

Fenqi Wang

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Research Interests

Motor Speech Disorders, Speech Biomarkers, Computational Modeling

Academic Appointments

- 2024 - present **Research Fellow**
Neurology Artificial Intelligence Program, Mayo Clinic, USA
Supervisors: Hugo Botha and Rene Utianski
- 2023 - 2024 **Term Lecturer**
Department of Linguistics, Simon Fraser University, Canada
- 2023 - 2024 **Postdoctoral Fellow**
Department of Linguistics, Simon Fraser University, Canada
Supervisors: Yue Wang & Henny Yeung

Education

- 2023 **Ph.D. in Linguistics**, University of Florida, USA
Dissertation: *The production and perception of vocal emotions in American English and Mandarin Chinese: A cross-linguistic study with computational modeling*
Committee Chair: Ratree Wayland
Committee Members: Caroline Wiltshire, Sarah Moeller, Yonghee Oh, Richard Wang
- 2020 **M.A. in Linguistics**, University of Kansas, USA
Thesis: *The effect of pitch accent on the perception of English lexical stress by native listeners*
Committee Chair: Annie Tremblay
Committee Members: Allard Jongman, Jie Zhang
- 2017 **M.A. in English Language & Literature**, China University of Geosciences (Wuhan), China
- 2014 **B.A. in English Translation & Interpretation**, Wuhan University of Engineering Science, China

Grants

- 2024 - 2026
Project Title: Creating adaptive vocal interfaces in human-AI interactions
Funding: SFU FASS Breaking Barriers Grant (Internal)
Total: CA\$70,000
Role: Co-investigator (PI: Yue Wang; Co-PIs: Angelica Lim, Henny Yeung, & Paige Tuttosi)
- 2024 - 2026
Project Title: Consuming text and audio fake news in a first and second language
Funding: SFU FASS Kickstarter Seed Grant (Internal)
Total: CA\$14,167
Role: Co-investigator (PI: Henny Yeung; Co-PIs: Maite Taboada & Yue Wang)

Publications

Manuscripts Under Review/In Revision

- Under review **Fenqi Wang**. Modeling the acoustic profiles of vocal emotions in American English and Mandarin Chinese.
- Under review **Fenqi Wang**. Cross-linguistic emotion perception: Impact of native language and visual cues in English and Mandarin Chinese speakers.
- Under review **Fenqi Wang**, Delin Deng, Ratree Wayland, H. Henny Yeung, & Yue Wang. An investigation of the phonetic variation of the word-initial [l] and [n] in accented Mandarin.
- In preparation **Fenqi Wang**, Joseph Duffy, Ashley Bachman, Hugo Botha, & Rene Utianski. Using AI to detect articulatory modulations under delayed auditory feedback in PPAOS.

Book Chapters

- Under review Ryan Bennett, Kevin Tang, & **Fenqi Wang**. Glottalized stops and affricates in Eastern Mayan languages. https://doi.org/10.31234/osf.io/4ksvx_v1

