YAQIAN HUANG

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RESEARCH INTERESTS

Acoustic and articulatory phonetics; speech science; quantitative methods; psycholinguistics; perceptual learning; voice quality; tone

ACADEMIC EMPLOYMENT

Acoustics Research Institute of Austrian Academy of Sciences: Vienna, Austria

Postdoctoral Researcher, June 2023 - present

PI: Eva Reinisch

Project: Speech production and perception at the interface of cognitive processing: categories of linguistic voice quality in both native and non-native speakers

University of California Los Angeles: Los Angeles, CA

Lecturer in Phonetics, September 2022 - June 2023

50% teaching graduate and undergrad courses; 50% providing instructional support and holding workshops on statistical analysis techniques in the Phonetics Lab

EDUCATION

University of California San Diego: La Jolla, CA

Ph.D. in Linguistics and Cognitive Science, September 2017 - March 2023

Dissertation: Phonetics of Period Doubling

Committee Chair: Marc Garellek

University of Delaware: Newark, DE

M.A. in Linguistics & Cognitive Science, September 2015 - May 2017

University of International Business and Economics: Beijing, China

B.A. in Business English, September 2011 - June 2015

B.A. in Finance, September 2011 - June 2015

PUBLICATIONS

Huang, Y. (Under review). Perception and imitation of period doubling: pitch and voice quality. The Journal of the Acoustical Society of America.

Huang, Y. (Under review). The role of tone and phrasing in the occurrence of period doubling and vocal fry in Mandarin. *Journal of Phonetics*.

Huang, Y. (Under revision). F0 and voice quality of coarticulated Mandarin tones. Language and Speech.

Huang, Y. (Forthcoming). A phonetic and phonological analysis of the Rere vowel height system. In M. Diercks, J. Essegbey, B. Henderson, & F. McLaughlin (Eds.), *Pushing the boundaries: Selected papers from the 51-52 Annual Conference on African Linguistics*. Language Science Press. link

Mayberry, R., Hatrak, M., Ilkbasaran, D., Cheng, Q., Huang, Y., Hall, M. (2023). Impoverished language in early childhood affects the development of complex sentence structure. Developmental Science, 00, e13416. doi: 10.1111/desc.13416

Coretta, S., Casillas, J.V., [...], Huang, Y., [...], Roettger, T.B. (2023). Multidimensional Signals and Analytic Flexibility: Estimating Degrees of Freedom in Human-Speech Advances in Methods and Practices in Psychological Science, 6(3), 25152459231162570. doi: 10.1177/25152459231162567

Garellek, M., Chai, Y., Huang, Y., Van Doren, M. (2023, online: 2021). Voicing of glottal consonants and non-modal vowels. Journal of the International Phonetic Association, 1-28. doi: 10.1017/S0025100321000116

Huang, Y. (2020). Different attributes of creaky voice distinctly affect Mandarin tonal perception. The Journal of Acoustical Society of America, 147(3), 1441-1458. doi:10.1121/10.0000721

Lau, S.H.*, Huang, Y.*, Ferreira, V.S., Vul, E. (2019). Perceptual features predict word frequency asymmetry across modalities. Attention, Perception, and Psychophysics, 81(4), 1076-1087. doi:10.3758/s13414-019-01682-y (*equally contributed)

Conference Proceedings

PEER-REVIEWED Huang, Y. (2024). The effects of period doubling and vocal fry on the perceived naturalness of Mandarin tones. Proceedings of Speech Prosody 2024. Leiden.

> Huang, Y. (2023). Perception and imitation of period doubling. Proceedings of the 20th International Congress of Phonetic Sciences. Prague. pp. 327-331. link

> Huang, Y. (2022). Articulatory properties of period-doubled voice in Mandarin. Proceedings of Speech Prosody 2022. Lisbon. pp. 545-549. doi: 10.21437/Speech Prosody. 2022-111

> Huang, Y. (2019). The role of creaky voice attributes in Mandarin tonal perception. Proceedings of the 19th International Congress of Phonetic Sciences. Melbourne. pp. 1465-1469. link

OTHER Conference PROCEEDINGS, Working Papers, and

Preprints

Huang, Y. (2024, April 29). F0 and voice quality of coarticulated Mandarin tones. doi:10.31219/osf.io/nyva6

Huang, Y. (2021). A mixed height and ATR system of vowels in Rere. San Diego Linguistic Papers: Iss.8. link

Huang, Y. (2019). Revisiting non-idempotency in Tibetan vowel harmony. San Diego Linguistic Papers: Iss.7. link

Huang, Y.; Athanasopoulou, A.; Vogel, I. (2018). The effect of focus on creaky phonation in Mandarin Chinese tones. University of Pennsylvania Working Papers in Linquistics, 24(1), Article 12. link

Conference The perception of laterals in Austrian German: Is there a "Meidlinger L"?. (2024). Presentations Poster, 12th International Conference on Language Variation in Europe. Vienna, Austria (ICLaVE 12). (July 8th - 11st) (Joint work with Reinisch, E., Luttenberger, J., & Dzever, S.)

