

Jeffrey C. Zemla

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Education

2015	PhD in Psychology, Rice University, Houston, TX
2011	MA in Psychology, Rice University, Houston, TX
2007	BA in Psychology/Linguistics, Rutgers University, New Brunswick, NJ

Professional Experience

2017-present	University of Wisconsin-Madison, Psychology Department, Madison, WI <i>Assistant Scientist</i>
2014-2016	Brown University Department of Cognitive, Linguistic, and Psychological Sciences, Providence, RI <i>Post-doctoral Research Associate</i>
2011-2012	Virginia Tech Carilion Research Institute, Roanoke, VA <i>Research Associate</i>
2008-2009	Princeton University, Psychology Department, Princeton, NJ <i>Research Assistant</i>

Grants and Awards

- Computation and Information in Biology and Medicine Postdoctoral Fellowship (2019–current)
- National Institutes of Health – NIA 1 R21 AG053467 (2016–2019)
Computational modeling of semantic decline in Alzheimer’s disease (\$406,250 over two years)
Role: PI (with Joseph Austerweil)
- UW-Madison Alzheimer’s Disease and Related Disorders Research Day Best Abstract (2018)
- MathPsych/ICCM Post-doc Travel Award (2017)
- Gertrude Maurin Travel Award (2014)
- Rice University Social Science Research Initiative Pre-Dissertation Research Grant (2012)
- Runner-up, Hillel Einhorn New Investigator Award, Society of Judgment and Decision Making (2010)
- Rice University Graduate Student Fellowship (2009–2014)

Journal Publications

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| 2019 | Zemla, J. C., Cao, K., Mueller, K. D., & Austerweil, J. L. (in press). SNAFU: The semantic network and fluency utility. Submitted to <i>Behavior Research Methods</i> . |
| | Zemla, J. C., & Austerweil, J. L. (2019). Analyzing knowledge retrieval impairments associated with Alzheimer's disease using network analyses. <i>Complexity</i> , 2019, 1–12. |
| 2018 | Zemla, J. C., & Austerweil, J. L. (2018b). Estimating semantic networks of groups and individuals from fluency data. <i>Computational Brain & Behavior</i> , 1(1), 36–58. |
| 2017 | Zemla, J. C., Sloman, S., Bechlivanidis, C., & Lagnado, D. A. (2017). Evaluating everyday explanations. <i>Psychonomic Bulletin & Review</i> , 24(5), 1488–1500. |
| | Bechlivanidis, C., Lagnado, D., Zemla, J. C., & Sloman, S. A. (2017). Concreteness and abstraction in everyday explanation. <i>Psychonomic Bulletin & Review</i> , 24(5), 1451–1464. |
| 2015 | Zemla, J. C., Tossell, C. C., Kortum, P., & Byrne, M. D. (2015). A Bayesian approach to predicting website revisitation on mobile phones. <i>International Journal of Human-Computer Interaction</i> , 83, 43–50. |
| 2010 | Alter, A. L., Oppenheimer, D. M., & Zemla, J. C. (2010). Missing the trees for the forest: A construal level account of the illusion of explanatory depth. <i>Journal of Personality and Social Psychology</i> , 99(3), 436–451. |

Unpublished Manuscripts

Manuscripts are available upon request

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| In revision | Zemla, J. C., Sloman, S., Bechlivanidis, C., & Lagnado, D. A. (under revision). Not so simple! Mechanisms increase preference for complex explanations. |
| In prep | Mueller, K. D., Allison, S. L., Kosciak, R. L., Jonaitis, E., Christian, B. T., Betthausen, T. J., . . . Johnson, S. C. (in prep). Verbal fluency measures are associated with Alzheimers disease biomarkers in late-middle-aged cognitively unimpaired adults. |
| | Lange, K. V., Hopman, E. W., Zemla, J. C., & Austerweil, J. L. (in prep). Evidence Against the Bilingual Advantage for Creativity and the Semantic Network Theory of Creativity. |
| | Gronchi, G., & Zemla, J. C. (in prep). Cognitive style predicts magical beliefs. |

