

THEA KNOWLES

PhD, CCC-SLP

Last updated: May 13, 2023

Oyer Speech & Hearing Building, room 205
1026 Red Cedar Rd.
Department of Communicative Sciences & Disorders
Michigan State University
East Lansing, MI 48824

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📧 CASA Lab: casa-lab.com

EMPLOYMENT

- | | |
|--|---------------------|
| Assistant Professor (tenure system)
<i>Director of Clinical Applications of Speech Acoustics Laboratory</i>
Communicative Sciences & Disorders
Michigan State University
East Lansing, MI | Fall 2022 - present |
| Assistant Professor (tenure system)
<i>Director of Clinical Applications of Speech Acoustics Laboratory</i>
Communicative Disorders & Sciences
University at Buffalo
Buffalo, NY | 2019 - Summer 2022 |

EDUCATION

- | | |
|--|-------------|
| Western University, London, ON
PhD, Speech & Language Sciences
Health & Rehabilitation Sciences | 2014 - 2019 |
| Western University, London, ON
MClSc, Speech-Language Pathology
Communication Sciences & Disorders (combined MClSc/PhD) | 2014 - 2019 |
| McGill University, Montréal, QC
B.A. Honours, Linguistics
First Class Honours, Distinction | 2008 - 2012 |

GRANT AND FUNDING ACTIVITY

Research

- | | |
|--|------------|
| Trifecta Initiative Award
<i>Michigan State University Trifecta Initiative</i> <ul style="list-style-type: none">· Value: \$5,000; Role: PI· Co-investigators: Qiben Yan, Linda Keilman | 2023 |
| ASH Foundation New Investigators Research Grant
<i>American Speech-Language-Hearing Foundation</i> <ul style="list-style-type: none">· Value: \$10,000; Role: PI | 2021 |
| ASHA Advancing Academic-Research Careers Award
<i>American Speech-Language-Hearing Association</i> <ul style="list-style-type: none">· Value: \$5,000 | 2021 |
| Ontario Graduate Scholarship
<i>Province of Ontario Graduate Scholarship Program</i> <ul style="list-style-type: none">· Value: \$15,000 CAD annually | 2017, 2018 |

- Competitive (merit-based) scholarship

Graduate Student Research Program Award

2017

Parkinson Society Southwestern Ontario

- Value: \$20,000 CAD
- Competitive

Clinical

Parkinson Voice Project SPEAK OUT!® and LOUD Crowd® Grant

2020, 2021

- Value: Supports continuation of the SPEAK OUT!® and LOUD Crowd® programs at the University at Buffalo Speech, Language, and Hearing Clinic, including Parkinson Voice Project consultation, access to graduate student training, clinic resources, and opportunity to receive monetary funding to support LOUD Crowd® groups in 2020 & 2021
- Role: Lead Speech-language pathologist

