

Tyler K. Perrachione

Department of Speech, Language, and Hearing Sciences
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ACADEMIC APPOINTMENTS

Current

- 2020 – **Associate Professor**
Department of Speech, Language, and Hearing Sciences
College of Health and Rehabilitation Sciences: Sargent College
Boston University (Boston, Mass.)
- 2013 – **Research Affiliate**
McGovern Institute for Brain Research
Massachusetts Institute of Technology (Cambridge, Mass.)

Previous

- 2020 – 2023 **Faculty Affiliate**
Program in Speech and Hearing Bioscience and Technology
Division of Medical Sciences
Harvard Medical School (Cambridge, Mass.)
- 2013 – 2020 **Assistant Professor**
Department of Speech, Language, and Hearing Sciences
College of Health and Rehabilitation Sciences: Sargent College
Boston University (Boston, Mass.)
- 2013 **Lecturer**
Department of Speech-Language Pathology and Audiology
Bouvé College of Health Sciences
Northeastern University (Boston, Mass.)
- 2012 – 2013 **Postdoctoral Associate**
McGovern Institute for Brain Research
Massachusetts Institute of Technology (Cambridge, Mass.)

ACADEMIC AFFILIATIONS

Current

- 2020 – *Director:* Hearing Research Center
- 2020 – *Affiliated Faculty:* Department of Biomedical Engineering
- 2019 – *Affiliated Faculty:* Department of Linguistics
- 2014 – *Executive Member:* Center for Systems Neuroscience
- 2014 – *Joint Programmatic Appointment:* Undergraduate Program in Neuroscience
- 2014 – *Member:* Hearing Research Center
- 2013 – *Affiliated Faculty:* Graduate Program for Neuroscience
- 2013 – *Affiliated Faculty:* Program in Computational Neuroscience
- 2013 – *Director:* Communication Neuroscience Research Laboratory

Previous

- 2019 – 2020 *Associate Director:* Hearing Research Center
- 2016 – 2018 *Member:* Center for Research in Sensory Communications and Neural Technology
- 2015 – 2019 *Affiliated Faculty:* Program in Linguistics
- 2013 – 2016 *Member:* Center for Computational Neuroscience & Neural Technology
- 2013 – 2015 *Affiliated Faculty:* Program in Applied Linguistics

EDUCATION

- 2012 **Ph.D., Neuroscience**
Massachusetts Institute of Technology (Cambridge, Mass.)
Major field: Systems Neuroscience; *Minor field:* Speech and Hearing Science
Thesis: "Impaired learning of phonetic consistency and generalized neural adaptation deficits in dyslexia."
- 2007 **M.A., Linguistics**
Northwestern University (Evanston, Ill.)
Thesis: "A linguistic basis for the language-familiarity effect in talker identification."
- 2007 **B.A., Linguistics and Cognitive Science, cum laude**
Northwestern University (Evanston, Ill.)
Major emphasis: Cognitive Neuroscience, with departmental honors.
- 2005 Visiting Student, Tsinghua University (Beijing, PR China)
Studies: Mandarin Chinese, history and political economy of China.
- 2001 – 2003 Post-secondary studies, Truman State University (Kirksville, Mo.)
Studies: Mandarin Chinese, French, Italian, economics, and accounting.
- 1999 – 2003 Kirksville Senior High School, (Valedictorian) (Kirksville, Mo.)
 General studies, with advanced courses in chemistry, physics, and history.

RESEARCH INTERESTS

- Brain bases of complex auditory processing in speech and language
- Neural and psychological foundations of processing variability in speech perception
- Human voice recognition and talker identification
- Multiple timescales of neural plasticity and their role in speech, language, and communication
- Developmental disorders of language and reading (specific language impairment, dyslexia, autism)

RESEARCH FUNDING***As Principal Investigator***

- 2018 – 2021 NIH R03 HD096098 PI: Tyler Perrachione Total Costs: \$165,000
 (NICHD) Cortical development and neuroanatomical anomalies in developmental dyslexia
 Role: Principal Investigator
- 2018 – 2020 NSF BCS 1840674 Site PI: Tyler Perrachione Total Costs: \$590,313
 NeuroDataRR. Collaborative Research: Testing the relationship between musical training and
 enhanced neural coding and perception in noise
 (Multi-Site PI: Andrew Oxenham)
- 2016 – 2018 NARSAD Young Investigator Grant PI: Tyler Perrachione Total Costs: \$70,000
 (Brain & Behavior Research Foundation) Dysfunction of cortical systems for language and
 working memory in autism spectrum disorder
 Role: Principal Investigator
- 2015 – 2019 NIH R03 DC014045 PI: Tyler Perrachione Total Costs: \$491,100
 (NIDCD) Neural bases of phonological working memory in developmental language disorders
 Role: Principal Investigator

As Co-Investigator

- 2023 – 2024 NIH R56 DC020208 PI: Zhenghan Qi Total Costs: \$727,247
 (NIDCD) Predicting language and literacy growth in children with ASD using statistical
 learning
 Role: Co-Investigator; Sub-Award PI
- 2021 – 2026 NIH R01 DC007683 PI: Frank Guenther Total Costs: \$3,245,715
 (NIDCD) Sequencing and initiation in speech production
 Role: Co-Investigator

2020 – 2022	New Century Scholars Research Grant PI: Sung-Joo Lim (American Speech-Language-Hearing Foundation) Neural systems for attentional control in speech processing Role: Sub-Award PI	Total Costs: \$25,000
2016 – 2023	NIH R01 DC004545 PI: Gerald Kidd (NIDCD) Central factors in auditory masking Role: Co-Investigator	Total Costs: \$2,790,865

As Consultant

2023 – 2028	NIH R01 HD111936 PIs: X. Xie & C. Kurumada (NICHD) Identifying the mechanisms of adaptive speech perception Role: Consultant	Pending: \$1,952,673
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Research Support for Trainees

2024 – 2025	NIH F32 HD114392 PI: Juliana Ronderos (NICHD) Longitudinal trajectories of white matter and reading development in bilingual children Role: Co-Sponsor	Total Costs: \$158,580
2023 – 2026	NSF Graduate Research Fellowship Fellow: Arielle Moore Role: Mentor	Total Costs: \$147,000
2020 – 2023	NIH K99 DC018829 PI: Sarah Villard (NIDCD) Listening effort under auditory masking conditions in persons with acquired aphasia Role: Co-Mentor	Total Costs: \$627,686
2019 – 2021	NIH F31 HD100101 PI: Sara Beach (NICHD) Predictive coding in typical speech perception and dyslexia Role: Co-Sponsor	Total Costs: \$70,294
2018 – 2021	NIH F32 MH117933 PI: Anila D’Mello (NIMH) Characterizing neural adaptation in autism spectrum disorder Role: Co-Sponsor	Total Costs: \$178,866

Submissions & Pending Awards

2022 – 2027	NIH R01 DC020449 PI: Tyler Perrachione (NIDCD) The role of talker cues in speech processing in normal and impaired hearing Role: Principal Investigator	Requested: \$3,584,647
2022 – 2027	NIH R01 HD108600 PI: Tyler Perrachione (NICHD) Developmental functional neuroanatomy of dyslexia Role: Principal Investigator	Requested: \$2,062,500
2024 – 2026	NIH R21 DC021763 PI: Elin Roverud (NIDCD) Transcranial stimulation combined with auditory training Role: Co-Investigator	Requested: \$453,750

PROFESSIONAL HONORS AND AWARDS

2019	Early Career Travel Subsidy, Acoustical Society of America (\$500)
2013 – 2016	Peter Paul Career Development Professorship, Boston University (\$120,000)
2012	Walle Nauta Award for Continuing Dedication to Teaching, MIT Department of Brain and Cognitive Sciences
2011	Walle Nauta Award for Continuing Dedication to Teaching, MIT Department of Brain and Cognitive Sciences
2010	Angus McDonald Award for Excellence in Undergraduate Teaching, MIT Department of Brain and Cognitive Sciences
2008 – 2011	National Science Foundation Graduate Research Fellowship (\$121,500)

PEER-REVIEWED JOURNAL PUBLICATIONS (* denotes students and trainees)

Best, V., Ahlstrom, J.B., Mason, C.R., **Perrachione, T.K.**, Kidd, G., & Dubno, J.R. (in press). Talker change detection by listeners varying in age and hearing loss. *Journal of the Acoustical Society of America*.

- *Fleming, J.T., *Njoroge, J.M., Noyce, A.L., **Perrachione, T.K.**, & Shinn-Cunningham, B.G. (in press). Similarity in sensory modality and information domain contribute jointly to dual-task interference between working memory and perceptual processing. *Imaging Neuroscience*.
- *Lee, J.J., *Scott, T.L., & **Perrachione, T.K.** (2024). Efficient functional localization of language regions in the brain. *NeuroImage*, 285, 120489.
- Miller, H.E., Kearney, E., Nieto-Castañón, A., Falsini, R., Abur, D., Acosta, A., Chao, S.-C., Dahl, K.L., Franken, M., Heller Murray, E.S., Mollaei, F., Niziolek, C.A., Parrell, B., **Perrachione, T.K.**, Smith, D.J., Stepp, C.E., Tomassi, N. & Guenther, F.H. (2023). Do not cut off your tail: A mega-analysis of responses to auditory perturbation experiments. *Journal of Speech, Language, and Hearing Research*, 66, 4315-4331.
- Alho, J., Samuelsson, J., Khan, S., Mamashli, F., Bharadwaj, H., Losh, A. McGuiggan, N., Graham, S., Nayal, Z., **Perrachione, T.K.**, Joseph, R.M., Stoodley, C., Hämäläinen, M.S., & Kenet, T. (2023). Both stronger and weaker cerebro-cerebellar functional connectivity patterns during processing of spoken sentences in autism spectrum disorder. *Human Brain Mapping*, 44, 5810-5827.
- *Villard, S., **Perrachione, T.K.**, Lim, S.-J., *Alam, A. & Kidd, G. (2023). Energetic and informational masking place dissociable demands on listening effort: Evidence from simultaneous EEG and pupillometry. *Journal of the Acoustical Society of America*, 154, 1152-1167.
- *D'Mello, A., Frosch, I.R., Meisler, S.L., Grotzinger, H., **Perrachione, T.K.**, & Gabrieli, J.D.E. (2023). Diminished repetition suppression reveals selective and systems-level face processing differences in ASD. *Journal of Neuroscience*, 43, 1952-1962.
- Alho, J., Khan, S., Mamashli, F. **Perrachione, T.K.**, Losh, A. McGuiggan, N., Graham, S., Nayal, Z., Joseph, R.M., Hämäläinen, M.S., Bharadwaj, H., & Kenet, T. (2023). Atypical cortical processing of bottom-up speech binding cues in children with autism spectrum disorders. *NeuroImage: Clinical*, 37, 103336.
- *Kapadia, A.M., *Tin, J.A.A., & **Perrachione, T.K.** (2023). Multiple sources of variation affect speech processing efficiency. *Journal of the Acoustical Society of America*, 153, 209-223.
- O'Brien, A.M., **Perrachione, T.K.**, Wisman Weil, L., Sanchez Araujo, Y., Halverson, K., Harris, A., Ostrovskaya, I., Kjølgaard, M., Wexler, K., Tager-Flusberg, H., Gabrieli, J.D.E., & Qi, Z. (2022). Altered engagement of the speech motor network is associated with reduced phonological working memory in autism. *NeuroImage: Clinical*, 37, 103299.
- Romeo R.R., **Perrachione, T.K.**, Olson, H.A., Halverson, K., Gabrieli, J.D.E., Christodoulou, J.A. (2022). Socioeconomic dissociations in the neural and cognitive bases of reading disorders. *Developmental Cognitive Neuroscience*, 58, 101175.
- *Lee, J.J. & **Perrachione, T.K.** (2022). Implicit and explicit learning in talker identification. *Attention, Perception, & Psychophysics*, 84, 2002-2015.
- Ozernov-Palchik, O., *Beach, S.D., Brown, M., Centanni, T., Gaab, N., Kuperberg, G., **Perrachione, T.K.**, Gabrieli, J.D.E. (2022). Speech-specific perceptual adaptation deficits in children and adults with dyslexia. *Journal of Experimental Psychology - General*, 151, 1556-1572.
- *Beach, S.D., Ozernov-Palchik, O., May, S.C., Centanni, T.M., **Perrachione, T.K.**, Pantazis, D., & Gabrieli, J.D.E. (2022). The neural representation of a repeated standard stimulus in dyslexia. *Frontiers in Human Neuroscience*, 16:823627.
- *Choi, J.Y., *Kou, R.S.N., & **Perrachione, T.K.** (2022). Distinct mechanisms for talker adaptation operate in parallel on different timescales. *Psychonomic Bulletin & Review*, 29, 627-634.
- *Beach, S.D., *Lim, S.-J., Cardenas-Iniguez, C., Eddy, M.D., Gabrieli, J.D.E., & **Perrachione, T.K.** (2022). Electrophysiological correlates of perceptual prediction error are attenuated in dyslexia. *Neuropsychologia*, 165, 108091.
- *Lim, S.-J., *Carter, Y.D., *Njoroge, J.M., Shinn-Cunningham, B.G., & **Perrachione, T.K.** (2021). Talker discontinuity disrupts attention to speech: Evidence from EEG and pupillometry. *Brain & Language*, 221, 104996.
- Alho, J., Khan, S., Bharadwaj, H., Mamashli, F., Joseph, R.M., **Perrachione, T.K.**, Losh, A., McGuiggan, N., Hämäläinen, M.S., & Kenet, T. (2021). Altered maturation and atypical preattentive cortical processing of meaningful speech in autism spectrum disorder. *Progress in Neurobiology*, 203, 102077.