The effects of period doubling and vocal fry on the perceived naturalness of Mandarin tones. (2024). Poster, Speech Prosody 2024. Leiden, The Netherlands. (July 2nd - 5th)

The effects of vocal fry and period doubling on the perceived naturalness of Mandarin tones. (2024). Poster, 19th Conference on Laboratory Phonology. Seoul, South Korea (LabPhon 19). (June 27th - 29th)

Exploration and classification of vocal fry, period doubling, and modal voice using acoustic and EGG measures. (2024). Poster, 13th International Seminar on Speech Production. Autrans, France (ISSP 2024). (May 13rd - 17th)

Perception and imitation of period doubling. (2023). Poster, 20th International Congress of Phonetic Sciences. Prague, Czech Republic (ICPhS 2023). (August 7th - 11th)

Tonal and phrasal distributions of sub-phonemic creaky voice in Mandarin. (2023). Talk, HISPhonCog 2023. Seoul, Korea. (May 26th - 27th) link

Low tone bias during perception of period doubling (2022). Poster, 183th Acoustical Society of America (ASA Fall 2022). Nashville, TN. (December 5th - 9th) doi:10.1121/10.0015927

The tonal system of Hengyang Xiang (2022). Poster, 183th Acoustical Society of America (ASA Fall 2022). Nashville, TN. (December 5th - 9th) doi:10.1121/10.0016290

Articulatory properties of period-doubled voice in Mandarin (2022). Poster, Speech Prosody 2022. Lisbon, Portugal. (May 23rd - 27th)

Does Rere have vowel harmony? (2021). Talk, 51th-52nd Annual Conference on African Linguistics (ACAL 51-52). University of Florida, FL. (April 8th - 10th)

F0 and voice quality of coarticulated Mandarin tones (2020). Poster, LabPhon 17. Vancouver, Canada. (July 6th - 8th) (Joint work with Chai, Y.)

Voice quality of coarticulated Mandarin tones (2019). Poster, 178th Acoustical Society of America (ASA Fall 2019). San Diego, CA. (December 2nd - 6th) (Joint work with Chai, Y.) doi:10.1121/1.5137426

The role of creaky voice attributes in Mandarin tonal perception (2019). Talk, 19th International Congress of Phonetic Sciences (ICPhS 2019). Melbourne, Australia. (August 5th - 9th)

Low-f0 as a creak attribute in Mandarin tone perception (2019). Talk, 93rd Annual Meeting of the Linguistic Society of America (LSA 2019). New York City, NY. (January 3rd - 6th)

The phonological word in Mandarin: Evidence from Tone 3 Sandhi in reduplication (2018). Talk, 26th Annual Conference of the International Association of Chinese Linguistics (IACL-26). University of Wisconsin-Madison, WI. (May 4th - 6th)

Phonation and pitch properties of Mandarin tones: Syllable and focus effects (2018). Talk,

26th Annual Conference of the International Association of Chinese Linguistics (IACL-26). University of Wisconsin-Madison, WI. (May 4th - 6th) (Joint work with Athanasopoulou, A. and Vogel, I.)

The phonological word in Mandarin: Evidence from Tone 3 Sandhi in reduplication (2018). Talk, Southern California Annual Meeting on Phonology (SCAMP). University of South California, CA. (April, 7th)

The effect of focus on creaky phonation in Mandarin Chinese tones (2017). Talk, 41st Penn Linguistics Conference. University of Pennsylvania, PA. (March 24th - 26th) (Joint work with Athanasopoulou, A. and Vogel, I.)

The effect of focus on creaky phonation in Mandarin Chinese tones (2017). Talk, Cognitive Science Graduate Student Conference. University of Delaware, DE. (March 3rd) (Joint work with Athanasopoulou, A. and Vogel, I.)

Invited

How period doubling reshapes what we think about voice quality (Apr 12, 2024). Talk, Presentations University of Alberta.

> Speech signal processing (Jan 25, 2024). Guest lecture, Linguistics 411/511, University of Oregon.

> Where voice quality interfaces with pitch in lexical tones: acoustics, articulation, and perception (July 26, 2023). Info talk, Acoustics Research Institute, Austrian Academy of Sciences.

> Shiny app to track skills-based grading (June 5, 2023). Workshop, Phonetics seminar, UCLA.

> Implementing dimensionality reduction on phonetic data (Oct. 31, 2022). Workshop, Phonetics seminar, UCLA.

> Application of dimensionality reduction techniques in phonetics (Oct. 17, 2022). Talk, Phonetics seminar, UCLA.

