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# Zhe-chen Guo (郭哲宸)

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## **Education**

Ph.D. Candidate in Linguistics, University of Texas at Austin (UT Austin)

Committee: Rajka Smiljanic (chair), Scott Myers, Fernando Llanos, Georgia Zellou

M.A in Applied Linguistics, National Sun Yat-sen University (NSYSU)

Thesis title: The cue of rising tone to spoken word segmentation: A study of listeners of Taiwanese Southern Min

Committee: Shu-chen Ou (chair), Aleck Shih-wei Chen, Yung-hsiang Shawn Chang

## **B.A.** in Foreign Languages and Literature, NSYSU

2014

### **Publications**

### Peer-reviewed journal articles:

- 1. **Guo**, **Z.-C.**, & Smiljanic, R. (accepted). Speakers coarticulate less in response to both real and imagined communicative challenges: An acoustic analysis of the LUCID corpus. *Journal of Phonetics*.
- 2. Ou, S.-C., & **Guo, Z.-C.** (2022). The effect of lengthening aspiration on speech segmentation. *JASA Express Letters*, 2(4), 045202. doi:10.1121/10.0010242
- 3. **Guo, Z.-C.**, & Smiljanic, R. (2021). Speaking clearly improves speech segmentation by statistical learning under optimal listening conditions. *Laboratory Phonology: Journal of the Association for Laboratory Phonology*, 12(1), 14. doi:10.5334/labphon.310
- 4. **Guo, Z.-C.,** & Ou, S.-C. (2021). The use of tonal coarticulation in segmentation of artificial language speech: A study with Mandarin listeners. *Applied Psycholinguistics*, 42(3), 631–655. doi:10.1017/S0142716420000818
- 5. Ou, S.-C., & Guo, Z.-C. (2021). The language-specific use of F0 rise in segmentation of an artificial language: Evidence from listeners of Taiwanese Southern Min. Language and Speech, 64(2), 437–466. doi:10.1177/0023830919886604
- 6. Ou, S.-C., & **Guo**, **Z.-C.** (2021). The differential effects of vowel and onset consonant lengthening on speech segmentation: Evidence from Taiwanese Southern Min. *The Journal of Acoustical Society of America*, 149(3), 1866–1877. doi:10.1121/10.0003751
- 7. **Guo, Z.-C.**, & Ou, S.-C. (2014). Perception of articulatorily different Mandarin retroflexes by Japanese speakers: A pilot study. *NTU Working Papers in Chinese Language Teaching*, 2, 1–28. Taipei: National Taiwan University. doi:10.6664/NTUTCSL.201408 (2).0004
- 8. Ou, S.-C., & Guo, Z.-C. (2014). Mandarin retroflex sounds perceived by non-native speakers. *Journal of Language and Literature Studies*, 26, 41–76.

#### **Peer-reviewed conference proceedings:**

- 1. **Guo, Z.-C.**, & Smiljanic, R. (2021). Speakers coarticulate less when facing real and imagined communicative difficulties: An analysis of read and spontaneous speech from the LUCID corpus. In *Proceedings of Interspeech 2021* (pp. 4009–4013). doi: 10.21437/Interspeech.2021-1640 (presented virtually, Brno, Czechia, August 30–September 3)
- 2. Ou, S.-C., & **Guo, Z.-C**. (2020). The opposite effects of vowel and onset consonant lengthening on speech segmentation. In *Proceedings of the 10th International Conference on Speech Prosody*. doi: 10.21437/SpeechProsody.2020-16 (presented virtually, Tokyo, Japan, May 24–28)
- 3. **Guo, Z.-C.**, & Ou, S.-C. (2019). The use of tonal coarticulation in speech segmentation by listeners of Mandarin. In *Proceedings of the 19th International Congress of Phonetic Sciences*. (orally presented, Melbourne, Australia, August 4–10)
- 4. Ou, S.-C., & **Guo**, **Z.-C.** (2019). The role of initial F0 rise in speech segmentation: A cross-linguistic study. In *Proceedings of the 19th International Congress of Phonetic Sciences*. (presented in poster format, Melbourne, Australia, August 4–10.)

5. Ou, S.-C., & **Guo**, **Z.-C.** (2015). The effect of stress on English word recognition by native speakers of typologically different languages. In *Proceedings of the 18th International Congress of Phonetic Sciences*. (orally presented, Glasgow, UK, August 10–14.)

