

Laurel Ellen Brehm

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Research Interests: Psycholinguistics; Sentence Production; Sentence Processing; Meta-Science

Teaching Interests: Psycholinguistics, Research Methods, Statistics

Education

University of Illinois, PhD 2014, MA 2011 (Cognitive Psychology, minor in Linguistics)

Advisor: Kathryn Bock

Reed College, BA 2008 (Psychology, minor in Biology)

Advisors: Enriqueta Canseco-Gonzalez, Kyle Chambers

Work Experience

Assistant Professor

July 2022-present

University of California, Santa Barbara, Department of Linguistics

Senior Investigator

January 2021-March 2022

MPI for Psycholinguistics, Psychology of Language Department

Research Cluster Leader: *Juggling Act: Language and Cognitive Processes*

Research Scientist

September 2017-December 2020

MPI for Psycholinguistics, Psychology of Language Department

Postdoctoral Fellow

August 2016-August 2017

Pennsylvania State University, Center for Language Science

Advisors: Carrie Jackson, Karen Miller

Postdoctoral Fellow

September 2014-July 2016

Northwestern University, Department of Linguistics

Advisor: Matt Goldrick

Research Assistant

August 2008-July 2009

Moss Rehabilitation Research Institute

Advisors: Myrna Schwartz, Malathi Thothathiri

Grants

MRPI Pilot Grant, University of California (Co-investigator)

2025

Faculty Research Grant, UCSB.

2023

Sponsor of EPS Student Travel Grant (to Sophie Hardy).

2019

Levelt Innovation Grant, MPI for Psycholinguistics.

2019

UIUC NIH Language Processing Training Grant (fellowship awardee).

2012

Reed College A. V. Davis Foundation Initiative Grant.

2007

Honors and Awards

APS Division 3 Best Psychonomics Poster finalist.

2015

Cognitive Science/Artificial Intelligence Award, Beckman Institute, UIUC.

2014

Illinois Language and Linguistic Society Conference, Best Abstract.

2014

University of Illinois Cognitive Psychology teaching award.

2013

Nominated for UIUC Psychology teaching award.

2011, 2012

Ranked "Outstanding TA" at UIUC (Top 10% of TAs across campus).

2011

Courses

UCSB: Ling 127: Psychology of language; Ling 125: Neurolinguistics; Ling 226: Cognitive foundations of language;

Ling 211: Experimental methods in linguistics.

Previously: Statistical methods; Mixed effect models for psychology and language science; Peer review.

Publications

Italics indicate student collaborator.

Zhong, Y., Todd, S.J., Gries, S.T. & **Brehm, L.** (in press). Metacognition of Frequency, Directional Association Strength, and Dispersion of MWEs. *Studies in Second Language Acquisition*

Zhong, Y., Todd, S.J., Xu, N. & **Brehm, L.** (in press). Evaluating LLMs as Proxies for Humans in Psycholinguistic Ratings: A Comparison of Statistical Knowledge. *Research Methods in Applied Linguistics*

Brehm, L., Kennis, N., & Bergmann, C., (2025). When is a ranana a banana? Disentangling the mechanisms of error repair and word learning. *Language, Cognition and Neuroscience*, 1–21. <https://www.tandfonline.com/doi/pdf/10.1080/23273798.2025.2463082>