Refereed Conference Proceedings

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| 2019 | Payton, M., Zemla, J. C., & Austerweil, J. L. (2019). Subjective randomness in a non-cooperative game. In <i>Proceedings of the 41st Annual Conference of the Cognitive Science Society</i> (pp. 2544–2549). Austin, TX: Cognitive Science Society. |
| 2017 | Gronchi, G., Zemla, J. C., & Brondi, M. (2017). Cognitive style predicts magical beliefs. In <i>Proceedings of the 39th Annual Conference of the Cognitive Science Society</i> (pp. 2138–2143). Austin, TX: Cognitive Science Society. |
| | Zemla, J. C., & Austerweil, J. L. (2017c). Modeling semantic fluency data as search on a semantic network. In <i>Proceedings of the 39th Annual Conference of the Cognitive Science Society</i> (pp. 3646–3651). Austin, TX: Cognitive Science Society. |

- 2016 Zemla, J. C., Kenett, Y. N., Jun, K.-S., & Austerweil, J. L. (2016). U-INVITE: Estimating individual semantic networks from fluency data. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 1907–1912). Austin, TX: Cognitive Science Society.
- Zemla, J. C., Steiner, S. M., & Sloman, S. (2016). Analytical thinking predicts less teleological reasoning and religious belief. In *Proceedings of the 38th Annual Conference of the Cognitive Science Society* (pp. 1217–1222). Austin, TX: Cognitive Science Society.
- 2011 Zemla, J. C., Ustun, V., Byrne, M. D., Kirlik, A., Riddle, K., & Alexander, A. L. (2011). An ACT-R model of commercial jetliner taxiing. In *Proceedings of the 55th Annual Human Factors and Ergonomics Society* (pp. 831–835). Santa Monica, CA: Human Factors and Ergonomics Society.

Book Chapters

- 2019 Sloman, S., Zemla, J. C., Lagnado, D., Bechlivanidis, C., & Hemmatian, B. (2019). Are humans intuitive philosophers? In S. R. Grimm (Ed.), *Varieties of understanding: New perspectives from philosophy, psychology, and theology* (pp. 231–250). New York, NY: Oxford University Press.

Invited talks

- 2018 Zemla, J. C. (2018, November). *Comparison of semantic networks in Alzheimer’s patients and controls*. Invited talk presented at the Society for Mathematical Psychology satellite meeting at Psychonomics, New Orleans, LA.
- Zemla, J. C., & Austerweil, J. L. (2018c, March). *Modeling semantic fluency data in Alzheimer’s patients*. Invited talk presented at the 2018 Alzheimer’s Disease and Related Disorders Research Day, Madison, WI.

Talk and Poster Presentations

- 2019 Zemla, J. C. (2019, June). *Alzheimer’s disease biomarkers associated with semantic fluency performance*. Talk presented at the National Library of Medicine Informatics Training Conference, Indianapolis, IN.
- Castro, N., & Zemla, J. C. (2019, March). *The stability (and instability) of semantic category networks across adulthood*. Poster presented at the International Convention of Psychological Science (ICPS), Paris, France.
- 2018 Zemla, J. C., & Austerweil, J. L. (2018a, November). *Comparison of semantic networks in Alzheimer’s patients and controls*. Poster presented at the Annual 59th Psychonomics Society, New Orleans, LA.
- Zemla, J. C., & Austerweil, J. L. (2018e, October). *Modeling semantic fluency data in Alzheimer’s patients*. Poster presented at the 17th CIBM Training Program Annual Retreat, Madison, WI.
- Zemla, J. C., & Austerweil, J. L. (2018d, March). *Modeling semantic fluency data in Alzheimer’s patients*. Poster presented at the 2018 Alzheimer’s Disease and Related Disorders Research Day, Madison, WI.
- Zemla, J. C., & Austerweil, J. L. (2018f, July). *A model of Alzheimer’s patients perseverating perseverating in semantic fluency data*. Talk presented at the 51st Annual Meeting of the Society for Mathematical Psychology.

