

# Katrina Connell, Ph.D.

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Research Scientist, [Tobii](#)

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## EDUCATION

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**Doctorate of Philosophy in Linguistics**

[University of Kansas](#)

2017

**Master of Arts in Second Language Studies**

[University of Hawai'i at Manoa](#)

2013

**Bachelor of Arts in Linguistics and Chinese**

[University of Maryland](#)

2011

## PROFESSIONAL POSITIONS

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**Research Scientist**

[Tobii](#)

Education Services

2021 - present

**Lab Manager and Research Coordinator** ([The Brain Tracking Lab](#))

[Penn State University](#)

Department of Spanish, Italian, and Portuguese

2018 - present

**Instructor**

[Penn State University](#)

Linguistics Program

2019 - 2020

**Instructor**

[Penn State University](#)

Department of Spanish, Italian, and Portuguese

2019 - 2020

**Post-Doctoral Research Fellow**

[The Hong Kong Polytechnic University](#)

Department of Chinese and Bilingual Studies

2017-2018

## SELECT EYE-TRACKING EXPERIENCE

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**2022-present**

Conducted 16+ onsite trainings, 25+ online trainings, & 25 personalized consultation sessions on Tobii hardware and software in the past year with attendees including professors, graduate and undergraduate students as well as representatives from various industries with a range of research background from beginners to advanced teams. Trainings taught vision and eye tracking basics, eye tracking setup, study design and implementation, data collection and data analysis in Tobii Pro Lab. Consultation sessions included working with scientific as well as enterprise clients on their study design, data collection and data analysis questions

## 2018-2022

Trained over 20 undergraduate and 3 graduate students on the use of the EyeLink eye-tracking systems, both EyeLink 1000 Plus and Portable Duo systems. Conducted troubleshooting for scripts and trackers in person as well as remotely on 6+ occasions while students were collecting data abroad

## Spring 2022

Provided Experiment Builder visual-world eye-tracking task with 2 picture displays to Penn State faculty member and a training program to teach undergraduate/graduate students how to collect eye-tracking data with EyeLink Portable Duo

## Summer 2021

Remotely consulted on an eye-tracking analysis of child data collected on an EyeLink 1000 for Dr. Alisa Baron (University of Rhode Island) assisting with data exporting in Data Viewer and conducted data processing and statistical analysis. [Click here for publication](#)

## Spring 2020

Assisted in the setup of a new SR Research Portable Duo system at the request of SR Research for a Penn State faculty member

## Spring 2019

Brought 4 students to a school in Puerto Rico with the EyeLink Portable Duo. Trained them on the equipment while collecting data from 7 children (ages 4-18) on a visual-world eye-tracking task

## Fall 2017

Optimized the EyeLink setup in the lab at the Hong Kong Polytechnic University to allow for experiments utilizing audio by changing display computer to an iMac. Trained research staff on the equipment and how to collect data. Created a training manual to ensure continued use of the equipment after departure

## 2015-2016

Conducted visual-world eye-tracking task in Beijing, China with a desktop EyeLink 1000 Plus and successfully changed the established setup to use my personal MacBook Pro as the display computer when the provided equipment did not function. Collected 6 participants in the US data with a tower mounted EyeLink

# TECHINICAL SKILLS

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	<b>SR Research</b>	
	EyeLink I and II in desktop, tower, & headmounted models	
Eye Tracking Systems	<b>Tobii</b>	
	Tobii Pro Nano, Tobii Pro Spark, Tobii Pro Fusion, Tobii Pro Spectrum & Tobii Pro Glasses 3	
Eye Tracking Software	Tobii Pro Lab	(extensive experience)
	Experiment Builder	(extensive experience)
	Data Viewer	(extensive experience)
Experiment Implementation	Tobii Pro Lab	(extensive experience)
	Experiment Builder	(extensive experience)
	PsychoPy	(extensive experience)
	Open Sesame	(limited experience)
Eye Tracking Methodologies	visual world	(extensive experience)
	reading	(intermediate experience)
	pupilometry	(limited experience)
	speech production	(limited experience)
Data Processing & Statistical Analysis	R	(extensive experience)
	Python	(learning in progress)

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Programming Languages	Praat scripting	(extensive experience)
	HTML and CSS	(intermediate experience) click <a href="#">here</a> or <a href="#">here</a> for example work
	Visual Basic	(limited experience)
	Python	(learning in progress)
	JavaScript	(limited experience)
Acoustical Analysis	Praat	(extensive experience)
	Audacity	(limited experience)
Experiment & Educational Materials Preparation	LaTex	(extensive experience)
	PowerPoint	(extensive experience)
	Word	(extensive experience)
	Gimp	(intermediate experience)
	Adobe Premier Pro	(basic experience)
	Articulate Storyline	(basic experience)

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## WORKSHOPS AND INVITED CLASS LECTURES

