

# YUAN CHAI

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## Positions Held

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Sept. 2023- **University of Washington (UW), Department of Linguistics**

Postdoctoral fellow & Teaching associate & Acting director of the phonetics lab

Supervisor: Prof. Richard Wright

Projects:

Perception of glottalized phonation in Zapotec; Effect of H1 and H1–H2 on the perception of breathiness

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Oct. 2022- **University of California Los Angeles (UCLA), Department of Linguistics**

Sept. 2023 Postdoctoral fellow

Supervisor: Prof. Patricia Keating

Projects:

Acoustic properties of different kinds of creaky voice; Documentation of Yateé Zapotec; Acoustics of breathy and falsetto voices

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## Education

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2017-2022 **University of California San Diego (UCSD)**

Ph.D. in Linguistics, September 2022

Advisor: Prof. Marc Garellek

Dissertation: *Phonetics and phonology of checked phonation, syllables, and tones*

Dissertation committee: Prof. Marc Garellek (chair), Prof. Gabriela Caballero, Prof. Sarah Creel, Prof. Sharon Rose, Prof. Will Styler

2015-2017 **University of Colorado, Boulder (CUB)**

M.A. in Linguistics, May 2017

Advisor: Prof. Rebecca Scarborough

MA thesis: *Predicting Discrimination Accuracy by Assimilation Pattern: How do Mandarin Speakers Discriminate English Vowels?*

2011-2015 **Beijing Normal University (BNU)**

B.A. in English Language and Literature, July 2015

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## Publications

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2023 **Chai, Y.** Fernández, A., & Mendez, B. 2023. Phonetics of glottalized phonations in Yateé Zapotec. *Proceedings of ICPHS 2023*.

2022 **Chai, Y.** & Garellek, M. 2022. On H1–H2 as an acoustic measure of linguistic phonation type. *The Journal of the Acoustical Society of America* 152, 1856. doi: 10.1121/10.0014175.

- 2022 **Chai, Y.** & Ye, S. 2022. Checked syllables, checked tones, and tone sandhi in Xiapu Min. *Languages* 7: 47. doi: 10.3390/languages7010047.
- 2022 **Chai, Y.**, Kunda, T., Rodríguez, A. & Rose, S. 2022. The prosody of declaratives and questions in Rere. In H. Kubozono, J. Ito & A. Mester (Eds.), *Prosody and Prosodic Interfaces*, Oxford: Oxford University Press. doi: 10.1093/oso/9780198869740.003.0011.
- 2022 Caballero, G., **Chai, Y.** & Garellek, M. 2022. Stress, tone, and intonation in Choguita Rarámuri. In H. Kubozono, J. Ito & A. Mester (Eds.), *Prosody and Prosodic Interfaces*, Oxford: Oxford University Press. doi: 10.1093/oso/9780198869740.003.0008.
- 2021 Garellek, M., **Chai, Y.**, Huang, Y. & Van Doren, M. 2021. Voicing of glottal consonants and non-modal vowels. *Journal of the International Phonetic Association*. doi: 10.1017/S0025100321000116.
- 2019 **Chai, Y.** 2019. The Source of Creak in Mandarin. *Proceedings of ICPHS 2019*.

### Manuscripts

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- 2024 (under review) **Chai, Y.** Ye, S. Perception of Xiapu Min checked syllables and tones in citation and sandhi forms. *The Journal of the Acoustical Society of America*
- 2024 **Chai, Y.** Perception of rearticulated and checked phonations in Sierra Norte Zapotec: the effect of glottalization position and duration.
- 2021 **Chai, Y.** Predicting discrimination accuracy by assimilation pattern, overlap score, and acoustic properties. *UC San Diego: San Diego Linguistic Papers* 9. Available online: <https://escholarship.org/uc/item/44b0m25r>
- 2021 **Chai, Y.** Predicting discrimination accuracy by assimilation pattern, overlap score, and acoustic properties. *UC San Diego: San Diego Linguistic Papers* 8. Available online: <https://escholarship.org/uc/item/8mg0x5pb>
- in prep. Huaute, I. & **Chai, Y.** Cahuilla. *Journal of the International Phonetic Association*.