PUBLICATIONS

Peer Reviewed Journal Articles

†denotes a student author mentored by Thea Knowles

13. Badh, G.† & **Knowles, T.** (In press). Acoustic and perceptual impact of face masks on speech: A scoping review. *PLoS ONE*. (See OSF Preprint: 10.31219/osf.io/fpsu2)
12. Page, A., Schroeder, J.R., **Knowles, T.**, Jog, M., & Adams, S. (2023). A Comparison of Voice Amplifiers and Personal Communication Systems for Hypophonia: An Exploration of Communicative Participation. *Journal of American Speech-Language Pathology*, 1-16. 10.1044/2023_AJSLP-22-00161
11. **Knowles, T.** & Badh, G.† (2023). The impact of face masks on speech in Parkinson's disease: Effect of clear and loud speech styles. *Journal of Speech, Language, and Hearing Research*. DOI: 10.1044/2022_JSLHR-22-00291
10. Aveni, K., Ahmed, J., Borovsky, A., McRae, K., Jenkins, M., Sprengel, K., Fraser, J.A., Orange, J.B., **Knowles, T.**, & Roberts, A. (2023). Predictive language comprehension in Parkinson's disease. *PLoS ONE*, 18(2), e0262504. DOI: 10.1371/journal.pone.0262504
9. **Knowles, T.**, & Badh, G.† (2022). The impact of face masks on spectral acoustics of speech: Effect of clear and loud speech styles. *Journal of the Acoustical Society of America* 151(5), 3359-3368. DOI: 10.1121/10.0011400
8. **Knowles, T.**, Adams, S. G., & Jog, M. (2021). Speech rate mediated vowel and stop voicing distinctiveness in Parkinson's disease. *Journal of Speech, Language, and Hearing Research*, 64(11), 4096-4123. DOI: 10.1044/2021_JSLHR-21-00160
7. **Knowles, T.**, Adams, S. G., & Jog, M. (2021). Variation in speech intelligibility ratings as a function of speech rate modification in Parkinson's disease. *Journal of Speech, Language, and Hearing Research*, 64(6), 1773-1793. DOI: 10.1044/2021_JSLHR-20-00593
6. **Knowles, T.**, Adams, S. G., Page, A., Cushnie-Sparrow, D., & Jog, M. (2020). A comparison of speech amplification and personal communication devices for hypophonia. *Journal of Speech, Language, and Hearing Research*, 63(8), 2695-2712. DOI: 10.1044/2020_JSLHR-20-00085
5. Adams, S., Kumar, N., Rizek, P., Hong, A., Zhang, J., Abeyesekera, A., Mancinelli, C., **Knowles, T.**, & Jog, M. (2020). Efficacy and acceptance of a Lombard-response device for hypophonia in Parkinson's disease. *The Canadian Journal of Neurological Sciences*, 47(5), 634-641. DOI: 10.1017/cjn.2020.90
4. Sonderegger, M., Stuart-Smith, J., **Knowles, T.**, Macdonald, R., & Rathcke, T. (2020). Structured heterogeneity in Scottish stops over the twentieth century. *Language*, 96(1), 94-125. DOI: 10.1353/lan.2020.0003
3. Abeyesekera, A., Adams, S., Mancinelli, C., **Knowles, T.**, Gilmore, G., Delrobaei, M., Jog, M. (2019). Effects of deep brain stimulation of the subthalamic nucleus settings on voice quality, intensity, and prosody in Parkinson's disease: preliminary evidence for speech optimization. *Canadian Journal of Neurological Sciences*, 46(3), 287-294. DOI: 10.1017/cjn.2019.16

2. **Knowles, T.**, Clayards, M., & Sonderegger, M. (2018). Examining factors influencing the viability of automatic acoustic analysis of child speech. *Journal of Speech, Language, and Hearing Research*, 61(10), 2487-2501. DOI: 10.1044/2018_JSLHR-S-17-0275
1. **Knowles, T.**, Adams, S., Abeyesekera, A., Mancinelli, C., Gilmore, G., & Jog, M. (2018). Deep brain stimulation of the subthalamic nucleus parameter optimization for vowel acoustics and speech intelligibility in Parkinson's disease. *Journal of Speech, Language, and Hearing Research*, 61(3), 510-524. DOI: 10.1044/2017_JSLHR-S-17-0157

Proceedings & Working Papers

5. Cushnie-Sparrow, D., Adams, S.G., **Knowles, T.**, Leszcz, T.M., Jog, M. (2016). Effects of multi-talker noise on the acoustics of voiceless stop consonants in Parkinson's disease. *Western Papers in Linguistics*.
4. **Knowles, T.**, Clayards, M., Sonderegger, M., Wagner, M., Nadig, A., & Onishi, K. (2015). Automatic forced alignment on child speech: Directions for improvement. *Proceedings of Meetings on Acoustics*. DOI: 10.1121/2.0000125
3. Clayards, M. & **Knowles, T.** (2015). Prominence enhances voicelessness and not place distinction in English voiceless sibilants. *Proceedings of the 18th International Congress of Phonetic Sciences*. Glasgow, UK: the University of Glasgow.
2. Little, C. & **Knowles, T.** (2012). Didja know? A comparative study of affrication across word boundaries in Canadian and American English. *Strathy Student Working Papers on Canadian English*.
1. Cheng, J. & **Knowles, T.** (2012). Mandarin VP-Shell: Not as hard as you think. *McGill Cellar Door 1*, 4-20.

MANUSCRIPTS

Cline, N.† & **Knowles, T.** (in revision). The impact of face masks on speech intelligibility and listener effort in Parkinson's disease: Effect of clear and loud speech styles.

Gates, K.† Mach, H., Higginbotham, J., & **Knowles, T.** (in prep). Speech Amplification Device Usage for Parkinson's disease: A mixed-methods approach.

Hassanpour, A.† **Knowles, T.**, & Parsa, V. (in prep). Impact of masks on automatic speech recognition algorithm performance in noise.

