# Jeremy Steffman

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## **EMPLOYMENT**

Postdoctoral Research Fellow 2021-Department of Linguistics Northwestern University

### **EDUCATION**

University of California, Los Angeles December

2020 PhD, Linguistics

Dissertation: Prosodic prominence in vowel perception and spoken language processing

Committee: Sun-Ah Jun (chair), Pat Keating, Megha Sundara, and Taehong Cho

University of California, Los Angeles June

2018 MA, Lingusitics

University of California, Berkeley May 2016

BA, Linguistics and French

Highest Distinction in Letters & Science

### **PUBLICATIONS**

JOURNAL ARTICLES

Cortés, F., Mantenuto, I. & Steffman, J. San Sebastián del Monte Mixtec. Journal of the International forthcoming

Phonetic Association.

2022 Steffman, J. & Cole, J. An automated method for detecting F0 measurement jumps based on sample-to-sample differences. Journal of the Acoustical Society of America, Express Letters, 2, 115201.

> Steffman, J., Kim, S., Cho, T. & Jun, S.-A. Prosodic phrasing mediates listeners' perception of temporal cues: Evidence from the Korean Accentual Phrase. Journal of Phonetics, 95, 101156.

Katsuda, H. & Steffman, J. Asymmetrical roles of segment and pitch accent in Japanese spoken word recognition. *Journal of the Acoustical Society of America, Express Letters*, 2, 065201.

Sundara, M., Zhou, Z.L., Breiss, C., Katsuda, H. & Steffman, J. Infants' developing sensitivity to native language phonotactics: A meta-analysis. *Cognition*, 221, 104993.

Steffman, J. & Jun, S.-A. Tonal cues to prosodic structure in rate-dependent speech perception. *The Journal of the Acoustical Society of America*, 150(5), 3825-3837.

Steffman, J. Rhythmic and speech rate effects in the perception of durational cues. *Attention, Perception & Psychophysics*, 83(8), 3162-3182.

Steffman, J. Contextual prominence in vowel perception: Testing listener sensitivity to sonority expansion and hyperarticulation. *The Journal of the Acoustical Society of America Express Letters.* 1, 045203.

Steffman, J. Prosodic prominence effects in the processing of spectral cues. *Language, Cognition and Neuroscience*, 36(5), 586-611.

Steffman, J. & Katsuda, H. Intonational structure influences perception of contrastive vowel length: The case of phrase-final lengthening in Tokyo Japanese. *Language and Speech*, 64(4), 839-858.

Steffman, J. & Jun, S.-A. Perceptual integration of pitch and duration: Prosodic and psychoacoustic influences in speech perception. *The Journal of the Acoustical Society of America*, 146(3), EL251-EL257.

Steffman, J. Phrase-final lengthening modulates listeners' perception of vowel duration as a cue to coda stop voicing. *The Journal of the Acoustical Society of America*, 145(6), EL560-EL566.

Steffman, J. Intonational structure mediates speech rate normalization in the perception of segmental categories. *Journal of Phonetics*, 74, 114-129.

Steffman, J. Nominal inflection in the Safané dialect of Dafing: Ternary quantity contrasts and morphologically conditioned phonology. *Journal of West African Languages*, 45(1), 89-124.

#### PAPERS APPEARING IN CONFERENCE PROCEEDINGS

forthcoming Weller, J., Faytak, M., Steffman, J., Mayer, C., Teixeira, G. & Tankou, R. Supralaryngeal articulation across voicing and aspiration in Yemba vowels. *Proceedings of the 52nd meeting of the Association of Contemporary African Linguistics*.

Chernyak, B. R., Simon, T. B., Segal, Y., Steffman, J., Chodroff, E., Cole, J., & Keshet, J. DeepFry: Identifying Vocal Fry Using Deep Neural Networks. *Proceedings of the 23rd INTERSPEECH Conference*.

Steffman, J., Shattuck-Hufnagel, S. & Cole, J. The rise and fall of American English pitch accents: Evidence from an imitation study of rising nuclear tunes. *Proceedings of the 11th International Conference on Speech Prosody*.