### Invited Presentations

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- Mar. 2023 What does it mean to be “checked”: case studies of Yateé Zapotec and Xiapu Min. Invited colloquium, Department of Foreign Languages & Literatures, National Yang Ming Chiao Tung University.
- Feb. 2023 What does it mean to be “checked”: case studies of Yateé Zapotec and Xiapu Min. Invited colloquium, Department of Linguistics, University of North Texas.
- Feb. 2023 What does it mean to be “checked”: case studies of Yateé Zapotec and Xiapu Min. Invited colloquium, Department of Linguistics, University of Hawai‘i at Mānoa.

### Conference Presentations

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- 2025 **Chai, Y.** *Perception of checked and rearticulated phonations: Effect of duration and glottalization phasing*. Study of the Indigenous Languages of the Americas

- 2024 **Chai, Y.** & Keating, P. *Reconsidering the formant correction formula in VoiceSauce*. 187th Meeting of the Acoustical Society of America.
- 2024 **Chai, Y.** *Effect of glottalization position and duration in perceiving glottalized phonation in Zapotec*. Sound Systems of Latin America 4.
- 2024 **Chai, Y.** *The phonological status of glottalization in Zapotec*. Sound Systems of Latin America 4.
- 2024 **Chai, Y.**, Bhagavatula, P., Wong, S., & Keating, P. *Spectral energy properties of non-modal phonations*. CorpusPhon.
- 2024 **Chai, Y.**, Fernández, A., & Mendez, B. *The role of phonation and tone in TAM in Yateé Zapotec*. Society for the Study of the Indigenous Languages of the Americas 2024 Annual Meeting.
- 2023 **Chai, Y.**, Fernández, A., & Mendez, B. *Phonetics of glottalized phonations in Yateé Zapotec*. 20th International Congress of the Phonetic Sciences.
- 2023 Keating, P., Garellek, M., Kreiman, J. & **Chai, Y.** *Acoustic properties of subtypes of creaky voice*. 184th Meeting of Acoustical Society of America.
- 2023 **Chai, Y.**, Fernández, A., & Mendez, B. *Acoustics of the creaky phonations in Yateé Zapotec*. 184th Meeting of Acoustical Society of America.
- 2021 **Chai, Y.** & Ye, S. *Perception of checked tones in Xiapu Min*. 181st Meeting of Acoustical Society of America. doi: <https://doi.org/10.1121/10.0008390>.
- 2020 **Chai, Y.** *The role of tone in TAM, verb class, and subject agreement in Rere*. Annual Conference on African Linguistics 51 (canceled due to covid).
- 2019 **Chai, Y.** & Garellek, M. *Using H1 instead of H1–H2 as an acoustic correlate of glottal constriction*. 178th Meeting of Acoustical Society of America.
- Chai, Y.** & Ye, S. *The neutralization of Xiapu Min tones in disyllabic tone sandhi forms*. ASA 2019. 178th Meeting of Acoustical Society of America.
- 2019 **Chai, Y.** *The Source of Creak in Mandarin*. 19th International Congress of Phonetic Sciences.
- 2019 **Chai, Y.** *The Source of Creak in Mandarin: Utterance Position or F0?* Linguistic Society of America 2018 Annual Meeting.
- 2018 **Chai, Y.** *Less Proficient, More Gestures?* 44th Annual Meeting of the Berkeley Linguistics Society.

### Fieldwork Experience

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- 2020-now Yateé Zapotec: Oaxaca, Mexico; Los Angeles, CA (on-site and remote)
- 2019-2021 Xiapu Min: Xiapu, Fujian, China (on-site and remote)
- 2019-2020 Rere: San Diego, CA (on-site and remote)

### Teaching Experience

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**Instructor**

2024 & 2025 LING 450: Introduction to Linguistic Phonetics  
Winter 2025 LING 453/553: Experimental Phonetics  
Spring 2024 LING 471: Computational Methods for Linguists  
Winter 2021 LIGN 8: Languages and Cultures of America