- *Li, R., **Perrachione, T.K.**, Tourville, J.A., & Kiran, S. (2021). Representation of semantic typicality in brain activation in healthy adults and individuals with aphasia: A multi-voxel pattern analysis. *Neuropsychologia*, 158, 107893.
- *Scott, T.L., *Haenchen, L., Dailiri, A., *Chartove, J., Guenther, F.H. & **Perrachione, T.K.** (2020). Noninvasive neurostimulation of left ventral motor cortex enhances sensorimotor adaptation in speech production. *Brain and Language*, 209, 104840.
- *Kapadia, A.M. & **Perrachione, T.K.** (2020). Selecting among competing models of talker adaptation: Attention, cognition, and memory in speech processing efficiency. *Cognition*, 204, 104393.
- Wagley, N., **Perrachione, T.K.**, Ostrovskaya, I., Ghosh, S.S., Saxler, P.K., Lymberis, J., Wexler, K., Gabrieli, J.D.E., & Kovelman, I. (2019). Persistent neurobehavioral markers of developmental morphosyntax errors in adults. *Journal of Speech, Language, and Hearing Research*, 62, 4497-4508.
- Perrachione, T.K.**, *Furbeck, K.T. & *Thurston, E.J. (2019). Acoustic and linguistic factors affecting perceptual similarity judgments of voices. *Journal of the Acoustical Society of America*, 146, 3383-3399.
- *Scott, T.L. & **Perrachione, T.K.** (2019). Common cortical architectures for phonological working memory identified in individual brains. *NeuroImage*, 202, 116096.
- *Choi, J.Y. & **Perrachione, T.K.** (2019). Noninvasive neurostimulation of left temporal lobe disrupts rapid talker adaptation in speech processing. *Brain and Language*, 196, 104655.
- *Choi, J.Y. & **Perrachione, T.K.** (2019). Time and information in perceptual adaptation to speech. *Cognition*, 192, 103982.
- *Lim, S.-J., Shinn-Cunningham, B.G., & **Perrachione, T.K.** (2019). Effects of talker continuity and speech rate on auditory working memory. *Attention, Perception, & Psychophysics*, 81, 1167-1177.
- *McLaughlin, D.E., *Carter, Y., *Cheng, C.C., & **Perrachione, T.K.** (2019). Hierarchical contributions of linguistic knowledge to talker identification: Phonological versus lexical familiarity. *Attention, Perception, & Psychophysics*, 81, 1088-1107.
- Qi, Z., Han, M., Wang, Y., de los Angeles, C., Liu, Q., Garel, K., Chen, E., Whitfield-Gabrieli, S., Gabrieli, J.D.E., & **Perrachione T.K.** (2019). Speech processing and plasticity in the right hemisphere predict real-world foreign language learning in adults. *NeuroImage*, 192, 76-87.
- *Choi, J.Y., *Hu, E., & **Perrachione, T.K.** (2018). Varying acoustic-phonetic similarity reveals talker normalization is obligatory in speech processing. *Attention, Perception, & Psychophysics*, 80, 784-797.
- Best, V., Ahlstrom, J.B., Mason, C.R., Roverud, E., **Perrachione, T.K.**, Kidd, G., & Dubno, J.R. (2018). Talker identification: Effects of masking, hearing loss and age. *Journal of the Acoustical Society of America*, 143, 1085-1092.
- Perrachione, T.K.**, Ghosh, S.S., Ostrovskaya, I., Gabrieli, J.D.E., & Kovelman, I. (2017). Phonological working memory for words and nonwords in cerebral cortex. *Journal of Speech, Language, and Hearing Research*, 60, 1959-1979.
- Christodoulou, J.A., Murtagh, J., Cyr, A., **Perrachione, T.K.**, Chang, P., Halverson, K., Hook, P., Yendiki, A., Ghosh, S.S., & Gabrieli, J.D.E. (2017). Relation of white-matter microstructure to reading ability and disability in beginning readers. *Neuropsychology*, 31, 508-515.
- Perrachione, T.K.**, Del Tufo, S.N., Winter, R., Murtagh, J., Cyr, A., Chang, P., Halverson, K., Ghosh, S.S., Christodoulou, J.A. & Gabrieli, J.D.E. (2016). Dysfunction of rapid neural adaptation in dyslexia. *Neuron*, 92, 1383-1397.
- Lu, C., Qi, Z., Harris, A., Wisman Weil, L., Han, M., Halverson, K., **Perrachione, T.K.**, Kjølgaard, M., Wexler, K., Tager-Flusberg, H., & Gabrieli, J.D.E. (2016). Shared neuroanatomical substrates of impaired phonological working memory across reading disability and autism. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 1, 169-177.
- Perrachione, T.K.**, Stepp, C.E., Hillman, R.E., & Wong, P.C.M. (2014). Talker identification across source mechanisms: Experiments with laryngeal and electrolarynx speech. *Journal of Speech, Language, and Hearing Research*, 57, 1651-1665.
- Perrachione, T.K.**, Fedorenko, E.G., Vinke, L., Gibson, E., Dilley, L.C. (2013). Evidence for shared cognitive processing of pitch in language and music. *PLoS One*, 8(8): e73372.
- Perrachione, T.K.** & Ghosh, S.S. (2013). Optimized design and analysis of sparse-sampling fMRI experiments. *Frontiers in Neuroscience*, 7, 55.

- Perrachione, T.K.**, Del Tufo, S.N., Gabrieli, J.D.E. (2011). Human voice recognition depends on language ability. *Science*, 333, 595.
- Perrachione, T.K.**, Lee, J., Ha, L.Y.Y., & Wong, P.C.M. (2011). Learning a novel phonological contrast depends on interactions between individual differences and training paradigm design. *Journal of the Acoustical Society of America*, 130, 461-472.
- Perrachione, T.K.**, Chiao, J.Y. & Wong, P.C.M. (2010). Asymmetric cultural effects on perceptual expertise underlie an own-race bias for voices. *Cognition*, 114, 44-52.
- Perrachione, T.K.**, Pierrehumbert, J.B. & Wong, P.C.M (2009). Differential neural contributions to native- and foreign-language talker identification. *Journal of Experimental Psychology - Human Perception and Performance*, 35, 1950-1960.
- Wong, P.C.M., **Perrachione, T.K.**, Margulis, E.H. (2009). Effects of asymmetric cultural experiences on the auditory pathway: Evidence from music. *Annals of the New York Academy of Sciences*, 1169, 157-163.
- Wong, P.C.M., **Perrachione, T.K.**, Gunasekera, G., Chandrasekaran, B. (2009). Communication disorders in speakers of tone languages: Etiological bases and clinical considerations. *Seminars in Speech and Language*, 30, 162-173.
- Perrachione, T.K.** & Perrachione, J.R. (2008). Brains and brands: Developing mutually informative research in neuroscience and marketing. *Journal of Consumer Behaviour*, 7, 303-318.
- Perrachione, T.K.** & Wong, P.C.M. (2007). Learning to recognize speakers of a non-native language: Implications for the functional organization of human auditory cortex. *Neuropsychologia*, 45, 1899-1910.
- Wong, P.C.M., **Perrachione, T.K.** & Parrish, T.B. (2007). Neural characteristics of successful and less successful speech and word learning in adults. *Human Brain Mapping*, 28, 995-1006.
- Wong, P.C.M. & **Perrachione, T.K.** (2007). Learning pitch patterns in lexical identification by native English-speaking adults. *Applied Psycholinguistics*, 28, 565-585.

CHAPTERS IN EDITED VOLUMES

- Perrachione, T.K.** (2019). Recognizing speakers across languages, in S. Frühholz & P. Belin (Eds.), *The Oxford Handbook of Voice Perception*, Oxford: Oxford University Press.

PEER-REVIEWED CONFERENCE PROCEEDINGS (* denotes students and trainees)

- *Chang, A.C.-L., **Perrachione, T.K.**, Lim, S.J. (2023). Evidence for preserved phonetic sensitivity to lexical tones in Chinese international adoptees. *20th International Congress of Phonetic Sciences* (Prague, August 2023).
- Perrachione, T.K.**, Gabrieli, J.D.E., & Finn, A.S. (2023). Learning to distinguish the three-way laryngeal contrast of Korean plosives by native English speakers. *20th International Congress of Phonetic Sciences* (Prague, August 2023).
- *Carter, Y.D., *Lim, S.-J. & **Perrachione, T.K.** (2019). Talker continuity facilitates speech processing independent of listeners' expectations. *19th International Congress of Phonetic Sciences* (Melbourne, August 2019).
- *Choi, J.Y. & **Perrachione, T.K.** (2019). Rapid adaptation to talker-specific phonetic detail is disrupted by noninvasive brain stimulation. *19th International Congress of Phonetic Sciences* (Melbourne, August 2019).
- *Kapadia, A.M. & **Perrachione, T.K.** (2019). Processing costs imposed by talker variability do not scale with number of talkers. *19th International Congress of Phonetic Sciences* (Melbourne, August 2019).
- *Lim, S.-J., *Qu, A., *Tin, J.A.A., & **Perrachione, T.K.** (2019). Attentional reorientation explains processing costs associated with talker variability. *19th International Congress of Phonetic Sciences* (Melbourne, August 2019).
- *Scott, T.L., *Haenchen, L., Dailiri, A., *Chartove, J., Guenther, F.G., **Perrachione, T.K.** (2019). Speech motor adaptation during perturbed auditory feedback is enhanced by noninvasive brain stimulation. *19th International Congress of Phonetic Sciences* (Melbourne, August 2019).
- Perrachione, T.K.**, *Dougherty, S.C., *McLaughlin, D.E., & *Lember, R.A. (2015). The effects of speech perception and speech comprehension on talker identification. *18th International Congress of Phonetic Sciences* (Glasgow, August 2015).