- Cole, J., Tilsen, S. & Steffman, J. Shape matters: Machine classification and listeners' perceptual discrimination of American English intonational tunes. *Proceedings of the 11th International Conference on Speech Prosody*.
- Katsuda, H. & Steffman, J. Prominence-boundary interactions in speech perception: Evidence from Japanese vowel length. *Proceedings of the 1st International Conference on Tone and Intonation*.
  - Cole, J. & Steffman, J. The primacy of the rising/non-rising dichotomy in American English intonational tunes. *Proceedings of the 1st International Conference on Tone and Intonation*.
  - Steffman, J. & Jun, S.-A. Prosodic prominence in speech perception: The influence of focus prosody on the perception of durational and spectral cues. *Proceedings of the 38th annual meeting of the West Coast Conference on Formal Linguistics* (WCCFL), 406-416.
- Katsuda, H. & Steffman, J. Intonational cues to prosodic boundary influence perception of contrastive vowel length in Tokyo Japanese. *Proceedings of the 10th International Conference on Speech Prosody*, 56-60.
- Steffman, J. & Jun, S.-A. Effects of prosodic structure versus durational context on the perception of segmental categories: The case of focus realization. *Proceedings of the International Congress of Phonetic Sciences 2019*.
  - Steffman, J. Testing the influence of distal rhythmic structure on listeners' perception of durational cues. *Proceedings of International Congress of Phonetic Sciences 2019*.
  - Steffman, J. & Jun, S.-A. Listeners integrate pitch and durational cues to prosodic structure in word categorization. *Proceedings of the annual meeting of the Linguistic Society of America*, 4(1).
- Steffman, J. Listeners are sensitive to prosody in segmental categorization. *Proceedings of the 9th International Conference on Speech Prosody*, 274-278.
  - Steffman, J. Phrase final lengthening modulates categorization of vowel length as a cue to obstruent voicing in English. *Proceedings of Meetings on Acoustics*, 33.
- Steffman, J. Tonal cues to prosodic structure modulate voice onset time categorization. *Proceedings of Meetings on Acoustics*, 31.

#### **BOOK REVIEWS**

Steffman, J. Review of: Gussenhoven, C. & Chen, A. (Eds.) The Oxford Handbook of Language Prosody. *Phonology*, 38(3), 527-533.

#### **EDITED VOLUMES**

Rolle, N., Steffman, J. & Sylak-Glassman, J. (Eds.) *Proceedings of the Thirty Sixth Annual Meeting of the Berkeley Linguistics Society*, February 6-7, 2010. Berkeley: Berkeley Linguistics Society.

## PRESENTATIONS<sup>1</sup>

#### CONFERENCE TALKS

2022

2021

- \*Weller, J., Steffman, J., Cortés, F. & Mantenuto, I. "Interactions of tone, glottalization, and word shape in San Sebastián Del Monte Mixtec." Presented at the 27th Annual Mid-continental Phonetics and Phonology Conference. Saint Louis, MO. October 8.
  - \*Cole, J. & Steffman, J. "Metrically conditioned enhancement among nuclear tunes in American English" Presented at the 27th Annual Mid-continental Phonetics and Phonology Conference. Saint Louis, MO. October 8.
  - Steffman, J. "Phonetic cues to prominence in segmental perception and online processing: The case of vowel-initial glottalization in American English." Presented virtually at the 18th Conference on Laboratory Phonology. June 23-25.
  - \*Cole, J., Steffman, J., Cox, L. & Shattuck-Hufnagel, S. "Nuclear Tunes lost and found: Modeling intonational tunes in American English with labeled vs. unlabeled data." Presented virtually at the 18th Conference on Laboratory Phonology. June 23-25.
  - \*Cole, J., Tilsen, S. & Steffman, J. "Shape matters: Machine classification and listeners' perceptual discrimination of American English intonational tunes." Presented at the 11th International Conference on Speech Prosody. Lisbon, Portugal. May 23-26.
- \*Cole, J. & Steffman, J. "The primacy of the rising/non-rising dichotomy in American English intonational tunes." Presented virtually at the 1st International Conference on Tone and Intonation. Sondberg, Denmark. December 6-9.
  - \*Katsuda, H. & \*Steffman, J. "Prominence-boundary interactions in speech perception: evidence from Japanese vowel length." Presented at the 1st International Conference on Tone and Intonation. Sondberg, Denmark. December 6-9.
  - \*Steffman, J. & Cole, J. "Intonational tunes in imitative speech: Are phonological contrasts maintained?" Presented at the 26th Annual Mid-continental Phonetics and Phonology Conference. Chicago, IL. September 18.
  - \*Weller, J., Faytak, M., Steffman, J., Mayer, C., Teixeira, G. & Tankou, R. "Tongue root position and laryngeal state in Yemba vowels." Presented virtually at the 52nd meeting of the Association of Contemporary African Linguistics. Gainesville, FL. April 8-10.
  - \*Faytak, M., Steffman, J. & Tankou, R. "Phonetics of voiced aspirates in Yemba (Dschang)." Presented virtually at the 52nd meeting of the Association of Contemporary African Linguistics. Gainesville, FL. April 8-10.
  - Steffman, J. "Prominence effects in vowel perception: Testing sonority expansion and hyperarticulation." Presented virtually at the 95th annual meeting of Linguistic Society of America. San Francisco, CA. January 7-10.

