

Michael McAuliffe

Computational phonetician, psycholinguist, phonologist

Education

- 2010-2015** **PhD, Linguistics**; University of British Columbia (Vancouver, BC)
Thesis title: Attention and Salience in Lexically-Guided Perceptual Learning
Advisor: Molly Babel
- 2006-2009** **BA, Linguistics**; University of Washington (Seattle, WA)
Honors Thesis Advisor: Ellen Kaisse

Research Appointments

- 2015-Present** **Postdoctoral Fellow**; McGill University, Department of Linguistics
Supervisors: Morgan Sonderegger and Michael Wagner
- 2014-2015** **Research Assistant**; University of British Columbia, Department of Linguistics
Supervisor: Eric Vatikiotis-Bateson
- 2013-2014** **Mitacs Accelerate Fellow**; Malaspina Labs Inc.
Supervisor: Alex Escott
- 2010-2011** **Research Assistant**; University of British Columbia, Department of Linguistics
Supervisors: Gunnar Hansson and Douglas Pulleyblank

Consulting

- 2016** **Vietnamese forced aligner**; University of Ottawa, Department of Linguistics
Principle investigator: Marc Brunelle
- 2015-2016** **3D face database analysis and animation**; University of British Columbia, Departments of Linguistics and Psychology
Principle investigators: Eric Vatikiotis-Bateson and Janet Werker
- 2010-2011** **Database development and management**; Zabaan Language Institute

Honors and Awards

- 2010-2014** **Four Year Doctoral Fellowship**; University of British Columbia

- 2012 **International Speech Communication Association Grant**; 13th Conference of the International Speech Communication Association
- 2011 **Linguistic Institute Fellowship**; Linguistic Society of America.

Publications

Papers

- 2016 **McAuliffe, M.**, Babel, M. Stimulus-directed attention attenuates lexically-guided perceptual learning. *The Journal of the Acoustical Society of America*, 140 (3), 1727-1738.
- Hall, K. C., Allen, C., Fairburn, T., Fry, M., **McAuliffe, M.**, McMullin, K. Measuring Perceived Morphological Relatedness. *Canadian Journal of Linguistics / La Revue canadienne de linguistique*, 61 (1), 31-67.
- 2013 Babel, M., **McAuliffe, M.**, Haber, G. Can mergers-in-progress be unmerged in speech accommodation? *Frontiers in Psychology*, 4.

Submitted and in preparation

- in prep Babel, M., **McAuliffe, M.** *Perceptual Adaptation is Supported by Linguistic Knowledge.*

Conference proceedings papers

- submitted **McAuliffe, M.**, Stengel-Eskin, E., Socolof, M., and Sonderegger, M. *Polyglot and Speech Corpus Tools: a system for representing, integrating, and querying speech corpora.*
- McAuliffe, M.**, Socolof, M., Mihuc, S., Wagner, M., Sonderegger, M. *Montreal Forced Aligner: trainable text-speech alignment using Kaldi.*
- Wagner, M., **McAuliffe, M.** *Three Dimensions of Sentence Prosody and their (Non-)Interactions.*
- 2016 **McAuliffe, M.**, Babel, M., Vaughn, C. Do listeners learn better from natural speech? In *Proceedings of the 17th Conference of the International Speech Communication Association.*
- 2015 **McAuliffe, M.**, Babel, M. Attention, word position, and perceptual learning. In *Proceedings of the 18th International Congress on the Phonetic Sciences.* London: International Phonetic Association.
- 2012 Babel, M., **McAuliffe, M.**, Narayan, C. Linguistic effects on talker discrimination: The effect of semantic cohesion. In *Proceedings of the 13th Conference on Laboratory Phonology.*
- McAuliffe, M.**, Babel, M. Predictability Affects Vowel Dispersion and Dynamics in the Buckeye Corpus. In *Proceedings of the 13th Conference of the International Speech Communication Association*, 1398-1401.

