

CAROLINE KAICHER

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EDUCATION

Stanford University

Ph.D. in Psychology

Advisors: Ellen Markman and Laura Gwilliams

Fall 2024-Present

Colgate University

B.A. in Neuroscience with High Honors & Minor in Linguistics

Honors Thesis: Neural correlates and subjective assessments of multimodal training on perception of foreign language prosody

May 2022

RESEARCH EXPERIENCE

Lab Manager for Dr. Jessica Cantlon

Carnegie Mellon University Department of Psychology

Recruited over 75 4-8 year-olds and their parents for a developmental fMRI study on number line estimation and spatial experience, developed experimental protocol, coded in-scanner localizer in PsychoPy, and ran experimental sessions. Preprocessed structural and functional data and conducted group analyses on BrainVoyager, organized and analyzed behavioral data using RStudio. Maintained lab database, administered subject payments, and organized lab meetings. Supervised and trained undergraduate RAs.

Summer 2022-Summer 2024

Student Researcher at the Center for Language and Brain

Colgate University Department of Psychological and Brain Sciences

Surveyed literature and designed a study on multimodal language processing and Japanese pitch accent perception. Created study materials and stimuli, as well as organized participant data and recruited 66 participants. Conducted Zoom sessions with participants to carry out the study. In second year, designed a follow-up study as an honors thesis utilizing EEG and conducted 48 participant sessions in-person.

Fall 2020-Spring 2022

Research Assistant for Professor Christopher Heffner

University at Buffalo Department of Communicative Disorders and Sciences

Surveyed literature on speech phoneme category learning and designed an experiment comparing active and passive training of nonnative phonemes as well as how verbal and nonverbal labels affect phoneme category learning. Programmed study to be conducted online using JSPsych and obtained grant funding to compensate participants. Currently planning a follow-up experiment.

Summer 2021

Research Assistant for Professor Andrea Zevenbergen

SUNY Fredonia Department of Psychology

Determined categories for a discourse analysis coding system in order to analyze data for a study. Coded transcripts of parent/child shared reading data into utterance categories for further analysis purposes.

Summer 2020

Research Assistant for Professor Marieke Van Heugten

University at Buffalo Department of Psychology

Created and edited audio stimuli using Praat and visual stimuli using Final Cut Pro. Managed contact database, reaching out to prospective families to recruit research subjects as well as confirm appointments. Supervised children and interacted with parents during appointment to allow graduate students to carry out study.

Summer 2019

PUBLICATIONS

Kaicher, C. M., Conti, J. J., Dedhe, A. M., Aulet, L. S., & Cantlon, J. F. (2024). Is core knowledge a natural subdivision of infant cognition? *Behavioral and Brain Sciences*, 47, e133. doi:10.1017/S0140525X23003229

Hirata, Y., Friedman, E., **Kaicher, C.**, & Kelly, S.D. (2024). Multimodal Training on L2 Japanese Pitch Accent: Learning Outcomes, Neural Correlates and Subjective Assessments. *Language & Cognition*, 1-38. doi:10.1017/langcog.2024.24

Zevenbergen, A. A., Angell, A. L., Battaglia, N. A., & **Kaicher, C. M.** (2021). Co-constructing stories: Sharing wordless picture books with preschoolers. *Children and Libraries*, 19(4), 22-26.

MANUSCRIPTS IN PROGRESS

Kaicher, C., & Heffner, C. (Registered Report under review). Categorization Effects of Linguistic Labels on Non-native Speech Sound Learning. *Quarterly Journal of Experimental Psychology*.

CONFERENCE PRESENTATIONS

Kaicher, C.M., Aulet, L.S., Cantlon, J. F. (July, 2024). Neural lateralization during number line estimation differentially predicts numerical and spatial capacity. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 46). Presented as a poster at the Cognitive Science Society, Rotterdam, Netherlands.

