

# CAROLINE KAICHER

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## EDUCATION

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### Stanford University

Fall 2024-Present

Ph.D. in Psychology

Advisors: Ellen Markman and Laura Gwilliams

### Colgate University

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

May 2022

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

## RESEARCH EXPERIENCE

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### Lab Manager for Dr. Jessica Cantlon

Summer 2022-Summer 2024

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.

### Student Researcher at the Center for Language and Brain

Fall 2020-Spring 2022

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.

### Research Assistant for Professor Christopher Heffner

Summer 2021

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.

### Research Assistant for Professor Andrea Zevenbergen

Summer 2020

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.

### Research Assistant for Professor Marieke Van Heugten

Summer 2019

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.

## PUBLICATIONS

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**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

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

Aulet, L., **Kaicher, C.**, & Cantlon, J. F. (under review) Intersection of Spatial and Numerical Cognition in the Developing Brain. *Cerebral Cortex*.

## CONFERENCE PRESENTATIONS

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**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 23<sup>rd</sup> 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

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**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

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2024	<b>Graduate Research Fellowship</b> , National Science Foundation
2022	<b><i>summa cum laude</i></b> , Colgate University
2022	<b>The William E. and Nellie K. Edmonston Neuroscience Award</b> , Colgate University
2022	<b>Award for Excellence in Language Research</b> , Center for Language and Brain, Colgate University
2022	<b>Max A. Shacknai Award</b> , Center for Outreach, Volunteerism, and Education, Colgate University
2022	<b>Alumni Memorial Scholars Grant</b> , Non-native Speech Sound Learning – Are Linguistic Labels Special? \$1200
2021	<b>Alumni Memorial Scholars Grant</b> , How limited daylight during Iceland winters affects public activity, culture, and wellness \$5335
2021	<b>Graduate School Access Fund Fellow</b> , Colgate University
2020	<b>Psi Chi International Honor Society in Psychology</b>
2019	<b>Phi Eta Sigma National Academic Honor Society</b>
2018-2022	<b>Dean's Award for Academic Excellence with Distinction</b> , Colgate University
2018-2022	<b>Alumni Memorial Scholar</b> , Colgate University
2018	<b>National Merit Scholarship</b> , National Merit Scholarship Corporation

## TECHNICAL SKILLS

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**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

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Kyle Hsin, Undergraduate Research Assistant, Carnegie Mellon University	2022-2023
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## LEADERSHIP & SERVICE

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