Knowles, T., Adams, S.G., & Jog, M. (in prep). Voice acoustics along a modified speech rate continuum in Parkinson's disease.

PUBLICLY AVAILABLE CODE

Keshet, J., Sonderegger, M., & **Knowles, T.** (2014). AutoVOT, v. 0.94.

- A software package for automatic measurement of voice onset time (VOT), using the algorithm described in Sonderegger & Keshet (2012).
- I maintain the README and the Praat plugin.

Knowles, T. (unpublished). Publicly available Praat scripts.

- <https://github.com/thealk/PraatScripts>
- Includes Visual Analog Scale administration tool, interactive tutorials, and various scripts designed to facilitate speech analysis.

PRESENTATIONS

Invited presentations

6. **Knowles, T.**. Communicating with face masks: Considerations for Parkinson's disease. NYU Colloquium Series. 03/2023.
5. Speights Atkins, M., Holt, Y., **Knowles, T.**, Cychosz, M. Best Practices for Scientific Data Collection, Management, and Analysis: Session 1, Select and Collect. American Speech-Language-Hearing Association (ASHA) Convention. New Orleans, LA. 11/2022. *1 hour seminar*

4. Speights Atkins, M., Holt, Y., **Knowles, T.**, Cychosz, M. Best Practices for Scientific Data Collection, Management, and Analysis: Session 2, Analyze and Apply. American Speech-Language-Hearing Association (ASHA) Convention. New Orleans, LA. 11/2022. *1 hour seminar*
3. **Knowles, T.** Speech amplification devices for hypophonia. SLP 625: Special Topics. Buffalo State University of New York, Buffalo, NY. 3/2021.
2. **Knowles, T.** Speech acoustic adjustments along a speech rate continuum in Parkinson's disease. Rehabilitation Science Seminar. University at Buffalo, Buffalo, NY. 3/2020.
1. **Knowles, T.**, Adams, S., Page, A., Cushnie-Sparrow, D., & Jog, M. A comparison of speech amplification and personal communication devices for individuals with Parkinson's disease. Communicative Disorders & Sciences Research Colloquium. University at Buffalo, Buffalo, NY. 4/2018.

Refereed conference presentations

First author = presenter unless otherwise noted.

29. **Knowles, T.**, Cline, N.† & Clayards, M. Acoustic prominence of verbal instructions in Parkinson's disease. 05/2023. Meeting of the Acoustical Society of America. Chicago, IL. *poster presentation.*
28. **Knowles, T.**, Gates, K.† Mach, H., Higginbotham, J., Holder, T.† Speech Amplification Device Usage for Parkinson's disease: A Survey of Speech-Language Pathologists. 11/2022. American Speech-Language-Hearing Association (ASHA) Convention. New Orleans, LA. *poster presentation; presented by Kelly Gates.*
27. Cline, N.† **Knowles, T.**, Badh, G.† Impact of Face Masks on Speech Intelligibility in Parkinson's Disease: Clear and Loud Speech Strategies. 11/2022. American Speech-Language-Hearing Association (ASHA) Convention. New Orleans, LA. *poster presentation.*
26. Page, A., Schroeder, J. R., **Knowles, T.**, Jog, M., Adams, S. A Comparison of Speech Amplification and Personal Communication Devices for Hypophonia: Exploring Communicative Participation. 11/2022. American Speech-Language-Hearing Association (ASHA) Convention. New Orleans, LA. *poster presentation; awarded ASHA Meritorious Poster Submission.*
25. **Knowles, T.**, & Badh, G. The impact of face masks on speech acoustics in Parkinson's disease: Effect of clear and loud speech styles. 05/2022. Meeting of the Acoustical Society of America. Denver, CO. *poster presentation.*
24. **Knowles, T.**, & Parsa, V. Controlled effects of face masks and shields on spectral acoustics, speech intelligibility, and listening effort. 02/2022. Motor Speech Conference. Charleston, SC. *poster presentation.*
23. **Knowles, T.**, Badh, G. The impact of face masks on spectral acoustics of speech: Effect of clear and loud speech styles. 02/2022. Motor Speech Conference. Charleston, SC. *poster presentation.*
22. Hassanpour, A., Knowles, T., & Parsa, V. Impact of masks on automatic speech recognition algorithm performance in noise. 01/2022. Speech in Noise Workshop (Virtual).
21. **Knowles, T.**, Adams, S., & Jog, M. Speech intelligibility in Parkinson's disease as a function of speech rate and task. 06/2021. International Clinical Phonetics and Linguistics Association Conference (Virtual). *poster presentation.*
20. **Knowles, T.**, Adams, S., & Jog, M. Stop voicing contrasts in Parkinson's: Effect of modified speaking rate in connected speech. Boston Speech Motor Control Symposium. (Virtual) 06/2021. *poster presentation.*
19. Aveni, K., Ahmed, J., Borovsky, A., McRae, K., Jenkins, M., Sprengel, K., Fraser, J.A., Orange, J.B., **Knowles, T.**, Roberts, A. Predictive language comprehension in Parkinson's disease. [Virtual poster]. Psychonomics Annual Meeting, Austin TX (Virtual), United States. 11/2020. *poster presentation.*
18. **Knowles, T.**, Adams, S., & Jog, M. VOT voicing distinction is robust along a speech rate continuum in dysarthria. Laboratory Phonology, Virtual, 07/2020. *poster presentation.*
17. **Knowles, T.**, Adams, S., & Jog, M. Acoustic changes along a modified speech rate continuum in Parkinson's disease. Motor Speech Conference. Santa Barbara, CA. 02/2020. *poster presentation.*
16. **Knowles, T.**, Adams, S., Page, A., Cushnie-Sparrow, D., & Jog, M. Evaluating the efficacy of speech amplification and personal communication devices in Parkinson's disease. American Speech-Language-Hearing Association (ASHA) Convention. Boston, MA. 11/2018. *poster presentation.*