Journal Articles

- In press Delin Deng, **Fenqi Wang**, & Ratree Wayland. Nasalization reduction and grammaticalization of genre in Swiss French: A corpus-based sociophonetic study. *Lingua*. [co-first author]
- 2024 Kevin Tang, Ratree Wayland, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Evaluating the consistency of lenition measures: Neural networks' posterior probability, intensity velocity, and duration. *Journal of the Acoustical Society of America*, 156(2), 1367-1379. <https://doi.org/10.1121/10.0028299>
- 2024 **Fenqi Wang**, Delin Deng, Kevin Tang, & Ratree Wayland. The effect of pitch accent on the perception of English lexical stress: Evidence from English and Mandarin Chinese listeners. *Languages*, 9(3), 87. <https://doi.org/10.3390/languages9030087>
- 2023 Delin Deng & **Fenqi Wang**. A corpus-based study of *quoi* in French native speech. *Linguistics Vanguard*, 9(1), 161-171. <https://doi.org/10.1515/lingvan-2023-0027>
- 2023 Delin Deng, **Fenqi Wang**, & Ratree Wayland. The pitch contour of the French discourse marker *donc*: A corpus-based study using generalized additive mixed-effects modeling. *Journal of French Language Studies*, 33(3), 324-356. <https://doi.org/10.1017/S0959269523000121> [co-first author]
- 2023 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Quantitative acoustic versus deep learning metrics of lenition. *Languages*, 8(2), 98. <https://doi.org/10.3390/languages8020098> [co-first author]
- 2023 Kevin Tang, Ratree Wayland, **Fenqi Wang**, Sophia Vellozzi, Rahul Sengupta, & Lori Altmann. From sonority hierarchy to posterity probability as a measure of lenition: The case of Spanish stops. *Journal of the Acoustical Society of America*, 153(2), 1191-1203. <https://doi.org/10.1121/10.0017247>
- 2023 Huanhuan Liu, Zibin Guo, Yishan Jiang, John Schwieter, & **Fenqi Wang**. Neural circuits underlying language control and modality control in bilinguals: An fMRI study. *Neuropsychologia*, 178, 108430. <https://doi.org/10.1016/j.neuropsychologia.2022.108430>
- 2022 Delin Deng & **Fenqi Wang**. Review of *Teacher Transition into Innovative Learning Environments: A Global Perspective*. *Australian Journal of Applied Linguistics*, 5(2), 88-91. <https://doi.org/10.29140/ajal.v5n2.721>
- 2022 Shuang Liu, John Schwieter, **Fenqi Wang**, & Huanhuan Liu. An event-related potential study of self-positivity bias in native and foreign language contexts. *Psychophysiology*, 60(1), e14145. <https://doi.org/10.1111/psyp.14145>
- 2022 Tingting Guo, **Fenqi Wang**, Ningning Cao, & Huanhuan Liu. Conflicts influence affects: An fMRI study of emotional effects in a conflict task. *Cognitive Neurodynamics*, 16(6), 1261-1271. <https://doi.org/10.1007/s11571-022-09790-6>
- 2021 Huanhuan Liu, Wanqing Li, Mingyue Zuo, **Fenqi Wang**, Zibin Guo, & John Schwieter. Cross-task adaptation effects of bilingual language control on cognitive control: A dual-brain EEG examination of simultaneous production and comprehension. *Cerebral Cortex*, 32(15), 3224-3242. <https://doi.org/10.1093/cercor/bhab411>

- 2020 Man Zhang, Xin Wang, **Fenqi Wang**, & Huanhuan Liu. Effect of cognitive style on language control during joint language switching: An ERP study. *Journal of Psycholinguistic Research*, 49, 383–400. <https://doi.org/10.1007/s10936-019-09682-7>
- Proceedings
- In press Delin Deng & **Fenqi Wang**. The intonation of the French discourse marker *donc* with different pragmatic functions. In *Proceedings of the 56th Linguistics Colloquium*.
- In press Ratree Wayland, Kevin Tang, Sophia Vellozzi, **Fenqi Wang**, & Rahul Sengupta. Measuring gradient effects of alcohol on speech with neural networks' posterior probability of phonological features. In *Proceedings of the 20th International Congress of the Phonetic Sciences*. <https://psyarxiv.com/4wtc8/>
- 2024 Paige Tuttösí, H. Henny Yeung, Yue Wang, **Fenqi Wang**, Guillaume Denis, Jean-Julien Aucouturier, and Angelica Lim. Mmm whatcha say? Uncovering distal and proximal context effects in first and second-language word perception using psychophysical reverse correlation. In *Interspeech 2024*. <https://doi.org/10.21437/Interspeech.2024-1296>
- 2023 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rachel Meyer, & Rahul Sengupta. Neural network-base measure of consonant lenition in L2 Spanish. In *Proceedings of Meetings on Acoustics* (Vol. 52, No. 1). AIP Publishing. <https://doi.org/10.1121/2.0001881>
- 2023 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rachel Meyer, & Rahul Sengupta. Neural network-based measure of consonant lenition in Parkinson's Disease. In *Proceedings of Meetings on Acoustics* (Vol. 52, No. 1). AIP Publishing. <https://doi.org/10.1121/2.0001913>
- 2023 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Neural networks' posterior probability as measure of effects of alcohol on speech. In *Proceedings of Meetings on Acoustics* (Vol. 51, No. 1). AIP Publishing. <https://doi.org/10.1121/2.0001764>
- 2022 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rahul Sengupta, & Lori Altmann. Lenition measures: Neural networks' posterior probability versus acoustic cues. In *Proceedings of Meetings on Acoustics* (Vol. 50, No. 1). AIP Publishing. <https://doi.org/10.1121/2.0001728>

