

MENGYANG QIU

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EDUCATION

University at Buffalo, Buffalo, NY

Ph.D., Communicative Disorders and Sciences (CogSci Track) 2016–2023

Dissertation: The Information Accumulation Perspective of Cognitive Aging

Advisors: Nichol Castro, Ph.D.; Brendan T. Johns, Ph.D.

M.S., Computational Linguistics/Natural Language Processing 2018–2019

M.S. Project: Artificial Error Generation with Fluency Filtering

Advisor: Jungyeul Park, Ph.D.

M.A., General Linguistics 2013–2015

M.A. Project: Verb Aspect and the Activation of Location Information

Advisor: Jean-Pierre Koenig, Ph.D.

B.A., Psychology & Linguistics (Honors in Language and Cognition) 2010–2013

Honors Thesis: Personifications in Mandarin and English

Advisor: Jean-Pierre Koenig, Ph.D.

Summa Cum Laude; Minor in Sociology

ACADEMIC POSITIONS

Trent University, Peterborough, ON

Assistant Professor (Limited Term) | Department of Psychology 2023–Present

McGill University, Montreal, QC

Graduate Research Trainee | Department of Psychology Fall 2021

McGill Cognitive Computing Lab

Advisor: Brendan T. Johns, Ph.D.

PUBLICATIONS

Language and Cognition

Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (in press). Progress toward estimating the minimal clinically important difference of intelligibility: A crowdsourced perceptual experiment. *Journal of Speech, Language, and Hearing Research*

Qiu, M., Castro, N., & Johns, B. T. (2024). Estimating type of print exposure across aging through author production. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 46, 1175–1181. <https://escholarship.org/uc/item/41z38291>

Li, Y., & **Qiu, M.** (2023). A network analysis of the semantic evolution of ‘fruit’ and ‘stone’ in Tibeto-Burman languages. *PsyArXiv*. <https://doi.org/10.31234/osf.io/dn75w>

Qiu, M., Castro, N., & Johns, B. T. (2021). Structural comparisons of noun and verb networks in the mental lexicon. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43, 1649–1655. <https://escholarship.org/uc/item/4b20s6wp>

Qiu, M., & Johns, B. T. (2021). A distributional and sensorimotor analysis of noun and verb fluency. *PsyArXiv*. <https://doi.org/10.31234/osf.io/e9n8w>

Qiu, M., & Johns, B. T. (2020). Semantic diversity in paired-associate learning: Further evidence for the information accumulation perspective of cognitive aging. *Psychonomic Bulletin & Review*, 27(1), 114–121. <https://doi.org/10.3758/s13423-019-01691-w>

Natural Language Processing

Wang, J., **Qiu, M.**, Gu, Y., & Park, J. (submitted). Refined evaluation for end-to-end grammatical error correction using an alignment-based approach. *Proceedings of the 31st International Conference on Computational Linguistics (COLING 2025)*

Zeng, M., Kuang, J., **Qiu, M.**, Song, J., & Park, J. (2024). Evaluating prompting strategies for grammatical error correction based on language proficiency. *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*, 6426–6430. <https://aclanthology.org/2024.lrec-main.569>

Park, J., & **Qiu, M.** (2024). Frustratingly simple prompting-based text denoising. *The Second Tiny Papers Track at ICLR 2024*. <https://openreview.net/pdf?id=XlJRjhIkNi>

Wang, I. X., Wu, X., Coates, E., Zeng, M., Kuang, J., Liu, S., **Qiu, M.**, & Park, J. (2024). Neural automated writing evaluation with corrective feedback. *arXiv*. <https://doi.org/10.48550/arXiv.2402.17613>

Qiu, M., & Park, J. (2019). Artificial error generation with fluency filtering. *Proceedings of the Fourteenth Workshop on Innovative Use of NLP for Building Educational Applications*, 87–91. <https://doi.org/10.18653/v1/W19-4408>

