Huang Po-Hsuan

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EDUCATION

Ph.D.	*2024–*	**University of Southern California, CA** Linguistics
M.A.	*2020–2023*	**National Taiwan University, Taipei, TW** Linguistics
		Thesis: Production and perception of tonal coarticulation in Taiwan Mandarin and Taiwan Southern Min
B.A.	*2015–2020*	**National Chengchi University, Taipei, TW** English, French (majors)

AWARDS & HONORS

Taiwan Global Fellowship *2024–2027*
Ministry of Education, Taiwan
Graduate School Fellowship *2024–2025*
Dornsife College of Letters, Arts and Sciences, USC
Dean's List *2017*
National Chengchi University

PUBLICATIONS G Google Scholar

Journal Articles

Huang, Po-Hsuan & Chiu, Chenhao. (Under revision). Production and perception of coarticulated tones: The cases of Taiwan Mandarin and Taiwan Southern Min. *Journal of the Acoustical Society of America*.

Huang, Po-Hsuan & Her, One-Soon. (2024). On a dichotomy of question types: The case of Paiwan. *Concentric: Studies in Linguistics*, *50*(1), 24–56. https://doi.org/10.1075/consl.00033.her.
🗎

Peer-reviewed Proceedings

Huang, Po-Hsuan & Shao, Hsuan-Lei. (2024a). Applying mutual information to extract legal domain-specific collocation nouns in Mandarin. *Proceedings of the Thirtieth Annual Meeting of the Association for Natural Language Processing*, 1329–1333. 🗎

Chiu, Chenhao, Huang, Jian-Zhi, & **Huang, Po-Hsuan**. (2023). Perceptual identification of high vowels in Taiwan Mandarin. *Journal of the Acoustical Society of America*, *154*, A35. 🗎

Chiu, Chenhao & **Huang, Po-Hsuan**. (2023). Lip postures of high vowels in Taiwan Mandarin. In R. Skarnitzl & J. Volín (Eds.), *Proceedings of the 20th International Congress of Phonetic Sciences* (pp. 1052–1056). Guarant International. 🗎

Huang, Po-Hsuan & Chiu, Chenhao. (2023b). Perception of coarticulated tones in Taiwan Mandarin and Taiwan Southern Min. In R. Skarnitzl & J. Volín (Eds.), *Proceedings of the 20th International Congress of Phonetic Sciences* (pp. 446–450). Guarant International. 🗎

Book Chapters

Liu, Te-Hsin, **Huang, Po-Hsuan**, Lai, Ching-Hong, & Liu, Chan-Yueh. (2025). Role of prosodic constraints on the acquisition of Mandarin tones by French learners. In S. Teng, L. Chang, & T. Liu (Eds.), *Handbook of Chinese Language Learning and Technology*. Springer. https://doi.org/10.1007/978-981-97-5930-9_3. 🗎

Presentations

Huang, Po-Hsuan. (2026, January 19–21). *Revisiting information-theoretic constraints on the systematic variation in speech: An articulatory and acoustic analysis in British English*. International Conference on Phonetic Variation: Diversity within and across Languages (ICPhoV 2026), Granada, Spain. 🗎

Huang, Po-Hsuan & Shih, Stephanie S. (2025a, November 5–7). *Indexing political identity through syntactic variables: Classifier specificity in pro-Taiwan and pro-China Taiwan Mandarin speakers*. New Ways of Analyzing Variation 53 (NWAV 53), Ann Arbor, MI. 🗎

Huang, Po-Hsuan & Shih, Stephanie S. (2025b, May 16–18). *Informativity and cost allocation in tonal coarticulation in Taiwan Southern Min and Taiwan Mandarin*. The 3rd International Conference on Tone and Intonation (TAI 2025), Herrsching, Germany. 🗎

Chiu, Chenhao, **Huang, Po-Hsuan**, & Huang, Jian-Zhi. (2024, June 24–25). *Coordination of tongue and lips in Taiwan Mandarin high rounded vowels*. Ultrafest XI: Conference on Ultrasound Imaging for Speech and Language Research, Aizu, Japan. 🗎

Chiu, Chenhao, Chang, Cheng-Hsiang, Huang, Jian-Zhi, & **Huang, Po-Hsuan**. (2024, May 13–17). *Enhancing lip contrasts between /u/ and /y/ in Taiwan Mandarin*. The 13th International Seminar on Speech Production (ISSP 2024), Autrans, France. [Poster] 🗎

Huang, Po-Hsuan. (2024, May 13–17). *Production and perception of tonal coarticulation through computational communication simulation*. The 13th International Seminar on Speech Production (ISSP 2024), Autrans, France. [Poster] 🗎

Huang, Po-Hsuan & Liu, Yi-Chen. (2023, October 21). *Ultrasonic-and-optical-imaging-assisted automated speech correctness judgment model*. Tunghai International Conference on Second Language Teaching and Research (SLTR.THU), Taichung, Taiwan. 🗎

Huang, Po-Hsuan & Chiu, Chenhao. (2023a, May 26–27). *Tonal coarticulation in Taiwan Mandarin and Taiwan Southern Min*. Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HisPhonCog), Seoul, Korea. [Poster] 🗎

Wang, Chi-Wei, Chen, Bo-Wei, **Huang, Po-Hsuan**, Lai, Ching-Hung, & Chiu, Chenhao. (2023, May 26–27). *Evaluating forced alignment for under-resourced languages: A test on Squliq Atayal*. Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HisPhonCog), Seoul, Korea. [Poster] 🗎

Huang, Po-Hsuan & Chiu, Chenhao. (2022a, November 3–4). *Articulation and syllabic affiliation of prenuclear glide in Taiwan Mandarin*. Ultrafest X: Conference on Ultrasound Imaging for Speech and Language Research, Manchester, United Kingdom. 🗎