- 2017 Zemla, J. C., & Austerweil, J. L. (2017e, April). *SNAFU: A tool for analyzing semantic networks and fluency data*. Poster presented at the 1st Annual Science of Successful Aging Summit, Madison, WI.
- Zemla, J. C., & Austerweil, J. L. (2017a, June). *Estimating networks from censored random walk data*. Poster presented at the 2017 International Conference on Network Science.
- Zemla, J. C., & Austerweil, J. L. (2017b, July). *Estimating semantic networks from fluency data*. Talk presented at the 50th Annual Meeting of the Society for Mathematical Psychology.
- Zemla, J. C., & Austerweil, J. L. (2017d, November). *Modeling semantic fluency data in Alzheimer's patients*. Poster presented at the Annual 58th Psychonomics Society, Vancouver, BC, Canada.
- 2016 Zemla, J. C., & Sloman, S. (2016b, August). *The role of mechanistic information in explanatory preference*. Talk presented at the 16th International Conference on Thinking, Providence, RI.
- Zemla, J. C., & Sloman, S. (2016a, November). *Mechanisms affect preference for simple explanations*. Poster presented at the Annual 57th Psychonomics Society, Boston, MA.
- 2015 Zemla, J. C., Sloman, S. A., Lagnado, D., & Bechlivanidis, C. (2015a, June). *Evaluating explanations*. Talk presented at the Varieties of Understanding Midpoint Conference, New York, NY.
- Zemla, J. C., Sloman, S. A., Lagnado, D., & Bechlivanidis, C. (2015b, November). *Evaluating explanations: What makes a good explanation?* Talk presented at the Annual 56th Psychonomics Society, Chicago, IL.
- 2014 Zemla, J. C., & Wang, S. (2014, June). *Assessing CAPTCHA usability with signal detection theory*. Talk presented at the Southwest Regional Human Factors and Ergonomics Society, College Station, TX.
- Zemla, J. C., & Byrne, M. D. (2014, November). *Feedback and block length facilitate adoption of a more optimal speed-accuracy tradeoff policy*. Poster presented at the 33rd Society for Judgement and Decision Making, Long Beach, CA.
- 2012 Zemla, J. C., Lisinski, J., & LaConte, S. (2012, June). *Performance feedback engages attention, boosts task SNR, and enhances pattern classification*. Poster presented at the Organization for Human Brain Mapping, Beijing, China.
- 2011 Byrne, M. D., Zemla, J. C., Kirlik, A., Riddle, K., & Alexander, A. L. (2011). A human performance model of commercial jetliner taxiing. In *Proceedings of the 16th International Symposium on Aviation Psychology* (pp. 209–214). Dayton, OH.

Teaching Assistantships & Lecturing

Duties include: grading^G, guest lectures^L, office hours^O, exam/homework construction^E, and hosting recitation^R

- Advanced Psychological Statistics I (graduate-level course; Fall 2013)^{GO}
- Introduction to Psychology (Spring 2013)^{GOE}
- Statistical Methods in Psychology (Fall 2012)^{GOR}
- Introduction to Social Psychology (Spring 2011)^{GO}
- Introduction to Cognitive Psychology (Spring 2010, Spring 2011, Spring 2014)^{GLOE}
- Human and Machine Learning (Fall 2015)^L

Service

- Ad-hoc reviewer (journals): Acta Psychologica, Cognition, Complexity, Current Directions in Psychological Science, Journal of Gerontology: Psychological Sciences, Journal of Learning and Instruction, Journal of Personality and Social Psychology, PeerJ, Psychonomic Bulletin & Review
- Ad-hoc reviewer (conferences): CogSci, CHI, SJDM
- Mentor undergraduate research assistants: Evelyn Bai, Kethural Manokaran, Daniela Lopez, Samantha Steiner, Kenneth Peluso, Kesong Cao, Sophie Sandweiss
- National Science Foundation, Reviewer (2019)
- External reviewer for the Swiss National Science Foundation

Open Science

Software	<p>SNAFU (Semantic Network and Fluency Utility)</p> <p>SNAFU is a Python library and stand-alone tool designed to help researchers analyze their verbal fluency data using traditional measures (e.g., cluster switches), and to estimate networks from their data (Zemla & Austerweil, 2018).</p> <p>http://alab.psych.wisc.edu/snafu https://github.com/AusterweilLab/snafu-py</p> <p>Jarjar</p> <p>Jarjar is a Python library and command-line tool that allows you to programmatically send your team Slack notifications when your scripts are done running. For example if you have a model that takes hours to run, you can use Jarjar to send yourself updates and catch any errors as they occur.</p> <p>https://github.com/AusterweilLab/jarjar</p>
Data	<p>OSF.io</p> <p>I use OSF.io to host both raw data (when permitted) and analysis code for all first-author publications.</p> <p>Profile: https://osf.io/s2r5w/</p>

Technical Skills

Web	JavaScript, HTML, CSS, PHP, SQL
Programming	Python, R, MATLAB, Bash, Lisp, C++
Software tools	git, TeX TeX, NW.js, SPSS, AFNI, HTCCondor