### Wednesday Bushong

wbushong@ur.rochester.edu

RESEARCH INTERESTS

language processing & production, information theory, cue integration, statistical learning, statistical methods in cognitive science

**EDUCATION** 

Ph.D Candidate, Brain and Cognitive Sciences

2020 (expected)

University of Rochester

M.A. Brain and Cognitive Sciences

2018

University of Rochester

B.A. Linguistics, with Distinction

2015

 $\textbf{B.S. Cognitive Science, specialization in Neuroscience}, \ \textbf{with Distinction}$ 

University of California, San Diego

Publications

**Bushong, W.** and Jaeger, T. F. (in preparation). Cumulative syntactic priming as rational expectation adaptation.

**Bushong, W.** and Jaeger, T. F. (in preparation). Dynamic re-weighting of acoustic and contextual cues in spoken word recognition.

Jaeger, T. F., Burchill, Z. and **Bushong, W.** (under review). Strong evidence for expectation adaptation during language understanding, not a replication failure: A reply to Harrington Stack, James, and Watson (2018).

Bicknell, K., **Bushong**, W., Tanenhaus, M., and Jaeger, T. F. (in revision). Listeners can maintain and rationally update uncertainty about prior words.

Conference Proceedings **Bushong, W.** and Jaeger, T. F. (2019). Modeling long-distance cue integration in spoken word recognition. To appear in *Proceedings of NAACL 2019 Cognitive Modeling and Computational Linquistics Workshop.* 

**Bushong, W.** and Jaeger, T. F. (2019). Memory maintenance of gradient speech representations is mediated by their expected utility. To appear in *Proceedings of the Forty-First Annual Conference of the Cognitive Science Society*.

**Bushong, W.**, and Jaeger, T. F. (2017). Maintenance of perceptual information in speech perception. In *Proceedings of the Thirty-Ninth Annual Conference of the Cognitive Science Society*.

Conference Presentations **Bushong, W.** and Jaeger, T. F. (2018, September). *Modeling long-distance cue integration in spoken word recognition*. Poster to be presented at the Forty-First Annual Conference of the Cognitive Science Society, Montreal, Canada. \*Also presented at CMCL 2019 (see Conference Proceedings)

**Bushong, W.** and Jaeger, T. F. (2018, September). Expected utility of later context mediates maintenance of subcategorical information. Poster presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing (AMLaP), Berlin, Germany. \*Also presented at CogSci 2019 (see Conference Proceedings)

Bushong, W. and Jaeger, T. F. (2018, September). Cue reliability and adaptive re-weighting in spoken word recognition. Poster presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing (AMLaP), Berlin, Germany. \*Also presented at CUNY 2018

**Bushong, W.**, Burchill, Z., and Jaeger, T. F. (2018, September). *Understanding changes in qarden-paths as expectation adaptation*. Poster presented at the 24th Annual Conference on Architectures

and Mechanisms for Language Processing (AMLaP), Berlin, Germany.

Burchill, Z., Bushong, W. and Jaeger, T. F. (2018, September). Wasted power and false interactions in reading time analyses. Poster presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing (AMLaP), Berlin, Germany.

Bushong, W. and Jaeger, T. F. (2018, March). Cue reliability and re-weighting in speech perception. Poster presented at the 31st Annual CUNY Conference on Human Sentence Processing, Davis, CA.

Bushong, W., and Jaeger, T. F. (2017, March). Expectation adaptation to high-level linquistic constraints on word order. Talk presented at the 30th Annual CUNY Conference on Human Sentence Processing, Cambridge, MA.

Bushong, W., Bicknell, K., and Jaeger, T. F. (2017, March). Listeners maintain uncertainty about linguistic input. Poster presented at the 30th Annual CUNY Conference on Human Sentence Processing, Cambridge, MA. \*Also presented at CoqSci 2017 (see Conference Proceedings)

Bushong, W. and Jaeger, T. F. (2016, October). Processing the relative ordering of definite and indefinite noun phrases. Poster presented at the Dimensions of D Workshop, Rochester, NY.