*Petitti, E., & **Perrachione, T.K.** (2015). A fundamental bias for residue pitch perception in tone language speakers. *18th International Congress of Phonetic Sciences* (Glasgow, August 2015).

*McLaughlin, D.E., *Dougherty, S.C., *Lember, R.A., & **Perrachione, T.K.** (2015). Episodic memory for words enhances the language familiarity effect in talker identification. *18th International Congress of Phonetic Sciences* (Glasgow, August 2015).

Perrachione, T.K., Del Tufo, S.N., Ghosh, S.S., Gabrieli, J.D.E. (2011). Phonetic variability in speech perception and the phonological deficit in dyslexia. *17th Meeting of the International Congress of Phonetic Sciences*, (Hong Kong, August 2011).

Lee, J.Y., **Perrachione, T.K.**, Dees, T.M., & Wong, P.C.M. (2007). Differential effects of stimulus variability and learners' pre-existing pitch perception ability in lexical tone learning by native English speakers. *16th Meeting of the International Congress of Phonetic Sciences* (Saarbrücken, Germany, August 2007).

Perrachione, T.K. & Wong, P.C.M. (2007). Increased left-hemisphere contribution to native- versus foreign-language talker identification revealed by dichotic listening. *16th Meeting of the International Congress of Phonetic Sciences* (Saarbrücken, Germany, August 2007).

MANUSCRIPTS (* denotes students and trainees)

In revision or revisions submitted:

*Lim, S.-J., Shinn-Cunningham, B.G., **Perrachione, T.K.** (revised). Auditory stream discontinuities disrupt attentional focus during speech processing.

*Lee, J.J., *Tin, J.A.A., & **Perrachione, T.K.** (revised). Foreign language talker identification training does not generalize to new talkers.

Submitted for peer review:

*Liu, Y. *Choi, J.Y., & **Perrachione, T.K.** (submitted). Systematic bias in surface area asymmetry measurements from automatic cortical parcellations.

*Belisle, R.M., *Scott, T.L., & **Perrachione, T.K.** (submitted). Selectivity for high-level language processing is highly localized in individual brains.

In preparation by trainees and collaborators:

Task-dependent functional connectivity of language-selective brain areas (with *Moore, A.A., *Scott, T.L., & Stephen, E.P.)

Morphology, microstructure, and connectivity of Heschl's gyrus and planum temporale across development in autism spectrum disorder (with *Tak, K., *Belisle, R.M., *Henderson, J., *Torre, G.A., *Kapadia, A.M., Qi, Z., Gabrieli, J.D.E., & Tager-Flusberg, H.)

Structural organization and functional selectivity of the cortical language network in dyslexia. (with *Lee, J.J., *Belisle, R.M., *Moore, A.A., & *Scott, T.L.)

Talker adaptation is intact in dyslexia. (with *Beach, S.D., *Choi, J.Y., May, S.C., Gabrieli, J.D.E.)

Learning to identify emotional voices. (with *Shen, L., *Kapadia, A.M. & Wong, P.C.M.)

Neural responses during procedural memory tasks are related to foreign language learning outcomes. (with *Lim, S.-J., *Babcock, S., Han, M., Salvatore, J. Minas, J.E., Finn, A.S., Gabrieli, J.D.E., & Qi, Z.)

Subject-specific conjunction maps reveal functional dissociation between language and working memory. (with *Scott, T.L.)

Who's at the cocktail party? Effects of masking noise on talker identification. (with Best, V., *Razak, A., *Thurston, E.J., Kidd, G., & Swaminathan, J.)

Differential effects of listeners' phonetic and lexical expectations on speech processing efficiency. (with *Carter, Y.D. & *Lim, S.-J.)

Structural predictors and functional outcomes of foreign language speech-sound learning. (with *Choi, J.Y., Finn, A.S., Minas, J.E., Gabrieli, J.D.E., et al.)

Spoken language processing improves memory for talker identity. (with *McLaughlin, D.E., *Dougherty, S.C., & *Lember, R.A.)

Tone and non-tone languages speakers are biased to different experiences of a fundamental auditory illusion. (with *Petitti, E.M., et al.)

- Speech perception in noise reveals dual mechanisms for talker adaptation. (with *Saupe, M., *Choi, J.Y., *Lim, S.-J., & Best, V.)
- Talker discontinuity disrupts speech processing efficiency. (with *Lim, S.-J. & *Tin, J.A.A.)
- Talker adaptation is independent of talker familiarity. (with *Nastaskin, I. & *Lim, S.-J.)
- The language-familiarity effect in talker identification by bilinguals. (with Ronderos, J. & *Dougherty, S.C.)
- Convergence of phonological awareness in text and speech in dyslexia and typical reading development. (with *Torre, G.A., Scott, T.L., Gabrieli, J.D.E., & Christodoulou, J.A.,)
- Contextual adaptation in dyslexia across development. (with Ozernov-Palchik, O., Brown, M., *Beach, S.D., Georgan, W., Centanni, T., Gaab N., Kuperberg, G., Gabrieli, J.D.E.)
- Individual differences in the acquisition of the complex three-way Korean plosive contrast. (with Finn, A.S., Minas, J.E., Gabrieli, J.D.E., et al.)

CONFERENCE PRESENTATIONS (* denotes students and trainees)

- Whiteford, K.L., Baltzell, L.S., Chiu, M., Cooper, J.K., Faucher, S., Hagedorn, A., Irsik, V.C. Irvine, A., Lim, S.-J., Mesik, J., Mesquita, B., Oakes, B., Roverud, E., Schrlau, A.E., Van Hedger, S.C., Bharadwaj, H.M., Johnsrude, I.S., Kidd Jr., G., Luebke, A.E., Maddox, R.K., Marvin, E.W., **Perrachione, T.K.**, Shinn-Cunningham, B.G., & Oxenham, A.J. (submitted). Association of musical training with auditory and speech neural coding and perception.
- *Shen, L., Wang, Y., Wong, P.C.M., & **Perrachione, T.K.** (2024). Acoustic divergence from the training sample determines talker identification accuracy for emotional voices. *186th Meeting of the Acoustical Society of America* (Ottawa, May, 2024).
- Davison, K.E., Liu, T., Ancheta, T., Madsen Hardy, I., Kershenbaum, A., **Perrachione, T.K.**, Qi, Z., Gabrieli, J.D.E., Tager-Flusberg, H., Zuk, J. (submitted). Speech timing in relation to white matter organization in autistic and non-autistic children.
- Nishith, S., Cardinaux, A., Li, C., **Perrachione, T.K.**, Gabrieli, J.D.E., D'Mello, A. (2023). Expectation modulates repetition suppression of faces and speech. *52nd Annual Meeting of the Society for Neuroscience* (Washington, DC, November 2023).
- *Moore, A.A., *Scott, T.L., & **Perrachione, T.K.** (2023) Task-dependent functional connectivity of language-selective regions. *15th Annual Meeting of the Society for the Neurobiology of Language* (Marseille, October 2023).
- *Belisle, B., *Scott, T.L., & **Perrachione, T.K.** (2023). Language selectivity may be highly localized: Evidence from univariate and multivoxel analyses. *15th Annual Meeting of the Society for the Neurobiology of Language* (Marseille, October 2023).
- *Choi, J.Y. & **Perrachione, T.K.** (2023). Functional and structural connectivity of auditory areas that process talker variability in speech. *15th Annual Meeting of the Society for the Neurobiology of Language* (Marseille, October 2023).
- *Ronderos, J., Qi, Z., Wexler, K.N., Tager-Flusberg, H., Gabrieli, J.D.E., & **Perrachione, T.K.** (2023). Neural markers of developmental processing of grammaticality from childhood to adolescence. *15th Annual Meeting of the Society for the Neurobiology of Language* (Marseille, October 2023).
- Best, V. Ahlstrom, J., Mason, C., **Perrachione, T.K.**, Kidd, G., & Dubno, J. (2023) Effects of age and hearing loss on talker identification and talker change detection. *184th Meeting of the Acoustical Society of America* (Chicago, May, 2023).
- Villard, S., **Perrachione, T.K.**, & Kidd, G. (2022). Listening effort and aphasia in multiple-talker environments. *60th Annual Meeting of the Academy of Aphasia* (Philadelphia, October 2022).
- Villard, S., **Perrachione, T.K.**, *Alam, A., Lim, S.J., & Kidd, G. (2022). Modulation of pupil dilation and alpha power during masked speech perception reveal distinct neural mechanisms contributing to listening effort. *14th Annual Meeting of the Society for the Neurobiology of Language* (Philadelphia, October 2022).
- *Tak, K., *Henderson, J., *Torre, G.A.A., *Kapadia, A.M., Qi, Z., Gabrieli, J.D.E., Tager-Flusberg, H., & **Perrachione, T.K.** (2022). Morphology of the posterior superior temporal plane and language abilities in autism. *14th Annual Meeting of the Society for the Neurobiology of Language* (Philadelphia, October 2022).
- Perrachione, T.K.** & *Choi, J.Y. (2022). Hemispheric asymmetries in the cortical myeloarchitecture parallel the functional lateralization of language. *14th Annual Meeting of the Society for the Neurobiology of Language* (Philadelphia, October 2022).