<sup>1\*</sup> indicates presenting author(s)

- \*Steffman, J., Kim, S., Cho, T. & Jun, S.-A. "Prosodic phrasing is integrated in segmental speech perception: Evidence from the Korean Accentual Phrase." Presented virtually at the 95th annual meeting of Linguistic Society of America. San Francisco, CA. January 7-10.Th
- \*Katsuda, H. & \*Steffman, J. "The role of segment and pitch accent in Japanese spoken word recognition." Presented virtually at the 95th annual meeting of Linguistic Society of America. San Francisco, CA. January 7-10 (First place LSA student abstract award).
- \*Faytak, M. & Steffman, J. "Mixed voice in Yemba voiced aspirates." Presented virtually at the 95th annual meeting of Linguistic Society of America. San Francisco, CA. January 7-10.
- \*Katsuda, H. & Steffman, J. "Intonational cues to prosodic boundary influence perception of contrastive vowel length in Tokyo Japanese." Presented virtually at the 10th International Conference on Speech Prosody. Tokyo, Japan. May 25-28.
  - \*Steffman, J. & Jun, S.-A. "Prosodic prominence in speech perception: the influence of focus structure on the perception of durational and spectral cues." Presented at the 38th meeting of the West Coast Conference on Formal Linguistics. Vancouver, BC. March 6-8.
  - \*Steffman, J. & Jun, S.-A. "Prosodic cues facilitate speech rate normalization: exploring listener sensitivity to prosody in speech perception." Presented at the 94th annual meeting of Linguistic Society of America. New Orleans, LA. January 2-5.
- \*Steffman, J. & Jun, S.-A. "Effects of prosodic structure versus durational context on the perception of segmental categories: The case of focus realization." Presented at the International Congress of Phonetic Sciences 2019. Melbourne, Australia. August 5-9.
  - Steffman, J. "Distal rhythmic structure and speech rate in perception: exploring prosodic and rate-dependent influences." Presented at the Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HISPhonCog 2019). Seoul, South Korea. May 24-25.
  - \*Steffman, J. & Jun, S.-A. "Listeners integrate pitch and durational cues to prosodic structure in word categorization." Presented at the 93rd annual meeting of Linguistic Society of America. New York, NY. January 3-6.
  - Steffman, J. "Intonational categories and implicit speech rate normalization: evidence for awareness of prosody in rate dependent speech perception." Presented at Experimental and Theoretical Advances in Prosody 4. Amherst, MA. October 11-13.

2018

- Steffman, J. "Listeners are sensitive to prosody in segmental categorization." Presented at the 9th International Conference on Speech Prosody. Poznań, Poland. June 13-16.
- Steffman, J. "Intonational structure mediates speech rate normalization in the perception of speech segments." Presented at the Hanyang International Symposium on Phonetics and Cognitive Sciences of Language (HISPhonCog 2018). Seoul, South Korea. May 18-19.
- Steffman, J. "Linguistically informed rate normalization: Intonational influences on segmental categorization." Presented at the 44th Meeting of the Berkeley Linguistics Society. Berkeley, CA. February 9-11.

