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CURRICULUM VITAE

EMPLOYMENT

- 2014-Present Assistant Professor, **University of California Davis**
Department of Linguistics
- 2013-2014 Postdoctoral Researcher, **University of Arizona**
Department of Physiology

EDUCATION

- 2008-2013 PhD. Linguistics, Phonetics, **University of Alberta**
Thesis: Cognitively-Active Speaker Normalization Based on Formant-Frequency
Scaling Estimation
- 2006-2008 MA. Hispanic Studies, Language and Linguistics, **University of Western Ontario**.
Thesis: The acquisition of Canadian English vowels by L1 Spanish speakers.
- 2002-2006 BA Combined Honours, Linguistics and Spanish Language and Literature,
University of Western Ontario.

PUBLICATIONS

- Such, O. and S. Barreda. (2016). Bayes covariant multi-class classification. *Pattern Recognition Letters* 84: 99-106.
- Kidder, I. J., Mudery, J. A., Barreda, S., Taska, D. J., and Bailey, E. F. (2016). Evaluating the control: Mini-pump implantation and breathing behavior in the neonatal rat. *Journal of Applied Physiology*, jap-00080.
- Barreda, S. (2016). Investigating the use of formant frequencies in listener judgments of speaker size. *Journal of Phonetics* 55: 1-18.
- Barreda, S. and Georgia, Z. (2015). Speaker identity and spectral changes in word recognition. *Proceedings of the 18th International Congress of Phonetic Sciences (ICPhS XVIII)*, August, Glasgow, UK.
- Barreda, S., Kidder, I., Mudery, J. and E. F. Bailey. (2015). Developmental nicotine exposure adversely effects respiratory patterning in vivo. *Respiratory Physiology and Neurobiology* 208: 45-50.

- Barreda, S. and T. Nearey. (2013). The perception of formant-frequency range is affected by veridical and judged fundamental frequency. *Proceedings of the 21st International conference on Acoustics*, Montreal, 2013.
- Assmann, P., Barreda, S. and T. Nearey. (2013). Perception of speaker age in children's voices. *Proceedings of the 21st International conference on Acoustics*, Montreal, 2013.
- Barreda, S. and Nearey, T. (2013). Training listeners to report the acoustic correlate of formant-frequency scaling using synthetic voices. *Journal of the Acoustical Society of America* 133(2): 1065-1077.
- Barreda, S. (2012). Vowel normalization and the perception of speaker changes: An exploration of the contextual tuning hypothesis. *Journal of the Acoustical Society of America* 132(5): 3453-3464.
- Barreda, S. and Nearey, T. (2012b). The association between speaker-dependent formant space estimates and perceived vowel quality. *Canadian Acoustics* 40: 12-13.
- Barreda, S. and T.M. Nearey. (2012a). The direct and indirect roles of fundamental frequency in vowel perception. *Journal of the Acoustical Society of America* 131(1): 466-477.
- Barreda, S. (2011). The Tsuut'ina Vocalic System. *Rochester Working Papers in the Language Sciences* 6: 1-10.
- Barreda, S. and T. M. Nearey. (2010). How the role of F3 in vowel perception may be influenced by listener expectations. *Canadian Acoustics* 38: 124-125.

PRESENTATIONS

- Barreda, S. and Georgia, Z. (2015). Speaker identity and spectral changes in word recognition. The 18th International Congress of Phonetic Sciences (ICPhS XVIII), Glasgow, UK.
- Barreda, S., Vranish, J. R., and E. Fiona Bailey. (2015). A novel approach for the analysis of respiratory sinus arrhythmia using breath phase information. Meeting of the Society for Neuroscience, Washington, D.C..
- Assmann, P., Kapolowicz, M., Massey, D., Barreda, S. and T. Nearey. (2015). Links between the perception of speaker age and sex in children's voices. The 170th meeting of the Acoustical Society of America, Jacksonville, FL.
- Nearey, T., Tucker, B., and S. Barreda. Unraveling phonological versus auditory context effects in the perception of synthetic liquid+stop clusters. The 2015 Annual Conference of the Canadian Acoustical Association. Halifax, NS.
- Barreda, S. and Georgia Zellou. 2015. Speaker identity and spectral changes in word recognition. Proceedings of the 18th International Congress of Phonetic Sciences, Glasgow, UK.
- Barreda, S., Vranish, J. R., and E. Fiona Bailey. (2014). A novel approach for the analysis of respiratory sinus arrhythmia using breath phase information. Meeting of the Society for Neuroscience, Washington, D.C..

- Assmann, P., Kopolowicz, M., Massey, D., Barreda, S., and T. Nearey. (2014). *Perception of speaker sex in re-synthesized children's voices*. The 167th meeting of the Acoustical Society of America, Providence, RI.
- Assmann, P., Barreda, S. and T. Nearey. (2013). *Modeling the perception of speaker age and sex in children's voices*. The 166th meeting of the Acoustical Society of America, San Francisco, CA.
- Barreda, S. and Nearey, T. (2013). *Investigating the perception of relative speaker size using synthetic talkers*. The 166th meeting of the Acoustical Society of America, San Francisco, CA.
- Barreda, S. and Nearey, T. (2012). *The association between speaker-dependent formant space estimates and perceived vowel quality*. The 2012 Annual Conference of the Canadian Acoustical Association. Banff, AB.
- Barreda, S. and Nearey, T. (2011). *Formant frequencies, vowel identity and the perceived relative tallness of synthetic speakers*. The 162nd meeting of the Acoustical Society of America, San Diego, CA.
- Barreda, S. and Nearey, T. (2011). *Training listeners to report fundamental frequency and formant range information independently*. The 161th meeting of the Acoustical Society of America, Seattle, WA.
- Barreda, S. and Nearey, T. (2010). *Using systematic synthetic voice differences to probe the perception of mixed-talker vowels*. The 160th meeting of the Acoustical Society of America, Cancun, Mexico.
- Barreda, S. and Nearey, T. (2010). *The relationship between fundamental frequency and vowel quality*. The 159th meeting of the Acoustical Society of America, Baltimore, MA.
- Barreda, S. and Nearey, T. (2010). *How the role of F3 in vowel perception may be influenced by listener expectations*. The 2010 Annual Conference of the Canadian Acoustical Association. Victoria, BC.
- Barreda, S. (2009). *The use of trigrams in the classification of texts based on authorship*. Conference of the American Association for Corpus Linguistics. University of Alberta.
- Barreda, S. (2008). *Perception and Production of Canadian English Vowels by L1 Spanish Speakers*. Hispanic Linguistics Symposium. The University of Laval.
- Barreda, S. (2008). *Spanish stress placement by L1 English speakers of L2 Spanish*. 9th Annual Graduate Conference Hosted by Comparative Literature, Spanish and Theory and Criticism. The University of Western Ontario.
- Barreda, S. (2007). *The Role of Perception in L2 Spanish Stress Assignment*. Ontario dialogues on the acquisition of Spanish, University of Ottawa.

SOFTWARE PACKAGE

- Barreda, S. (2013). phonTools: Functions for phonetics in R. R package version 0.2-0.