- O'Brien, A.M., **Perrachione, T.K.**, Tager-Flusberg, H., Gabrieli, J.D.E., Qi, Z. (2022). Reduced phonological working memory in autism is associated with altered speech-motor engagement. *14th Annual Meeting of the Society for the Neurobiology of Language* (Philadelphia, October 2022).
- Perrachione, T.K.** (2022). A structural connectivity-based parcellation of the human superior temporal lobe. *7th International Conference on Auditory Cortex* (Magdeburg, September 2022).
- Perrachione, T.K.** (2022). The source and the signal: An integrated framework for talker identification and speech processing. *1st Interdisciplinary Conference on Voice Identity (VoiceID): Perception, Production, and Computational Approaches* (Zurich, July 2022). *(Invited presentation)
- *Lee, J.J., *Scott, T.L., *Carter, Y.D., *Choi, J.Y., **Perrachione, T.K.** (2022). Functional selectivity and structural connectivity of the cortical language network are intact in dyslexia. *29th Annual Meeting of the Cognitive Neuroscience Society* (San Francisco, April 2022).
- O'Brien, A.M., D'Mello, A., Frosch, I., **Perrachione, T.K.**, & Gabrieli, J.D.E. (2022). Evidence for increased neural heterogeneity of perceptual processing in autism spectrum disorder. *29th Annual Meeting of the Cognitive Neuroscience Society* (San Francisco, April 2022).
- *Lee, J.J., *Scott, T.L., *Carter, Y., *Choi, J.Y., & **Perrachione, T.K.** (2022). Cortical language network functional neuroanatomy in dyslexia. *Neurobiology of Language: Key Issues and Ways Forward II* (Max Planck Institute & Virtual, March 16-17, 2022).
- Villard, S. *Alam, A., **Perrachione, T.K.**, & Kidd, G. (2021). Energetic/informational masking and listening effort, as measured by EEG and pupillometry. *181st Meeting of the Acoustical Society of America* (Seattle, December 2021).
- *Alam, A., **Perrachione, T.K.**, Kidd, G., & Villard, S. (2021). Listening effort under two types of auditory masking conditions, as measured by pupillometry. *Annual Convention of the American Speech-Language-Hearing Association* (Washington, DC, November 2021).
- D'Mello, A., Frosch, I.R., Meisler, S.L., Grotzinger, H., **Perrachione, T.K.**, & Gabrieli, J.D.E. (2021). Evidence for domain-specific neural adaptation reductions in autism spectrum disorder. *50th Annual Meeting of the Society for Neuroscience* (Chicago, November 2021).
- Whiteford, K.L., Baltzell, L.S., Cooper, J.K., Hagedorn, A., Irsik, V.C., Irvine, A., Mesik, J., Nolan, T., Oakes, B., Reed, A., Faucher, S., Schrlau, A.E., Van Hedger, S.C., Bharawadj, H.M., Johnsrude, I.S., Kidd, Jr., G., *Lim, S.-J., Luebke, A.E., Maddox, R.K., Marvin, E.W., **Perrachione, T.K.**, Shinn-Cunningham, B.G., & Oxenham, A.J. (2021). Association of musical training with auditory and speech neural coding and perception. *50th Annual Meeting of the Society for Neuroscience* (Chicago, November 2021).
- Perrachione, T.K.** & Oppenheimer, B.B. (2021). A listening laboratory-based approach to teaching clinical phonetic transcription. *180th Meeting of the Acoustical Society of America* (Online, June 2021).
- *Choi, J.Y., *Kou, R.S.N., & **Perrachione, T.K.** (2020). Parametrically varying speech adapter length suggests two mechanisms for talker adaptation. *179th Meeting of the Acoustical Society of America* (Online, December 2020). *ASA Best Student Paper Award: Speech Communication
- *Lee, J.J., *Tin, J.A.A., & **Perrachione, T.K.** (2020). Foreign language talker identification training does not generalize to new talkers. *179th Meeting of the Acoustical Society of America* (Online, December 2020).
- *Lim, S.-J., Shinn-Cunningham, B.G., & **Perrachione, T.K.** (2020). Auditory stream discontinuities interfere with speech processing efficiency. *179th Meeting of the Acoustical Society of America* (Online, December 2020).
- *Saupe, M., Best, V.A., *Lim, S.-J., *Choi, J.Y., & **Perrachione, T.K.** (2020). Processing mixed talkers in noise suggests two mechanisms for perceptual adaption to speech. *179th Meeting of the Acoustical Society of America* (Online, December 2020).
- *Lee, J.J., *Scott, T.L., & **Perrachione, T.K.** (2020). Reliability and stability in shortened versions of an auditory functional language localizer. *12th Annual Meeting of the Society for the Neurobiology of Language* (Online, October 2020).
- *Fleming, J.T., *Njoroge, M., **Perrachione, T.K.**, Shinn-Cunningham, B.G., & Noyce, A.L., (2020). Task interference incurs greater costs than task switching: Simultaneous EEG-pupillometry investigation of visual and auditory working memory. *20th Annual Meeting of the Vision Sciences Society* (St. Pete Beach, Florida, March 2020).
- *Choi, J.Y., *Torre, G.A., *Carter, Y.D., *Scott, T.L., Ghosh, S.S., & **Perrachione, T.K.** (2020). Multivoxel pattern analyses of brain structure to classify dyslexia. *27th Annual Meeting of the Cognitive Neuroscience Society* (Boston / Online, March 2020).

- *Fleming, J.T., *Njoroge, M., Noyce, A.L., **Perrachione, T.K.**, & Shinn-Cunningham, B.G. (2020). Sensory modality and information domain modulate behavioral and neural signatures of working memory interference. *27th Annual Meeting of the Cognitive Neuroscience Society* (Boston / Online, March 2020).
- *Kapadia, A.M., *Torre, G.A., *Scott, T.L., *Carter, Y.D., & **Perrachione, T.K.** (2020). Macroanatomical morphology of superior temporal lobe in adults with dyslexia. *27th Annual Meeting of the Cognitive Neuroscience Society* (Boston / Online, March 2020).
- *Li, R., **Perrachione, T.K.**, Tourville, J., & Kiran, S. (2020). Predicting semantic category typicality from brain activation patterns in healthy adults and individuals with aphasia: A multi-voxel pattern analysis study. *27th Annual Meeting of the Cognitive Neuroscience Society* (Boston / Online, March 2020).
- *Torre, G.A., *Choi, J.Y., *Scott, T.L., *Carter, Y.D., & **Perrachione, T.K.** (2020). Differences in left fusiform gyrus morphometry in adults with dyslexia: Voxel- and surface-based analyses. *27th Annual Meeting of the Cognitive Neuroscience Society* (Boston / Online, March 2020).
- *Scott, T.L., *Carter, Y.D., *Choi, J.Y., & **Perrachione, T.K.** (2019). Relationships between phonological working memory and language processing in adults with dyslexia. *11th Annual Meeting of the Society for the Neurobiology of Language* (Helsinki, August 2019).
- *Choi, J.Y. & **Perrachione, T.K.** (2019). Noninvasive neurostimulation reveals a causal role for left superior temporal lobe in speech adaptation. *11th Annual Meeting of the Society for the Neurobiology of Language* (Helsinki, August 2019).
- Perrachione, T.K.** & *Scott, T.L. (2019). Functional neuroanatomy of phonological working memory in dyslexia. *4th Annual Meeting of the New England Research on Dyslexia Society* (Boston, June 2019).
- *Carter, Y.D., *Kapadia, A.M., *Lim, S.-J., & **Perrachione, T.K.** (2019). Facilitation of speech processing by both expected and unexpected talker continuity. *177th Meeting of the Acoustical Society of America* (Louisville, May 2019).
- *Kapadia, A.M., *Tin, J.A.A. & **Perrachione, T.K.** (2019). Effects of type, token, and talker variability in speech processing efficiency. *177th Meeting of the Acoustical Society of America* (Louisville, May 2019).
- *Lee, J.J. & **Perrachione, T.K.** (2019). Speech exposure familiarizes listeners with talkers' vocal identity. *177th Meeting of the Acoustical Society of America* (Louisville, May 2019).
- *Lim, S.-J., *Tin, J.A.A., *Qu, A., & **Perrachione, T.K.** (2019). Attention vs. adaptation in processing talker variability in speech. *177th Meeting of the Acoustical Society of America* (Louisville, May 2019).
- Perrachione, T.K.** (2019). Talker variability, auditory attention, and speech processing efficiency. *177th Meeting of the Acoustical Society of America* (Louisville, May 2019). *(Invited presentation)
- Perrachione, T.K.** (2019). Talker adaptation as efficient allocation of auditory attention. *13th Meeting of the Auditory Cognitive Neuroscience Society*. (Gainesville, January 2019). *(Invited presentation)
- *Scott, T.L. & **Perrachione, T.K.** (2018). Functional dissociation of language and working memory revealed by pattern analysis of subject-specific conjunction maps. *48th Annual Meeting of the Society for Neuroscience* (San Diego, November 2018).
- *Scott, T.L., *Dougherty, S.C., *Choi, J.Y. & **Perrachione, T.K.** (2018). Nonword repetition recruits distinct and overlapping nodes of language and working memory networks. *10th Annual Meeting of the Society for the Neurobiology of Language* (Quebec City, August 2018).
- *Lim, S.-J., *Tin, J.A.A. Shinn-Cunningham, B.G., & **Perrachione, T.K.** (2018). Impact of talker adaptation on speech processing and working memory. *175th Meeting of the Acoustical Society of America* (Minneapolis, May 2018).
- *Furbeck, K.T., *Thurston, E.J., *Tin, J.A.A., & **Perrachione, T.K.** (2018). Perceptual similarity judgments of voices: Effects of talker and listener language, vocal source acoustics, and time-reversal. *175th Meeting of the Acoustical Society of America* (Minneapolis, May 2018).
- *Lim, S.-J., *Tin, J.A.A., Shinn-Cunningham, B.G., & **Perrachione, T.K.** (2018). Impact of talker adaptation on speech processing and working memory. *25th Annual Meeting of the Cognitive Neuroscience Society* (Boston, March 2018).
- Perrachione, T.K.**, *Babcock, S., Han, M., Salvatore, J., Minas, J., Finn, A.S., Gabrieli, J.D.E., & Qi, Z. (2018). Neural responses during procedural memory tasks are related to foreign language learning outcomes. *25th Annual Meeting of the Cognitive Neuroscience Society* (Boston, March 2018).