Presentations

- 2017** Sonderegger M., **McAuliffe, M.**, Bang, H-Y. Segmental influences on F0: cross-linguistic and interspeaker variability of phonetic precursors. Presented at the *4th Workshop on Sound Change*, Edinburgh, UK.
- Sonderegger, M., **McAuliffe, M.**, Bozic, J., Bruno, C., Cowley, S., Jiang, B., Lamontagne, J., Schwarz, M., Su, J. Laryngeal timing across seven languages: phonetic data and their relationship to phonological features. Presented at the *91st Annual Meeting of the Linguistic Society of America*, Austin, USA.
- 2016** Babel, M., **McAuliffe, M.**, Lawler, Z., Norton, C. Category typicality in perceptual learning. Presented at the *15th Conference on Laboratory Phonology*, Ithaca, USA.
- Cruz-Pavía, I., Gervain, J., **McAuliffe, M.**, Vatikiotis-Bateson, E. Chunking the phrase: Acoustic and facial movement cues to word order in Infant- and Adult- Directed Speech. Presented at the *2016 International Conference on Infant Studies*, New Orleans, USA.
- McAuliffe, M.**, Sonderegger, M., Wagner, M. A system for unified corpus analysis, applied to polysyllabic shortening across 12 languages. Presented at *Montreal-Ottawa-Laval-Toronto Phonology Workshop 2016*, Ottawa, Canada.
- 2015** Cruz-Pavía, I., **McAuliffe, M.**, Werker, J. F., Gervain, J., Vatikiotis-Bateson, E. Visual Cues to Phrase Segmentation and the Acquisition of Word Order. Poster presented at *FAAVSP - The 1st Joint Conference on Facial Analysis, Animation and Auditory-Visual Speech Processing*, Vienna, Austria.
- Hall, K. C., Allen, B., Fry, M., Mackie, S., **McAuliffe, M.** Calculating functional load with pronunciation variants. Presented at the *Modeling variability in speech workshop*, Stuttgart, Germany.
- McAuliffe, M.**, Babel, M. High variability contexts inhibit lexically-guided perceptual learning – or do they? Poster presented at the *Modeling variability in speech workshop*, Stuttgart, Germany.
- 2014** Babel, M., **McAuliffe, M.**, McGuire, G. Spectral similarity and listener judgments of phonetic accommodation. Presented at the *Workshop on Interpersonal coordination and phonetic convergence*, Cologne, Germany.
- Mackie, S., Hall, K. C., Allen, B., Fry, M., **McAuliffe, M.** Phonological CorpusTools: A free, opensource tool for phonological analysis. Presented at the *14th Conference on Laboratory Phonology*, Tokyo, Japan.
- McAuliffe, M.**, Babel, M. Toward a holistic measure of reduction in spontaneous speech. Presented at the *14th Conference on Laboratory Phonology*, Tokyo, Japan.
- 2013** **McAuliffe, M.** Sources of lexical statistics affect model performance. Presented at the *29th Northwest Linguistics Conference*, Vancouver, Canada.

Invited talks and workshops

- 2017** **McAuliffe, M.** Workshop on speech synthesis using STRAIGHT. Workshop at University of Connecticut, February 23-24, 2017. Materials available at https://memcauliffe.com/straight_workshop/.
- 2016** **McAuliffe, M.** Dual nature of perceptual learning: Robustness and specificity. Colloquium at the McGill University Department of Linguistics, September 23, 2016.
- McAuliffe, M.,** Sonderegger, M. Speech Corpus Tools: an application for easier analysis of large speech corpora. Presented at the *Tools for Big Data in Laboratory Phonology*, July 13, 2016. Materials available at <http://speech-corpus-tools.readthedocs.io/en/latest/tutorial/tutorial.html>.
- McAuliffe, M.,** Sonderegger, M. Easier speech corpus analysis: A practical introduction to Montreal Corpus Tools (including Speech Corpus Tools). Scottish Graduate School of Social Science; University of Glasgow, April 28, 2016.
- McAuliffe, M.** Hacking mixed models without hacking p-values. Presented at the University of Ottawa Department of Linguistics, March 29, 2016. Materials available at <https://memcauliffe.com/workshops/statistics/032816/>.
- 2015** **McAuliffe, M.** Statistical phonological analysis in corpora using Phonological Corpus Tools. Presented at Centre for Research on Brain, Language and Music; McGill University, October 2, 2015.

Service

Technical skills mentor

- 2015-present** Department of Linguistics at McGill University
- 2014-2015** Department of Linguistics at the University of British Columbia

Open source software

Maintainer for:

- **PolyGlottDB:** Linguistic data store and query interface in Python.
- **Montreal Forced Aligner:** Forced alignment software built on top of Kaldi.
- **python-acoustic-similarity:** Python package for calculating acoustic and auditory measures and comparing waveforms.
- **python-praat-scripts:** Python package for calling Praat scripts.
- **python-BLICK:** Python port of Bruce Hayes' BLICK for calculating phonotactic probability in English.

Regular contributor to:

- **Phonological CorpusTools:** Computer application for calculating quantitative phonological measures from corpora.

- **linguistic-analysis-resources**: A collection of tutorials and information for technical aspects of linguistic research.

Minor contribution of bugfixes and improvements to Menpo, Menpo3d, Py2neo and textgrid.

———— Languages

Native	English
Extensive	Japanese, German
Elementary	French, Italian

———— Technical skills

Python, R, Praat, Matlab, SQL, Neo4j, Django, JavaScript, LaTeX

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