Qiu, M., Chen, X., Liu, M., Parvathala, K., Patil, A., & Park, J. (2019). Improving precision of grammatical error correction with a cheat sheet. *Proceedings of the Fourteenth Workshop on Innovative Use of NLP for Building Educational Applications*, 240–245. <https://doi.org/10.18653/v1/W19-4425>

CONFERENCE PRESENTATIONS

Presenter

Qiu, M., Castro, N., & Johns, B. T. (2024, July). *Estimating type of print exposure across aging through author production* [Oral presentation]. 46th Annual Meeting of the Cognitive Science Society, Rotterdam, the Netherlands. <https://cognitivesciencesociety.org/cogsci-2024/>

Qiu, M., & Castro, N. (2022, May). *Developing a web-based stimulus selection hub for anomia treatment using R and Shiny* [Poster presentation]. 51st Clinical Aphasiology Conference, Wrightsville Beach, NC, United States. <https://clinicalaphasiologyconference.org>

Qiu, M., & Castro, N. (2021, October). *Comparing semantic networks of early vocabulary across languages* [Oral presentation]. Complexity and Cognition: Satellite Symposium at the Conference on Complex Systems. <https://sites.google.com/view/compcogccs2021>

Qiu, M., Castro, N., & Johns, B. T. (2021, July). *Structural comparisons of noun and verb networks in the mental lexicon* [Poster presentation]. 43rd Annual Meeting of the Cognitive Science Society (Virtual). <https://cognitivesciencesociety.org/cogsci-2021/>

Qiu, M., & Park, J. (2019, August). *Artificial error generation with fluency filtering* [Poster presentation]. 14th Workshop on Innovative Use of NLP for Building Educational Applications, Florence, Italy. <https://sig-edu.org/bea/2019>

Qiu, M., & Johns, B. T. (2018, November). *Memory searching pathway underlying verb fluency* [Poster presentation]. Annual Convention of the American Speech-Language-Hearing Association, Boston, MA, United States. <https://convention.asha.org>

Contributor

- Zeng, M., Kuang, J., **Qiu, M.**, Song, J., & Park, J. (2024, May). *Evaluating prompting strategies for grammatical error correction based on language proficiency* [Poster presentation]. 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024), Torino, Italy. <https://lrec-coling-2024.org>
- Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (2024, February). *Clinically important change in speech intelligibility from different perspectives: A pilot study* [Oral presentation]. 2024 Conference on Motor Speech, San Diego, CA. <https://www.madonna.org/motor-speech-conference>
- Li, Y., & **Qiu, M.** (2023, May). *The semantic evolution of ‘fruit’ and ‘stone’ in Sino-Tibetan languages* [Oral presentation]. 32nd Annual Meeting of the Southeast Asian Linguistics Society, Chiang Mai, Thailand. <https://seals32.human.cmu.ac.th>
- Stipancic, K. L., van Brenk, F., **Qiu, M.**, & Tjaden, K. (2022, August). *Progress toward estimating the minimal clinically important difference of speech intelligibility: A crowdsourced perceptual experiment* [Poster presentation]. 8th International Conference on Speech Motor Control, Groningen, the Netherlands. <https://slp-nijmegen.nl/smc2022/>
- Min, H., Guo, L., Higginbotham, D. J., & **Qiu, M.** (2018, November). *How does writing medium influence the operation of writing processes and writing quality?* [Poster presentation]. Annual Convention of the American Speech-Language-Hearing Association, Boston, MA, United States. <https://convention.asha.org>

HONORS & AWARDS

NIDCD Research Symposium in Clinical Aphasiology Student Fellowship, \$1600	2022
Mark Diamond Research Fund, University at Buffalo, \$2964	2020–2021
New York State Graduate Student Employees Union Award, \$2202.50	2015
Wolfgang Wölck Outstanding Graduating Senior Award, University at Buffalo, \$250	2013