- *Scott, T.L., *Dougherty, S.C., *Choi, J.Y. & **Perrachione, T.K.** (2018). Common recruitment of neural resources for phonological working memory regardless of behavioral demands. *25th Annual Meeting of the Cognitive Neuroscience Society* (Boston, March 2018).
- *Lim, S.-J., Shinn-Cunningham, B.G., & **Perrachione, T.K.** (2017). Effects of voice continuity and stimulus rate on auditory working memory. *Advances and Perspectives in Auditory Neuroscience XV* (Washington, DC, November. 2017).
- *Beach, S.D., Centanni, T.M., *Ozernov-Palchik, O., May, S.C., Pantazis, D. **Perrachione, T.K.**, & Gabrieli, J.D.E. (2017). Neural correlates of atypical categorical perception in dyslexia. *9th Annual Meeting of the Society for the Neurobiology of Language* (Baltimore, November. 2017).
- Qi, Z., Han, M., Wang, Y., de los Angeles, C., Liu, Q., Garel, K., Chen, E.S., Whitfield-Gabrieli S., Gabrieli, J.D.E., & **Perrachione T.K.** (2017). Speech processing and plasticity in the right hemisphere predict real-world foreign language learning in adults. *9th Annual Meeting of the Society for the Neurobiology of Language* (Baltimore, November 2017).
- *Ozernov-Palchik, O., Brown, M., Norton, E.S., Georgan, W., **Perrachione, T.K.**, Beach, S.D., Wolf, M., Kuperberg, G., Gaab, N., & Gabrieli, J.D.E. (2017). Investigating lexical and perceptual learning effects on phonetic processing in young children with dyslexia. *24th Annual Meeting of the Society for the Scientific Study of Reading* (Halifax, July 2017).
- *Haenchen, L., Daliri, A., *Dougherty, S.C., *Thurston, E.J., *Chartove, J., Guenther, F.H., & **Perrachione, T.K.** (2017). Sensorimotor adaptation to auditory perturbation of speech is facilitated by noninvasive brain stimulation. *173rd Meeting of the Acoustical Society of America* (Boston, June 2017).
- *Razak, A., *Thurston, E.J., *Gustainis, L.E., Kidd, G. Jr., Swaminathan, J., & **Perrachione, T.K.** (2017). Talker identification in three types of background noise. *173rd Meeting of the Acoustical Society of America* (Boston, June 2017).
- *McLaughlin, D.E., *Cheng, C.C., *Thurston, E.J., *Dougherty, S.C., & **Perrachione, T.K.** (2017). Talker identification is not improved by lexical access in the absence of familiar phonology. *173rd Meeting of the Acoustical Society of America* (Boston, June 2017).
- *Scott, T.L., *Dougherty, S.C., *Choi, J.Y., & **Perrachione, T.K.** (2017). The role of language-specific vs. domain-general systems in phonological working memory. *23rd Annual Meeting of the Organization for Human Brain Mapping* (Vancouver, June 2017).
- Perrachione, T.K.**, *Dougherty, S.C., *Choi, J.Y., *Hu, E.R. (2016). Noninvasive brain stimulation to facilitate foreign language speech-sound learning in low-aptitude learners. *172nd Meeting of the Acoustical Society of America* (Honolulu, November 2016).
- Best, V. Ahlstrom, J.B. Mason, C., Roverud, E., **Perrachione, T.K.**, Kidd, G., Jr., Dubno, J.R. (2016). Talker identification: effects of masking, age and hearing loss. *172nd Meeting of the Acoustical Society of America* (Honolulu, November 2016).
- Qi, Z., Sanchez, Y., de los Angeles, C., Harris, A., Wisman Weil, L., Halverson, K., Goetz, C., Han, M., **Perrachione, T.K.**, Kjølgaard, M., Wexler, K., Tager-Flusberg, H., & Gabrieli, J.D.E. (2016). Neural development of phonological working memory: Interplay between language and memory systems. *7th Annual Meeting of the Society for the Neurobiology of Language*, (London, August 2016).
- *Choi, J.Y., *Hu, E.R., & **Perrachione, T.K.** (2016). Orthogonal interference of indexical information occurs even when phonetic contrasts are unambiguous across talkers. *171st Meeting of the Acoustical Society of America* (Salt Lake City, May 2016).
- Perrachione, T.K.** & *Choi, J.Y. (2016). Extrinsic talker normalization via rapid accumulation of talker-specific phonetic detail. *171st Meeting of the Acoustical Society of America* (Salt Lake City, May 2016).
- *Dougherty, S.C. & **Perrachione, T.K.** (2016). The language-familiarity effect in talker identification by highly proficient bilinguals depends on second-language immersion. *171st Meeting of the Acoustical Society of America* (Salt Lake City, May 2016).
- Qi Z., Pantazis D., de los Angeles C., **Perrachione T.K.**, & Gabrieli J.D.E. (2015). Sensitivity to speech distributional information in children with autism: a MEG study. *International Meeting for Autism Research*, (Shanghai, November 2015).
- Qi, Z., Pantazis, D., de los Angeles, C., **Perrachione, T.K.**, & Gabrieli, J.D.E. (2015). Sensitivity to speech-distributional information in children with autism: An MEG study. *40th Boston University Conference on Language Development* (Boston, November 2015).

- Qi, Z., Lu, C., Harris, A., Wisman Weil, L., Han, M., Halverson, K., **Perrachione, T.K.**, Kjelgaard, M., Wexler, K., Tager-Flusberg, H., Gabrieli, J.D.E. (2015). Transdiagnostic neural basis for impaired phonological working memory across reading disability and autism. *7th Annual Meeting of the Society for the Neurobiology of Language*, (Chicago, October 2015).
- Qi Z., Pantazis D., de los Angeles C., **Perrachione T.K.**, & Gabrieli J.D.E. (2015). Sensitivity to speech distributional information in children with autism: a MEG study. *7th Annual Meeting of the Society for the Neurobiology of Language*, (Chicago, October 2015).
- Qi Z., Lu C., Harris A., Weil L. W., Han M., Halverson K., **Perrachione T.K.**, Kjelgaard M., Wexler K., Tager-Flusberg H., & Gabrieli J.D.E. (2015). Transdiagnostic neural basis for impaired phonological working memory across reading disability and autism spectrum disorder. *45th Annual Meeting of the Society for Neuroscience* (Chicago, October 2015).
- *Choi, J.Y., Minas, J.E., Finn, A.S., Gabrieli, J.D.E., & **Perrachione, T.K.** (2015). Functional brain changes associated with learning a novel phonological contrast. *21st Annual Meeting of the Organization for Human Brain Mapping* (Honolulu, June 2015).
- Perrachione, T.K.**, Christodoulou, J.A., & Gabrieli, J.D.E. (2015). Adaptation to repeated speech in children with and without dyslexia. *21st Annual Meeting of the Organization for Human Brain Mapping* (Honolulu, June 2015).
- *Dougherty, S.C., *McLaughlin, D.E., & **Perrachione, T.K.** (2015). A language familiarity effect for talker identification in forward but not time-reversed speech. *169th Meeting of the Acoustical Society of America* (Pittsburgh, May 2015).
- Perrachione, T.K.**, Finn, A.S., Minas, J., Tan, C., Chan, B., & Gabrieli, J.D.E. (2014). Acquisition of the complex three-way Korean plosive contrast by native English speakers. *167th Meeting of the Acoustical Society of America* (Providence, May 2014).
- Beach, S.D., Cardenas-Iniguez, C., Chang, P., Eddy, M.D., Gabrieli, J.D.E., & **Perrachione, T.K.** (2014). Expectation-based neural adaptation deficits in dyslexia. *21st Annual Meeting of the Cognitive Neuroscience Society* (Boston, April 2014).
- Qi, Z., **Perrachione, T.**, Han, M., Garel, K., Chen, E.S., & Gabrieli, J.D.E. (2014). Functional brain imaging predicts foreign language learning success in the classroom. *21st Annual Meeting of the Cognitive Neuroscience Society* (Boston, April 2014).
- Murtagh, J., Christodoulou, J.A., Cyr, A., **Perrachione, T.K.**, Chang, P., Halverson, K., Hook, P., Ghosh, S., Gabrieli, J.D.E. (2014). White matter integrity differences between early readers with and without developmental dyslexia. *21st Annual Meeting of the Cognitive Neuroscience Society* (Boston, April 2014).
- Christodoulou, J.A., Murtagh, J., **Perrachione, T.K.**, Cyr, A., Halverson, K., Chang, P., Hook, P., & Gabrieli, J.D.E. (2014). Functional neuroanatomical differences between early readers with and without developmental dyslexia. *21st Annual Meeting of the Cognitive Neuroscience Society* (Boston, April 2014).
- Qi Z., **Perrachione T.**, Harris A., Ostrovskaya I., Beach S., Halverson K., Cyr A., Sher K., Kjelgaard M., Gabrieli, J., Wexler K., Tager-Flusberg H. (2013). Neural signatures of phonological working memory and grammatical processing in autism spectrum disorders. *5th Neurobiology of Language Conference & 43rd Annual Meeting of the Society for Neuroscience* (San Diego, November 2013)
- Wisman Weil, L., Qi, Z., **Perrachione, T.K.**, Kjelgaard, M., Tager-Flusberg, H., Wexler, K., Gabrieli, J.D.E. (2013). Does fMRI scanner performance on a non-word repetition task accurately represent out-of-scanner ability for children with and without ASD? *Research Symposium of the Autism Consortium*, (Boston, November 2013).
- Osher, D.E., Saygin, Z.M., **Perrachione, T.K.**, & Gabrieli, J.D.E. (2012). The functional connectomics underlying dyslexic adaptation deficits. *42nd Annual Meeting of the Society for Neuroscience*, (New Orleans, October 2012).
- Norton, E.S., Beach, S.D., Cyr, A.B., Ozernov-Palchik, O., Garel, K.A., **Perrachione, T.K.**, Wolf, M., Gabrieli, J.D.E., & Gaab, N. (2012). Brain differences in kindergarten children with and without behavioral risk for dyslexia: Toward finding fMRI and EEG predictors of reading difficulties. *19th Annual Meeting of the Society for the Scientific Study of Reading*, (Montreal, July 2012).
- Perrachione, T.K.**, Del Tufo, S.N., Gabrieli, J.D.E. (2011). Dysfunction of rapid cortical plasticity in dyslexia. *41st Annual Meeting of the Society for Neuroscience*, (Washington DC, November 2011).
- Perrachione, T.K.**, Fedorenko, E.G., Vinke, L., Gibson, E., Dilley, L.C. (2011). Pitch processing is shared between language and music. *Experimental and Theoretical Advances in Prosody 2*, (Montreal, September 2011).

- Perrachione, T.K.**, Gabrieli, J.D.E., Ghosh, S.S. (2011). Optimized design and analysis of sparse-sampling functional magnetic resonance imaging experiments of speech and hearing. *161st Meeting of the Acoustical Society of America*, (Seattle, May 2011). *(Best Student Paper)
- Norton, E.S., Eddy, M.D., **Perrachione, T.K.**, Cyr, A.B., Wolf, M., & Gabrieli, J.D.E. (2011). ERP mismatch negativity predicts reading fluency in young children. *18th Annual Meeting of the Cognitive Neuroscience Society*. (San Francisco, April 2011).
- Perrachione, T.K.** (2010). Voice recognition deficits in dyslexia. *7th International Conference on Cognitive Science*. (Beijing, August 2010). *(Invited presentation)
- Perrachione, T.K.**, Stepp, C.E., Hillman, R.E., & Wong, P.C.M. (2009). The role of source and filter characteristics in human talker identification: Experiments with laryngeal and electrolarynx speech. *158th Annual Meeting of the Acoustical Society of America*, (San Antonio, October 2009).
- Perrachione, T.K.**, Kovelman, I., Ostrovskaya, I., Lymberis, J., O'Loughlin, P., Norton, E.S., Ghosh, S.S., & Gabrieli, J.D.E. (2009). Temporal and prefrontal cortical contributions to phonological working memory for words and pseudowords. *39th Annual Meeting of the Society for Neuroscience*, (Chicago, October 2009).
- Ostrovskaya, I., Ghosh, S.S., Kovelman, I., O'Loughlin, P., Lymberis, J., **Perrachione, T.K.**, Norton, E.S., Wexler, K.N. & Gabrieli, J.D.E. (2009). Persistent markers of developmentally typical syntax errors in adult behavior and neurophysiology. *39th Annual Meeting of the Society for Neuroscience*, (Chicago, October 2009).
- Lymberis, J., Christodoulou, J., O'Loughlin, P., Del Tufo, S., **Perrachione, T.K.**, Gabrieli, J.D.E. (2009). Neural correlates of rapid automatized naming. *39th Annual Meeting of the Society for Neuroscience*, (Chicago, October 2009).
- Ha, L.Y.Y., **Perrachione, T.K.**, Wong, P.C.M. (2009). High-variability speech training is not always beneficial. *University of Illinois at Chicago Bilingualism Forum*, (Chicago, April/May 2009).
- Kovelman, I., Ghosh, S., O'Loughlin, P., Ostrovskaya, I., **Perrachione, T.K.**, Lymberis, J., Norton E.S., Cosman, S., Wexler, K., Gabrieli J.D.E. (2009). Optional infinitive: Evidence of how adult brain processes grammatical errors that are typical and atypical of childhood language acquisition. *16th Annual Cognitive Neuroscience Society Meeting* (San Francisco, March 2009).
- Perrachione, T.K.**, Chiao, J.Y. & Wong, P.C.M. (2008). Influences of perceived racial identity on human talker identification. *155th Meeting of the Acoustical Society of America* (Paris, June 2008).
- Warhadpande, D., Wong, P.C.M., **Perrachione, T.K.**, Wang, J.-P. (2007). Large scale neural connectivity analysis using network theory. *1st Annual Midwest Symposium on Computational Biology and Bioinformatics* (Evanston, Illinois, October 2007).
- Perrachione, T.K.**, Chiao, J.Y., Parrish, T.B., Pierrehumbert, J.B., & Wong, P.C.M. (2007). Integration of speech- and voice-perception systems for native language talker identification. *13th Annual Meeting of the Organization for Human Brain Mapping* (Chicago, June 2007).
- Wong, P.C.M., Parrish, T.B., **Perrachione, T.K.** & Mazotas, A.J. (2006). Neural characteristics of successful and less successful speech and word learning in adults. *12th Annual Meeting of the Organization for Human Brain Mapping* (Florence, Italy, June 2006).
- Wong, P.C.M. & **Perrachione, T.K.** (2005). Training native English-speaking adults to use Mandarin tones lexically. *11th Conference on Processing Chinese and Other East Asian Languages* (Hong Kong, December 2005).
- Perrachione, T.K.** & Wong, P.C.M. (2005). Using lexical tones in word identification: Patterns of learning in native English-speaking adults. *11th Mid-Continental Workshop on Phonology*, (University of Michigan, Ann Arbor, November 2005).