Bushong, W., Morgan, E., Yen, M., and Levy, R. (2015, September). Compositional and holistic representations in multiword expressions. Poster presented at the 21st Annual Conference on Architectures and Mechanisms for Language Processing (AMLaP), Valletta, Malta.

Bushong, W., Ürgen, B. A., Miller, L. E., and Saygin, A. P. (2015, May). Influence of form and motion on biological motion prediction. Poster presented at Vision Sciences Society 15th Annual Meeting, St. Pete, Florida.

## Invited Presentations

Bushong, W., Burchill, Z., and Jaeger, T. F. (2018, September). Learning to expect the unexpected: adaptation to new distributions of grammatical structures. Poster presented at NSF NRT PI Meeting, Washington, D.C.

Bushong, W. (2017, September). Maintenance of perceptual information in speech perception. Talk presented at University of Rochester NRT Mini-Conference, Rochester, NY.

#### Theses

Bushong, W. (2015). Compositional and holistic processing in novel and attested multiword expressions. Undergraduate Honors Thesis, Department of Linguistics, UC San Diego. (advisor: Roger Levy)

Bushong, W. (2015). Influence of form and motion on biological motion prediction. Undergraduate Honors Thesis, Department of Cognitive Science, UC San Diego. (committee: Ayşe Saygin, Seana Coulson, Burcu Urgen)

# Teaching

At University of Rochester

Co-Instructor, BCS 152: Language & Psycholinguistics EXPERIENCE

Aug 2018 – Dec 2018

Teaching Assistant, BCS 152: Language & Psycholinguistics Teaching Assistant, CSP 519: Data Analysis II: General Linear Models Teaching Assistant, BCS 111: Foundations of Cognitive Science

Aug 2017 – Dec 2017 Jan 2017 – May 2017 Aug 2016 – Dec 2016

At UC San Diego

Instructional Assistant, COGS 14A: Introduction to Research Methods Sep 2013 – Dec 2013

# Awards

FELLOWSHIPS AND Teaching-As-Research (TAR) Fellowship, Center for the Integration of Research,

Teaching, and Learning (CIRTL)

Donald M. and Janet C. Barnard Fellowship, University of Rochester 2018 - 2019Edward Peck Curtis Award for Excellence in Graduate Teaching, University of Rochester 2018

2016 - 2018NSF National Research Training (NRT) Fellowship, University of Rochester

NSF Graduate Research Fellowship Honorable Mention

2015

2019

Provost Fellowship, University of Rochester 2015 – 2017
Outstanding Graduate in Linguistics, UC San Diego 2015
Chancellor's Scholarship, UC San Diego 2011 – 2015

ACADEMIC At University of Rochester

SERVICE Graduate Representative, Graduate Admissions Committee Fall 2018 – Spring 2019

Graduate Representative, Title IX Education Assessment Committee Fall 2018 – Spring 2019

Reviewing Memory & Cognition (2019)

Cognitive Science (2018)

The Annual Meeting of the Cognitive Science Society (2017-19)

Mentoring Undergraduates at University of Rochester

EXPERIENCE 2018: Nicole Vieyto

2017: Bethany Gardner

2016 – 2017: Evan Hamaguchi 2015 – 2016: Christopher Langfield

Research Advisors

Experience 2015 – current: T. Florian Jaeger (Department of Brain & Cognitive Sciences, University of

Rochester)

Previous Research Advisors

2013 – 2015: Roger Levy (Department of Brain & Cognitive Sciences, MIT) 2014 – 2015: Ayşe Saygin (Department of Cognitive Science, UC San Diego)

2014: Noah Goodman (Department of Psychology, Stanford)

2013 – 2014: Marta Kutas (Department of Cognitive Science, UC San Diego)

Clubs & At University of Rochester

Organizations IT Officer, Graduate Student Association Jun 2016 – Jun 2018

At UC San Diego

Vice President, Cognitive Science Student AssociationJun 2014 – Jun 2015Reviewer, Impulse Undergraduate Neuroscience JournalNov 2013 – Jun 2015Professional Chair, Cognitive Science Student AssociationDec 2013 – Jun 2014President, Linguistics Undergraduate AssociationJun 2013 – Jun 2015

Programming

R, Python, MATLAB/Octave

SKILLS