Conference Presentation

Oral Presentations

- 2024 **Fenqi Wang**, Andrew Cheng, Farzana Ali, Antonius Tam, & Henny Yeung. An acoustic study of pitch features of infant- and adult-directed speech in first and second languages. *The 49th Boston University Conference on Language Development* (BUCLD), Boston, USA.
- 2024 Andrew Cheng, **Fenqi Wang**, & Henny Yeung. Ethnic orientation influences infant-directed speech patterns in multilingual, multicultural households. *The 52nd Annual Meeting of New Ways of Analyzing Variation* (NWAV), Miami, USA.
- 2021 **Fenqi Wang**, Delin Deng, & Ratree Wayland. The ongoing sound change between /l/ and /n/ in Gan Chinese: Random forest classification. *The 181st Meeting of Acoustical Society of America* (ASA), Seattle, USA.
- 2021 **Fenqi Wang**, Delin Deng, Qingcheng Zeng, Ratree Wayland, & Kevin Tang. A corpus study of the production of syllable-initial /l/ and /n/ in Gan-accented Mandarin: Random forest classification. *The 49th Meeting of New Ways of Analyzing Variation* (NWAV), Austin, USA (virtual).
- 2021 **Fenqi Wang** & Shiyi Wang. The emergence of /l/ in Chongyang Gan Chinese: OT learning with GLA. *The 54th International Conference on Sino-Tibetan Languages and Linguistics* (ICSTLL54), Chengdu, China (virtual).
- 2021 **Fenqi Wang**. Merger of /l/ and /n/ in Chongyang Gan Chinese: OT analysis and GLA. *The 34th Paris Meeting on East Asian Linguistics* (JLAO34), Paris, France (virtual).
- 2021 Delin Deng & **Fenqi Wang**. The intonation of the French discourse marker *donc* with different pragmatic functions. *Disfiller 2021*, Bristol, UK (virtual).
- 2020 Delin Deng & **Fenqi Wang**. The intonation of the French discourse marker *donc* with different pragmatic functions. *The 56th Linguistics Colloquium*, Mainz, Germany (virtual).