15. **Knowles, T.**, Adams, S., Page, A., Cushnie-Sparrow, D., & Jog, M. A comparison of voice amplification devices in Parkinson's disease.
 - American Speech-Language-Hearing Association (ASHA) CONNECT Conference. Baltimore, MD. 7/2018 (new data presented). *poster presentation.*
 - Speech-Language Pathology and Audiology Canada (SAC) Conference. Edmonton, AB. 5/2018. *poster presentation.*
14. Mancinelli, C., Adams, S.G., Abeyesekera, A., **Knowles, T.**, Delrobaei, M., & Jog, M. Deep brain stimulation parameter optimization for rate of speech in Parkinson's disease. American Speech-Language-Hearing Association Convention. Philadelphia, PA. 11/2016. *poster presentation.*
13. **Knowles, T.**, Adams, S.G., Abeyesekera, A., Mancinelli, C., & Jog, M. Deep brain stimulation parameter optimization for speech intelligibility and vowel acoustics in Parkinson's disease. International Clinical Phonetics and Linguistics Association Conference, Halifax, NS. 6/2016. *oral presentation.*
12. Abeyesekera, A., Adams, S.G., **Knowles, T.**, Mancinelli, C., Delrobaei, M., & Jog, M. Deep brain stimulation and speech in Parkinson's disease: Effects of stimulator settings and electrode contact positions. Southern Ontario Neuroscience Association, Waterloo, ON. 5/2016. *poster presentation.*
11. **Knowles, T.**, Adams, S.G., Abeyesekera, A., Mancinelli, C., Delrobaei, & M., Jog., M. Deep brain stimulation parameter optimization for speech intelligibility and speech acoustics in Parkinson's disease. Motor Speech Conference, Newport Beach, CA. 3/2016. *poster presentation.*
10. Abeyesekera, A., Adams, S.G., **Knowles, T.**, Mancinelli, C., Delrobaei, & M., Jog., M. Deep brain stimulation parameter optimization for voice quality, speech intensity and prosody of speech in Parkinson's disease. Motor Speech Conference, Newport beach, CA. 3/2016. *poster presentation.*
9. **Knowles, T.**, Clayards, M., Sonderegger, M., Wagner, M., Nadig, A., & Onishi, K. Automatic forced alignment on child speech: Directions for improvement. Meeting of the Acoustical Society of America, Jacksonville, FL. 11/2015. *poster presentation.*
8. Sonderegger, M., Stuart-Smith, J., Macdonald, R., **Knowles, T.**, & Rathcke, T. Stability and change in Scottish stops: A real-time study of three acoustic cues in Glaswegian vernacular. *New Ways of Analyzing Variation* 44, Toronto. 10/2015. *oral presentation.*
7. Clayards, M., & **Knowles, T.** Prominence enhances voicelessness and not place distinction in English voiceless sibilants. 18th International Congress of Phonetic Sciences. Glasgow, Scotland. 8/2015. *International oral presentation.*
6. Stuart-Smith, J., Sonderegger, M., Macdonald, R., **Knowles, T.**, & Rathcke, T. (2014). The private life of stops: VOT in a real-time corpus of spontaneous Glaswegian. 14th Conference on Laboratory Phonology. Tokyo, Japan. 7/2014. *oral presentation.*
5. Clayards, M., & **Knowles, T.** Sibilants, prominence, contrast and breathy voice. *Phonetic Building Blocks of Speech*. University of Victoria. Victoria, BC. 9/2014. *poster presentation.*
4. Clayards, M. & **Knowles, T.** Prosodic strengthening and sibilants. Linguistic Institute Conference on Universality and Variability in segment-prosody interactions. Ann Arbor, MI. 6/2013. *oral presentation.*
3. Fleischer, D., **Knowles, T.**, Cheng, J., Wagner, M., & Clayards, M. Syntactic effects on compensation for assimilation. *Architectures and Mechanisms for Language Processing*. Riva del Garda, Italy. 9/2012. *oral presentation.*
2. Little, C. & **Knowles, T.** Didja Know? Affrication in North American English Dialects.
 - Change and Variation in Canada 7. University of Toronto. Toronto, ON. 5/2012. *joint oral presentation.*
 - 2nd Annual Hunter Undergraduate Linguistics and Language Study. Hunter College. New York, NY. 5/2012. *oral presentation.*
 - International Linguistic Assoc. 58th Annual Conference. Kingsborough Community College. Brooklyn, NY. 4/2012. *joint oral presentation.*
 - 10th Annual Harvard Undergraduate Linguistics Colloquium. Harvard University. Cambridge, MA. 4/2012. *joint oral presentation.*
1. **Knowles, T.** (2011). *Gender and Lexical Variation: Coffee Tasting Descriptors.*