## Fellowships/Grants/Honors

Graduate Continuing Fellowship Graduate School, UT Austin	2022 – 2023
Taiwanese Overseas Pioneers Grants (\$900,000 NTD) National Science and Technology Council, Taiwan	2022 - 2023
Dissertation Fellowship for ROC Students Abroad (\$20,000, declined) Chiang Ching-kuo Foundation for International Scholarly Exchange	2022
Graduate Research Fellowships (\$1,000) British, Irish and Empire Studies (BIES) program, UT Austin	2022
Interspeech 2021 travel grant International Speech Communication Association	2021
Carlota Smith Fellowship (\$1,231) Department of Linguistics, UT Austin	2020
Government Scholarship to Study Abroad (\$32,000) Ministry of Education, Taiwan	2019 – 2021
Acoustical Society of America Student Travel Subsidies (\$390)	2019 - 2022
Professional Development Awards (\$1,499)	2019
Spring Supplemental Graduate Fellowship (\$5,000) Graduate School, UT Austin	2019
Candidate for Best Master's Thesis of the Year Linguistic Society of Taiwan	2017
Five-year B.A./M.A. Combined Degree Program Fellowship (\$120,000 NTD)  Department of Foreign Languages and Literature, NSYSU	2014 – 2015
College Student Research Grant (\$43,000 NTD)  Ministry of Science and Technology, Taiwan (Project ID: 102–2815–C–110–010–H)	2013 – 2014
NSYSU Excellent Student Award (5 awards, \$30,000 NTD total)	2011 - 2013

## **Conference Presentations**

- \*: listed as citable abstract
- 1. \*Guo, Z.-C., Smiljanic, R. (2022). Coarticulation is reduced in clear speech produced with protective face masks. *The Journal of the Acoustical Society of America* 152(4), A286. doi: 10.1121/10.0016295 (poster presentation at the 183rd Meeting of the Acoustical Society of America, Nashville, December 5–9)
- 2. Dai, S., Frank, K., Jess, N., **Guo, Z.-C.** (2022). Network effects on Twitter users' language use and issue disposition of CRT: A machine-learning approach investigating the influence model. Paper presented at the *2022 Midwest Sociology of Education Conference*, University of Notre Dame, Indiana, October 27–28.
- 3. **Guo, Z.-C.,** & Smiljanic, R. (2022). Coarticulatory vowel nasalization in read and listener-directed speech across communicative contexts: An analysis of the LUCID corpus. Paper presented at the 18th Conference on Laboratory Phonology (LabPhon 18), online conference, June 23–25
- 4. Ou, S.-C., & **Guo**, **Z.-C.** (2022). Is onset-consonant lengthening a universal word beginning cue? A cross-linguistic study of English and French listeners. Paper presented virtually at the *29th Manchester Phonology Meeting*, May 25–27.
- 5. \*Guo, Z.-C., & Smiljanic, R. (2022). The degree and time course of nasal coarticulation across communicative contexts: A study of the LUCID corpus. *The Journal of the Acoustical Society of America*, 151(4), A65. doi: 10.1121/10.0010676 (poster presentation at the 182nd Meeting of the Acoustical Society of America, Denver, May 23–27)

