

SARAH K. HARPER

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ACADEMIC EMPLOYMENT

Sept. 2021- Present Postdoctoral Scholar
Department of Neurological Surgery, UCSF
PI: Edward Chang

EDUCATION

- 2015-2021 Ph.D. in Linguistics, University of Southern California
Dissertation: *Individual differences in phonetic variability and phonological representation*
Committee: Louis Goldstein (chair), Dani Byrd, and Jason Zevin
- 2015-2017 M.A. in Linguistics, University of Southern California
M.A. Screening Paper: *Quantifying contributions of individual constrictions to American English /ɹ/ acoustics.*
Committee: Louis Goldstein (chair), Dani Byrd, and Rachel Walker
- 2010-2014 B.A. with High Distinction in Linguistics (Highest Honors) and Spanish,
University of Michigan, Ann Arbor
Phi Beta Kappa, James B. Angell Scholar, University Honors
Honors Thesis: *Phonological Influence in Third Language Acquisition: L2 Spanish Effects on the Production of L3 Portuguese.*
Committee: Patrice Beddor (advisor) and Nicholas Henriksen

NON-DEGREE

- Summer 2013 Linguistic Society of America Summer Institute
University of Michigan, Ann Arbor, MI
- Summer 2012 Spanish Language, Literature and Culture in Salamanca, Spain
Cursos Internacionales, Universidad de Salamanca

PUBLICATIONS

JOURNAL ARTICLES

- 2021 Lim, Y., Toutios, A., Bliesener, Y., Tian, Y., Lingala, S., Vaz, C., Sorensen, T., Oh, M., **Harper, S.**, Chen, W., Lee, Y., Töger, J., Montesserin, M., Smith, C., Godinez, B., Goldstein, L., Byrd, D., Nayak, K., and Narayanan., S. A multispeaker dataset of raw and reconstructed speech production real-time MRI video and 3D volumetric images. *Scientific Data*, 8, Article 187.

Last Update: 9/21/2021

- 2020 **Harper, S.**, Goldstein, L., & Narayanan, S. Variability in individual constriction contributions to third formant lowering in American English /ɹ/. *Journal of the Acoustical Society of America*, 147(6), 3905-3916.
- 2018 **Harper, S.**, Lee, S., Goldstein, L., & Byrd, D. Simultaneous electromagnetic articulography and electroglottography data acquisition of natural speech. *Journal of the Acoustical Society of America*, 144(5), EL380-385.
- 2016 Henriksen, N. & **Harper, S.** Investigating lenition patterns in south-central Peninsular Spanish /sp, st, sk/ clusters. *Journal of the International Phonetic Association*, 46(3), 287-310.

REFEREED CONFERENCE PROCEEDINGS

- 2019 **Harper, S.** The relationship between gestural timing and magnitude for American English /l/ across speech tasks. *Proceedings of the 19th International Congress of Phonetic Sciences*, Melbourne, Australia.
- 2016 **Harper, S.**, Goldstein, L., & Narayanan, S. L2 Acquisition and Production of the English Rhotic Pharyngeal Gesture. *Proceedings of the 17th Annual Conference of the International Speech Communication Association (INTERSPEECH 2016)*, San Francisco, CA.

BOOK REVIEWS

- 2014 Henriksen, N., García Amaya, L., & **Harper, S.** (2014). Review of *Prosodic Typology II: The Phonology of Intonation and Phrasing*. Sun-Ah Jun (Ed.). Oxford: Oxford University Press. *Estudios de Fonética Experimental*, 23, 296-300.

IN PREPARATION

- In Prep. **Harper, S.** Interspeaker differences in anatomical and behavioral features do not account for idiosyncratic articulatory variability.