- McGill Canadian Conference for Linguistics Undergraduates. Montréal, QC. 3/2011. *oral presentation.*
- 9th Annual Harvard Undergraduate Linguistics Colloquium. Harvard University. Cambridge, MA. *oral presentation.*

Local presentations

11. **Knowles, T.** Speech amplification clinic: Speech-language pathology in-service. H.A. Leeper Speech & Hearing Clinic. Western University, London, ON. 1/2019.
10. **Knowles, T.**, Adams, S., Page, A., Cushnie-Sparrow, D., & Jog, M. Evaluating the efficacy of voice amplification and personal communication devices in Parkinson's disease. Speech & Language Seminar, Health & Rehabilitation Sciences, Western University. London, ON. 10/2018. *Local oral presentation.*
9. **Knowles, T.**, Adams, S., Page, A., Cushnie-Sparrow, D., & Jog, M. A comparison of voice amplification devices in Parkinson's disease.
 - 5th Annual Movement Disorders Research Retreat. London, ON. 6/2018. *Local oral presentation.*
 - Health & Rehabilitation Graduate Research Conference. Western University, London, ON. 2/2018. *Local oral presentation.*
8. **Knowles, T.** The effect of rate manipulation on acoustic distinctiveness and intelligibility in dysarthria: Prospectus.
 - Speech & Language Seminar, Health & Rehabilitation Sciences, Western University. London, ON. 10/2017. *Local oral presentation.*
 - 4th Annual Movement Disorders Research Retreat. London, ON. 6/2017. *Local oral presentation.*
7. **Knowles, T.**, Adams, S.G., Abeyesekera, A., Mancinelli, C., Gilmore, G., & Jog, M. Deep brain stimulation parameter optimization: Vowel acoustics in Parkinson's disease. Health & Rehabilitation Graduate Research Conference. Western University, London, ON. 2/2017. *Local oral presentation.*