TEACHING

Courses taught

- | | |
|------|--|
| 2024 | Speech Science – SAR SH 325 (Boston Univ.)
Instructor, (undergraduate) |
| 2024 | Neurobiology of Language – SAR SH 335 (Boston Univ.)
Instructor, (graduate & undergraduate) |
| 2024 | Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (25 students, undergraduate) |

- 2023 Neurobiology of Language – SAR SH 335 (Boston Univ.)
Instructor, (11 students, graduate & undergraduate)
- 2023 Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (15 students, undergraduate)
- 2022 Neurobiology of Language – SAR SH 501 (Boston Univ.)
Instructor, (18 students, graduate & undergraduate)
- 2021 Neurobiology of Language – SAR SH 501 (Boston Univ.)
Instructor, (25 students, graduate & undergraduate)
- 2021 Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (18 students, undergraduate)
- 2020 Reading, Language, and the Brain – KHC NE 102 (Boston Univ.)
Instructor, (11 students, undergraduate; Kilachand Honors College)
- 2020 Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (25 students, undergraduate)
- 2019 Neuroimaging for Speech and Hearing Research – SAR SH 620 (Boston Univ.)
Instructor, (6 students, graduate)
- 2019 Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (28 students, undergraduate)
- 2018 Reading, Language, and the Brain – KHC NE 102 (Boston Univ.)
Instructor, (14 students, undergraduate; Kilachand Honors College)
- 2017 Reading, Language, and the Brain – KHC NE 102 (Boston Univ.)
Instructor, (15 students, undergraduate; Kilachand Honors College)
- 2017 Applied Speech Science – SAR SH 755 (Boston Univ.)
Instructor, (29 students, graduate)
- 2017 Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (18 students, undergraduate)
- 2016 Reading, Language, and the Brain – KHC NE 102 (Boston Univ.)
Instructor, (15 students, undergraduate; Kilachand Honors College)
- 2016 Applied Speech Science – SAR SH 755 (Boston Univ.)
Instructor, (32 students, graduate)
- 2016 Phonetics – SAR SH 221 (Boston Univ.)
Instructor, (22 students, undergraduate)
- 2015 Reading, Language, and the Brain – KHC NE 102 (Boston Univ.)
Instructor, (10 students, undergraduate; Kilachand Honors College)
- 2015 Applied Speech Science – SAR SH 755 (Boston Univ.)
Instructor, (49 students, graduate)
- 2015 Introduction to Health and Rehabilitation Professions – SAR HP 151 (Boston Univ.)
Instructor, (13 students, undergraduate)
- 2014 Reading, Language, and the Brain – KHC NE 102 (Boston Univ.)
Instructor, (12 students, undergraduate; Kilachand Honors College)
- 2014 Applied Speech Science – SAR SH 755 (Boston Univ.)
Instructor, (29 students, graduate)
- 2014 Introduction to Health and Rehabilitation Professions – SAR HP 151 (Boston Univ.)
Instructor, (12 students, undergraduate)
- 2013 Phonetics – SAR SH 521 (Boston Univ.)
Instructor, (16 students, undergraduate / graduate)
- 2013 Introduction to Health and Rehabilitation Professions – SAR HP 151 (Boston Univ.)
Instructor, (12 students, undergraduate)
- 2013 Speech Science – SLPA 6301 (Northeastern Univ.)
Instructor, (64 students, graduate)

Teaching assistantships

- 2012 9.00 Introduction to Psychology (MIT, Prof. J. Gabrieli)
Head (administrative) TA, (280 students).
- 2012 9.59 Psycholinguistics (MIT, Prof. E. Gibson)
- 2011 9.00 Introduction to Psychology (MIT, Prof. J. Gabrieli)
Head (administrative) TA, (254 students); taught two weekly recitation sections (48 students).
This course available online at MIT *OpenCourseWare*: "Introduction to Psychology"
- 2010 HST.583 fMRI Data Acquisition and Analysis (MIT, Prof. R. Gollub)
- 2010 9.00 Introduction to Psychology (MIT, Prof. J. Gabrieli)

- Taught two weekly recitation sections (43 students).
- 2009 9.00 Introduction to Psychology (MIT, Prof. J. Gabrieli)
Taught two weekly recitation sections (37 students).
- Guest lectures and incidental teaching***
- 2023 SHBT.205 Audition: Neural Mechanisms, Perception and Cognition (Harvard Univ., Prof. A. Takesian)
"Neurobiology of speech"
- 2022 SHBT.205 Audition: Neural Mechanisms, Perception and Cognition (Harvard Univ., Prof. A. Takesian)
"Neurobiology of speech"
- 2021 SHBT.205 Audition: Neural Mechanisms, Perception and Cognition (Harvard Univ., Profs. J. McDermott & D. Polley)
"Neurobiology of speech"
- 2018 SHBT.200 Acoustics, Production and Perception of Speech (Harvard Univ., Prof. S. Ghosh)
"Neural mechanisms of speech I and II"
- 2017 SHBT.200 Acoustics, Production and Perception of Speech (Harvard Univ., Prof. S. Ghosh)
"Neural mechanisms of speech"; "Neural representations of speech and voice"
- 2016 HST.710 / 6.541 / 24.968 Speech Communication (MIT, Prof. S. Ghosh)
"Cognitive phenomena in speech perception"
- 2015 HST.710 / 6.541 / 24.968 Speech Communication (MIT, Prof. S. Ghosh)
"How speech experience at multiple timescales changes behavior and changes the brain"
- 2014 GRS NE 500 Frontiers in Neuroscience (BU, Prof. S. Russek)
SAR HS 370 Neuroanatomy and Neurophysiology (BU, Prof. J. Schotland)
"Language and reading in the typical and dyslexic brain"
- HST.710 / 6.541 / 24.968 Speech Communication (MIT, Dr. S. Ghosh)
"Cognitive phenomena in speech perception and production"
- 2013 HST.710 / 6.541 / 24.968 Speech Communication (MIT, Dr. S. Ghosh)
"Neural bases of speech production and perception"
- 2012 HST.710 / 6.541 / 24.968 Speech Communication (MIT, Dr. S. Ghosh)
"Cognitive consequences of phonetic variability in speech perception"
"Talker variability in speech and voice recognition"
- 2011 9.59 / 24.905 Psycholinguistics (MIT, Prof. E. Gibson)
"Phonetics, phonology, and speech production"
"Perception, cognition, and neurology of speech"
- HST.710 / 6.541 / 24.968 Speech Communication (MIT, Dr. S. Ghosh)
"Talker variability in speech and voice recognition"
- 9.03 Neurobiology of Learning and Memory (MIT, Prof. S. Corkin)
"Brain imaging techniques in the study of human learning and memory"
- 2009 – 2011 Sheep (*Ovis aries*) brain dissections (MIT)
2 led; 5 assisted.

STUDENTS AND MENTORING

Postdoctoral Trainees

- 2022 – Juliana Ronderos, Ph.D. (with Prof. Jennifer Zuk)
- 2019 – 2021 Gabrielle-Ann Torre, Ph.D. (with Prof. Helen Tager-Flusberg)
- 2017 – 2019 Sung-Joo Lim, Ph.D. (with Prof. Barbara Shinn-Cunningham)

Doctoral Students

- 2023 – Yinuo Liu
Boston University, Department of Speech, Language, and Hearing Sciences
- 2022 – Rebecca M. Belisle
Boston University, Graduate Program for Neuroscience
- 2022 – Arielle A. Moore
Boston University, Graduate Program for Neuroscience
- 2019 – 2021 Alexandra M. Kapadia
Boston University, Department of Speech, Language, and Hearing Sciences
Dissertation Advisor: Jennifer Zuk, PhD, CCC-SLP

- 2016 – 2022 Jayden J. Lee, Ph.D.
Boston University, Department of Speech, Language, and Hearing Sciences
Dissertation: "Efficient localization of the cortical language network and its functional neuroanatomy in dyslexia"
- 2016 – 2022 Ja Young Choi, Ph.D.
Harvard University, Program in Speech and Hearing Bioscience and Technology
Dissertation: "The cognitive and neural bases of processing talker variability in speech perception"
- 2014 – 2020 Terri L. Scott, Ph.D.
Boston University, Graduate Program for Neuroscience
Dissertation: "Neural bases of phonological working memory"

Masters Students in Speech-Language Pathology (Boston University)

- 2019 – Joyce Chung
- 2020 – 2022 Ayesha Alam, M.S.
Thesis: "Pupillometric measurement of listening effort under auditory masking in individuals with normal hearing."
- 2019 – 2020 Lue (Stella) Shen, M.S.
Thesis: "Learning to identify emotional voices"
- 2019 Alexandra Spark, M.S.
- 2018 – 2020 Jamie Chin, M.S., CCC-SLP
Thesis: "Examining morphological differences in Heschl's gyrus between neurotypical and dyslexic brains"
- 2018 – 2020 Maya Saupe, M.S., CCC-SLP
Thesis: "Talker adaptation in calibrated noise"
- 2017 – 2019 Rita Sio Nga Kou, M.S., CCC-SLP
Thesis: "Time course of talker adaptation"
- 2017 – 2019 Isabelle Nastaskin, M.S., CCC-SLP
Thesis: "Effects of talker familiarity on talker adaptation"
- 2017 – 2019 Alexandra M. Kapadia, M.S.
Thesis: "Effects of type, token, and talker variability in speech processing efficiency"
- 2016 – 2018 Andrea C.-L. Chang, M.S., CCC-SLP
Thesis: "Effects of early language experiences on the auditory brainstem"
- 2015 – 2017 Jennifer Golditch, M.S., CCC-SLP
- 2015 – 2017 Laura Haenchen, M.S., CCC-SLP
Thesis: "Noninvasive neurostimulation of sensorimotor adaptation in speech production"
- 2015 – 2017 Deirdre E. McLaughlin, M.S., CCC-SLP
Thesis: "Talker identification is not improved by lexical access in the absence of familiar phonology"
- 2014 – 2017 Cheng (Cecilia) Cheng, M.S.
Thesis: "Can visual feedback improve English speakers' Mandarin tone production?"
- 2014 – 2016 Michelle Lee, M.S., CCC-SLP
- 2013 – 2015 Rebecca A. Lember, M.S., CCC-SLP
Thesis: "Lexical effects in talker identification"
- 2013 – 2015 Elizabeth M. Petitti, M.S., CCC-SLP
Thesis: "A fundamental pitch perception bias for tone language speakers"