**Teaching assistant**

2019-2020 LIDS 19: Directed Study-Language. Supervisor: Prof. Grant Goodall  
Spring 2021 LIGN 101: Introduction/Study to Language. Instructor: Prof. Will Styler  
Fall 2018, 20 LIGN 110: Phonetics. Instructor: Prof. Marc Garellek  
2017-2020 LIGN 8: Languages and Cultures of America. Instructors: Profs. Justin McIntosh, Priyanka Biswas, Gabriela Caballero  
Winter 2018 LIGN 112: Speech Sounds and Speech Disorders. Instructor: Prof. Marc Garellek  
Fall 2016 LING 3100: Language Sounds Structures. Instructor: Prof. Mans Hulden

**Mentoring**

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Winter & Spring & Fall, 2024 Hayley Chu, Aurora Cong, Shannon Kawalec, Leonardo Kruse, Yilin Liu, Emily Rogers, Max Vu, Avery Wall, Yue Xu, LING 499A on “Eye-tracking study for perception and production of consonant clusters”  
Fall, 2023 Amelia Nguyen, Amandisa Cady, LING 499A on “The role of spectral energy in the perception of voice quality”  
Fall, 2023 Minnah Tanzeen, Abigail Nussbaum, Elliot K Okimoto, LING 499A on “Field research on Yateé Zapotec”  
Fall 2023 & Winter 2024 Serene Wong, Padmini Bhagavatula, LING 499A on “Acoustics of breathy and falsetto voices”  
Winter, Spring 2022 Grace Kim, Kaylina Moreno, Marilyn Sun, Chunxiao Zhang, Zhien Zhang, LIGN 199 (Independent Research) on “Survey of checkedness”.  
Faculty advisor: Prof. Emily Clem  
Winter, Spring, Fall 2021 Grace Kim, Eliana Marvizon, Kaylina Moreno, Lesly Nunez, Daniela Vasquez, Zhien Zhang, LIGN 199 (Independent Research) on “Yateé Zapotec documentation” project and “Survey of checkedness” project.  
Faculty advisor: Prof. Emily Clem

**Research assistantships**

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2018 Rarámuri fieldwork project. Supervisors: Profs. Gabriela Caballero and Marc Garellek  
2015-2016 Phonetic training strategies for non-native speech perception. Supervisor: Dr. Kate Phelps Ridgeway

**Service**

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- 2024 Organizer of the conference of Sound System of Latin America 4 (SSLA 4)
  - 2024-2025 Supervising lab director of the Department of Linguistics at the University of Washington
  - 2020-2021 Editor of San Diego Linguistics Papers, UC San Diego
  - 2017-2020 Department representative at Graduate Student Association, UC San Diego
  - 2017, 18 Instructor at Oasis English Summer Camp at Xiapu No.1 High School, China

### Reviewing

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- 2024, 22, 19 The Journal of the Acoustical Society of America
- 2023 Isogloss
- 2023 Journal of the International Phonetic Association

### Awards

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- 2024 Yateé Zapotec data for Numeralbank, Lexibank, Max Planck Institute for Evolutionary Anthropology, and the Endangered Languages Documentation Programme; \$5252
- 2023 Postdoctoral Research and Travel Grant, UW; \$6000
- 2022 Postdoctoral Research Grant, UCLA; \$5000
- 2022 Graduate Research and Travel Awards, International Institute, UCSD; \$1800
- 2021 First place Best Student Paper Award at 181st Meeting of the Acoustical Society of America; \$300
- 2021, 2019 Department of Linguistics research fund; \$1300
- 2021 2021-22 Liz Bates Research Award; \$225
- 2019 TA Excellence Award, UCSD Department of Linguistics
- 2019 Friends of International Center Scholarship, UCSD; \$2000
- 2015 Honor Graduate, Beijing, China
- 2014 National Scholarship, Beijing Normal University
- 2014 First-Class Academic Scholarship, Beijing Normal University
- 2014 Honor Roll Student, Beijing Normal University
- 2012-2013 First-Class Academic Scholarship, Beijing Normal University
- 2011-2012 Third-Class Academic Scholarship, Beijing Normal University

### Skills

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- Programming R; Python; HTML; CSS; JavaScript; Praat; MATLAB
- Software Praat; ELAN; VoiceSauce; PsychoPy; UCLA Voice Synthesizer

### Language Proficiency

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Mandarin (native)	English (fluent)	French (intermediate)
Spanish (basic)	Xiapu Min (research)	Rere (research)
Yateé Zapotec (research)	Choguita Rarámuri (research)	Cahuilla (research)