> F0 and voice quality of coarticulated Mandarin tones (Sep. 27, 2022). Talk, EVOTONE Community, LMU Munich.

> Production and perception of period doubling (May 11, 2022). Talk, Department of Linguistics and English Language, University of Edinburgh.

> Tone in languages (April 14, 2022). Guest lecture, LIGN 101 Introduction to the Study of Language, UC San Diego.

Volumes EDITED

Proceedings of the 53rd Annual Conference of African Linguistics (in prep): San Diego, CA. (co-Editors: Rose, S., Struthers-young, A., Lim J.J., Kaldhol, N.)

Public OUTREACH

Acoustics Research Seminar 2024 for Austrian Academy of Sciences Study Foundation Sep. 16-19, 2024

Ultrasound and experimental stations, Noise Awareness Day (Tag gegen Lärm) Apr. 24, 2024 The "Meidlinger L" in Viennese minds (Das "Meidlinger L" in den Köpfen der Wiener*innen) at the City of Vienna Presentation Event Jan. 23, 2024 Researchers on the hunt for the "Meidlinger L" (Forscher auf der Jagd nach dem "Meidlinger L"), Newspaper article, Kronen Zeitung Jan. 28, 2024 The "Meidlinger L" study: how does the L sound right? (Die "Meidlinger L"-Studie: wie klingt das L richtig?), Podcast, Radio Wien Jan. 31, 2024 Viennese dialect: What does "Meidlinger L" actually sound like? (Wiener Dialekt: Wie klingt eigentlich das "Meidlinger L"?), Newspaper article, KURIER Feb. 3, 2024 2024 GO.INVESTIGATIO Fellowship (€2600) Project: "An acoustic and articulatory study of types of voice quality in Hanoi Vietnamese non-modal tones" City of Vienna Fund (PI: Eva Reinisch) (€18500) 2023 - 2024Project: "The 'Meidlinger L' in the minds of the Viennese: A perception study on the explanation of terms based on the assessment of acoustic stimuli." UCLA Unit 18 Faculty Professional Development Award (\$1000) 2022 - 2023NSF Doctoral Dissertation Research Improvement Grant (\$18845) 2022 – 2023 BCS-2141433: "Phonetics of period doubling" (PI: Marc Garellek) 2022 ASA Speech Communication Student Poster Competition 1st Prize (\$300) "The tonal system of Hengyang Xiang" 2022 Speech Prosody 2022 Student Travel Grant (€500) Liz Bates Research Award for Speech Prosody 2022 registration (€177) 2022 UCSD Doctoral Qualifying Fund (\$4903) Summer 2021 UCSD Doctoral Qualifying Fund (\$4760) Summer 2020 UCSD International Institute Fellow (\$2100) 2020 - 2021Project: "Documenting Hengyang, An Under-Studied Dialect in China" UCSD Linguistics Departmental Travel Fund (\$1255) 2018, 2019 UCSD Graduate Student Association Travel Grant (\$1000) 2018, 2019 UD Linguistics Departmental Competitive Tuition Scholarship (\$20,000) Fall 2016 UD Linguistics Departmental Summer Funding (\$4000) Summer 2016 UD Linguistics Dean's Scholarship (\$12,400) 2015 - 2016UIBE Summer Social Practice Travel Award (top 10%) 2013

Watch your tongue - How we produce and perceive speech, Long Night of Research 2024

May 24, 2024

Honors and

AWARDS

MENTORING EXPERIENCE

UCSD Research Mentorship Program

2021 - 2022

Mentoring undergraduate research assistants on research projects of language documentation and phonetic analysis at UCSD Field Research Lab and Phonetics Lab

UCSD Independent Study (LIGN 199)

2019 - 2020

Mentoring undergraduate research assistants on a phonetics research project at UCSD Phonetics Lab

TEACHING EXPERIENCE As Instructor

Research Design and Statistical Methods (LING 239), UCLA Spring 2023 Instructor, responsible for creating and teaching course materials, grading, and mentoring graduate students.

Introduction to General Phonetics (LING 103), UCLA

Winter 2023

Instructor, responsible for creating and teaching course materials, grading, and supervising teaching assistants.

Linguistics and Speech Pathology (LING 115), UCLA

Fall 2022

Instructor, responsible for creating and teaching course materials, grading, and supervising teaching assistants.

Phonetics (LIGN 110), UCSD

Summer 2021

Instructor, responsible for creating and teaching course materials, grading, and supervising teaching assistants.

Child Language Development, Private organization

Summer 2020

Instructor, responsible for creating and teaching course materials and grading.

As Teaching Assistant

Computational Social Science BootCamp (CSS 202), UCSD Summer 2022 Teaching Assistant under Will styler. Supervised students during in-class technical workshops on Python programming, maths and statistical problems.

