

# JACK DEMPSEY, PHD

PSYCHOLINGUIST - EDUCATIONAL PSYCHOLOGIST – DATA SCIENTIST

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## Professional Positions

### **Director of Research – Cascade Reading**

*(Prior: Part-Time Research Consultant)*

Remote, Based in Minneapolis, MN

**January 2022-Present**

*March 2021-December 2021*

### **Adjunct Lecturer – EPSY 401: Child Language & Education**

Department of Educational Psychology, University of Illinois at Urbana-Champaign

**Spring 2022-Present**

### **Lab Manager – Center for Language Science**

The Pennsylvania State University

**August 2016-August 2017**

## Educational Background

### **PhD, Educational Psychology**

Cognitive Science of Teaching and Learning

University of Illinois at Urbana-Champaign

**May 2022**

### **M.S., Educational Psychology**

Cognitive Science of Teaching and Learning

University of Illinois at Urbana-Champaign

**August 2019**

### **B.A., Linguistics *with Departmental Distinction***

Minors: French; German

University of Illinois at Urbana-Champaign

**December 2015**

**Languages in order of proficiency:** English (from birth), French, German, Italian

## Peer-Reviewed Publications

### 2023

**Dempsey, J.**, Tsiola, A., Chantavarin, S., Ferreira, F., & Christianson, K. (in press). Nonce word evidence for the misinterpretation of implausible events. *Journal of Cognitive Psychology*.

**Dempsey, J.**, Liu, Q., & Christianson, K. (in press). Syntactic adaptation leads to updated knowledge for local structural frequencies. *Quarterly Journal of Experimental Psychology*.

Christianson, K., **Dempsey, J.**, M. Deshaies, S. E., Tsiola, A., & Valderrama, L. P. (2023). Do readers misassign thematic roles? Evidence from a trailing boundary-change paradigm. *Language, Cognition and Neuroscience*, 1-21.

## 2022

Colclasure, B., Thoron, A., & **Dempsey, J.** (2022). Factors relating to agriculture teachers' perceived use of instructional methods. *Advancements in Agricultural Development*, 3(4), 1-16.

**Dempsey, J.**, & Christianson, K. (2022). Referencing context in sentence processing: A failure to replicate the strong interactive mental models hypothesis. *Journal of Memory and Language*, 125, 104335.

Christianson, K., **Dempsey, J.**, Goldshtein, M., & Tsiola, A. (2022). "What if they're just not that into you (or your experiment)? On motivation and psycholinguistics." In *Psychology of Learning and Motivation*. Academic Press.

**Dempsey, J.**, Christianson, K., & Tanner, D. (2022). Misretrieval but not misrepresentation: A feature misbinding account of post-interpretive effects in number attraction. *Quarterly Journal of Experimental Psychology*, 75(9), 1727-1745.

## 2020

**Dempsey, J.** & Brehm, L. (2020). Can propositional biases modulate syntactic repair processes? Insights from preceding comprehension questions. *Journal of Cognitive Psychology*, 32(5-6), 543-552.

**Dempsey, J.**, Liu, Q., & Christianson, K. (2020). Convergent probabilistic cues do not trigger syntactic adaptation: Evidence from self-paced reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 46(10), 1906-1921.

## Invited Talks

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|---|-----------------------|
| <b>"Professional Development Workshop on Industry Jobs"</b><br>University of Illinois Second Language Acquisition & Teacher Education Workshop                          | <b>October 2022</b>   |
| <b>"A practical introduction to Bayesian mixed models for experimental research"</b><br>University of Illinois Second Language Acquisition & Teacher Education Workshop | <b>September 2021</b> |
| <b>"Programming psycholinguistics experiments in (New) Ibex Farm"</b><br>University of Illinois Exp-Ling Group  | <b>April 2021</b>     |
| <b>"Misinterpretations &amp; good-enough processing: A road down the garden path"</b><br>University of California-Riverside – LING 162/PSYC 128: Language and the Brain | <b>November 2020</b>  |
| <b>"Ibex Farm &amp; Mechanical Turk"</b><br>University of Illinois Second Language Acquisition & Teacher Education Workshop   | <b>December 2019</b>  |

## Refereed Presentations & Conference Publications

Christianson, K., Valderrama, L., Chen, D., & **Dempsey, J.** *Auditory Perceptual Simulation (APS): Psycholinguistic effects, pedagogical aspirations*. Talk given at the 36<sup>th</sup> Annual Conference on Human Sentence Processing, Pittsburgh, PA, March 2023.

