ROGER YU-HSIANG LO

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WORK EXPERIENCE

Applied Scientist

Sept. 2022–Present, Amazon.com, Vancouver, BC
Alexa Daily Essentials

Fellow

May 2020–Aug. 2020, University of British Columbia, Vancouver, BC
Data Science for Social Good Fellowship Program

EDUCATION

Ph.D. in Linguistics

2016–2022, University of British Columbia, Vancouver, BC
Department of Linguistics
Thesis: Post-stop fundamental frequency perturbation in production and perception of Mandarin stop voicing [url]
Committee: Kathleen Currie Hall (chair), Molly Babel, Márton Sóskuthy

Research Master in Linguistics

2014–2016, Leiden University, Leiden, The Netherlands
Leiden University Centre for Linguistics
Thesis: Dutch and Swedish *again*: On interaction between object movement and *again*-ambiguities [url]
Advisor: Cirt L. J. M. Cremers

Bachelor of Science in Chemistry

2008–2013, National Taiwan University, Taipei, Taiwan
Department of Chemistry
Minor: Linguistics

RESEARCH INTERESTS

Experimental Phonetics

Cue weighting in speech production and perception

Individual variation in production and perception of phonological contrasts

Phonetic cue use in multilinguals

Corpus Phonetics

Cross-linguistic variation in segments

Speech corpus construction and processing tool development

Artificial Intelligence

Linguistic knowledge in NLP models

Comparison of human and NLP model behaviours in speech perception

Methodology

Bayesian statistics

Online experimentation

PUBLICATIONS

Journal Articles & Book Chapters (Peer-Reviewed)

Hall, Kathleen Currie, J. Scott Mackie, and Roger Yu-Hsiang Lo. 2022. Managing and analyzing data with *Phonological CorpusTools*. In *The open handbook of linguistic data management*, ed. Andrea L. Berez-Kroeker and Bradley McDonnell and Eve Koller and Lauren B. Collister, chapter 51, 575–587. Cambridge, MA: MIT Press. [url]

Lo, Roger Yu-Hsiang. 2022. The dual role of post-stop fundamental frequency in the production and perception of stops in Mandarin-English bilinguals. *Frontiers in Communication* 7: 1–29. [url]

Hall, Kathleen Currie, J. Scott Mackie, and Roger Yu-Hsiang Lo. 2019. *Phonological CorpusTools*: Software for doing phonological analysis on transcribed corpora. *International Journal of Corpus Linguistics* 24:522–535.

Huijsmans, Marianne, Daniel K. E. Reisinger, Roger Yu-Hsiang Lo, and Kaining Xu. 2018. A preliminary sketch of determiners in ʔayʔaǰuθəm. In *Wa7 xweysás i nqwal'utteníha i ucwalmícwa: He loves the people's languages: Essays in honour of Henry Davis*, ed. Lisa Matthewson, Erin Guntly, and Michael Rochemont, chapter 22, 327–338. Vancouver, BC: UBCOPL.

Johnson, Khia A., Gloria M. Mellesmoen, Roger Yu-Hsiang Lo, and Bryan Gick. 2018. Prior pronunciation knowledge bootstraps word learning. *Frontiers in Communication* 3:1–9. [url]

Conference Proceedings (Peer-Reviewed)

Tkachman, Oksana, Emily Sadlier-Brown, Roger Yu-Hsiang Lo, and Carla Hudson Kam. 2024. Transparency in sign forms: When and how does iconicity matter?. In *Proceedings of the 46th Annual Conference of the Cognitive Science Society*, ed. Larissa K. Samuelson, Stefan L. Frank, Mariya Toneva, Allyson Mackey, and Eliot Hazeltine, 1948–1952. [url]

Lo, Roger Yu-Hsiang, Suyuan Liu, Michael McAuliffe, Charlotte Vaughn, and Molly Babel. 2023. Variation in perception and production of /s/-/ʃ/ in English. In *Proceedings of the 20th International Congress of Phonetic Sciences*, ed. Radek Skarnitzl and Jan Volín, 624–628. [url]

Lo, Roger Yu-Hsiang and Márton Sóskuthy. 2023. Articulation rate in consonants and vowels: Results and methodological challenges from a cross-linguistic corpus study. In *Proceedings of the 20th International Congress of Phonetic Sciences*, ed. Radek Skarnitzl and Jan Volín, 2589–2593. [url]