Undergraduate Students (Boston University)

- 2022 – 2023 Soyoung (Soey) Jung
College of General Studies
- 2021 – 2022 Stephanie Roy
Speech, Language, and Hearing Sciences
Senior Thesis for Distinction: "The role of indexical features in feedforward streaming during cocktail party listening"
- 2021 – 2023 Kendrick Tak
Neuroscience
Undergraduate Research Opportunities Program, Student Research Award (x2)
Undergraduate Research Opportunities Program, Travel Award
Senior Honors Thesis: "Morphological and microstructural characterization of the posterior superior temporal plane and their relationship to language abilities in children with autism"
- 2021 Maya Zeldich
Speech, Language, and Hearing Sciences
- 2020 – 2021 Megan Lee
Speech, Language, and Hearing Sciences
- 2020 – 2021 Yennie Lee
Neuroscience and Philosophy
- 2020 Homoon (Brian) Jung

- Biomedical Engineering
Undergraduate Research Opportunities Program, Student Research Award
- 2018 – 2019 **Chinazo Otiono**
Behavioral Biology
Undergraduate Research Opportunities Program, Student Research Award
- 2018 – 2021 **Grace Mecha**
Behavior and Health
Undergraduate Research Opportunities Program, Student Research Award (x2)
- 2018 – 2019 **Yijing (Trista) Lin**
Psychology
- 2018 – 2019 **Kamilah Harruna**
Health Science
- 2018 – 2019 **Amabel Antwi**
Behavior and Health
- 2018 – 2019 **Nicole Chen**
Electrical and Computer Engineering
Undergraduate Research Opportunities Program, Student Research Award (x2)
- 2017 – 2018 **Allen Qu**
B.S., Electrical and Computer Engineering, 2019
- 2017 – 2020 **Joan (Michelle) Njoroge**
B.A., Neuroscience, 2020
Undergraduate Research Opportunities Program, Student Research Award (x5)
- 2017 – 2018 **Kristina Furbeck**
B.S., Speech, Language, and Hearing Sciences, 2018
Undergraduate Research Opportunities Program, Supplies Award
Senior Thesis for Distinction: "Acoustic features associated with similarity judgments of voices"
- 2017 **Dana Gordon**
B.S., Speech, Language, and Hearing Sciences, 2017
- 2015 – 2017 **Alina Razak**
B.S., Speech, Language, and Hearing Sciences, 2017
Kilachand Honors College Senior Keystone Project: "Effects of noise in talker identification"
- 2015 – 2018 **Lauren Gustainis**
B.S., Speech, Language, and Hearing Sciences, 2018
Kilachand Honors College Senior Keystone Project: "Forming talker expectations from visual cues"
- 2015 – 2018 **Cassandra Chan**
B.S., Speech, Language, and Hearing Sciences, 2018
Undergraduate Research Opportunities Program, Student Research Award (x2)
- 2015 – 2017 **Tyrone Hou**
B.A., Computer Science, 2018
Undergraduate Research Opportunities Program, Student Research Award (x3)
- 2015 – 2016 **Jonathan Mirsky**
B.A., Neuroscience, 2018
Undergraduate Research Opportunities Program, Student Research Award
- 2014 – 2015 **Elly R. Hu**
B.A., Neuroscience, 2016
Undergraduate Research Opportunities Program, Student Research Award (x3)
HHMI Summer Research Experience for Undergraduates
CAS NE 492 Undergraduate Neuroscience Research
- 2014 – 2015 **Carly Schimmel**
B.A., Neuroscience, 2015
Undergraduate Research Opportunities Program, Student Research Award
- 2014 – 2015 **Molly Cleveland**
B.S., Speech, Language, and Hearing Sciences, 2015
Undergraduate Research Opportunities Program, Student Research Award (x2)
- 2014 **Kara Ryan**
B.S., Human Physiology, 2016
- 2014 **Monica Arrieta**
B.S., Speech, Language, and Hearing Sciences, 2014
SAR SH 640 Senior Internship
- 2014 **Rosa (Cecilia) Blanco**
B.S., Speech, Language, and Hearing Sciences, 2014
SAR SH 640 Senior Internship
- 2013 – 2014 **Jane Kelley**

B.A., English, 2014
Undergraduate Research Opportunities Program, Student Research Award

2013 – 2015 Deirdre McLaughlin
B.S., Speech, Language, and Hearing Sciences, 2015
Undergraduate Research Opportunities Program, Student Research Award (x4)

Undergraduate Students (Massachusetts Institute of Technology)

George Bailey	Lina Kim	Jenny (Yuan) Lu
Diana Bernstein	Nayeon Kim	Anton Nguyen
Katy Bragg	Yihua Li	Eric Schmidt
Kathryn Dere	Jiayi Lin	Ajoke Williams
Alexandra Hall	Jamin Liu	Karl Wolff

Doctoral Student Laboratory Rotations

2021 David Sorensen (Speech and Hearing Bioscience and Technology, Harvard University)
2021 Rohan Deshpande (Biomedical Engineering, Boston University)
2020 Makaila Banks (Graduate Program for Neuroscience, Boston University)
2017 Stuart Babcock (Graduate Program for Neuroscience, Boston University)
2015 Julia Chartove (Graduate Program for Neuroscience, Boston University)
2015 Nathan Perkins (Graduate Program for Neuroscience, Boston University)
2014 Sophie Schwartz (Graduate Program for Neuroscience, Boston University)

Dissertation Committee Membership

2023 – Jeff Mentch (Speech and Hearing Bioscience and Technology, Harvard University)
Chair; Dissertation Advisory Committee; Primary Advisor: Satrajit Ghosh, PhD
2022 Ran Li (Speech, Language, and Hearing Sciences, Boston University)
Reader; Primary Advisor: Swathi Kiran, PhD, CCC-SLP
2022 – 2023 Emily Braun (Speech, Language, and Hearing Sciences, Boston University)
Reader; Primary Advisor: Swathi Kiran, PhD, CCC-SLP
2020 – 2022 Susrita Sarkar (Biology, Boston University)
Reader; Primary Advisor: Jeff Gavornik, PhD
2019 – 2021 Dana Boebinger (Speech and Hearing Bioscience and Technology, Harvard University)
Dissertation Advisory Committee; Primary Advisor: Josh McDermott, PhD
2019 – 2021 Malinda McPherson (Speech and Hearing Bioscience and Technology, Harvard University)
Dissertation Advisory Committee; Primary Advisor: Josh McDermott, PhD
2019 Sophie Schwartz (Graduate Program for Neuroscience, Boston University)
Reader; Primary Advisor: Helen Tager-Flusberg, PhD
2018 – 2020 Justin T. Fleming (Speech and Hearing Bioscience and Technology, Harvard University)
Dissertation Advisory Committee; Primary Advisor: Barbara Shinn-Cunningham, PhD
2017 – 2021 Sara D. Beach (Speech and Hearing Bioscience and Technology, Harvard University)
Dissertation Advisory Committee; Primary Advisor: John D.E. Gabrieli, PhD
2016 – 2018 Erin Meier (Speech, Language, and Hearing Sciences, Boston University)
Reader; Primary Advisor: Swathi Kiran, PhD, CCC-SLP
2016 Christopher Markiewicz (Cognitive and Neural Systems, Boston University)
Reader; Primary Advisor: Jason Bohland, PhD
2016 Alejna Brugos (Applied Linguistics, Boston University)
Reader; Primary Advisor: Jonathan Barnes, PhD

Doctoral Qualifying Committee Membership

2023 Latané Bullock (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Satrajit Ghosh, PhD
2023 Lena O'Flynn (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Kristina Simonyan, PhD
2023 Rahul Brito (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Satrajit Ghosh, PhD
2023 Charles Hem (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Julie Arenberg, PhD
2023 David Sorensen (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Daniel Polley, PhD
2022 Hilary Miller (PhD Program in Speech, Language, and Hearing Sciences, Boston University)
Qualifying Committee; Primary Advisor: Frank Guenther, PhD

- 2021 Steven Meisler (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: John Gabrieli, PhD
- 2021 Jeff Mentch (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Satrajit Ghosh, PhD
- 2021 Saima Malik Moraleda (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Evelina Fedorenko, PhD
- 2020 Adrian Cho (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Gerald Kidd, PhD
- 2019 Susrita Sarkar (PhD Program in Biology, Boston University)
Qualifying Committee; Primary Advisor: Jeff Gavornik, PhD
- 2019 Ran Li (PhD Program in Speech, Language, and Hearing Sciences, Boston University)
Qualifying Project Committee; Primary Advisor: Swathi Kiran, PhD, CCC-SLP
- 2018 Malinda McPherson (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: Josh McDermott, PhD
- 2018 Saul Frankford (PhD Program in Speech, Language, and Hearing Sciences, Boston University)
Qualifying Project Committee; Primary Advisor: Frank Guenther, PhD, MS
- 2017 Sara Beach (Speech and Hearing Bioscience and Technology, Harvard University)
Qualifying Committee; Primary Advisor: John D.E. Gabrieli, PhD
- 2016 Erin Meier (PhD Program in Speech, Language, and Hearing Sciences, Boston University)
Qualifying Project Committee; Primary Advisor: Swathi Kiran, PhD, CCC-SLP
- 2016 Jeffrey Johnson (PhD Program in Speech, Language, and Hearing Sciences, Boston University)
Qualifying Project Committee; Primary Advisor: Swathi Kiran, PhD, CCC-SLP

Master's Thesis Committee Membership

- 2023 Gabby Rushi (MS Program in Speech-Language Pathology, Boston University)
Thesis Committee; Primary Advisor: Kimberly Crespo, PhD, CCC-SLP
- 2017 I Lei (Vicky) Chan (MA Program in Applied Linguistics, Boston University)
Thesis Committee; Primary Advisor: Charles B. Chang, PhD
- 2016 Brett McCardel (MS Program in Speech-Language Pathology, Boston University)
Thesis Committee; Primary Advisor: Swathi Kiran, PhD, CCC-SLP

INTRAMURAL SERVICE

Current

- 2022 – Program Director, Bachelor of Science in Speech, Language, & Hearing Sciences
- 2018 – Program Director, Joint Bachelor of Science in Linguistics and Speech, Language, & Hearing Sciences
- 2017 – Technology Governance Committee for Research Computing
- 2015 – Sargent College Committee on Academic Policies & Procedures
- 2015 – Center for Systems Neuroscience, Executive Committee
- 2014 – Graduate Program for Neuroscience Graduate Education Committee
- 2014 – Graduate Program for Neuroscience Steering Committee