AWARDS AND FELLOWSHIPS

Awards

- 2020 NSF Student Scholarship, 12th International Seminar on Speech Production, Providence, Rhode Island (Virtual due to COVID-19)
- 2019 Best Student Paper Award, 19th International Congress of Phonetic Sciences
- 2019 IPA Student Award, 19th International Congress of Phonetic Sciences
- 2018 IPA Student Award, 16th Annual Conference on Laboratory Phonology, Lisbon, Portugal
- 2016 Student Travel Award, 15th Annual Conference on Laboratory Phonology, Ithaca, NY
- 2014 Matt Alexander Award for outstanding Honors thesis in Linguistics – University of Michigan Linguistics Department
- 2014 Student Achievement Award –University of Michigan Department of Romance Languages & Literatures

Fellowships

- 2020-2021 Graduate School Fellowship – University of Southern California
2018-2020 Pre-doctoral Fellow, Hearing and Communication Neuroscience Program (NIH T32 Training Grant) – University of Southern California
2015- 2020 Provost’s Fellowship – University of Southern California
2015-2016 Graduate School Fellowship – University of Southern California

CONFERENCE PRESENTATIONS

- 2021 **Harper, S.** Segmental effects on the transmission of variability between articulation and acoustics. Poster to be presented at the 181st meeting of the Acoustical Society of America, Seattle, Washington, December 1st, 2021.
- 2021 **Harper, S.** Idiosyncratic articulatory variability as evidence for individual differences in segmental representation. Talk given virtually at PaPE 2021, June 22nd, 2021.
- 2021 **Harper, S.** Idiosyncratic articulatory variability reflects individual differences in segmental representation. Poster presented virtually at the 95th Linguistic Society of America Annual Meeting, January 9th, 2021.
- 2020 **Harper, S.** Variability of articulatory dimensions relates to their role in distinguishing phonological categories for individual speakers. Poster presented virtually at the 12th International Seminar on Speech Production.
- 2020 **Harper, S.** Variability in articulation and acoustics relates to the differentiation of segment pairs across speakers. Poster presented virtually at the 179th Meeting of the Acoustical Society of America.
- 2020 **Harper, S.** Consistency in difference: The relationship between articulatory variability and segment differentiation for individual speakers. Poster presented virtually at LabPhon17.
- 2020 **Harper, S.** Consistency in difference: The relationship between articulatory variability and segment differentiation for individual speakers. Lightning talk and poster presented virtually at *Situating phonological contrast within the production-perception loop* (Satellite workshop for LabPhon17).
- 2019 **Harper, S. & Goldstein, L.** Variability is variable: Individual differences in articulatory variation. Poster presented at the 178th Meeting of the Acoustical Society of America, San Diego, California, December 6th, 2019.
- 2019 **Harper, S.** The relationship between gestural timing and magnitude for American English /l/ across speech tasks. Talk given at the 19th International Congress of Phonetic Sciences, Melbourne, Australia, August 2019.
- 2019 **Harper, S.** Intrasegmental gestural timing for American English /r/ in Isolated and Connected Speech. Talk given at Phonetics and Phonology in Europe (PaPE) 2019, Lecce, Italy, June 2019.
- 2018 **Harper, S., Goldstein, L., & Narayanan, S.** Stylistic effects on the acoustic and articulatory properties of American English rhotics. Poster presented at SoCal Hearing, Los Angeles, California, September 2018.

- 2018 **Harper, S.**, Goldstein, L., & Narayanan, S. Quantifying labial, palatal and pharyngeal contributions to rhotic F3 lowering. Talk given at LabPhon 16, Lisbon, Portugal, June 2018.
- 2017 **Harper, S.**, Goldstein, L., & Narayanan, S. Quantifying labial, palatal and pharyngeal contributions to third formant lowering in American English /ɹ/. Poster presented at the 174th Meeting of the Acoustical Society of America, New Orleans, Louisiana, December 5th, 2017.
- 2017 **Harper, S.**, Lee, S., Goldstein, L., & Byrd, D. On simultaneous electromagnetic articulography and electroglottography data acquisition. Poster presented at the 174th Meeting of the Acoustical Society of America, New Orleans, Louisiana, December 5th, 2017.
- 2017 Henriksen, N., & **Harper, S.** (joint first authors). L2 status affects L3 learning from the onset of acquisition: A developmental study of L1 English, L2 Spanish and L3 Catalan. Talk given at Phonetics and Phonology in Europe (PaPE) 2017, Cologne, Germany.
- 2017 **Harper, S.**, Goldstein, L., & Narayanan, S. Stylistic Effects on the Acoustic and Articulatory Properties of English Rhotics. Poster presented at Phonetics and Phonology in Europe (PaPE) 2017, Cologne, Germany.
- 2016 **Harper, S.**, Goldstein, L., & Narayanan, S. L2 Acquisition and Production of the English Rhotic Pharyngeal Gesture. Poster presented at the 17th Annual Conference of the International Speech Communication Association (INTERSPEECH), San Francisco, CA, September 2016.
- 2016 **Harper, S.** Phonological Influence in Third Language Acquisition: L2 Spanish Effects on the Production of L3 Portuguese Voiced Stops. Poster presented at LabPhon 15, Ithaca, New York, July 2016.
- 2016 **Harper, S.** L2 Spanish Effects on L3 Portuguese Voiced Stop Production. Talk given at the 8th International Symposium on the Acquisition of Second Language Speech (New Sounds), Aarhus, Denmark, June 2016.
- 2014 Henriksen, N. & **Harper, S.** Reconsidering s-lenition: An acoustic analysis of /sp, st, sk/ clusters in Manchego Spanish. Poster presented at the Linguistics Society of America Annual Meeting, Minneapolis, Minnesota, January 4th, 2014.