Cushnie-Sparrow, D., Adams, S.G., Leszcz, T., **Knowles, T.**, & Jog, M. Effects of multitalker noise on the acoustics of voiceless stop consonants in Parkinson disease. Western Interdisciplinary Student Symposium on Language Research, London, ON. 3/2016. *Local oral presentation.*
6. **Knowles, T.**, Adams, S., Leszcz, T., Jog, M. Acoustic correlates of noise-related speech intelligibility deficits in Parkinson's disease. Health and Rehabilitation Sciences Graduate Research Conference. Western University, London, ON. 2/2016. *Local oral presentation.*
5. **Knowles, T.**, Adams, S.G., Abeyesekera, A., Mancinelli, C., Delrobaei, & M., Jog, M. Deep brain stimulation and speech.
 - 3rd Annual Movement Disorders Research Retreat. Toronto, ON. 6/2016. *Local oral presentation.*
 - 2nd Annual Movement Disorders Research Retreat. London, ON. 6/2015. *Local oral presentation.*
4. **Knowles, T.**, Adams, S.G., Abeyesekera, A., Mancinelli, C., Delrobaei, & M., Jog, M. Effect of deep brain stimulation parameters on speech intelligibility and speech acoustics in Parkinson's disease.
 - Health & Rehabilitation Sciences Graduate Research Conference. Western University, London, ON. 2/2015. *Local poster presentation.*
 - Faculty of Health Sciences Research Day. Western University, London, ON. 3/2015. *Local poster presentation.*
3. Abeyesekera, A., Adams, S., **Knowles, T.**, Mancinelli, C., Delrobaei, M., & Jog, M. Effect of different deep brain stimulation parameters on voice quality, speech intensity, and prosody in Parkinson's Disease. Health & Rehabilitation Sciences Graduate Research Conference, Western University, London, ON. 2/2015. *Local poster presentation.*
2. Mancinelli, C., Adams, S., Abeyesekera, A., **Knowles, T.**, Delrobaei, M., & Jog, M. Deep brain stimulation parameter optimization for rate of speech in Parkinson's Disease. Health & Rehabilitation Sciences Graduate Research Conference, Western University, London, ON. 2/2015. *Local poster presentation.*
1. Clayards, M., Wonnacott, E., & **Knowles, T.** A case study of childhood L2 learning of phonological contrasts. McGill School of Communication Sciences and Disorders 50th Anniversary Open House. McGill University. Montréal, QC. 11/2013. *Local poster presentation.*

MEDIA

“**Speech in Parkinson’s disease: The potential role of amplification devices.**” Article written for *The Parkinson’s Update (68)*. Parkinson Society Southwestern Ontario. Online. Summer/Fall 2018. <https://parkinsonsociety.ca/wp-content/uploads/2018/07/Parkinson-68-complete-for-web-Compressed-003-final.pdf>

“**The R-Ladies Piece.**” Interview by GradCast for *Radio Western*. Radio. 6/2017.

“**Research fine-tunes Parkinson’s speech impact.**” Interview by Paul Mayne for *Western News*. Online. 3/2016. <https://news.westernu.ca/2016/03/research-fine-tunes-parkinsons-speech-impact/>

PROFESSIONAL EXPERIENCE: RESEARCH

Lab Director: Clinical Applications of Speech Acoustics (CASA) Lab 2022 - present
Communicative Sciences & Disorders, Michigan State University East Lansing, MI

Lab Director: Clinical Applications of Speech Acoustics (CASA) Lab 2019 - 2022
Communicative Disorders & Sciences, University at Buffalo Buffalo, NY

Research Assistant November 2014 - August 2019
Speech Movement Disorders Lab, Western University London, ON

- Assist with study design, ethics submission, data collection related to a comparison of assistive speech devices for individuals with Parkinson’s disease

Lab Coordinator/Research Assistant October 2014 - June 2017
Language & Cognition Lab, Western University London, ON

- Assist with study design, ethics proposals, recruitment, data collection/analysis related to language comprehension in Parkinson’s disease
- Manage research assistants, coordinate meetings, ensure project deadlines are met

Project Manager: Tools for Looking at Variability in Speech August 2013 - June 2014
McGill University Montréal, QC

- Multidisciplinary collaboration with Communication Sciences & Disorders, Linguistics, & Psychology investigating viability of automated analysis with large scale variable speaker populations
- Trained & managed 12+ research assistants in speech analysis

Lab Manager: Speech Learning Lab August 2013 - June 2014
Linguistics Department, McGill University Montréal, QC

- Trained & managed research assistants in acoustic analysis
- Provided training materials and conducted tutorial on Praat scripting

Lab Manager: Montréal Language Modeling Lab June 2013 - June 2014
Linguistics Department, McGill University Montréal, QC

- Developed automated scripts for speech analysis, performed data collection & acoustic analysis
- Trained & managed research assistants & coordinated meetings

Research Assistant: CHILDES PhonBank Project September 2012 - March 2014
Linguistics Department, McGill University Montréal, QC

- Edited and maintained corpus of child phonological data
- Provided detailed feedback for ongoing development of PhonBank software

Research Assistant: McGill Prosody Lab June 2012 - June 2014
Linguistics Department, McGill University Montréal, QC