Aulet, L.S., **Kaicher, C.M.**, Cantlon, J.F. (September, 2023). Investigating the neural analog-to-symbolic shift in 5- to 8-year-old children's numerical cognition. Poster presented at Flux Society Congress, Santa Rosa, CA.

Kaicher, C.M., Aulet, L.S., Cantlon, J.F. (May, 2023). Investigating the neural analog-to-symbolic shift in 5- to 7-year-old children's numerical cognition. Poster presented at the 23rd annual meeting of the Vision Sciences Society, St. Pete Beach, FL.

Kaicher, C., Friedman, E., Kelly, S. D., & Hirata, Y. (July, 2022). Neural correlates and subjective assessments of multimodal training on perception of foreign language prosody. Poster presented at 9th conference of the International Society for Gesture Studies, Chicago, IL.

Friedman, E., Shiner, L., **Kaicher, C.**, Kelly, S. D., & Hirata, Y. (June, 2021). Effects of audio-visual training and left-hand prosodic tracing on perception in second language learning. Poster presented at the 6th International Conference of Asia-Pacific LSP & Professional Communication Association (Online Conference), Hong Kong.

DEPARTMENTAL TALKS

Kaicher, C. (April, 2022). Neural Correlates and Subjective Assessments of Multimodal Training on Perception of Foreign Language Prosody. Linguistics Program, Colgate University.

Kaicher, C. & Friedman, E. (October, 2021). Multimodality in L2 Learning: How Audio-Visual and Gesture Training Impact Japanese Pitch Accent Perception. Linguistics Program, Colgate University.

GRANTS, HONORS, AND AWARDS

2024 **Graduate Research Fellowship**, National Science Foundation

2022 **summa cum laude**, Colgate University

2022 **The William E. and Nellie K. Edmonston Neuroscience Award**, Colgate University

2022	Award for Excellence in Language Research , Center for Language and Brain, Colgate University
2022	Max A. Shacknai Award , Center for Outreach, Volunteerism, and Education, Colgate University
2022	Alumni Memorial Scholars Grant , Non-native Speech Sound Learning – Are Linguistic Labels Special? \$1200
2021	Alumni Memorial Scholars Grant , How limited daylight during Iceland winters affects public activity, culture, and wellness \$5335
2021	Graduate School Access Fund Fellow , Colgate University
2020	Psi Chi International Honor Society in Psychology
2019	Phi Eta Sigma National Academic Honor Society
2018-2022	Dean’s Award for Academic Excellence with Distinction , Colgate University
2018-2022	Alumni Memorial Scholar , Colgate University
2018	National Merit Scholarship , National Merit Scholarship Corporation

TECHNICAL SKILLS

Lab: fMRI, EEG

Programming: Python, Java, JavaScript, R

Software: BrainVoyager, PsychoPy, JSPsych, Praat, RStudio, SPSS, Qualtrics, Adobe Photoshop & Illustrator, Final Cut Pro, Google Workspace, Microsoft Suite

MENTORING

Kyle Hsin, Undergraduate Research Assistant, Carnegie Mellon University 2022-2023

LEADERSHIP & SERVICE

Pen-Pal	Fall 2024-Present
Letters to a Pre-Scientist Program	
Student Mentor	Fall 2024-Present
Stanford Psychology Paths to PhD	
Lighthouse Project Volunteer	Fall 2022-Summer 2024
Homewood-Brushton Branch YMCA, Pittsburgh, PA	
Student Volunteer	Summer 2023
Society for Philosophy & Psychology Annual Meeting	
Connect 2 Colgate Mentor	Fall 2021-Spring 2022
Colgate University	
SAT Prep Intern	Fall 2019-Spring 2020, Fall 2021-Spring 2022
Center for Outreach, Volunteerism, and Education, Colgate University	
Virtual Engagement Intern	Fall 2020-Spring 2021
Center for Outreach, Volunteerism, and Education, Colgate University	