Ben Prystawski

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Education

Stanford University Ph.D. in Psychology, Advisor: Noah Goodman University of Toronto B.Sc. in Computer Science and Cognitive Science, GPA: 4.0/4.0 Employment Max Planck Institute for Intelligent Systems

Research Intern, Rationality Enhancement Group Advisor: Falk Lieder	Summer 2020	
University of Toronto Research Intern, Cognitive Lexicon Lab, Department of Computer Science Advisor: Yang Xu	Toronto, Canada Summer 2019	
Teaching Assistantships		
Minds and Machines, Prof. Jiajun Wu SYMSYS 1	Winter 2025	
Foundations of Cognition, Prof. Noah Goodman	Spring 2024	

PSYCH 205 Experimental Methods, Prof. Michael Frank

PSYCH 251 Probabilistic Models of Cognition: Learning and Reasoning, Prof. Noah Goodman Spring 2023 PSYCH 220A/CS 428A Autumn 2022

Experimental Methods, Prof. Michael Frank PSYCH 251

PUBLICATIONS

- Boyce, V., Prystawski, B., Tan, A., & Frank, M. C. (2025). Idiosyncratic but not opaque: Linguistic conventions formed in reference games are interpretable by naïve humans and vision-language models. Proceedings of the 47th Annual Conference of the Cognitive Science Society.
- Prystawski, B., & Goodman, N. D. (2025). Thinking fast, slow, and everywhere in between in humans and language models. Proceedings of the 47th Annual Conference of the Cognitive Science Society.
- *Wurgaft, D., *Prystawski, B., Gandhi, K., Zhang, C. E., Tenenbaum, J. B., & Goodman, N. D. (2025). Scaling up the think-aloud method. Proceedings of the 47th Annual Conference of the Cognitive Science Society.
- Boyce, V., Prystawski, B., Abutto, A. B., Chen, E. M., Chen, Z., Chiu, H., Ergin, I., Gupta, A., Hu, C., Kemmann, B., Klevak, N., Lua, V. Y. Q., Mazzaferro, M. M., Mon, K., Ogunbamowo, D., Pereira, A., Troutman, J., Tung, S., Uricher, R., & Frank, M. C. (2024). Estimating the replicability of psychology experiments after an initial failure to replicate. Collabra: Psychology, 10(1).
- Prystawski, B., Arumugam, D., & Goodman, N. D. (2023). Cultural reinforcement learning: A framework for modeling cumulative culture on a limited channel. Proceedings of the 45th Annual Conference of the Cognitive Science Society, 526–533.

Stanford, California, USA 2021-2026 (expected)

> Toronto, Canada 2017-2021

Tübingen, Germany

Autumn 2023

- Prystawski, B., Li, M., & Goodman, N. (2023). Why think step by step? Reasoning emerges from the locality of experience. Advances in Neural Information Processing Systems (Oral), 36.
- Prystawski, B., Thibodeau, P., Potts, C., & Goodman, N. D. (2023). Psychologically-informed chain-of-thought prompts for metaphor understanding in large language models. *Proceedings of the 45th Annual Conference of the Cognitive Science Society*, 2311–2317.
- Singhi, N., Mohnert, F., Prystawski, B., & Lieder, F. (2023). Toward a normative theory of (self-) management by goal-setting. Proceedings of the 45th Annual Conference of the Cognitive Science Society, 748–754.
- Prystawski, B., Grant, E., Nematzadeh, A., Lee, S. W. S., Stevenson, S., & Xu, Y. (2022). The emergence of gender associations in child language development. *Cognitive Science*, 46(6), e13146.
- *Prystawski, B., *Mohnert, F., Tošić, M., & Lieder, F. (2022). Resource-rational models of human goal pursuit. Topics in Cognitive Science, 14(3), 528–549.
- Nogas, J., Li, T., Yanez, F. J., Modiri, A., Deliu, N., Prystawski, B., Villar, S. S., Rafferty, A., & Williams, J. J. (2021). Algorithms for adaptive experiments that trade-off statistical analysis with reward: Combining uniform random assignment and reward maximization. *Causal Inference Challenges in Sequential Decision Making: Bridging Theory and Practice - a NeurIPS 2021 Workshop.*
- Prystawski, B., Gelpi, R., Lucas, C. G., & Buchsbaum, D. (2021). Modelling recognition in human puzzle solving. Proceedings of the 43nd Annual Conference of the Cognitive Science Society, 1907–1913.
- Gelpi, R., Prystawski, B., Lucas, C. G., & Buchsbaum, D. (2020). Incremental hypothesis revision in causal reasoning across development. Proceedings of the 42nd Annual Conference of the Cognitive Science Society, 974–980.
- Prystawski, B., Grant, E., Nematzadeh, A., Lee, S. W. S., Stevenson, S., & Xu, Y. (2020). Tracing the emergence of gendered language in childhood. Proceedings of the 42nd Annual Conference of the Cognitive Science Society, 1087–1093.

* denotes joint first authorship.

Awards and Honors

Norman H. Anderson Research Award, Stanford University. \$2,000 award to support graduate student research	2022, 2023
Provost's Scholar , University of Toronto \$200 graduation award for academic merit	2021
Undergraduate Student Research Award , Natural Sciences and Engineering Research Council \$6,000 award to support undergraduate research over the summer	2019
Samuel Beatty Scholarship, University of Toronto \$1,500 scholarship awarded for academic merit	2018
University of Toronto Scholar \$7,500 entrance scholarship	2017

Mentoring

Naomi Solomon, Undergraduate student, Stanford University (honors thesis)	2024-2025
Aditya Tadimeti, Undergraduate student, Stanford University	2024-2025
Vivek Vajipey, Undergraduate student, Stanford University	2023-2025
Justin Shen, Undergraduate student, Stanford University	2023-2025
Emily Bunnapradist, Undergraduate student, Stanford University (summer intern)	2023

SERVICE

Reviewing

- Cognitive science society: 2021-2025
- ICML workshops: 2024-2025
- NeurIPS workshops: 2024

Departmental Service, Department of Psychology, Stanford University

- Graduate program committee: 2022-2024
- Friday seminar organizing committee: 2023-2024