RESEARCH EXPERIENCE

Research Assistantships

Summer 2017,

Fall 2017,

Summer 2018,

Summer 2019 Research Assistant, Phonetics Laboratory, USC Department of Linguistics (PI: Dani Byrd)

Summer 2016 Research Assistant, Speech Articulation and Knowledge (SPAN) Lab, USC (PI: Shrikanth Narayanan)

- 2013-2015 Research Assistant for Prof. Nicholas Henriksen, University of Michigan
Department of Romance Languages & Literatures.
- 2013-2014 Assistant in Research, Michigan Project on Oral Language, Writing and
Reading (M-POWR), University of Michigan School of Education
(PI: Holly Craig)

TEACHING EXPERIENCE

Teaching Assistantships

LING 210: Introduction to Linguistics (University of Southern California). 3 semesters.
Primary Instructors: Stefan Keine (Fall 2016, Spring 2018), Karen Jesney (Spring 2017).
(Duties included creating materials for and solo-teaching weekly discussion sections, assisting
the primary instructor with homework and exam creation, and grading homework assignments,
quizzes and exams).

Guest Lectures

- 2021 “Publishing as a Graduate Student.” (Member of discussion panel). LING 610:
Seminar in Linguistic Theory (University of Southern California), April 2021.
- 2018 “Phonological Acquisition in a Third Language.” Spanish 487: Spanish Second
Language Phonology (University of Michigan), March 2018.
- 2015 “Third Language Acquisition.” Spanish 487: Second Language Acquisition
(University of Michigan), April 2015.

Pedagogical Tools

- 2018 Blaylock, R., & **Harper, S.** IPA Hangman: A pedagogical tool. Demo given at
Southern California April Meeting in Phonology, April 7th, 2018.
Teaching resource available at <http://reedblaylock.com/ipahangman.html>

Training

- Fall 2019 Participant in Future Faculty Teaching Institute
Center for Excellence in Teaching, University of Southern California

SERVICE

Service to Profession

Conference Reviewer: LabPhon17 (abstracts)

Ad-hoc Journal Reviewer: *Journal of the Acoustical Society of America*, *Studies in Hispanic and
Lusophone Linguistics*

Departmental Service

- 2018-2019 Colloquium Coordinator, Graduate Students in Linguistics (GSiL), University of
Southern California
- 2018-2019 Graduate Student Mentor, University of Southern California Department of
Linguistics
- 2016-2017 Event Coordinator, Graduate Students in Linguistics (GSiL), University of
Southern California

- Oct. 2016 Volunteer Coordinator, 2016 Annual Meeting in Phonology at the University of Southern California
- 2012-2014 Student Representative, Undergraduate Affairs Committee, University of Michigan Department of Linguistics

PROFESSIONAL SKILLS

Technical Skills:

Matlab (proficient)
R (proficient)
Praat (proficient)
CSS/HTML (intermediate)
Python (basic)

Languages:

English (native)
Spanish (proficient)
Brazilian Portuguese (intermediate)
Catalan (reading proficiency)