Previous

- 2021 – 2022 Chair, Faculty Search Committee (tenure-track assistant professor with specialization in pediatric communication disorders)
- 2020 – 2022 Institutional Review Board, Boston University Charles River Campus
- 2020 – 2021 Sargent College Faculty Council
- 2020 – 2024 Chair, Sargent College Committee on Academic Policies & Procedures
- 2019 – 2020 Chair, Faculty Search Committee (tenure-track assistant professor with specialization in language acquisition)
- 2019 – 2022 Kilachand Honors College Curriculum Committee
- 2017 Academic Program Review of the Program in Linguistics
- 2015 – 2016 Department of Speech, Language, and Hearing Sciences, Senior Faculty Search Committee
- 2015 Academic Program Review of the Department of Psychological & Brain Sciences
- 2015 Sargent Virtual Conference ("HealthMatters") Committee
- 2014 – 2021 Undergraduate Research Opportunities Program (UROP) Faculty Advisory Committee

- 2014 New Faculty Orientation Panel
 2014 – 2015 Dudley Allen Sargent Faculty / Post-Doc Research Grant Review Committee
 2014 – 2015 Dudley Allen Sargent Graduate Student Research Grant Review Committee
 2014 – 2017 Center for Integrated Life Sciences and Engineering (CILSE) Human Brain Imaging Center Design Committee

PROFESSIONAL DEVELOPMENT

Professional Affiliations

Acoustical Society of America (ASA); American Association for the Advancement of Science (AAAS); Society for Neuroscience (SfN); Cognitive Neuroscience Society (CNS); International Phonetics Association (IPA); Organization for Human Brain Mapping (OHBM); Society for the Neurobiology of Language (SNL)

Extramural Service

- 2023 Special Session Co-Organizer, “Perception beyond tones and speech in normal and impaired hearing: Voice, emotions, and music perception” (with Deniz Baskent and Virginia Best) (Jointly sponsored by Psychological and Physiological Acoustics and Speech Communication) 184th Meeting of the Acoustical Society of America (Chicago).
 2022 Mentor, *Pathways* Program, American Speech, Language, Hearing Foundation
 2021 – 2024 Member, Speech Communication Technical Committee, Acoustical Society of America
 2019 Member, Raymond H. Stetson Scholarship in Phonetics and Speech Science Review Committee, Acoustical Society of America
 2019 Special Session Co-Organizer, “Exploring the interface between linguistic processing and talker recognition” (with Rachel Theodore) (Jointly sponsored by Speech Communication and Signal Processing in Acoustics) 177th Meeting of the Acoustical Society of America (Louisville).
 2017 – 2020 Member, Speech Communication Technical Committee, Acoustical Society of America
 2017 – 2019 Editorial Board Member, *Journal of Speech, Language, and Hearing Research*

Invited Reviewer

Journals:

<i>Applied Psycholinguistics</i>	<i>Journal of Experimental Child Psychology</i>	<i>Journal of the Acoustical Society of America – Express Letters</i>
<i>Attention, Perception, & Psychophysics</i>	<i>Journal of Experimental Psychology – General</i>	<i>Language and Cognitive Processes</i>
<i>Bilingualism: Language & Cognition</i>	<i>Journal of Experimental Psychology – Human Perception and Performance</i>	<i>Language and Speech</i>
<i>Brain & Language</i>	<i>Journal of Experimental Psychology – Learning, Memory, and Cognition</i>	<i>Language Learning</i>
<i>Brain Structure & Function</i>	<i>Journal of Memory and Language</i>	<i>Nature Communications</i>
<i>British Journal of Psychology</i>	<i>Journal of Neurodevelopmental Disorders</i>	<i>NeuroImage</i>
<i>Cerebral Cortex</i>	<i>Journal of Neuroscience</i>	<i>Neuropsychologia</i>
<i>Cognition</i>	<i>Journal of Neuroscience, Psychology, and Economics</i>	<i>Phonetica</i>
<i>Current Biology</i>	<i>Journal of Phonetics</i>	<i>PLoS One</i>
<i>Developmental Neuropsychology</i>	<i>Journal of Speech, Language, and Hearing Research</i>	<i>PLoS Biology</i>
<i>Developmental Science</i>	<i>Journal of the Acoustical Society of America</i>	<i>Proceedings of the National Academy of Sciences</i>
<i>eLife</i>		<i>Psychonomic Bulletin & Review</i>
<i>Frontiers in Psychology</i>		<i>Research in Developmental Disorders</i>
<i>Hearing Research</i>		
<i>Human Brain Mapping</i>		
<i>Journal of Consumer Behaviour</i>		

Grants:

American Speech-Language-Hearing Foundation; National Science Foundation (ad hoc); National Institutes of Health (ad hoc)

Invited and Extramural Talks

- 2018 University of Texas at Austin, "Diehl-a-Palooza: A celebration of the career of Randy Diehl!"
"Social consequences of phonetic expertise: The language-familiarity effect in talker identification."
 2018 University of Iowa, Department of Communication Sciences and Disorders
"Multiple timescales of plasticity in speech and language: Adaptation, learning, and expertise."
 2017 Coalition for National Science Funding, Capitol Hill Exhibition (on behalf of Federal Association of Behavioral and Brain Sciences)
"Neuroscience discoveries in reading and dyslexia."
 2017 Northwestern University, Department of Communication Sciences and Disorders
"Multiple timescales of plasticity in speech and language."
 2016 Northwestern University, Department of Linguistics, "The Future of Language Science"
"Foreign language learning by adults: New insights from neuroscience."

- 2016 ASHA, "Lessons for Success" Workshop
"Lessons learned."
- 2016 Northwestern University, Department of Linguistics
"Two studies of talker normalization."
"Exploring careers with linguistics alumni."
- 2015 Haskins Laboratories
"Cognitive consequences of talker variability."
- 2013 Harvard University, Graduate School of Education
"Tin ears and silver tongues: Exploring individual differences in second language learning."
- 2013 Case Western Reserve University, Department of Psychological Sciences
- 2013 Purdue University, Department of Speech and Hearing Sciences
- 2013 Boston University, College of Health and Rehabilitation Sciences: Sargent College
- 2012 University of Washington, Department of Speech and Hearing Sciences
"From phonetics to phonology: Developmental language disorders and brain plasticity."
- 2011 University of Washington, Institute for Learning and Brain Science
"Dysfunction of rapid cortical plasticity in dyslexia."

Intramural Talks

- 2022 "Neuroanatomical perspectives on language in the brain." BU Dept. of Psychological and Brain Sciences; Brain, Behavior, and Cognition Colloquium Series
- 2017 "Learning fast and learning slow: Understanding multiple timescales of neuroplasticity in speech and language disorders." BU Sargent College Dean's Advisory Board
- 2017 "Neural adaptation as a core computation in speech perception: How language makes use of a general-purpose tool." BU College of Arts and Sciences Junior Faculty Colloquium
- 2016 "Developmental language disorders: New insights from brain imaging." BU Dept. of Speech, Language, and Hearing Sciences.
- 2015 "Meet a linguist: A conversation with Professor Perrachione." BU Department of Linguistics
- 2015 "Cognitive consequences of talker variability." BU Hearing Research Center
- 2015 "Communication neuroscience." BU Sargent College *HealthMatters* Virtual Conference.
- 2015 "Learning fast and learning slow: How speech experience at multiple timescales changes behavior and changes the brain." BU Dept. of Speech, Language, and Hearing Sciences.
- 2014 "Developmental disorders of language and reading: New insights from brain imaging." BU Sargent College Dean's Advisory Board
- 2014 "Communication Neuroscience: The listening, talking, and reading brain." BU Sargent College
- 2014 "Speech-language disorders and the brain." BU Dept. of Speech, Language, and Hearing Sci.
- 2011 McGovern Institute for Brain Research Annual Retreat presentation
- 2010 "Dysfunction of rapid cortical plasticity in dyslexia." MIT Dept. of Brain & Cognitive Sciences
- 2010 "An introduction to R: Basic statistics and programming." MIT Dept. of Brain & Cognitive Sciences.
- 2008 "An own-race bias for voices results from asymmetric experience with acquired features of spoken language." MIT Dept. Brain & Cognitive Sciences.
- 2006 Northwestern University Institute for Neuroscience Annual Retreat presentation
- 2005, 2006 Northwestern University Communication Sciences and Disorders Research Forum

Miscellaneous

- 2017 Participant; ASHA Grant Review and Reviewer Training
- 2015 Participant; Alan Alda Center for Communicating Science Workshop
- 2014 Faculty Sponsor; HHMI Summer Lab Experience; BU Undergraduate Neuroscience (1 student)
- 2014 Participant; ASHA "Lessons for Success" Workshop
- 2013 – Supervisor; BU Undergraduate Research Opportunities Program
- 2007 – 2013 Supervisor; MIT Undergraduate Research Opportunities Program (13 students)
- 2009 – 2011 Mentor; The Education Cooperative, intensive summer science internship program for high-school students (4 students)
- 2005 – 2007 "Phonatics" phonology and phonetics discussion group, Northwestern University
- 2006 – 2007 Cognitive Brain Mapping Group, member, Northwestern University

- 2006 MGH Visiting Fellowship Program in fMRI at the Athinoula A. Martinos Center for Biomedical Imaging
- 2006 Mentor; Illinois Mathematics and Science Academy Student Inquiry and Research Program

LABORATORY TRAINEESHIPS

- 2007 – 2013 Cognitive & Affective Neuroscience Laboratory
(MIT Department of Brain & Cognitive Sciences; Dr. John D.E. Gabrieli, PI)
- 2007 – 2008 The Language Laboratory at MIT
(MIT Department of Brain & Cognitive Sciences; Dr. Ted Gibson, PI)
- 2007 – 2008 Ab/Normal Language Laboratory
(MIT Department of Brain & Cognitive Sciences; Dr. Kenneth N. Wexler, PI)
- 2005 – 2006 Psycholinguistics Laboratory
(Northwestern University Department of Linguistics; Dr. Matt Goldrick, PI)
- 2004 – 2007 Communication Neural Systems Research Group (formerly Speech Research Laboratory)
(Northwestern University Department of Communication Sciences & Disorders; Dr. Patrick C.M. Wong, PI)

OTHER RECOGNITION AND AWARDS

- 2007 National Science Foundation Graduate Research Fellowship Honorable Mention
- 2007 Northwestern University Academic Year Undergraduate Research Grant “Integration of speech- and voice-perception systems for native language talker identification.”
- 2006 Weinberg College of Arts and Sciences (Northwestern Univ.) Summer Undergraduate Research Grant “Brain bases of an interaction between voice perception and language proficiency.”
- 2005 – 2006 Abraham Demoz Prize for Undergraduate Excellence in Linguistics, Northwestern University Department of Linguistics.
2006 – (1st) “Intra-talker variation: Audience design factors affecting lexical selections.”
2005 – (Hon. Men.) “The bā-construction in Mandarin Chinese: A derivational analysis.”
- 2005 Northwestern University Summer Undergraduate Research Grant “Effects of linguistic proficiency on speaker identification.”
- 2003 – 2007 Dean’s List, Weinberg College of Arts and Sciences, Northwestern University.
- 2003 National Merit Scholar
- 2003 Eagle Scout, Boy Scouts of America
- 2001 Standing Ovation Award, Missouri Scholars Academy

OTHER EMPLOYMENT EXPERIENCE

- 2004 – 2007 Research Assistant, Speech Research Laboratory, Department of Communication Sciences and Disorders, Northwestern University, Evanston, Illinois.
- 2002 – 2005 Office Manager, King Appliance and Furniture. Kirksville, Missouri.

LANGUAGES

American English, French, Mandarin Chinese, Italian, Korean