- Performed data collection for a variety of speech production and perception experiments
- Assisted in data analysis using MatLab and Praat software

Research Assistant: Speech Learning Lab November 2011 - June 2014
Linguistics Department, McGill University Montréal, QC

- Assisted in speech perception and production experimental design

- Conducted acoustic and statistical analysis

PROFESSIONAL EXPERIENCE: CLINICAL

Speech-language pathologist (Clinical Fellowship) November 2019 - June 2022
UB Speech and Hearing Clinic Buffalo, NY

- Lead SPEAK OUT!® and LOUD Crowd® therapy sessions for people with Parkinson's disease.

TEACHING EXPERIENCE

Instructor of Record

Speech Production Seminar (CSD902) Spring 2023
Michigan State University, Department of Communicative Sciences & Disorders

Data Analytics for Speech, Language, and Hearing Sciences (CSD491) Spring 2023
Michigan State University, Department of Communicative Sciences & Disorders

Research Methods (CSD803) Fall 2022
Michigan State University, Department of Communicative Sciences & Disorders co-taught

Anatomy and Physiology of the Speech Mechanism (CSD213) Fall 2022
Michigan State University, Department of Communicative Sciences & Disorders

Undergraduate Research and Creative Activity (CDS498) Spring 2022
University at Buffalo, Department of Communicative Disorders & Sciences

Data Analytics for Speech, Language, and Hearing Sciences (CDS491/687) Spring 2022
University at Buffalo, Department of Communicative Disorders & Sciences

Motor Speech Disorders (CDS640) Fall 2020, 2021
University at Buffalo, Department of Communicative Disorders & Sciences co-taught

Anatomy and Physiology of the Speech Mechanism (CDS288) Fall 2019, 2020, 2021
University at Buffalo, Department of Communicative Disorders & Sciences

Teaching Assistant

Speech Science (COMMSCI9615) Fall 2016, 2017
Western University, School of Communication Sciences & Disorders

- Conducted three weekly labs on healthy and disordered speech acoustics for graduate SLP and Audiology students

Voice Disorders (COMMSCI9631) Spring 2017
Western University, School of Communication Sciences & Disorders

- Graded quizzes and exams related to healthy and disordered voice production for graduate SLP students

Guest Lectures

“Grant writing panel guest lecture” March 2023.
Grant Writing for Researchers (CSD910) Michigan State University

“Introduction to dysarthria” October 2022.
Introduction to Communicative Sciences & Disorders (CSD203) Michigan State University

“So you're thinking about graduate school for communication disorders?” December 2020.
Syntax 1 (LING371) McGill University

“Introduction to phonetics” September 2017, 2018
Speech Science (COMMSCI9615) Western University

“Treatment trends in hypokinetic dysarthria” March 2018
Motor Speech Disorders (SLP714) Central Michigan University

“Pursuing a PhD in communication sciences and disorders”
Professional Practice Issues (COMMSCI9636)

November 2017
Western University

Workshops & tutorials

“Intro to RMarkdown”

R-Ladies, Coventry UK Chapter

March 2021

Praat Scripting Workshops

Department of Communicative Disorders & Sciences

Spring 2021

University at Buffalo

- Regular workshops (every 3 weeks) to introduce students from CDS, Linguistics, and Cognitive Science to programming in the Praat acoustic analysis software.
- I organized the workshops and facilitated two.

Coding for Speech

Department of Communicative Disorders & Sciences

Spring 2020

University at Buffalo

- Weekly workshops on using tools to analyze speech data, given to students and faculty at the University at Buffalo and led by me.
- Terminated after 2 sessions due to COVID19 pandemic

“RMarkdown and Bookdown for academic writing”

R-Ladies, London, Ontario Chapter

January 2020

“Dissertating with RMarkdown and Bookdown”

R-Ladies, London, Ontario Chapter

April 2019

“Figuring out figures in R”

R-Ladies, London, Ontario Chapter

October 2018

“Using RMarkdown to generate reports and manuscripts”

R-Ladies, London, Ontario Chapter

March 2018

“Introduction to Praat Scripting”

Department of Linguistics

Spring 2014

McGill University

- Conducted tutorials for various linguistics laboratory research assistants on automating aspects of acoustic analysis by writing scripts in Praat

ACADEMIC SERVICE & LEADERSHIP

Advising

PhD Committees

Michigan State University, Department of Communicative Sciences & Disorders

- Sou'd Ebdah (beginning Spring 2023)
- Busra Ensar (beginning Spring 2023)

MA Thesis Committees

University at Buffalo, Department of Communicative Disorders & Sciences

- Francesca D'Alessandro. *Impact of Vocal Hygienic Advice on the Voice of University Lecturers (2021)*.