Phonetics (LIGN 110), UCSD

Fall 2021, 2020; Winter 2019

Teaching Assistant under Marc Garellek, Seung Kyung Kim. Created and taught weekly section materials, graded assignments, and held office hours.

Hearing Science and Hearing Disorders (LIGN 113), UCSD Spring 2020 Teaching Assistant under Will Styler. Created quiz materials, graded assignments, and held office hours.

Speech Sounds and Speech Disorders (LIGN 112), UCSD Winter 2020 Teaching Assistant under Marc Garellek. Graded assignments and held office hours.

Phonology (LIGN 111), UCSD

Winter 2022

Teaching Assistant under Anna Mai. Taught weekly section materials, graded assignments, and held office hours.

Independent Directed Language Study (LIDS 19), UCSD Spring, Fall 2019 Supervisor under Grant Goodall. Created language test materials, supervised students'

language learning, and gave them tests.

Language Representation in the brain (LIGN 180), UCSD

Fall 2018

Teaching Assistant under Robert Kluender. Taught biquarterly review sections, graded assignments, and held office hours.

Languages and Cultures of America (LIGN 8), UCSD Summer 2018; Fall 2017 Teaching Assistant under Gabriela Caballero, Andrés Aguilar. Taught biquarterly review sections, graded assignments and held office hours.

Morphology (LIGN 120), UCSD

Spring 2018

Teaching Assistant under Gabriela Caballero. Graded assignments and held office hours.

Language Processing in the Brain (LIGN 181), UCSD

Winter 2018

Teaching Assistant under Robert Kluender. Taught biquarterly review sections, graded assignments, and held office hours.

Chinese I/II - Elementary/Intermediate (CHIN 105/107), UD 2016 – 2017 Grader under Maria Tu. Taught weekly sections and graded assignments.

Academic Enrichment Center, University of Delaware

2015 - 2017

Tutor for Math and Linguistics.

OTHER EMPLOYMENT

Research Assistant (PI: Rachel Mayberry), Mayberry Lab, UCSD

2021

Conducted data cleaning and statistical analysis for project of "Sentence comprehension in ASL signers".

Research Assistant (PI: Marc Garellek), Phonetics Lab, UCSD 2020 – 2021 Conducted data analysis and data visualization for project of "Voicing of glottal sounds".

Volunteer (PI: Eric Halgren), Multimodal Imaging Laboratory, UCSD 2019 – 2020 Conducted data analysis, and provided linguistic consultation for project of "Human awake craniotomy: iEEG in STG and Broca's areas".

Student Researcher (PI: F. Sayako Earle), Memory and Perception of Speech Lab, UD 2017

Created and conducted experiments, and performed data analysis for project of "Neural underpinnings of identification performance following nonnative phonetic training".

Student Researcher (PI: Irene Vogel), Speech, Phonetics, and Phonology Lab, UD 2016-2017

Created and conducted experiments, and performed data analysis for project of "The acoustic manifestation of focus in Mandarin Chinese".

Research Assistant (PI. Roberta Golinkoff), Child's Play, Learning and Development Lab, UD

2016

Coded eye-gaze data for language acquisition projects of infants.

ACADEMIC SERVICE

 $Journal\ reviews$

The Journal of the Acoustical Society of America; Journal of Phonetics; Attention, Perception, and Psychophysics; Frontiers in Psychology; Second Language Research; Journal of Memory and Language; The Cleft Palate Craniofacial Journal; Journal of the Undergraduate Linguistics Association of Britain

 $Conference\ reviews$

INTERSPEECH 2024, 2023

Budapest CEU Conference on Cognitive Development 2024 20th International Congress of the Phonetic Sciences 2023 53rd Annual Conference on African Linguistics 2022

 $Conference\ organizers$

53rd Annual Conference on African Linguistics, UCSD	2022
6th Annual Meeting on Phonology, UCSD	2018
47th Linguistics Symposium on Romance Languages, UD	2017

Other

Head, UCSD Linguistics Grad Student Body International Student Comm	ittee	2022
Student Representative, UCSD Linguistics Curriculum Committee	2019 -	2022
Student Organizer, UCSD Linguistics Colloquium Committee	2017 -	2019

Professional
Memberships

International Speech Communication Association	2022 - present
Association for Laboratory Phonology	$2020-{ m present}$
International Phonetic Association	2019 - present
International Association of Chinese Linguistics	2018 - present
Linguistic Society of America	2016 – present

SKILLS

Programs: R, Praat scripting, MATLAB, Python, LaTeX, Haskell, PsychoPy,

E-Prime, PCIbex Farm, Labvanced, HTML/CSS, JavaScript, VoiceSauce, EGGWorks, Adobe Audition CS6, WordSmith Tools, Wmatrix, SPSS

Languages: Mandarin Chinese (native), English (fluent), French (intermediate),

Japanese (intermediate), Koalib (field experience), Vietnamese (research

knowledge)