

JACK DEMPSEY, PHD

PSYCHOLINGUIST - EDUCATIONAL PSYCHOLOGIST – DATA SCIENTIST

www.Jack-Dempsey.com – jkdemps2@illinois.edu

Professional Roles

Director of Research at Cascade Reading Remote, Based in Minneapolis, MN	March 2021-Present
Affiliate Lecturer of Educational Psychology University of Illinois at Urbana-Champaign	January 2022-Present
Lab Manager at The Center for Language Science The Pennsylvania State University	August 2016-August 2017

Education

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 <i>with Departmental Distinction</i> 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

2024

Dempsey, J., Christianson, K., & Van Dyke, J. A. (2024). Linguistically-driven text formatting improves reading comprehension for ELLs and EL1s. *Reading and Writing*, 1-22.

Colclasure, B. C., Bose, E., **Dempsey, J.**, & Ruth, T. K. (in press). A Midwest perspective on biochar integration in extension services. *Journal of Human Sciences and Extension*.

Christianson, K., **Dempsey, J.**, Tsiola, A., Deshaies, S. E. M., & Kim, N. (2024). Retracing the garden-path: Nonselective rereading and no reanalysis. *Journal of Memory and Language*, 137, 104515.

2023

Dempsey, J., Tsiola, A., & Christianson, K. (2023). Eye-tracking evidence from attachment structures favors a serial model of discourse-sentence interactivity. *Discourse Processes*, 60(9), 613-633.

Dempsey, J., Tsiola, A., Chantavarin, S., Ferreira, F., & Christianson, K. (2023). Nonce word evidence for the misinterpretation of implausible events. *Journal of Cognitive Psychology*, 1-19.

Dempsey, J., Liu, Q., & Christianson, K. (2023). Syntactic adaptation leads to updated knowledge for local structural frequencies. *Quarterly Journal of Experimental Psychology*, 77(2) 363-382.

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

"Factors relating to agriculture teachers' perceived use of instructional methods"

Owl Pellets: Tips for Ag Teachers Podcast

July 2023

"Professional Development Workshop on Industry Jobs"

University of Illinois Second Language Acquisition & Teacher Education Workshop

October 2022

"A practical introduction to Bayesian mixed models for experimental research"

University of Illinois Second Language Acquisition & Teacher Education Workshop

September 2021

“Programming psycholinguistics experiments in (New) Ibex Farm”

April 2021

University of Illinois Exp-Ling Group

“Misinterpretations & good-enough processing: A road down the garden path”

November 2020

University of California-Riverside – LING 162/PSYC 128: Language and the Brain

“Ibex Farm & Mechanical Turk”

December 2019

University of Illinois Second Language Acquisition & Teacher Education Workshop

Refereed Presentations & Conference Publications

Dempsey, J. & Christianson, K. *Differential online and offline effects of misparse plausibility influence post-interpretive representations*. Poster presented at the 37th Annual Conference on Human Sentence Processing, Ann Arbor, MI, May 2024.

Dempsey, J., Christianson, K., & Van Dyke, J. *Improving reading comprehension using Cascade Reading: A linguistically-driven text formatting algorithm*. Talk given at the Computer Assisted Language Instruction Consortium 2024 Conference, Pittsburgh, PA, May 2024.

Dempsey, J., Christianson, K., & Van Dyke, J. *Linguistically-driven text formatting improves reading comprehension for English language learners*. Talk given at American Association for Applied Linguistics 2024 Conference, Houston, TX, March 2024.

Dempsey, J. *Exploring Cascade Reading: Improving reading comprehension and syntactic knowledge in the classroom with a linguistically-driven text formatting tool*. Talk given at the Midwest Association for Language Learning Technology Conference, Milwaukee, WI, March 2024.

Christianson, K., **Dempsey, J.**, Goldshtein, M., & Brehm, L. *A proposed unification of Good-Enough and Noisy Channel Language Processing approaches*. Poster presented at the 23rd Conference Of the European Society for Cognitive Psychology, Porto, Portugal, Sept 6-9, 2023.

Christianson, K., Valderrama, L., Deshaies, S.E., Chen, D., & **Dempsey, J.** *Auditory Perceptual Simulation (APS) aids recovery from garden-paths*. Poster presented at the 29th Architectures and Mechanisms for Language Processing (AMLaP) Conference, San Sebastian, Spain, September 2023.

Christianson, K., Valderrama, L., Chen, D., & **Dempsey, J.** *Auditory Perceptual Simulation (APS): Psycholinguistic effects, pedagogical aspirations*. Talk given at the 36th 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 63rd 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 63rd 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 28th 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 28th 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*. 29th 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*. 29th 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 35th 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 35th 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 35th 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 35th 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 62nd 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 62nd 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 27th 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 13th 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 61st 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 26th 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 12th 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 60th 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 32nd 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 31st 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 58th 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 29th CUNY Conference on Human Sentence Processing, University of Florida, Gainesville, FL, March 2016 & at the 8th 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 7th Annual Illinois Language and Linguistics Society Conference, University of Illinois at Urbana-Champaign, Urbana, IL, April 2015.

Peer Review Service

Reviewer: *Applied Psycholinguistics*

Review Editor: *Frontiers in Language Sciences*

Reviewer: *Languages*

Reviewer: *Journal of Memory and Language*

Reviewer: *Computer Assisted Language Instruction Consortium (CALICO) Journal*

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

Reviewer: *International Society of the Learning Sciences Annual Meeting 2022*

Reviewer: *Journal of Experimental Psychology: General*

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

Reviewer: *Journal of Neurolinguistics*

Reviewer: *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

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

Computer-Assisted Language Instruction Consortium (CALICO) Member	2023-Present
Spark Society Member	2022-Present
Psychonomic Society Member	2017-Present
Society for the Scientific Study of Reading Member	2022-Present
College of Education Academic Programs Committee Graduate Student Member	AY 2021-2022
Educational Psychology Mixed Methods Specialization Committee Graduate Student Member	AY 2020-2021
Illinois Language & Linguistics Society Conference Planning Committee Invited Speaker Liaison & Reviewer	AY 2018-2019; 2019-2020