Congress Joint Education Committee
- Organized two meetings on dyslexia research with state Secretary of Education

### **Landmark School**

- Wrote invited blog for Landmark360.org on dyslexia brain research
- Panel member for student career day and for presentations to faculty about dyslexia research