Ja Young **Choi**

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Education

Ph.D. in Speech and Hearing Bioscience and Technology — *May 2022*
Harvard University — *Cambridge, MA*
- Dissertation: The cognitive and neural bases of processing talker variability in speech perception

B.A. in Cognitive Science, Lingusitics, and Psychology — *May 2014*
Rice University — *Houston, TX*

Research experience

Postdoctoral Scholar — *Nov 2023 - Present*
SoundBrain Lab, Northwestern University — *Evanston, IL*
- Supervisor: Bharath Chandrasekaran, Ph.D.

Ph.D. Student — *2016 - 2022*
Communication Neuroscience Research Lab, Boston University — *Boston, MA*
- Supervisor: Tyler Perrachione, Ph.D.

Research Analyst — *2014 - 2016*
Communication Neuroscience Research Lab, Boston University — *Boston, MA*
- Supervisor: Tyler Perrachione, Ph.D.

Research Assistant — *2014*
Child Language Acquisition Laboratory — *Houston, TX*
- Supervisor: Ozge Gurcanli, Ph.D.

Research Assistant — *2012 - 2014*
Schnur Laboratory — *Houston, TX*
- Supervisor: Tatiana Schnur, Ph.D.

Honors & Awards

2025	Postdoctoral Abstract Merit Award - Honorable Mention for SNL 2025
2020	Best Student Paper in Speech Communication - First Place for ASA 2020
2019	International Phonetic Association Student Award for ICPhS 2019
2016-2020	Kwanjeong Educational Scholarship ($30,000/year)
2012	Houston Junior Chamber of Commerce Award: Study in China Scholarship
2012	Center for the Study of Languages Study Abroad Scholarship
2011-2014	President's Honor Roll, Rice University

Publications

Choi, J. Y., Shengyue, X., McHaney, J. R., & Chandrasekaran, B. (submitted). Reverse hierarchical processing of speech in talker identification.

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

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.

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.

Choi, J. Y., Hu, E.R., & Perrachione, T.K. (2018). Varying acoustic-phonemic ambiguity reveals that talker normalization is obligatory in speech processing. *Attention, Perception, & Psychophysics, 80*(3), 784-797.

Peer-reviewed conference proceedings

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).

Conference poster presentations

Choi, J.Y., Guo, Z.-C., Chandrasekaran, B., & Hampton Wray, A. (2025). Neural representations of speech sounds in children who stutter. *17th Annual Meeting of the Society for the Neurobiology of Language* (Washington DC, September 2025).

Choi, J.Y., Gnanateja, G. N., Basavanahalli Jagadeesh, A., & Chandrasekaran, B. (2025). Revisiting Laurel vs. Yanny: insights from an online experiment and an FFR experiment. *17th Annual Meeting of the Society for the Neurobiology of Language* (Washington DC, September 2025).

Choi, J.Y., Sitek, K., Langlois, L.-P., Deschamps, S., Chen, J.-K., Roark, C., Baum, S., Chandrasekaran, B., & Klein, D. (2025). Behavioral identification and neural representations of talkers' voices vary with lifelong language experience. *17th Annual Meeting of the Society for the Neurobiology of Language* (Washington DC, September 2025).

Choi, J.Y., Xiong, S., McHaney, J. R., & Chandrasekaran, B. (2024). Pupillary measures of identifying talkers in native language and unfamiliar language. *Advances and Perspectives in Auditory Neuroscience XXII* (Chicago, October 2024).

Liu, Y., **Choi, J.Y.**, & Perrachione, T.K. (2024). Hemispheric biases in automatic cortical parcellations exaggerate surface area lateralization in primary auditory cortex and other key language areas. *Advances and Perspectives in Auditory Neuroscience XXII* (Chicago, October 2024).

Basavanahalli Jagadeesh, A., **Choi, J. Y.**, Gnanateja, G.N., & Chandrasekaran, B. (2024). Laurel vs Yanny – An investigation into the neural mechanisms of an Auditory Illusion. *5th Frequency Following Response Workshop* (Chicago, June 2024).

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).

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).

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).

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 2022).

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, Dec 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, 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, March 2020).

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).

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).

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).

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. *CNS Annual Meeting* (Boston, April 2018).

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).

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).

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).

Choi, J. Y., Wei, T., & Schnur, T.T. (2014). Effect of cognitive control on semantic processing. *Rice University Undergraduate Research Symposium* (Houston, April 2014).

Mentoring experience

2025 - Present	**Jacqueline Martinez**, Undergraduate student, Neuroscience, Northwestern University
2025 - Present	**Jaimie Hong**, Undergraduate student, Computer Science & Biology, Northwestern University
2024 - Present	**Louis-Phillipe Langlois**, MSc student, Program in Neuroscience, McGill University
2023 - Present	**Shengyue Xiong**, PhD student, Department of Communication Sciences and Disorders, Northwestern University
2018 - 2019	**Rita Kou**, MS student in Speech Language Pathology, Department of Speech, Language and Hearing Sciences, Boston University

Skills

Programming	R, Python, Praat, Matlab
Empirical	fMRI, tDCS, Pupillometry, EEG
Languages	Korean (native), English (Proficient), Mandarin Chinese (Intermediate), Spanish (Beginner)