

WONG, Yik Ching (Eugene)

Department of Speech-Language-Hearing Sciences 164 Pillsbury Dr. SE, Minneapolis, MN 55455

wong0703@umn.edu

Research Interests

Sociophonetics, voice quality, acoustic phonetics

Education

PhD student

2021- present

Department of Speech-Language Hearing Sciences, University of Minnesota

- Primary Advisor: Dr. Benjamin Munson

BA in Linguistics and Language Technology (First Class Honours)

2012- 2016

City University of Hong Kong

- Awarded Dean's List in 2013/14 Semester B

Final-year project: **Production of the English vowels in Cantonese and Japanese children**

(Supervisor: Dr. Wai-Sum Lee)

- I investigated the production of English vowels of Cantonese-speaking and Japanese-speaking children, of 6-7 years of age.
- I collected speech samples and performed acoustic analysis on the formant frequencies (F1F2) of the English vowels /i ɪ ε æ u ʊ ɔ ʌ ɒ ɑ ɜ(ɝ)/ from the two groups of children.
- I analyzed the errors in pronunciation of the vowel sounds in the speech of both Cantonese and Japanese children. In general, Japanese children performed better than Cantonese children in producing the English vowels, which was assumed due to weak phonological awareness in Cantonese speakers. Cantonese children seemed not to distinguish the English vowels /ε/ and /æ/ and also /ɔ/ and /ɒ/.
- Based on my analysis, I argue that the results support the theory of Speech Learning Model of Flege.
- This project was nominated for City University's Discovery-enriched curriculum award.

International Exchange Program

Jan- Jun 2016

Autonomous University of Madrid, Spain

- Attended courses in sociolinguistics, comparative linguistics and Spanish language (CEFR- B2 level)

Work Experiences

Teaching Assistant

2021- present

Department of Speech-Language Hearing Sciences, University of Minnesota

- SLHS 1301 Physics and Biology of Spoken Languages (Spring 2021, Fall 2021, Spring 2022)
- SLHS 1402 The Talking Brain (Spring 2021)

Lab Manager (Assistant Technical Officer), Speech and Language Sciences Lab

2016- 2020

Department of Chinese and Bilingual Studies, The Hong Kong Polytechnic University

- Assist in the establishment of the lab
- Manage lab equipment (Compumedics EEG, Tobii TX300 and Eyelink 1000 Plus eye-trackers, Soterix HD-tDCS, Karl Storz laryngoscopy, Glottal Enterprise EGG & aerodynamic system, Carstens AG501 Electromagnetic Articulograph)
- Maintain and troubleshoot daily lab operation
- Assist in conducting lab experiments, language and cognitive assessment to adults and children
- Liaise with companies on purchasing lab equipment, consumables and maintenance services
- Write up guidelines of lab equipment
- Train lab users (undergraduate, postgraduate students, research assistants and post-doc fellows)
- Conduct lab tours and demo of equipment to visitors and students

- Design and develop fun linguistics games and demo for lab events
- Organize research group meetings
- Provide technical support for online teaching

Research Assistant (concurrently with Lab Manager position) 2016- 2018
Department of Chinese and Bilingual Studies, The Hong Kong Polytechnic University

Projects:

A Physiological study on the voice quality and intonation of two regional accents of Cantonese: Articulatory and acoustic analyses (PI: Dr. Roxana Fung) 2017- 2018

- Designed speech tasks
- Collected acoustic and electroglottographic signals from 20 Hong Kong Cantonese and 20 Guangzhou Cantonese speakers
- Performed analysis using spectral and cepstral measures, glottal parameters, LTAS and functional data analysis
- Drafted conference and journal papers

Pitch and Intonation of Hong Kong Cantonese and Guangzhou Cantonese

(PI: Dr. Roxana Fung) 2016- 2017

- Performed acoustic analysis of vowels, tones and voice quality on the speech recordings from 191 speakers of both gender and across three age groups from the two cities using VoiceSauce
- Drafted conference and journal papers

Cantonese Chinese Annotator, part-time, distance work 2014- 2017
Nuance Communications, USA

- Annotated Cantonese sentences for machine-learning to develop advanced NLP models in linguistics technologies, question-answering and conversational system

Publications

Fung, R. & Wong, E. **Voice quality: The phonetic distinction between Hong Kong Cantonese and Guangzhou Cantonese.** (manuscript in preparation).

Wong, E., Koeppe, K., Cychosz, M. & Munson, B. **Learning gendered speech in early childhood: evidence from a longitudinal study of vowel and consonant acoustics.** (manuscript in preparation).

Conference Presentations

Wong, E., & Munson, B. (2021). **A longitudinal study of gender-specific characteristics of children's vowels.** *The Journal of the Acoustical Society of America*, 150(4), A152.

Invited Talks

R., Fung and Y.-C., Wong. (2017). **The voice quality differences between Hong Kong Cantonese and Guangzhou Cantonese.** The 22nd JWLLP & The 5th Workshop on VariAMU. The Hong Kong Polytechnic University, Hong Kong, April 8th, 2017.

R., Fung and E., Wong. (2017). **The differences in voice quality between Hong Kong Cantonese and Guangzhou Cantonese.** UChicago Linguistic Research Forum. The Chinese University of Hong Kong, Hong Kong, March 17th, 2017.

Fellowships

Summer 2021 Department Fellowships

Jun - Aug 2021

Department of Speech-Language Hearing Sciences, University of Minnesota

Other Academic Training

Compumedics Hong Kong ERP Research & Clinical EEG Workshop. The Hong Kong Polytechnic University, Nov 7th- 10th, 2018.

Compumedics Clinical Curry School. The Hong Kong Polytechnic University, Oct 20th- 21st, 2017.

Skills

Acoustics	Praat, Computerized Speech Lab, Audacity
Statistics & Data Analysis	R, SPSS, Python
Neuroimaging	Compumedics Neuroscan, Biosemi, Curry 7, BESA
Experiment design	E-prime, Presentation, Experiment Builder, STIM2
Languages	Cantonese (native), English (fluent), Mandarin (fluent), Spanish (intermediate, DELE B1 certificate) Portuguese (basic), French (basic), German (basic)

References

Dr. Wai-Sum Lee

Associate Professor, Department of Linguistics and Translation, City University of Hong Kong

Email w.s.lee@cityu.edu.hk

Tel (+852) 3442 6605

Dr. Roxana Fung

Associate Head and Associate Professor, Department of Chinese and Bilingual Studies, The Hong Kong Polytechnic University

Email roxana.fung@polyu.edu.hk

Tel (+852) 2766 4783

Dr. Benjamin Munson

Professor, Chair, Department of Speech-Language-Hearing Sciences, University of Minnesota

Email munso005@umn.edu

Tel (+1) 612 624 0304