Service to the Department of Communicative Sciences & Disorders

Communicative Sciences & Disorders

Michigan State University

- Member of graduate admissions committee; Spring 2023
- Member of Diversity, Equity, & Inclusion committee; 2022

Communicative Disorders & Sciences

University at Buffalo

- Member of graduate admissions committee; Spring 2022
- Member of search committee for Assistant/Associate Professor; Winter 2022
- Member of Coalition for Anti-Racism & Equity; Summer 2020 - Spring 2022
- Member of search committee for Clinical Assistant/Associate Professor; Fall 2020
- Leader of subcommittee departmental SWOT analysis; Winter 2020
- Member of search committee for Assistant Professor; Fall 2019

Service to the Profession

Journal Reviewer

- *Journal of Communication Disorders*
- *American Journal of Speech Language Pathology*
- *Journal of Speech, Language, and Hearing Research*
- *International Journal of Language and Communication Disorders*

Conference Planning & Abstract Review

- America Speech-Language and Hearing Association Convention: Speech and Language Science Subcommittee (2021, 2022, 2023)
- Western University Health & Rehabilitation Sciences Graduate Research Conference (2015, 2016)

Outreach

MSU Science Festival 2023
"What can speech tell us about neurodegenerative disease?" *East Lansing, MI*

- Hands-on demonstrations & information about local community Parkinson's disease resources

Parkinson's Moving Day Clinic 2021
Speech resources booth *Buffalo, NY*

Co-founder: R-Ladies 2017 — 2019
London, Ontario Chapter *London, ON*

- Founded and ran a local chapter of R-Ladies Global, "a world-wide organization to promote gender diversity in the R community."
- Curated speakers to give monthly, hands-on workshops on using the R statistical language and programming environment at no cost to members of the London, Ontario community
- I would also occasionally lead the workshops (see Teaching: Workshops & Tutorials)

PROFESSIONAL DEVELOPMENT AND VOLUNTEERING

Lessons for Success Spring 2023
American Speech-Language & Hearing Association

- Mentor: Preeti Sivasankar

Mentoring Academic Research Careers (MARC) Mentee 2022-2023
American Speech-Language & Hearing Association

- Mentor: Adam Buchwald

Acoustical Society of America School Spring 2022
Acoustical Society of America *Englewood, CO*

- Interdisciplinary early career workshop on acoustics.

Evaluating and Facilitating Online Courses: Faculty Academy Winter 2022
University at Buffalo *Buffalo, NY*

- Intensive workshop for faculty to learn to "assess and improve your online course utilizing research-based evaluation tools."

Designing and Building Online Courses: Faculty Academy

University at Buffalo

Summer 2021

Buffalo, NY

- Intensive workshop for faculty to learn to "apply and implement best practices for design, assessment, engagement, and technology integration."

Pathways Program Attendee

American Speech-Language-Hearing Association

June 2020

Mentorship program (virtual)

- Mentorship program for early career researchers in communication sciences and disorders
- "Intended as an initial step to enhance the training, retention, and funding success of clinical scientists in CSD, with the ultimate goal of advancing the evidence base of the discipline."

New Faculty Academy Fellow (Scholarly Writing)

University at Buffalo

Fall 2019

Buffalo, NY

- Weekly workshops for new faculty to improve elements of their scholarly research

TECHNICAL STRENGTHS

Computer Languages R, Praat, L^AT_EX, MatLab, Python

PROFESSIONAL AFFILIATIONS

Member

- Acoustical Society of America; 2021 — present
- Laboratory Phonology Association; 2020 — 2022
- American Speech-Language-Hearing Association (ASHA); 2019 — Present
- ASHA Special Interest Groups 2, 19; 2016 — Present
- Academy of Neurologic Communication Disorders and Sciences; 2018 — 2019
- Movement Disorders Society; 2016 — Present
- American National Student Speech-Language-Hearing Association; 2016 — 2019
- Ontario Association of Speech-Language Pathologists and Audiologists (Student member); 2014 — 2019

OTHER INFORMATION

Citizenship United States, Canada

Languages English (native), Spanish (advanced), French (novice)