#### CONFERENCE POSTERS

- \*Chernyak, B. R., Simon, T. B., Segal, Y., Steffman, J., Chodroff, E., Cole, J., & Keshet, J. "DeepFry: Identifying Vocal Fry Using Deep Neural Networks." Presented at the 23rd INTERSPEECH Conference. Incheon, South Korea. September 18-22.
  - \*Steffman, J., Shattuck-Hufnagel, S. & \*Cole, J. "The rise and fall of American English pitch accents: Evidence from an imitation study of rising nuclear tunes." Presented at the 11th International Conference on Speech Prosody. Lisbon, Portugal. May 23-26.
  - \*Weller, J., Steffman, J., Cortes, F. & Mantenuto, I. "Glottalization and tonal contrasts in San Sebastián del Monte Mixtec rearticulated vowels." Presented virtually at the 95th annual meeting of Linguistic Society of America. Washington, DC. January 6-9.
- \*Weller, J. & Steffman, J. "Effects of aspiration and voicing on vowel acoustics in Yemba." Presented virtually at the 95th annual meeting of Linguistic Society of America. San Francisco, CA. January 7-10.
- Steffman, J. "Prominence effects on the processing of spectral cues: testing sonority expansion in perception." Presented virtually at LabPhon 17. Vancouver, Canada. July 6-8.
  - \*Faytak M., Steffman, J. & Tankou R. "True voiced aspirates in Yemba." Presented virtually at LabPhon 17. Vancouver, Canada. July 6-8.
  - Steffman, J. "Prominence effects on pre-lexical processing: time-course evidence from vowel perception." Presented at the 33rd annual CUNY Conference on Human Sentence Processing. Amherst, MA. March 19-21.
- \*Katsuda, H. & Steffman, J. "Exploring the influence of intonational structure on perception of contrastive vowel length in Tokyo Japanese." Presented at the 178th Meeting of the Acoustical Society of America. San Diego, CA. December 2-6.
  - \*Steffman, J. & Sundara, M. "Biphone probability and neighborhood density effects on phonetic categorization." Presented at the 178th Meeting of the Acoustical Society of America. San Diego, CA. December 2-6.
  - Steffman, J. "Influences of preceding speech rate and prosodic position on listeners' perception of durational cues." Presented at the 178th Meeting of the Acoustical Society of America. San Diego, CA. December 2-6.
  - Steffman, J. "Testing the influence of distal rhythmic structure on listeners' perception of durational cues." Presented at the International Congress of Phonetic Sciences 2019. Melbourne, Australia. August 5-9.
  - Steffman, J. "Distal rhythmic patterns influence listeners' processing of phonetic cues." Presented at the 32nd Annual CUNY Conference on Human Sentence Processing. Boulder, CO. March 29-31.
- Steffman, J. "Contextual effects of duration and F0 on segmental categorization: Intonation matters." Presented at LabPhon 16. Lisbon, Portugal. June 19-22.

Steffman, J. "Listeners compensate for prosodic position when categorizing word-final obstruents." Presented at the 175th Meeting of the Acoustical Society of America. Minneapolis, MN. May 7-11.

Steffman, J. "F0 as a cue to prosodic structure in voice onset time categorization." Presented at the 174th Meeting of the Acoustical Society of America. New Orleans, LA. December 4-8.

#### INVITED TALKS

2021

2019

\*Cole, J. & Steffman, J. "Intonational encoding in memory representations: Imitating nuclear tunes in American English." Presented at the GRadience in Intonation (GRIN) workshop, Speech Prosody 2022. May 27.

Steffman, J. "Prosodic prominence in speech perception." Research talk presented virtually at The University of Edinburgh. May 11.

Steffman, J. "Integrating prosodic prominence in speech perception: Studies in the perception of segmental contrasts." Presented virtually at the Harvard University Linguistics colloquium series. February 25.

\*Cole, J. & \*Steffman, J. "Modeling intonational tunes in American English with labeled vs. unlabeled data." Presented virtually at the Northwestern University Phonatics talk series. January 26.

Steffman, J. "Integrating prosodic context in speech perception." Presented virtually at the Northwestern University Phonatics talk series. April 28.

Steffman, J. "Integrating prosodic context in speech perception." Presented virtually at the Rutgers Prosody Lab. March 30.

Steffman, J. "Prosodic context in speech perception." Presented virtually at the UCLA Linguistics colloquium series. February 19.

Steffman, J. "Exploring rhythmic effects in speech perception." Presented at the UC Santa Barbara phonetics seminar. Santa Barbara, CA. May 10.

Steffman, J. "Prosody mediates listeners' perception of durational cues." Presented at UC Berkeley phonetics and phonology forum. Berkeley, CA. February 25.

Steffman, J. "Prosodic transfer: A phonetic study of L2 English prosody produced by L1 French speakers." Presented at UC Berkeley phonetics and phonology forum. Berkeley, CA. March 14.