- Tooley, K., & **Brehm, L.** (2025). Putting the prime in priming: Using prime processing behavior to predict target structural processing. *Psychonomic Bulletin & Review*, 1-12. <https://link.springer.com/article/10.3758/s13423-025-02643-3>
- He, J., Frances, C., Creemers, A., & **Brehm, L.** (2024). Effects of irrelevant unintelligible and intelligible background speech on spoken language production. *Quarterly Journal of Experimental Psychology*, 77(8), 1745-1769 <https://journals.sagepub.com/doi/pdf/10.1177/17470218231219971>
- Zormpa, E, Meyer, A.S. & **Brehm, L.** (2023). In conversation, answers are remembered better than the questions themselves. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 49(2), 1971-1988. <https://doi.org/10.1037/xlm0001292>
- Mickan, A., McQueen, J., **Brehm, L.**, & Lemhöfer, K. (2023). Individual differences in foreign language attrition: The role of language use after a study abroad. *Language, Cognition, and Neuroscience*, 38(1), 11-39. <https://doi.org/10.1080/23273798.2022.2074479>
- He, J., **Brehm, L.**, & Zhang, Q. (2022). Dissociation of writing processes: A functional MRI study on the neural substrates for the handwriting of Chinese characters. *Journal of Cognitive Neuroscience*, 1-21. https://doi.org/10.1162/jocn_a_01911
- Brehm, L.** & Alday, P. (2022). Contrast coding choices in a decade of mixed models. *Journal of Memory and Language*, 125, 104334. <https://tinyurl.com/4udurp85>
- Brehm, L.**, Cho, P.W., Smolensky, P. & Goldrick, M. (2022). PIPS: A parallel planning model of sentence production. *Cognitive Science*, 46(2), e13079. <https://onlinelibrary.wiley.com/doi/pdf/10.1111/cogs.13079>
- Brehm, L.** & Meyer, A.S. (2021). Planning when to say: Dissociating cue use in utterance initiation using cross-validation. *Journal of Experimental Psychology: General*, 150(9), 1772-1799. <https://tinyurl.com/45vw2hnf>
- He, J., Meyer, A.S, Creemers, A. & **Brehm, L.** (2021). Conducting language production research online: A web-based study of semantic context and name agreement effects in multi-word production. *Collabra: Psychology*, 7(1): 29935. <https://tinyurl.com/yxaakatm>
- He, J., Meyer, A.S, & **Brehm, L.** (2021). Concurrent listening affects speech planning and fluency: The roles of representational similarity and capacity limitation. *Language, Cognition, and Neuroscience*, 36(10), 1258-1280. <https://tinyurl.com/5aubt6xp>
- Brehm, L.**, Jackson, C., & Miller, K. (2021). Probabilistic online processing of sentence anomalies. *Language, Cognition, and Neuroscience*, 36(8), 959-983. <https://tinyurl.com/bmfcuzs8>
- 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. <https://tinyurl.com/6b22jrzy>
- Brehm, L.**, Hussey, E., & Christianson, K. (2020). The role of word frequency and morpho-orthography in agreement processing. *Language, Cognition, and Neuroscience*, 35(1), 58-77. <https://tinyurl.com/uprxnf4s>
- Kim, N., **Brehm, L.**, Sturt, P., & Yoshida, M. (2020). How long can you hold the filler: Maintenance and retrieval. *Language, Cognition, and Neuroscience*, 35(1), 17-42. <https://tinyurl.com/jskyzkme>
- Brehm, L.**, Taschenberger, L., & Meyer, A. S. (2019). Mental representations of partner task cause interference in picture naming. *Acta Psychologica*, 199:102888. <https://tinyurl.com/tuvbmnuw>
- Zormpa, E., **Brehm, L.**, Hoedemaker, R. S., & Meyer, A.S. (2019). The production effect and the generation effect improve memory in picture naming. *Memory*, 27(3), 340-352. <https://tinyurl.com/6hk37bvy>
- Zormpa, E., Meyer, A.S., & **Brehm, L.** (2019). Slow naming of pictures facilitates memory for their names. *Psychonomic Bulletin & Review*, 26(5), 1657-1682. <https://tinyurl.com/2w2btvn8>
- Kim, N., **Brehm, L.**, & Yoshida, M. (2019). The online processing of noun phrase ellipsis and mechanisms of antecedent retrieval. *Language, Cognition, and Neuroscience*, 34(2), 190-213. <https://tinyurl.com/82vdp4uz>
- Brehm, L.**, Jackson, C., & Miller, K. (2019). Speaker-specific processing of anomalous sentences. *Quarterly Journal of Experimental Psychology*, 72(4), 764-778. <https://tinyurl.com/39btz5ba>
- Jackson, C., Mormer, E., & **Brehm, L.** (2018). The production of subject-verb agreement among Swedish and Chinese second language speakers of English. *Studies in Second Language Acquisition*, 40(4), 907-921. <https://tinyurl.com/9arvmrzp>
- Brehm, L.**, & Goldrick, M. (2017). Distinguishing discrete and gradient category structure in language: Insights from verb-particle constructions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 43(10), 1537-1556. <https://tinyurl.com/97r268vn>
- Grieco-Calub, T., Ward, K.M., & **Brehm, L.** (2017). Multitasking during degraded speech recognition in school-age children. *Trends in Hearing*, 21, 1-14. <https://tinyurl.com/vfau49df>
- Brehm, L.**, & Bock, J.K. (2017). Referential and lexical forces in number agreement. *Language, Cognition, and Neuroscience*, 32, 129-146. <https://tinyurl.com/dvzs756p>

- Tanner, D., Nicol, J., & **Brehm, L.**, (2014). The time-course of feature interference in agreement comprehension: Multiple mechanisms and asymmetrical attraction. *Journal of Memory and Language*, 76, 195-215. <https://tinyurl.com/37zhhr9n>
- Brehm, L.**, & Bock, J.K. (2013). What counts in grammatical number agreement? *Cognition*, 128, 149-169. <https://tinyurl.com/967vs6mm>
- Canseco-Gonzalez, E., **Brehm, L.**, Brick, C., Brown-Schmidt, S., Fischer, K., & Wagner, K. (2010). Carpet or cárcel? Effects of age of acquisition and language mode on lexical access. *Language and Cognitive Processes*, 25, 669-705. <https://tinyurl.com/72jfupan>

