

F. Sayako Earle
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Communication Sciences and Disorders
University of Delaware
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Research areas: speech perception, memory consolidation, language-based learning disorders, adults with learning disabilities, declarative and procedural memory

Education

2016 Ph.D.	Speech, Language and Hearing Sciences	University of Connecticut
2012 completion of clinical program	Speech Language Pathology	University of Connecticut
2008 M.A.	Linguistics	University of Virginia
2003 B.A.	English, Studio Art	Kenyon College

Grants

Current support

- 2020 - 2022 University of Delaware Research Foundation grant “Investigating the roles of sleep and wakeful rest in the consolidation of a new speech-motor pattern” (Role: PI)
- 2019 American Speech and Hearing Foundation New Century Scholars Research Grant “The use of polysomnography to track perceptual learning in adults with developmental language impairment.” (Role: PI)
- 2019 University of Delaware College of Health Sciences Equipment Fund “Noise-canceling headphones for functional magnetic resonance imaging.” (Role: PI)
- 2018 - 2021 NIH NIDCD R21DC016391 “Perceptual learning and memory consolidation in adults with and without language impairment” (Role: PI)

Completed support

- 2015 - 2016 NIH NIDCD F31DC014194 "Phonetic learning in adults with and without language impairment." National Research Service Award (Role: PI)
- 2016 University of Connecticut Institute for the Brain and Cognitive Sciences seed grant (20 scan hours)

Awards

- 2010 - 2015 University of Connecticut Predoctoral Fellowship
- 2013 American Speech and Hearing Foundation New Century Doctoral Scholarship
- 2012 Innovative Science in Teaching – University of Connecticut internal funding competition for graduate student-lead research projects

Publications

- Van Zelst, A.L.**, **Earle, F.S.** (*under review*). A case for the role of memory consolidation in speech motor learning.
- Earle, F. S.**, Del Tufo, S.N. (*under review*). Literacy-supporting skills in college students with specific reading comprehension deficit and developmental language disorder.
- Earle, F.S.**, Qi, Z. (*under review*). Overnight changes to the representational quality of nonnative speech: a learning and memory account.
- Williams, L. C.,*** **Earle, F.S.** (*under review*). Overnight consolidation of speech sounds predicts decoding ability in skilled adult readers.
- Evans, T.M., **Earle, F.S.**, Del Tufo, S., Lipscomb, D.W., Lum, J.A.G., Ullman, M.T., Cutting, L.E. (*under review*) Arithmetic outcome predicted by children’s early learning and memory.
- Sengottuvel, K., Vasudevamurthy A.*, Ullman, M.T., **Earle, F. S.** (2020) Learning and consolidation of declarative memory in good and poor readers of English as a second language. *Frontiers in Psychology*, 11, 715.

- Del Tufo, S.N. & **Earle, F. S.** (2020). Skill profiles of college students with a history of developmental language impairment and developmental dyslexia. *Journal of Learning Disabilities*, 53(3), 228-240.
- Earle, F.S.**, Del Tufo S.N., Evans, T., Lum, J.A., Cutting, L.E., Ullman, M.T. (2020). Domain-general learning and memory substrates of reading acquisition. *Mind, Brain, and Education*, 24(2), 176-186.
- Ullman, M.T., **Earle, F.S.**, Walenski, M., Janacek, K. (2020). The neurocognition of developmental disorders of language. *Annual Review of Psychology*. 71, 389-417.
- Del Tufo, S.N., **Earle, F.S.**, Cutting, L.E. (2019). The impact of expressive language development and the left inferior longitudinal fasciculus on listening and reading comprehension. *Journal of Neurodevelopmental disorders*. 11(1), 1-27.
- Earle, F. S.**, Landi, N., & Myers, E. B. (2018). Adults with Specific Language Impairment fail to consolidate speech sounds during sleep. *Neuroscience letters*, 666, 58-63.
- Xie, X., **Earle, F.S.**, Myers, E. (2018) Sleep facilitates generalization of accent adaptation to a new talker. *Language, Cognition, and Neuroscience* 33(2), 196-210.
- Myers, E., Johns, A. R., **Earle, F. S.**, & Xie, X. (2017). The Invariance Problem in the Acquisition of Non-Native Phonetic Contrasts: From Instances to Categories. *The Speech Processing Lexicon: Neurocognitive and Behavioural Approaches*, 22, 52.
- Earle, F. S.**, & Arthur, D. T. (2017). Native phonological processing abilities predict post-consolidation nonnative contrast learning in adults. *The Journal of the Acoustical Society of America*, 142(6), EL525-EL531.
- Earle, F. S.**, Landi, N., & Myers, E. B. (2017). Sleep duration predicts behavioral and neural differences in adult speech sound learning. *Neuroscience letters*, 636, 77-82.
- Earle, F.S.**, Myers, E.B. (2015) Sleep and native language interference affects non-native speech sound learning. *Journal of Experimental Psychology: Human Perception and Performance*, Aug 17 , 2015. DOI:http://dx.doi.org/10.1037/xhp0000113
- Earle, F. S.**, Gallinat, E. L., Grela, B. G., Lehto, A., & Spaulding, T. J. (2015). Empirical implications of matching children with specific language impairment to children with typical development on nonverbal IQ. *Journal of learning disabilities*, 50(3), 252-260.
- Earle, F. S.**, & Myers, E. B. (2015). Overnight consolidation promotes generalization across talkers in the identification of nonnative speech sounds. *The Journal of the Acoustical Society of America*, 137(1), EL91-EL97. DOI:http://dx.doi.org/10.1121/1.4903918
- Earle, F.S.**, Myers, E.B. (2014) Building phonetic categories: an argument for the role of sleep. *Frontiers in Psychology: Language Sciences*, 5:1192. DOI=10.3389/fpsyg.2014.01192

* research student mentored by me (not in my lab)

**research trainee in my lab

***mentored MA capstone student

Professional Affiliations and Service

- University of Delaware Institutional Review Board
- Guest editor: *Brain and Language* special issue: “Perceptual Flexibility for Speech: What are the Pros and Cons?”
- Editorial Board member: *Frontiers in Language Sciences*, *Journal of Speech, Language, and Hearing Research*
- Ad-hoc foundation grant/scholarship reviewer: American Speech and Hearing Foundation, Israel Research Foundation, Language Learning
- Ad-hoc journal reviewer: *Brain and Language*, *Cortex*, *Cognitive Neuroscience*, *Journal of the Acoustical Society of America*, *Journal of Experimental Psychology: Learning, Memory and Cognition*, *Journal of Phonetics*, *Scientific Studies of Reading*, *Acta Psychologica*, *Cognitive Systems Research*, *Neuroscience Letters*, *Sleep Disorders*, *American Journal of Speech Language Pathology*, *Journal of Speech, Language, Hearing Research*, *Journal of the International Neuropsychological Society*; conference reviewer: Society for the Neurobiology of Language
- Member: American Speech and Hearing Association, Cognitive Science Society, Association for Psychological Science, Society for the Neurobiology of Language, Acoustical Society of America

- Session chair, Poster session at the Acoustical Society of America in Providence, RI, May 2014

Additional Training

- 2019 – present, participant, NIH Early Career Reviewer Program
- 2016 Conference Fellow, “Lessons for Success: Developing the Emerging Scientist” (co-sponsored by ASHA and NIDCD)
- 2015 Summer Sleep Institute, Sleep for Science Research Laboratory, Bradley Hospital, Providence, RI
- 2014 AFNI Bootcamp by the NIH, New Haven, CT