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- 6. \*Guo, Z.-C., & Smiljanic, R. (2021). Coarticulation across communicative contexts: An acoustic analysis of the LUCID corpus using spectral and temporal measures. *The Journal of the Acoustical Society of America*, 150(4), A70. doi:10.1121/10.0007659 (poster presentation, Seattle, November 29–December 3)
- 7. Ou, S.-C., & Guo, Z.-C. (2021). The effect of aspiration lengthening on speech segmentation: An artificial language learning study. Paper presented virtually at the 28th Manchester Phonology Meeting, May 26–28.
- 8. \*Guo, Z.-C. (2020). Tonal carryover assimilation is exploited as a speech segmentation cue in the case of cue conflict. *The Journal of the Acoustical Society of America*, 148(4), 2504–2504. doi:10.1121/1.5146952 (presented virtually, December 7–11)
- 9. Ou, S.-C., & Guo, Z.-C. (2020). The effects of segment lengthening on speech segmentation. Paper presented at the *13th International Symposium on Taiwanese Languages and Teaching*, National Tsing Hua University, Hsinchu, October 16–17.
- 10. \*Guo, Z.-C., & Smiljanic, R. (2019). Speaking clearly improves speech segmentation in optimal listening conditions. *The Journal of the Acoustical Society of America*, 146(4), 3052–3052. doi:10.1121/1.5137579 (poster presentation, San Diego, California, December 2–6)
- 11. Ou, S.-C., & Guo, Z.-C. (2018). The role of lexical tone in speech segmentation by listeners of Taiwanese Southern Min: A corpus and experimental study. Oral presentation at the 7th International Conference on Phonology and Morphology, Seoul, Korea, June 29–30.
- 12. Ou, S.-C., & **Guo**, **Z.-C.** (2017). The language-specific use of F0 rise in speech segmentation by listeners of Taiwanese Southern Min. Oral presentation at *ILAS Workshop on Phonetics and Phonology*, Academia Sinica, Taipei, October 23–24.
- 13. Ou, S.-C., & **Guo**, **Z.-C.** (2017). Is the cue of pitch rise to spoken word segmentation used in a language-specific or cross-linguistic way? A study of listeners of Taiwanese Southern Min. Oral presentation at the *Phonetics and Phonology in Europe 2017*, Cologne, Germany, June 12–14.
- 14. Ou, S.-C., & **Guo**, **Z.-C.** (2016). The use of lexical tone in spoken word segmentation by Taiwanese Southern Min listeners. Oral presentation at the 24th Annual Conference of the International Association of Chinese Linguistics, Beijing, China, July 17–19.
- 15. **Guo**, **Z.-C.** (2014). Perception of articulatorily different Mandarin retroflexes by Japanese speakers: A pilot study. Oral presentation at the 2nd NTU Postgraduate Conference on Teaching Chinese as a Second Language, National Taiwan University, Taipei, March 29.

## Research Experience

#### Graduate Research Assistant

2022 -

Assistant for Neural Speech Decoding project (full-time: Jul – Aug 2022; PIs: Jun Wang & David Harwath)

Department of Computer Science, UT Austin

#### Graduate Student Lab Member

2018 –

UTSoundLab (PI: Rajka Smiljanic) Department of Linguistics, UT Austin

Research Assistant 2013 – 2018

Assistant (full-time: 2017–2018; part-time: 2013–2017) for NSYSU Phonetics and Phonology Lab (PI: Shu-chen Ou)

Department of Foreign Language and Literature, NSYSU

# **Teaching Assistantships**

#### At UT Austin:

Exploring Accents, by Scott Myers (Fall 2020)

Introduction to the Study of Language, by Nora England (Spring 2019)

Sound Patterns: Sound to Word, by Megan Crowhurst (Fall 2018, Spring 2021) and Scott Myers (Fall 2019; Spring 2020, Fall 2021, Spring 2022)

#### At NSYSU:

Phonetics, by Shu-chen Ou (Fall 2015, Fall 2016)

Phonology in English Language Teaching and Learning, by Shu-chen Ou (Spring 2016)

Introduction to English Linguistics (I), by Shu-chen Ou (Fall 2015)

English Writing I, by Shu-chen Ou (Fall 2016, Spring 2016)

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General English: Intermediate, by Shu-chen Ou (Fall 2016, Spring 2016)

## **Professional Service**

#### Invited talks/workshops/conferences:

NYCU Phon Brown Bag Series 2022 Talk to be given virtually at National Yang Ming Chiao Tung University (Dec 16, 2022)

Conference co-organizer

2019 - 2020The 19th Meeting of the Texas Linguistics Society (Feb 14-15, 2020)

Co-lecturer of Workshop on Speech Perception Experiments

2015 Led hands-on tutorial on designing perceptual experiments using E-Prime 2.0 (National Chengchi

University, Oct 30, 2015)

#### **Invited journal reviewer:**

Language and Speech JASA Express Letters

Quarterly Journal of Experimental Psychology

### **Technical Skills**

Programming languages Python, R/R Markdown Phonetic analysis Praat/Praat scripting

E-Prime 2.0/3.0, PsychoPy, Experiment Builder, Gorilla, Paradigm Experiment builders

Eye-tracker EyeLink Portable Duo Statistical software MATLAB, SPSS, SAS Audio editor Audacity, GoldWave

## Languages

Taiwan Mandarin Native Taiwanese Southern Min Native **Proficient** English Japanese Beginner