Tkachman, Oksana, Emily Sadlier-Brown, Roger Yu-Hsiang Lo, and Carla Hudson Kam. 2023. Interpretability in sign language animal signs. In *Proceedings of the 45th Annual Conference of the Cognitive Science Society*, ed. Micah Goldwater, Florencia Anggoro, Brett Hayes, and Desmond C. Ong, 624–628. [url]

Lo, Roger Yu-Hsiang and Garrett Nicolai. 2021. Linguistic knowledge in multilingual grapheme-to-phoneme conversion. In *Proceedings of the Seventeenth SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology*, 131–140. Online: Association for Computational Linguistics. [url]

Lo, Roger Yu-Hsiang, and D. K. E. Reisinger. 2018. Exploring the status of degrees in ʔayʔaǰuθəm. In *Proceedings of the Tenth Conference on the Semantics of Under-Represented Languages in the Americas*, ed. Kimberly Johnson and Alexander Göbel, 117–132. Amherst, MA: GLSA. [url]

Conference Proceedings (Non-Peer-Reviewed)

Lo, Roger Yu-Hsiang. 2017. Not all there: The interactions of negation and universal quantifier ʔukʷ in ʔayʔaǰuθəm. In *Papers for the Fifty-Second International Conference on Salish and Neighbouring Languages*, ed. Andrei Anghelescu, Michael Fry, Marianne Huijsmans, and Daniel Reisinger, 137–149. [url]

Reisinger, Daniel K. E., and Roger Yu-Hsiang Lo. 2017. ʔayʔaǰuθəm: A degreeless language. In *Papers for the Fifty-Second International Conference on Salish and Neighbouring Languages*, ed. Andrei Anghelescu, Michael Fry, Marianne Huijsmans, and Daniel Reisinger, 225–243. [url]

Qualifying Papers

Lo, Roger Yu-Hsiang. 2019. A corpus study of English stress rules. [url]

Lo, Roger Yu-Hsiang. 2018. The influence of functional load on Cantonese lexical tone perception. [url]

Works in Progress Lo, Roger Yu-Hsiang and Márton Sóskuthy. in prep. A cross-linguistic corpus study of the segmental implementation of articulation rate. To be submitted to *Laboratory Phonology*.

PRESENTATIONS

Conference Presentations Tkachman, Oksana, Emily Sadlier-Brown, Roger Yu-Hsiang Lo, and Carla Hudson Kam. Transparency in sign forms: When and how does iconicity matter?. Poster Presentation. The 46th Annual Conference of the Cognitive Science Society. Rotterdam: July 24–27, 2024.

Babel, Molly, Roger Yu-Hsiang Lo, Charlotte Vaughn, and Michael McAuliffe. Perception and recognition of English /s/ and /ʃ/ with varying acoustic-auditory contrast. Poster Presentation. The 186th Meeting of the Acoustical Society of America/Acoustics Week in Canada. Ottawa, ON: May 13–17, 2024.

Lo, Roger Yu-Hsiang and Márton Sóskuthy. Articulation rate in consonants and vowels: Results and methodological challenges from a cross-linguistic corpus study. Oral Presentation. International Congress of Phonetic Sciences (ICPhS) 2023. Prague: August 7–11, 2023.

Lo, Roger Yu-Hsiang, Suyuan Liu, Michael McAuliffe, Charlotte Vaughn, and Molly Babel. Variation in perception and production of /s/-/ʃ/ in English. Poster Presentation. International Congress of Phonetic Sciences (ICPhS) 2023. Prague: August 7–11, 2023.

Tkachman, Oksana, Emily Sadlier-Brown, Roger Yu-Hsiang Lo, and Carla Hudson Kam. Transparency in sign language animal signs. Poster Presentation. The 45th Annual Conference of the Cognitive Science Society. Sydney: July 26–29, 2023.

Lo, Roger Yu-Hsiang, Melissa Wang, Michelle Kamigaki-Baron, Noah Luntzlara, and Márton Sóskuthy. Vowels are "stretchier" than consonants: A cross-linguistic corpus study of the segmental implementation of articulation rate. Oral Presentation. LabPhon18: Phonology in a Rapidly Changing World. Online: June 22–25, 2022.

Lo, Roger Yu-Hsiang, Justin Leung, and Angelika Kiss. Perceiving rhetorical questions in Cantonese. Oral Presentation. The 4th Forum on Cantonese Linguistics. Online: May 29, 2021.

Hall, Kathleen Currie, Roger Yu-Hsiang Lo, and Stanley Nam. Developing and maintaining the *Phonological CorpusTools software*. Oral Presentation. The 179th Meeting of the Acoustical Society of America. Online: December 7–11, 2020.