2020	<b>What R We Doing?: A Combined Visual World and R Remote Introductory Workshop Series</b> <b>The Pennsylvania State University - Fall Semester</b>
	A remote 15 week workshop series held as an introduction to the visual world paradigm as well as the basics of data processing in R using Tidyverse.
	<b>Eye Tracking in the Time of Corona: Remote collection of visual world eye-tracking data</b> <b>The University of Florida - October</b>
	A remote lecture given in the Online Data Collection course (taught by Dr. Edith Kaan) as an overview of the current remote eye-tracking methods and the method developed by our lab
2019	<b>What R We Doing?: A Combined Visual World and R Introductory Workshop Series</b> <b>The Pennsylvania State University - Fall Semester</b>
	A 15 week workshop series held as an introduction to the visual world paradigm as well as the basics of data processing in R using Tidyverse
2018	<b>Eye Tracking for Linguistic Research</b> <b>The Pennsylvania State University - March</b>
	A workshop given as an introduction to eye-tracking for linguistic research with a focus on hands-on experience calibrating the SR Research EyeLink eye tracker
	<b>Visual world Eye-tracking Data Processing and Analysis</b> <b>The Hong Kong Polytechnic University - April</b>
	A workshop given as an introduction to exporting eye-tracking data and basic data preparation in R as well as the advantages and disadvantages of various statistical analyses.
2017	<b>Visual World Eye-tracking Design and Implementation</b> <b>The Hong Kong Polytechnic University - April</b>
	A workshop given as an introduction to the major design concerns of visual world eye tracking studies and the SR Research Experiment Builder software for implementation
	<b>Eye Tracking for Linguistic Research</b> <b>The Hong Kong Polytechnic University - March, November</b>
	A workshop given as an introduction to eye-tracking for linguistic research with a focus on hands-on experience calibrating the SR Research EyeLink eye tracker
2016	<b>Models of Spoken Word Recognition</b> <b>The University of Kansas - September</b>
	A series of lectures given in the Psycholinguistics II (taught by Dr. Annie Tremblay) course as an overview of the current models of spoken word recognition

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# RESEARCH

## PRIMARY FIELDS OF INTEREST

Psycholinguistics (with focus on lexical access), eye-tracking, research methodology, second language acquisition, speech perception

## JOURNAL ARTICLES (\* denotes SR Research EyeLink was used)

- \* Baron A., **Connell K.** and Griffin ZM. (Under Review) Grammatical gender in spoken word recognition in school-age Spanish monolingual and Spanish-English bilingual children. *Front. Psychol.*
- \* Puscama, M., **Connell, K.**, Pinzon-Coimbra, J., Rembalsky, J., Xu, G., Guo, T., Valdés Kroff, J., Bajo, M. T., and Dussias, (Manuscript in Preparation) P. Lexical prediction on the basis of phonological alternation in L1 and L2 English: A visual-world eye-tracking investigation.
- \* Yao, Y., **Connell, K.**, Politzer-Ahles, S. (2023) Hearing emotion in two languages: A pupillometry study of bilinguals' perception of affective cognates. *Bilingualism: Language and Cognition*, 1-14.
- \* Baron A., **Connell K.** and Griffin ZM. (2022) Grammatical Gender in Spoken Word Recognition in School-Age Spanish-English Bilingual Children. *Front. Psychol.* 13:788076. doi: 10.3389/fpsyg.2022.788076
- \* **Connell, K.**, Hüls, S., Martínez-García, M., Qin, Z., Shin, S., Yan, H., and Tremblay, A. (2018) Effects of native language on the use of segmental and suprasegmental cues to stress in English word recognition. *Language Learning*, 68(3), 635-668.
- Tremblay, A., Namjoshi, J., Spinelli, E., Broersma, M., Cho, T., Kim, S., Martínez-García, M. T., and **Connell, K.** (2017). Experience with a second language affects the use of fundamental frequency in speech segmentation. *PLOS One*, 12, e0181709.

## CONFERENCE PROCEEDINGS

- \* **Connell, K.**, M. Gabriela Puscama, Joana Pinzon-Coimbra, Julia Rembalsky, Gloria Xu, Jorge R. Valdés Kroff, María Teresa Bajo Molina, and Paola E. Dussias. (2021). "Phonologically Cued Lexical Anticipation in L2 English: A Visual World Eye-Tracking Study." Proceedings of the 45th annual Boston University Conference on Language Development. Boston University : Remote.
- Connell, K.**, Tremblay, A., and Zhang, J. (2016). "The timing of acoustic vs. perceptual availability of segmental and suprasegmental information." Proceedings of the 2016 Tonal Aspects of Language Conference. Buffalo, NY: University at Buffalo.
- Namjoshi, J., Tremblay, A., Spinelli, E., Broersma, M., Martínez-García, M. T., **Connell, K.**, Cho, T., and Kim, S. (2015). "Speech segmentation is adaptive even in adulthood: Role of the linguistic environment." In the Scottish Consortium for ICPHS 2015 (Eds.), Proceedings of the 18th International Congress on Phonetic Sciences. Glasgow, Scotland: University of Glasgow.