RESEARCH EXPERIENCE

University at Buffalo, Buffalo, NY	
Graduate Research Assistant PI: Nichol Castro, Ph.D. Adult Language Network Lab, CDS Department	2020–2021
Online Experiment Developer PI: Thea Knowles, Ph.D. Clinical Applications of Speech Acoustics Lab, CDS Department	Spring 2020
Project Leader Supervisor: Jungyeul Park, Ph.D. Grammatical Error Correction Project, Department of Linguistics	Spring 2019
Graduate Research Assistant PI: Brendan T. Johns, Ph.D. Computational Language and Memory Lab, CDS Department	2016–2019
Graduate Research Assistant PI: Christopher McNorgan, Ph.D. Computational Cognitive Neuroscience Lab, Department of Psychology	Summer 2017
Undergraduate Research Assistant PI: Gail Mauner, Ph.D. Psycholinguistics Lab, Department of Psychology	2012–2013
Undergraduate Research Assistant PI: Paul Luce, Ph.D. Language Perception Lab, Department of Psychology	Summer 2012
Undergraduate Research Assistant PI: Eon-Suk Ko, Ph.D. Child Language Development Project, Department of Linguistics	Summer 2011

TEACHING EXPERIENCE

Instructor of Record

Trent University, Peterborough, ON

PSYC 2400: Introduction to Cognitive Psychology	2022–Present
PSYC 2600: Introduction to Learning	Fall 2024
PSYC 3220: Neuropsychology	2023–2024
PSYC 3430: Memory	Fall 2024
PSYC 3451: Psychology of Language	2022–Present

Toronto Metropolitan University International College, Toronto, ON

CPSY 102: Introduction to Psychology I	2022–Present
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University of Guelph, Guelph, ON

PSYC 1010: Making Sense of Data in Psychological Research	Winter 2022
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University at Buffalo, Buffalo, NY

CHI 101 & 102: First-Year Chinese	2013–2015
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Teaching Assistant/Guest Lecturer

University of Toronto Scarborough, Scarborough, ON

LINA 01: Introduction to Linguistics	2021–2022
LINB 35: Introduction to Computational Linguistics	Winter 2024
LINB 60: Comparative Study of English and Chinese	Winter 2022
PSYC 70: Advanced Research Methods Laboratory	Winter 2022

Trent University, Peterborough, ON

PSYC 2400: Introduction to Cognitive Psychology	Summer 2022
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University at Buffalo, Buffalo, NY

CDS 151: Introduction to Speech-Language Pathology and Audiology	2016–2021
CDS 564: Language Disorders in Adults	2017–2019
CDS 480/687: Disorders of Memory	2017–2019

PROFESSIONAL SERVICE & AFFILIATIONS

Ad Hoc Journal Article Reviews

- Behavior Research Methods
- Journal of Speech, Language, and Hearing Research

Conference Reviews

The Conference on Empirical Methods in Natural Language Processing (EMNLP)	2023
The Annual Meeting of the Cognitive Science Society	2022–Present
Workshop on Innovative Use of NLP for Building Educational Applications	2020–Present

Member

Cognitive Science Society	2021–Present
ACL Special Interest Group for Building Educational Applications	2019–Present

STUDENT SUPERVISION

Research Practicum (Department of Psychology, Trent University)

Zoe Brisebois Linguistic Factors in Phonemic Fluency	Fall 2024
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TECHNICAL SKILLS

- Programming:** Python, JavaScript, Java, R, Matlab
- Experiment:** jsPsych, PsychoPy/JS, JATOS, psiTurk, E-Prime
- NLP:** PyTorch, Transformers, SpaCy, NLTK, Stanza
- Others:** L^AT_EX, HTML, SQL, Prolog, Praat

OTHER INFORMATION

Citizenship: China, Canada (in process)

Permanent Residency: Canada

Languages: Mandarin (native), English (fluent)

REFERENCES

Nichol Castro, Ph.D.

Assistant Professor

Director of the Adult Language Network Laboratory

Department of Communicative Disorders and Sciences

University at Buffalo

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<https://sites.google.com/view/alnlab>

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