- Dempsey, J.**, Tsiola, A., Bosch, N., Christianson, K., & Stites, M. *A psycholinguistic analysis of eye-movement patterns while troubleshooting Python source code*. Talk given at the 63<sup>rd</sup> Annual Psychonomics Society Meeting, Boston, MA, November 2022.
- Christianson, K., Deshaies, S.E., **Dempsey, J.**, Tsiola, A., & Valderrama, L. *Three Types of Garden-Paths: Reading, Rereading, and Revision*. Poster presented at the 63<sup>rd</sup> Annual Psychonomics Society Meeting, Boston, MA, November 2022.
- Dempsey, J.**, Tsiola, A., & Christianson, K. *A serial relationship between parsing and discourse information favors underspecification accounts of attachment ambiguities in English*. Poster presented at the 28<sup>th</sup> Architectures and Mechanisms for Language Processing (AMLaP) Conference, York, UK, September 2022.
- Christianson, K., Deshaies, S.E., **Dempsey, J.**, Tsiola, A., & Valderrama, L. *Reading, rereading, and extent of revision of four types of garden-paths*. Poster presented at the 28<sup>th</sup> Architectures and Mechanisms for Language Processing (AMLaP) Conference, York, UK, September 2022.
- Dempsey, J.** & Van Dyke, J. *An Analysis of Syntactic Text Properties as Predictors of Reading Comprehension Across Lexile & Grade Levels*. In J. Van Dyke, *Exploring syntax as the linchpin between oral reading fluency and reading comprehension ability*. 29<sup>th</sup> Annual Meeting of the Society for the Scientific Study of Reading, Newport Beach, CA, July 2022.
- Van Dyke, J. & **Dempsey, J.** *Using Visually Salient Syntactic Boundary Cues to Increase Comprehension of Complex Syntax: Evidence from 4th and 5th Graders Reading Cascade Format*. In J. Van Dyke, *Exploring syntax as the linchpin between oral reading fluency and reading comprehension ability*. 29<sup>th</sup> Annual Meeting of the Society for the Scientific Study of Reading, Newport Beach, CA, July 2022.
- Adoni, M. & **Dempsey, J.** *Political influences on meme perception: A pilot study*. Poster presented at the 2022 Undergraduate Research Symposium, University of Illinois at Urbana-Champaign, April, 2022.
- Dempsey, J.**, Chantavarin, S., Tsiola, A., Ferreira, F., & Christianson, K. *Do fels bite veks? Investigating real-time misinterpretations using nonce words*. Poster presented at the 35<sup>th</sup> Annual Conference on Human Sentence Processing, Virtual, March 2022.
- Dempsey, J.** & Christianson, K. *Effects of discourse context on resolving temporarily ambiguous attachment structures*. Poster presented at the 35<sup>th</sup> Annual Conference on Human Sentence Processing, Virtual, March 2022.
- Christianson, K., **Dempsey, J.**, Deshaies, S.E., Tsiola, A. *Exploring thematic role reversal errors with a novel text-change paradigm*. Poster presented at the 35<sup>th</sup> Annual Conference on Human Sentence Processing, Virtual, March 2022.
- Stoops, A., **Dempsey, J.**, & Christianson, K. *Syntactic predictability modulates parafoveal processing of morphology: evidence from word n and word n+1*. Poster presented at the 35<sup>th</sup> Annual Conference on Human Sentence Processing, Virtual, March 2022.
- Dempsey, J.** & Christianson, K. *Depends on the Context: A Bayesian Replication of Grodner, Gibson, & Watson (2005)*. Poster withdrawn due to COVID from the 62<sup>nd</sup> Annual Psychonomics Society Meeting, New Orleans, LA, November 2021.
- Christianson, K., Deshaies, S.E., Tsiola, A., & **Dempsey, J.** *Thematic Role Assignment in First- and Second-Pass Reading: Evidence from a Text-Change Paradigm*. Talk withdrawn due to COVID from the 62<sup>nd</sup> Annual Psychonomics Society Meeting, New Orleans, LA, November 2021.