Posters

- 2025 **Fenqi Wang**, Hugo Botha, & Rene Utianski. Using AI to detect articulatory modulations under delayed auditory feedback in PPAOS. *The 5th Biennial Boston Speech Motor Control Symposium (BSMCS)*, Boston, USA.
- 2025 **Fenqi Wang**, Rene Utianski, Joseph Duffy, David Jones, & Hugo Botha. Deep learning-driven phonetic profiling of dysarthric speech. *The 188th Meeting of Acoustical Society of America (ASA)*, New Orleans, USA.
- 2024 **Fenqi Wang**, Jetic Gu, Meagan Durana, Chihiro Mabohang, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. Real-time speech adaptations in conversations between human interlocutor and AI confederate. *The 186th Meeting of Acoustical Society of America (ASA)*, Ottawa, Canada.
- 2024 Jetic Gu, **Fenqi Wang**, Ivan Fong, Samuel To, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. A new experimental design to study speech adaptations in spontaneous human-computer conversations. *The 186th Meeting of Acoustical Society of America (ASA)*, Ottawa, Canada.
- 2024 Ivan Fong, **Fenqi Wang**, Kira Chan, Tyne Johnson-Dhillon, Jadeyn Trasolini, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. Phonetic adaptation in conversation: the case of Cantonese tone merging. *The 186th Meeting of Acoustical Society of America (ASA)*, Ottawa, Canada.
- 2024 Han Zhang, Morgan Glover, **Fenqi Wang**, Xizi Deng, Dawn Behne, Allard Jongman, Joan Sereno, & Yue Wang. Speech adaptation in conversation: Effects of segment cue-weighting strategy for non-native speakers. *The 186th Meeting of Acoustical Society of America (ASA)*, Ottawa, Canada.
- 2023 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Neural Network-Based Measure of Consonant Lenition in Parkinson's Disease. *The 185th Meeting of Acoustical Society of America (ASA)*, Sydney, Australia.
- 2023 Kevin Tang, Ratree Wayland, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Quantitative Acoustic versus Deep Learning Metrics of Lenition. *The 19th Meeting of Phonetics & Phonology in German-speaking Countries*, Bern, Switzerland.
- 2023 **Fenqi Wang**, Delin Deng, & Ratree Wayland. Thing or sing: Modeling the phonetic variation of the interdental fricative /θ/ in accented English. *The 184th Meeting of Acoustical Society of America (ASA)*, Chicago, USA.
- 2023 **Fenqi Wang** & Ratree Wayland. Acoustic properties of vocal emotions in American English and Mandarin Chinese. *The 184th Meeting of Acoustical Society of America (ASA)*, Chicago, USA.
- 2023 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, & Rahul Sengupta. Neural networks' posterior probability as measure of effects of alcohol on speech. *The 184th Meeting of Acoustical Society of America (ASA)*, Chicago, USA.
- 2022 **Fenqi Wang**, Delin Deng, & Ratree Wayland. The acoustic profiles of vocal emotions in Japanese: A corpus study with generalized additive mixed modeling. *The 183rd Meeting of Acoustical Society of America (ASA)*, Nashville, USA.
- 2022 **Fenqi Wang**, Delin Deng, & Ratree Wayland. Modeling retroflex fricative variation in accented Mandarin. *The 183rd Meeting of Acoustical Society of America (ASA)*, Nashville, USA.
- 2022 Ratree Wayland, Kevin Tang, **Fenqi Wang**, Sophia Vellozzi, Rahul Sengupta, & Lori Altmann. Lenition measures: Neural networks' posterior probability versus acoustic cues. *The 183rd Meeting of Acoustical Society of America (ASA)*, Nashville, USA.
- 2022 Rachel Meyer, Ratree Wayland, & **Fenqi Wang**. Measuring second language acquisition of Spanish lenition. *The 183rd Meeting of Acoustical Society of America (ASA)*, Nashville, USA.
- 2022 **Fenqi Wang**, Ratree Wayland, & Kevin Tang. Native English listeners' processing of pitch accent in the perception of English lexical stress. *The 96th Annual Meeting of Linguistic Society of America (LSA)*, Washington, D.C., USA.