Huang, Po-Hsuan, Lai, Ching-Hung, & Liu, Te-Hsin. (2022, September 23–25). *On the interaction between L1 Transfer and universal constraints – Evidence from the acquisition of Mandarin tones by French speakers*. North American Conference on Chinese Linguistics (NACCL), Bloomington, IN, United States. 🗎

Huang, Po-Hsuan & Chiu, Chenhao. (2022b, January 6–9). *Vowel-glide distinction in high vocoid diphthong structures in Squliq Atayal: An ultrasound and acoustic study*. Annual Meeting of the Linguistic Society of America (AML), Washington, DC, United States. [Poster] 🗎

Huang, Po-Hsuan. (2021, October 23). *Vowel-glide distinction in high vocoid diphthong structures in Squliq Atayal: An ultrasound and acoustic study*. National Conference on Linguistics (NCL), Taipei, Taiwan. 📄

Huang, Po-Hsuan and Her, One-Soon. (2021, October 15–16). *On a two-way distinction of questions in Paiwan*. Young Scholars' Symposium on Taiwan Languages (YSSTL), Online. 📄

Working Papers

Huang, Po-Hsuan & Shao, Hsuan-Lei. (2024b). Comparison between the structures of word co-occurrence and word similarity networks for ill-formed and well-formed texts in Taiwan Mandarin. *arXiv*. https://doi.org/10.48550/arXiv.2408.09404.

Research Experience

Feb, 2024 –Jun, 2024	Full-time Research Assistant	Natural Language Processing and Sentiment Analysis Lab Institute of Information Science, Academia Sinica (PI: Dr. Lun-Wei Ku)
Jul, 2021 –Feb, 2024	Research Assistant	Speech Behavior and Science Lab Graduate Institute of Linguistics, National Taiwan University (PI: Dr. Chenhao Chiu)
Aug, 2023 –Dec, 2023	Research Assistant	Laboratory of Computational China Studies Research Center for Digital Law, National Taiwan Normal University (PI: Dr. Hsuan-Lei Shao)
Jul, 2021 –Oct, 2022	Research Assistant	Graduate Program of Teaching Chinese as a Second Language, National Taiwan University (PI: Dr. Te-Hsin Liu)
Jun, 2018 –Jul, 2020	Research Assistant	Graduate Institute of Linguistics, National Chengchi University (PI: Dr. One-Soon Her)

Teaching

2025 Fall	Teaching Assistant	Language and Society Department of Linguistics, University of Southern California (Instructor: Prof. Andrew Simpson)
2023 Spring	Teaching Assistant	Technology of Brain Science Graduate Institute of Brain and Mind Sciences, National Taiwan University (Instructors: Prof. Joshua G.O. Soo & Prof. Chia-Lin Lee)
2022 Spring & 2023 Spring	Teaching Assistant	Uncovering Languages Graduate Institute of Linguistics, National Taiwan University (Instructor: Prof. Chenhao Chiu)

2020 Fall & 2021 Spring Teaching Assistant	Freshman English
	Department of Foreign Languages and Literatures, National Taiwan University
	(Instructor: Prof. Wen-Hsien Hsu)

INVITED TALKS

"Implementation of Praat through Python"	*Nov, 2024*
Department of Linguistics, USC, CA	
"Electroglottography in linguistics research with Python"	*Mar, 2024*
Institute of Linguistics, Academia Sinica, Taipei	
"Face extraction with MediaPipe in linguistics research"	*Oct, 2024*
Speech Behaviours and Speech Sciences In-class Talk, NTU, Taipei	
"Face extraction with MediaPipe in linguistics research"	*Nov, 2022*
MultiMoco NTU Workshop, NTU, Taipei	
"Using PCA and LDA for ultrasound image classification"	*Nov, 2021*
The 1st NTU GIL Ultrasound Workshop, NTU, Taipei	

ACADEMIC SERVICE

Reviewing

Journals Journal of the Acoustical Society of America
Conferences International Conference on Tone and Intonation (TAI), Annual Meeting of the Association for Computational Linguistics (ACL)

SKILLS & KNOWLEDGE

Languages Mandarin (native); Southern Min (native); English (advanced); French (advanced); Spanish (basic)
Programming languages/software Python; R; Javascript; Praat Script; Psychopy; E-Prime; Matlab; SQL; bash; Swift
Packages/modules

- Data analyses: numpy; scikit-learn; statsmodels; pandas; network; lme4

- Visualization: matplotlib; seaborn; Plotly

- Image processing: OpenCV; MediaPipe; FFmpeg

- Acoustic analyses: parselmouth; wave

- Text mining: jieba; ckip; gensim

- Others: tensorflow; PyTorch; tkinter; PyPI; pickle; cython; git

Statistical analyses fundamental analyses (t-test, ANOVA, etc.); dimensionality reduction (PCA, LDA, t-SNE, etc.); regression/modeling (linear/logistic regression, LMM, GLM, GAMM, etc.),

cluster analysis (hierarchical; K-Means, etc.); correlation-related analyses (fundamental correlation analyses, CCA, Apriori Algorithm, mutual information, label ranking average precision scores, etc.); basic graph analyses

<u>Machine learning</u> linear/logistic regression; SVM; decision tree; random forest; KNN; neural networks (CNN, spatial- transformer network, RNN, GAN, etc.); neural agent simulation, transformers and LLMs

<u>Data structures & Algorithms</u> linked list, tree, array, A* pathfinding, Levenshtein distance

<u>Laboratory instrumentation</u> ultrasound; electromyography; electroglottography

Licenses & Certifications

Deep Learning Specialization [View]   Issued by: Coursera

August 31, 2025