#### GRANT SUPPORT

Memory and context effects on representations of variation in phrasal intonation (NSF BCS-1944773)

PI: Jennifer Cole; Role: Postdoctoral researcher

Speech sound perception and production in Spanish/English bilingual preschoolers (NIH R15 DC019493)
PI: Simona Montanari; Role: Consultant

## SCHOLARSHIP/FELLOWSHIPS, AWARDS AND HONORS

2020 2020-21 2019-20 2019 2018-19 2018 2017 2015	Ladefoged Scholarship, UCLA Dept. of Linguistics (\$600) Dissertation Year Fellowship, UCLA Graduate Disvision (\$20,000) Mellon Pre-Dissertation Fellowship (\$7,915) IPA Student Travel Award, ICPhS 2019 (£600) Graduate Research Mentorship Fellowship, UCLA Graduate Division (\$20,000) Graduate Summer Research Mentorship Fellowship, UCLA Graduate Division (\$6,000) Graduate Summer Research Mentorship Fellowship, UCLA Graduate Division (\$6,000) UC Berkeley Paul Brun Memorial Scholarship (\$1,573)
	First place LSA Student Abstract Award 2021 (with Hironori Katsuda) Citation for Outstanding Achievement in the Major, UC Berkeley Linguistics Departmental Certificate, UC Berkeley French Phi Beta Kappa, UC Berkeley Dean's List Honors, UC Berkeley
	TEACHING
	INSTRUCTOR, UCLA
spring 2020 summer 2019	College Teaching of Linguistics (LING 495) Phonology I (LING 120A)
	TEACHING ASSOCIATE/ASSISTANT, UCLA
winter 2020 spring 2019 spring 2018 winter 2018 fall 2017	Experimental Phonetics (LING 104). Taught by Sun-Ah Jun. Introduction to Applied Phonetics (LING 102). Taught by Megha Sundara. Phonological Structures (LING 119A). Taught by Meredith Landman. Phonology II (LING 165A). Taught by Roslyn Burns. Introduction to Linguistic Analysis (LING 20). Taught by Dylan Bumford.
	WORKSHOPS AND GUEST LECTURES
1/12/22	"Using VoiceSauce for voice quality research." Workshop in Northwestern's Prosody and Speech Dynamics Lab
8/18/21	"Modeling intonational tunes with Generalized Additive Mixed Models." Workshop in Northwestern's Prosody and Speech Dynamics Lab
7/9/19	"EGG as a tool in phonetic data analysis." Workshop held in UCLA's Field Methods (LING 160)
5/1/18	"Rule ordering." Guest lecture in UCLA's Phonological Structures (LING 119A)

## PROFESSIONAL ACTIVITIES

REVIEWING (AD HOC)

3/1/18

Journals

Attention, Perception and Psychophysics; Journal of the Acoustical Society of America; Journal of Phonetics; Journal of West African Languages; Language Awareness; Language, Cognition and

"Phrasal phonology in OT." Guest lecture in UCLA's Phonology II (LING 165A)

Neuroscience; Language and Speech; Lingua; Studies in Second Language Acquisition

Conferences LabPhon, Annual Meeting of the Linguistic Society of America, Southern California Undergraduate

Linguistics Conference, Speech Prosody

#### PROFESSIONAL MEMBERSHIP

since 2021	Psychonomic Society
since 2019	International Phonetic Association
since 2018	Association for Laboratory Phonology
since 2017	Acoustical Society of America
since 2016	Linguistic Society of America

#### SERVICE

2020-22	Organizer for the Northwestern Phonatics group
2019-20	TA Consultant for the UCLA Department of Linguistics
2019-20	UCLA ladder faculty (computational linguistics) search committee student member
2018-19	Chairperson of the UCLA Colloquium Committee
2018-19	Vice President of the UCLA Graduate Linguistics Circle

## TECHNICAL SKILLS

Experiments: OpenSesame, Appsobabble, Qualtrics, SR Experiment Builder, Ibex Farm, Labvanced

Acoustic analysis: Praat, Audacity, PCquirerX, VoiceSauce

Speech synthesis and manipulation: Praat, Synthworks, MATLAB (STRAIGHT)

Eyetracking: SR Eyelink 1000, Labvanced

Electroglottography: Glottal enterprises EG2, EGGWorks Programing: R, Praat, LATEX, HTML/CSS, MATLAB, Python