- 2022 Delin Deng & **Fenqi Wang**. The Affrication of word-initial /ʒ/ in French Native Speech. *The 96th Annual Meeting of Linguistic Society of America (LSA)*, Washington, D.C., USA.
- 2021 **Fenqi Wang**, Kevin Tang, & Ratree Wayland. Native English listeners' processing of pitch accent in the perception of English lexical stress. *Florida Psycholinguistic Meeting*, Tallahassee, USA (virtual).
- 2021 **Fenqi Wang**. An acoustic study of English vowels produced by Chinese learners of English. *UF Graduate Research Blitz*, Gainesville, USA.
- 2021 Jun Lyu & **Fenqi Wang**. Compound or single word: Phonological analysis of names in Shanghai Chinese. *The 33rd Meeting of the North American Conference on Chinese Linguistics (NACCL-33)*, Chicago, USA (virtual).
- 2021 Jun Lyu, **Fenqi Wang**, & Elsi Kaiser. Antecedent prominence and the Chinese reflexive *ziji*. *The 45th Annual Penn Linguistics Conference (PLC 45)*, Philadelphia, USA (virtual).
- 2021 **Fenqi Wang**, Kevin Tang, & Jun Lyu. The effect of pitch accent on the perception of English lexical stress by native and non-native listeners. *The 95th Annual Meeting of Linguistic Society of America (LSA)*, USA (virtual).
- 2019 Jun Lyu, **Fenqi Wang**, Dawei Lu, & Yiyuan Chen. Locality or recency: A story of two Chinese reflexives. *The 50th Annual Meeting of the North East Linguistic Society (NELS 50)*, Boston, USA.

Invited Talks

- 2023 **Fenqi Wang**. Recognizing emotions in speech: Humans vs. machines. Talk invited by Dr. Delin Deng, Department of Linguistics, University of Florida, USA.
- 2023 **Fenqi Wang**. Recognizing emotions in speech: Humans vs. machines. Talk invited by Dr. Sarah Moeller, Department of Linguistics, University of Florida, USA.
- 2023 **Fenqi Wang**. Dissertation writing and plan for graduate school. Talk invited by Dr. Edith Kaan, Department of Linguistics, University of Florida, USA.
- 2022 **Fenqi Wang**. An introduction to Montreal Forced Aligner. Workshop hosted by Phonetics and Phonology Reading Group, Department of Linguistics, University of Florida, USA.
- 2021 **Fenqi Wang**. The effect of pitch accent on the perception of English lexical stress: Evidence from native listeners. Colloquium talk invited by the Department of Linguistics, University of Florida, USA.
- 2021 **Fenqi Wang**. The analysis of the production of syllable-initial /l/ and /n/ in Gan-accented Mandarin. Talk invited by the Department of Linguistics, University of Florida, USA.
- 2021 **Fenqi Wang**. The application of random forest classification on the production of syllable-initial /l/ and /n/ in Gan-accented Mandarin. Talk invited by Dr. Fei Chen, Hunan University, Hunan, China.
- 2021 **Fenqi Wang**. Perceptual assimilation model and speech learning model. Talk invited by Yihan Chen in *LIN4721 Second Language Acquisition*, Department of Linguistics, University of Florida, USA.

Research Experience

- 2023 - present Language and Brain Lab, Simon Fraser University, Canada
 Supervisor: Yue Wang
 Project: Adaptations in conversation: engaging voices, faces, brains and machines
 Role: Post-doctoral fellow
 Duties: Supervised data collection, analyzed data, drafted manuscript, and mentored undergraduate and graduate students
- 2023 - present Language Learning and Development Lab, Simon Fraser University, Canada
 Supervisor: Henny Yeung
 Project: Linguistic analysis of infant- and child-directed speech in one's first and second languages
 Role: Post-doctoral fellow

- Duties: Designed experiments, supervised data collection, analyzed data, drafted manuscript, and mentored undergraduate and graduate students
- 2020 - 2023 Speech, Lexicon and Modeling Lab, University of Florida, USA
 Supervisors: Ratree Wayland & Kevin Tang
 Project: Smart electropalatography for linguistic and medical applications
 Role: Graduate research assistant
 Duties: Collected data, analyzed data, and drafted manuscript
- 2017 - 2018 Speech and Language Sciences Lab, Hong Kong Polytechnic University, China
 Supervisor: Yu-Yin Hsu
 Project: Lexical repetition and persistence of priming effects in Chinese comprehension
 Role: Research assistant
 Duties: Conducted eye-tracking experiments and analyzed data
- 2017 - 2018 Research Center of Brain and Cognitive Neuroscience, Liaoning Normal University, China
 Supervisor: Huanhuan Liu
 Project: General cognitive abilities and language switch of bilinguals
 Role: Research intern
 Duties: Conducted ERP experiments and processed ERP data using ERPLAB