- Dempsey, J.**, Tsiola, A., Stites, M., Bosch, N., & Christianson, K. *Assessing Eye Movement Scanpaths in Source Code Comprehension*. Poster presented at the Sandia Academic Alliance LDRD Virtual Poster Session, September 2021.
- Christianson, K., Tsiola, A., **Dempsey, J.**, & Deshaies, S.E. *“Did I read that right?” Thematic role assignment in first- and second-pass reading*. Talk given at the 27<sup>th</sup> Architectures and Mechanisms for Language Processing (AMLaP) Conference, Virtual, September 2021.
- Davis, N., **Dempsey, J.**, & Foutz, S. *Qualitative analysis of exhibit interactions between parents and children*. Poster presented at the 2021 Visitor Studies Association Annual Conference, Virtual, July 2021.
- Susberry, V., **Dempsey, J.**, & Christianson, K. *Accent bias and racial accents in academic comprehension*. Talk given at the 13<sup>th</sup> Annual Illinois Language and Linguistics Society Conference, University of Illinois at Urbana-Champaign, Virtual, February 2021.
- Dempsey, J.** & Christianson, K. *Does familiarity or repair drive syntactic adaptation?* Poster presented at the 61<sup>st</sup> Annual Psychonomics Society Meeting, Virtual, November 2020.
- Dempsey, J.**, Liu, Q., & Christianson, K. *Structural frequency and exposure: Don’t raise your expectations*. Poster presented at the 26<sup>th</sup> Architectures and Mechanisms for Language Processing (AMLaP) Conference, Virtual, September 2020.
- Dempsey, J.**, Barlaz, M., & Christianson, K. *Using Principal Component Analysis to Simplify Eye-Tracking Models*. Talk given at the 12<sup>th</sup> Annual Illinois Language and Linguistics Society Conference, University of Illinois at Urbana-Champaign, Urbana, IL, February 2020.
- Dempsey, J.**, Liu, Q., & Christianson, K. *Expect the unexpected: Syntactic adaptation and the rise of infrequency*. Poster presented at the 60<sup>th</sup> Annual Psychonomics Society Meeting, Montréal, QC, Canada, November 2019.
- Dempsey, J.**, Liu, Q., & Christianson, K. *Probabilistic cues do not rapidly facilitate prediction of relative-clause garden-path constructions*. Talk given at Psycholinguistics in Iceland: Parsing and Prediction, University of Iceland, Reykjavik, Iceland, June 2019.
- Dempsey, J.**, Liu, Q., & Christianson, K. *Convergent probabilistic cues do not trigger syntactic adaptation*. Poster presented at the 32<sup>nd</sup> CUNY Conference on Human Sentence Processing, University of Colorado-Boulder, Boulder, CO, March 2019.
- Tanner, D., **Dempsey, J.**, & Christianson, K. *Does attraction lead to systematic misinterpretation of NP number? Probably not*. Poster presented at the 31<sup>st</sup> CUNY Conference on Human Sentence Processing, University of California-Davis, Davis, CA, March 2018.
- Winter, S.B., Rizio, A.A., **Dempsey, J.**, Oktar, K., Diaz, M.T. *White Matter Integrity & Language Production in Aging*. Poster presented at the Society for Neurobiology of Language, Baltimore, M.D., November 2017.
- Dempsey, J.** & Brehm, L. *Biased reading & neutral representations: How presentation order of comprehension questions alters reading strategies without influencing final representations*. Poster presented at the 58<sup>th</sup> Annual Psychonomics Society Meeting, Vancouver, BC, Canada, November 2017.
- Dempsey, J.**, Christianson, K., & Tanner, D. *Misrepresentations of plurality in late processing: Evidence from self-paced reading*. Poster presented at the 29<sup>th</sup> CUNY Conference on Human Sentence Processing, University of Florida, Gainesville, FL, March 2016 & at the 8<sup>th</sup> Annual Illinois Language and Linguistics Society Conference, University of Illinois at Urbana-Champaign, Urbana, IL, April 2016.

Ross, D., Grunow, R., Lac, K., Jabbour, G., & Dempsey, J. *Serial Verb Constructions: A distributional and typological perspective*. Talk given at the 7<sup>th</sup> Annual Illinois Language and Linguistics Society Conference, University of Illinois at Urbana-Champaign, Urbana, IL, April 2015.

## Peer Review Service

*Journal of Memory and Language*

*Computer Assisted Language Instruction Consortium (CALICO) Journal*

*Generative Approaches to Second Language Acquisition (GASLA16) Proceedings*

*International Society of the Learning Sciences Annual Meeting 2022*

*Journal of Experimental Psychology: General*

*Journal of Experimental Psychology: Learning, Memory, and Cognition*

*Journal of Neurolinguistics*

*Quarterly Journal of Experimental Psychology*

## Special Courses & Certificates

**Certificate in Foundations of User Experience (UX) Design**

**October 2022**

Awarded by Google through Coursera

**Undergraduate Mentoring Certificate**

**May 2022**

Awarded by the University of Illinois Graduate College

**Fifth Summer School on Statistical Methods for Linguistics and Psychology**

**September 2021**

Advanced Bayesian Data Analysis – Taught by Dr. Bruno Nicenboim

**Fourth Summer School on Statistical Methods for Linguistics and Psychology**

**September 2020**

Introduction to Bayesian Regression Modeling with brms – Taught by Dr. Shravan Vasishth

## Grants, Fellowships, Awards & Honors

**Hardie Dissertation Award - \$1,999**

**April 2021**

*An eye-tracking investigation into the role of contextual biases in the resolution of attachment ambiguities*

College of Education, University of Illinois at Urbana-Champaign

**Campus Research Board Grant - \$22,514**

**August 2019-May 2020**

*Too good to be true? A critical test of rapid syntactic adaptation*

PI: Dr. Kiel Christianson

Campus Research Board, University of Illinois at Urbana-Champaign

**Top Abstract Award**

**April 2016**

ILLS 8 Conference at the University of Illinois, Urbana, IL

## Organizations & Committees

<b>Spark Society Member</b>	<b>2022-Present</b>
<b>Psychonomic Society Member</b> <i>(Prior: Student Member)</i>	<b>2022-Present</b> <i>2017-2022</i>
<b>Society for the Scientific Study of Reading</b> Member	<b>2022-Present</b>
<b>College of Education Academic Programs Committee</b> Graduate Student Member	<b>AY 2021-2022</b>
<b>Educational Psychology Mixed Methods Specialization Committee</b> Graduate Student Member	<b>AY 2020-2021</b>
<b>Illinois Language &amp; Linguistics Society Conference Planning Committee</b> Invited Speaker Liaison & Reviewer	<b>AY 2018-2019; 2019-2020</b>