## CONFERENCE PRESENTATIONS

- Connell, K.**, (2023) Advancing Psychological Research with Tobii. Workshop presented at the 25th National Academic Conference of Psychology, Sichuan Normal University, October.
- Baron, A. & \* **Connell, K.**, (2022) The effect of cumulative English exposure on grammatical gender in Spanish in school-age children. Poster presented at the 46th Boston University Conference on Language Development. Boston University, November.
- \* **Connell, K.**, Puscama, M., Pinzon-Coimbra, J., Rembalsky, J., Xu, G., Guo, T., Valdés Kroff, J., Bajo, M. T., Dussias, P. (2020) Phonologically cued lexical anticipation in L2 English: A visual world eye-tracking study. Poster presented virtually at the 45th Boston University Conference on Language Development, Boston University, November
- Rodrigo-Cristobal, L., **Connell, K.**, Harrington, K., Miller, D., Pelella, M., Dieck, M. and Dussias, P. (2020) The role of input in learning Spanish variation by native Spanish speakers. Poster presented virtually at the 50th Linguistic Symposium on Romance Languages, University of Texas at Austin, June.
- \* Politzer-Ahles, S., **Connell, K.**, and Hsu, Y. (2018). Third-tone sandhi is incompletely neutralizing in perception as well as production: Evidence from visual world eye tracking. Poster to be presented at the 1st Annual Hanyang International Symposium on Phonetics and Cognitive Sciences of Language, Hanyang University, May.
- \* **Connell, K.**, Tremblay, A., and Zhang, J. (2018). "The timing and speed of use of tones and segments in L1- and L2-Chinese lexical access". Abstract presented at the 2018 Architectures and Mechanisms of

Language Processing - Asia, University of Hyderabad, February.

- \* **Connell, K.**, Hüls, S., Martínez-García, M., Qin, Z., Shin, S., Yan, H., and Tremblay, A. (2016). "Effects of native language on the use of segmental and suprasegmental cues to stress in English word recognition: An eye-tracking study". Poster presented at the 5th Joint meeting of the Acoustical Society of America and the Acoustical Society of Japan, Honolulu, November.
- Connell, K.**, Tremblay, A., and Zhang, J. (2016). "The timing of acoustic vs. perceptual availability of segmental and suprasegmental information." Poster presented at the 2016 Tonal Aspects of Language Conference. Buffalo, NY: University of Buffalo, May.
- \* **Connell, K.**, Hüls, S., Martínez-García, M., Qin, Z., Shin, S., Yan, H., and Tremblay, A. (2016). "Time course of Chinese and Korean listeners' use of stress in English word recognition. Paper presented at the International Symposium on the Acquisition of Second Language Speech, Aarhus, June.
- Namjoshi, J., Tremblay, A., Spinelli, E., Broersma, M., Martínez-García, M. T., **Connell, K.**, Cho, T., and Kim, S. (2015). "Speech segmentation is adaptive even in adulthood: Role of the linguistic environment." Paper presented at the 18th International Congress on Phonetic Sciences, University of Glasgow, August.

## TEACHING EXPERIENCE

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Instructor - Graduate	<b>SPAN 497 : What R We Doing? - Summer 2021</b> <b>The Pennsylvania State University</b> This course serves as an introduction to R and R studio, with a focus on using R and the Tidyverse package for data processing and data management using the dplyr, tidyr, rmarkdown and ggplot2 packages to preprocessing and format real data for data visualization and later statistical analysis.
Instructor - Undergraduate	<b>LING 001 : The Study of Language - Spring 2020, Remote: Fall 2020, Spring 2021</b> <b>The Pennsylvania State University</b> This course serves as an introduction to the study of language and linguistics. The topics include historical linguistics, sociolinguistics, phonetics, syntax, language and the mind, language in the brain, and language acquisition. <b>Linguistics 110: Language and the Mind - Summer 2014, 2015, 2017</b> <b>University of Kansas</b> This course serves as an introduction to the study of language and linguistics. The topics include historical linguistics, sociolinguistics, phonetics, syntax, language and the mind, language in the brain, and language acquisition.
Graduate Teaching Assistant	<b>Linguistics 110: Language and the Mind - Fall 2013, 2016</b> <b>University of Kansas</b> This course serves as an introduction to the study of language and linguistics. The topics include historical linguistics, sociolinguistics, phonetics, syntax, language and the mind, language in the brain, and language acquisition. <b>Linguistics 437: Psycholinguistics I - Spring 2014</b> <b>University of Kansas</b> This course serves as a survey of major psycholinguistic methods and prominent classic studies. The topics include but are not limited to speech segmentation, word recognition, sentence processing with an overview of relevant methods such as eye-track, priming and self-paced reading.

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