Teaching Experience

- 2024 *LING330 Phonetics*
 2024 Summer
 Simon Fraser University
 Role: Instructor
- 2023 *LING401 Topics in Phonetics*
 2023 Fall
 Simon Fraser University
 Role: Instructor
- 2023 *IDS2935 Language and Emotion*
 2023 Summer
 University of Florida
 Role: Graduate teaching assistant
- 2021 - 2023 *The Sound Structure of English* (Online)
 2021 Spring, Summer, Fall; 2022 Spring, Summer, Fall
 Harbour Education Co. Ltd.
 Role: Teaching fellow
- 2022 *Educational Psychology: Education, School and Society* (Online)
 2022 Summer
 Harbour Education Co. Ltd.
 Role: Teaching fellow
- 2018 - 2020 *Ling106 Introductory Linguistics*
 2018 Fall, 2019 Spring & Fall, 2020 Spring
 University of Kansas
 Role: Graduate teaching assistant
- 2018 *American Spoken English, TOEFL, and IELTS*
 Meten International Education Corporation

Role: Instructor

2017 *Neurology and Neuroscience*
University of Hong Kong
Role: Teaching assistant

Awards

2024 VPR Research Travel Grant, Simon Fraser University, \$700.
2022 Graduate Student Travel Fund, University of Florida, \$300.
2022 Graduate Travel Fund, Department of Linguistics, University of Florida, \$450.
2021 Graduate Travel Fund, Department of Linguistics, University of Florida, \$450.
2020 - 2023 Graduate Research Assistantship, Department of Linguistics, University of Florida.
2020 Clark Coan Award for International Student Leadership, University of Kansas, \$500.
2019 Graduate Scholarly Presentation Travel Fund, University of Kansas, \$500.
2018 - 2020 Graduate Teaching Assistantship, Department of Linguistics, University of Kansas.
2017 Tin Ka Ping Visiting Fellowship, University of Hong Kong, \$800.
2016 National Graduate Scholarship, China University of Geosciences (Wuhan), \$3,000.
2014 - 2016 Graduate Student Scholarship, China University of Geosciences (Wuhan), \$1,200.
2013 National English Contest for College Students Majoring in English, First Prize, Wuhan University of Engineering Science.
2011 National Aspiration Scholarship, Wuhan University of Engineering Science, \$1,200.

Student Supervision

Undergraduates:

2023 - 2024 Language and Brain Lab, Simon Fraser University: Meagan Durana & Chihiro Mabohang
2023 - 2024 Language Learning and Development Lab, Simon Fraser University: Jiyun Choi, Pritika Purba, Sahibnoor Dhami, Eryn Ng, Marissa Zhu, Alexandra Samosseiko, Daniela Garcia, & Rasanpreet Dhami
2021 - 2023 Speech, Lexicon, and Modeling Lab, University of Florida: Sophia Vellozzi

Professional Service

Reviewer *Journal of the Acoustical Society of America, Forum for Linguistic Studies*
Reviewer Student poster competition (speech communication) at the 186th ASA Meeting

Research Skills

Programming languages:

- R (proficient), Python (proficient), MATLAB (basic)

EEG-related:

- EEGLAB/ERPLAB (proficient), Neuroscan (basic), Curry 8 (basic)

fMRI-related:

- FreeSurfer (basic), SPM 12 (basic), DPABI (basic)

Others:

- Praat (proficient), Paradigm (intermediate), PsychoPy (proficient), FindingFive (proficient), Linux (proficient), L^AT_EX (proficient)

Languages

Native Mandarin Chinese & Gan Chinese
Near-native English

Basic

French

Memberships

2025 -	American Speech-Language-Hearing Association
2021 -	Acoustical Society of America
2020 -	Association for Laboratory Phonology
2019 -	Linguistic Society of America
2017 - 2018	Society for the Neurobiology of Language