Kiss, Angelika and Roger Yu-Hsiang Lo. Rhetorical wh-questions differing in inquisitiveness: Evidence from Mandarin prosody. Oral Presentation. Sinn und Bedeutung 25. London: September 3–5, 2020.

Lo, Roger Yu-Hsiang, Angelika Kiss, and Maxime Tulling. Individual variation in the prosody of Cantonese rhetorical questions. Oral Presentation. LabPhon17: Laboratory Phonology on the Margins. Vancouver: July 6–8, 2020.

Lo, Roger Yu-Hsiang and Angelika Kiss. Durational and pitch marking of rhetorical *wh*-questions in Mandarin. Oral Presentation. The 10th International Conference on Speech Prosody. Tokyo: May 24–28, 2020.

Lo, Roger Yu-Hsiang and Kathleen Currie Hall. SLP-AA: Tools for sign language phonetic and phonological research. Show & Tell. The 20th Annual Conference of the International Speech Communication Association INTERSPEECH 2019. Graz: September 15–19, 2019.

Lo, Roger Yu-Hsiang, Angelika Kiss, and Maxime Tulling. The prosodic properties of the Cantonese sentence-final particles *aa1* and *aa3* in rhetorical *wh*-questions. Oral Presentation. International Congress of Phonetic Sciences (ICPhS) 2019. Melbourne: August 5–9, 2019.

Lo, Roger Yu-Hsiang, Angelika Kiss, and Maxime Tulling. The prosody of Cantonese information-seeking and negative rhetorical *wh*-questions. Oral Presentation. Canadian Linguistic Association. Vancouver, BC: June 1–3, 2019.

Lo, Roger Yu-Hsiang and Kathleen Currie Hall. The influence of functional load on Cantonese lexical tone perception. Poster Presentation. LabPhon16: Variation, development and impairment: Between phonetics and phonology. Lisbon: June 19–22, 2018.

Lo, Roger Yu-Hsiang and Daniel K. E. Reisinger. Exploring the status of degrees in ʔayʔaǰuθəm. Oral Presentation. Semantics of Under-Represented Languages in the Americas (SULA) 10. Toronto, ON: May 4–6, 2018.

Johnson, Khia A., Gloria M. Mellesmoen, Roger Yu-Hsiang Lo, and Bryan Gick. Help or hinder? The complicated role of pronunciation knowledge in word learning. Oral Presentation. Pronunciation in Second Language Learning & Teaching 9th Annual Conference. Salt Lake City, UT: September 1–2, 2017.

Lo, Roger Yu-Hsiang. On the derivation of Mandarin A-not-A and alternative questions. Oral Presentation. The 33rd Northwest Linguistics Conference. Vancouver, BC: May 5–7, 2017.

Reisinger, Daniel K. E., Roger Yu-Hsiang Lo, and Christian Epp. The preposition-like verb *hu* in ʔayʔaǰuθəm comparative constructions. Poster Presentation. The 22nd Workshop on Structure and Constituency in Languages of the Americas. Vancouver, BC: April 21–23, 2017

Talks & Guest Lectures

Lo, Roger Yu-Hsiang. Pitch in Mandarin: A double-edged sword. LOC Colloquium. 2021.

Lo, Roger Yu-Hsiang. The influence of functional load on Cantonese lexical tone perception. Vancouver Phonology Group. 2018.

Lo, Roger Yu-Hsiang and Tomoharu Hirota. Language: Change & revitalization. St. John's College Junior Fellows Speakers Series. 2018.

Lo, Roger Yu-Hsiang and Kathleen Currie Hall. Phonological CorpusTools: Take the stress out of corpus analysis!. Guest lecture for LING 531 Field Methods in Linguistics (taught by Rose-Marie Déchaine). 2018.

HONORS AND ACHIEVEMENTS

Grants for Research

2021–2022, Taiwanese Overseas Pioneers Grants, $40,000 CAD
- Project: *Post-stop fundamental frequency perturbation in production and perception of Mandarin stop voicing*

2020, Public Scholar Initiative (UBC), $7,000 CAD
- Project: *From annotation to assessment: Tools for sign language phonetic and phonological research*

2019, Arts Graduate Student Research Awards (UBC), $1,000 CAD
  ○ Project: *Prosody of rhetorical questions in Cantonese*

2018–2019, Jacobs Research Fund Group Grant, $6,000 USD
  ○ Project: *From sounds to meanings: Further explorations in ʔayʔaǰuθəm*
  ○ With Bruno Andreotti, Gloria Mellesmoen, Daniel Reisinger, and Kaining Xu