Proceedings, Editorials, and Chapters

- Varatharaj, A.*, Read, J.C., Horton, M., Lochrie, M., & **Brehm, L.**. (2024). Children as evaluators: Understanding emotion language acquisition *Proceedings of ACM Interaction, Design, and Children conference*
- Zhukova, M.*, & **Brehm, L.** (2024) How do GenZ speakers use and process emoji in chatbot conversations: An eye-tracking study. *Proceedings of the Linguistic Society of America*
- Brehm, L.** (2023). What's an error anyway? Speaker- and listener-centered approaches to studying language errors. *Psychology of Learning and Motivation*. <https://www.sciencedirect.com/science/article/pii/S0079742123000014>
- Meyer, A.S., Roelofs, A., & **Brehm, L.** (2019). Thirty years of Speaking: An introduction to the special issue. *Language, Cognition and Neuroscience*. <https://tinyurl.com/6rfuwyhu>
- Brehm, L.**, Jackson, C.N., & Miller, K.L. (2019). Incremental interpretation in the first and second language. BU-CLD 43 Proceedings. <https://tinyurl.com/wdbuw9z4>
- Goldrick, M., **Brehm, L.**, Pyeong Whan, C., & Smolensky, P. (2019). Transient blend states and discrete agreement-driven errors in sentence production. In G. J. Snover, M. Nelson, B. O'Connor, & J. Pater (Eds.), *Proceedings of the Society for Computation in Linguistics (SCiL 2019)*. <https://tinyurl.com/4k8t2yej>
- Brehm, L.** & Goldrick, M. (2018). Connectionist principles in theories of speech production. In S.-A. Rueschemeyer, & M. G. Gaskell (Eds.), *The Oxford Handbook of Psycholinguistics* (2nd ed., pp. 372-397). Oxford: Oxford University Press. <https://tinyurl.com/cwyfnecm>
- Brehm, L.** & Goldrick, M. (2016). Empirical and conceptual challenges for neurocognitive theories of language production. *Language, Cognition, and Neuroscience*, 31, 504-507. <https://tinyurl.com/j6h6b4ff>

Software

- Brehm, L.** (2020). *Adding fixed effects programmatically in Julia*. Contribution to workshop on Mixed Models in the Julia Programming Language, ZiF Bielefeld, Germany. <https://repsychling.github.io/addFixef.html>
- Fraundorf, S.H., Diaz, M.I., Finley, J.R., Lewis, M.L., Tooley, K.M., Isaacs, A.M., Lam, T.Q., Trude, A.M., Brown-Schmidt, S., & **Brehm, L.** (2014). *CogToolbox for MATLAB*. Retrieved from <http://www.scotttfraundorf.com/cogtoolbox.html>

Society Memberships: Psychonomic Society (Fellow); Women in Cognitive Science; Human Sentence Processing; Linguistic Society of America

Professional Service

- Editorial Board:* Journal of Experimental Psychology: Learning, Memory, and Cognition.
- Grant Reviewing:* British Academy Leverhulme Small Research Grants; Deutsche Forschungsgemeinschaft (DFG); National Science Foundation (NSF)
- Conference Reviewing:* Conference on Human Sentence Processing/CUNY; AMLaP; AMLaP Asia; Cognitive Science; California Area Meeting on Psycholinguistics (CAMP)
- Conference and Workshop organization:* International Workshop on Language Production (elected committee member 2023-); CAMP[8] (2025); MPI for Psycholinguistics Diversity Workshop (2019); International Workshop on Language Production (2018); Pennsylvania State University Language and Linguistics Day (2017)

Student Committee Membership

- PhD** Ashvini Varatharaj (Co-chair), Marina Zhukova, Chadi Ben Youssef, Jieying He (Co-chair), Chen Shen, Theresa Redl, Eirini Zormpa (Co-chair), Mathias Barthel, Nayoun Kim
- Publishable Paper / Qualifying Project** Yanlu Zhong (Chair), Ashvini Varatharaj (Co-chair), Chadi Ben Youssef, Sherry Chien
- MA** Montreal Benesch (Chair), René Boye (Chair), Ashvini Varatharaj, Linda Taschenberger
- BA Theses** Yoselin Carranza, Jocelyn Fernandez, Elisa Roberts, Bethany Clements, Monserrat Lupian, Neil Shook, Benjamin Carter