2017–2018, Jacobs Research Fund Group Grant, $6,000 USD
  ○ Project: *Explorations in the grammar of ʔayʔaǰuθəm*
  ○ With Bruno Andreotti, Gloria Mellesmoen, Daniel Reisinger, Kaining Xu, and Henry Davis

2011, College Student Research Scholarship, $250 CAD
  ○ Support for phonetic research under supervision of Janice Fon

Other Awards **2021**, St. John's College George Shen Fellowship, $3,000 CAD

2019, Graduate Student Travel Fund (UBC), $500 CAD

2019, LSA Institute Fellowship, $2,200 USD

2019, St. John's College Affiliated Scholarships, $8,000 CAD

2018, LabPhon16 Student Travel Grant, $500 USD

2018, St. John's College Research Travel Scholarships, $1,000 CAD

2016–2020, Four Year Fellowship (UBC), $18,000 CAD/year

2016–2020, Four Year Fellowship Tuition Waiver (UBC)

2016–2020, International Partial Tuition Scholarship (UBC)

2012, Scholarship for Excellent Students to Study Abroad, $3,000 CAD
  ○ Support for exchange program at Masaryk University in Czech Republic

OTHER EDUCATION

Summer Schools **2019**, LSA Linguistic Institute, University of California, Davis, CA
Courses: *Computational Psycholinguistics*; *Information-Theoretic Approaches to Linguistics*; *Modeling Linguistic Networks*; *Gesture and Sign Language Analysis*

2015, LOT Summer School in Linguistics, KU Leuven, Leuven, Belgium
Courses: *Language Variation and Change*; *Acquisition of Phonology: Evidence from Perception and Production*; *How to Improve Your Statistics*; *A Cognitive Perspective on Question Answering and Questionnaire Design*

International Student Exchange Program **2012–2013**, Masaryk University, Brno, Czech Republic
Department of English and American Studies

RESEARCH EXPERIENCE

Research Assistantships **2021–2022**, Research assistant under supervision of Marie-Eve Bouchard (UBC)

2020-2022, Research assistant under supervision of Márton Sóskuthy (UBC)

2020-2021, Research assistant under supervision of Anne-Michelle Tessier (UBC)

2017–2022, Research assistant under supervision of Kathleen Currie Hall (UBC)
- Sign Language Phonetic Annotator+Analyzer [url]
- Phonological CorpusTools: Take the stress out of the corpus analysis [url]

2017–2018, Research assistant under supervision of Molly Babel (UBC)

2016–2017, Research assistant under supervision of Gunnar Ó. Hansson (UBC)
- SSHRC Grant: Long-Distance Phonotactics: Learning Bias, Change and Typology

2016, Research internship under supervision of Zeshu Shao (Max Planck Institute for Psycholinguistics)

2015, Research assistant under supervision of Lisa Cheng (Leiden University)

2014–2015, Research assistant under supervision of Yiya Chen and Lesya Ganushchak (Leiden University)

2011–2012, Research assistant under supervision of Jia-Ling Hsu (National Taiwan University)

Fieldwork **2017–2018**, ʔayʔaǰuθəm (Comox Salish), Powell River, BC (with Marianne Huijsmans, Gloria Mellesmoen, Daniel Reisinger, and Kaining Xu)

TEACHING EXPERIENCE

Teaching Assistantships **2019-2020; 2021-2022**, Master of Data Science in Computational Linguistics (UBC)
- Courses: *Corpus Linguistics*; *Algorithms & Data Structures*; *Parsing for Computational Linguistics*; *Computational Semantics*; *Computational Morphology*; *Natural Language Processing for Low-Resource Languages*; *Privacy, Ethics & Security*

PROFESSIONAL ACTIVITIES

2019–2020, Chair, St. John's College Academic Committee

2018–2019, Editor, *Proceedings of the Workshop on Structure and Constituency in the Languages of the Americas*

2017–2018, Editor, *Papers for the International Conference on Salish and Neighbouring Languages*

SKILLS

Languages

NATIVE	· Mandarin, Taiwanese
FLUENT	· English
INTERMEDIATE	· Spanish, Japanese, Dutch
BASIC	· Czech
FIELDWORK	· ʔayʔaǰuθəm (Comox Salish)

Technical

ADVANCED	· Python, R, Praat, LATEX, Git
INTERMEDIATE	· HTML, Javascript, Java, Shell, Stan, Julia
BASIC	· C, C++

Last updated: October 19, 2024