

Hunter Priniski

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Websites

jpriniski.github.io
[Google Scholar](#)

Research Overview

I'm a data scientist researching how cognitive mechanisms, language, and social networks govern what people believe. I also work with computer scientists to build Large Language Models that mine causal beliefs from natural language, and design network-experiments to examine collective reasoning processes in social networks. I apply this research to understand why people believe misconceptions and to recommend strategies for correcting them at scale.

Education

PhD, Computational Cognition, 2024 (expected)
Department of Psychology
University of California, Los Angeles, CA
Advisors: Keith Holyoak and Hongjing Lu

MA, Cognitive Psychology, 2020
University of California, Los Angeles, CA
Thesis: Computations underlying the agreement-in-confidence heuristic

BS, Mathematics, 2017, *summa cum laude*
Barrett, The Honors College
Arizona State University, Tempe, AZ

Technical

Computing Languages

Python (numpy, pandas, spacy, psychopy, HuggingFace, OpenAI, pytorch), R (tidyverse, brms, rstan), MATLAB (psychtoolbox)

Computational Analyses and Methods

Bayesian data analysis and cognitive modeling of higher-level cognition; Language modeling with transformers; Analyses of online behavior using NLP, network science, and Big Data mining

Representative Papers

Priniski, J.H., Solanki, P., & Horne, Z. (2022). [A Bayesian-decision theoretic framework for studying motivated reasoning](#). *PsyArXiv*.

Priniski, J. H., & Holyoak, K.J. (2022). [A Darkening Spring: How Preexisting Distrust Shaped COVID-19 Skepticism](#). *PLOS One*, 17(1).

Priniski, J.H., McClay, M., & Holyoak, K.J. (2021). [Rise of QAnon: A Mental Model of Good and Evil Stews in an Echochamber](#). In T. Fitch, C. Lamm, H. Leder, & Teßmar-Raible (Eds.) *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Priniski, J.H. & Horne, Z. (2018). [Attitude Change on Reddit's Change My View](#). In T.T. Rogers, M. Rau, X. Zhu, & C. W. Kalish (Eds.), *Proceedings of the 40th Annual Conference of the Cognitive Science Society* (pp. 2276-2281). Austin, TX: Cognitive Science Society.

Publications

Solanki, P., **Priniski, J.H.**, & Horne, Z. (2022). Practical reasoning across development. *PsyArXiv*.

Harandizadeh, B., **Priniski, J.H.**, Morstatter, F. (2022). Keyword Assisted Embedded Topic Modeling. *Proceedings of the 15th ACM International Conference on Web Search and Data Mining*.

Lee, J., **Priniski, J.H.**, Valderrama, S., & Holyoak, K.J. (2021). Disgraced professionals: Revelation of immorality decreases evaluations of professional competence and accomplishment. In T. Fitch, C. Lamm, H. Leder, & Teßmar-Raible (Eds.) *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Priniski, J.H., Mokherian, N., Harandizadeh, B., Morstatter, F., Lerman, K., Lu, H., Brantingham, J.B. (2021). Mapping Moral Valence of Tweets Following the Killing of George Floyd. In K. McKeown & T. Abdelzaher (Eds.), *Proceedings of the 6th International Workshop on Social Sensing*. AAAI. Menlo Park, CA: USA.

Priniski, J.H. & Holyoak, K.J. (2020). Crowdsourcing to Analyze Belief Systems Underlying Social Issues. In S. Denison, M. Mack, Y. Xu, & B.C. Armstrong (Eds.), *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Priniski, J.H. & Horne, Z. (2019). Crowdsourcing effective educational interventions. In A.K. Goel, C. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Kwon, K.H., **Priniski, J.H.**, & Chanda, M. (2018). Disentangling User Samples: A Supervised Machine Learning Approach to Proxy-population Mismatch in Twitter Research. *Communication Methods and Measures*, 12(2), 216-237.

Kwon, K.H., **Priniski, J. H.**, Sarkar, S., Shakarian, J. & Shakarian, P. (2017). Crisis and Collective Problem Solving in Dark Web: An Exploration of a Black Hat Forum. In A. Gruzd, J. Jacobson, & P. Mai (Eds.), *Proceedings of the 8th International Conference on Social Media & Society*. New York City, NY: Association for Computing Machinery.

Working papers **Priniski, J.H.**, Verma, I., Morstatter, F., Lu H., & Holyoak, K.J. Mapping causal systems in large language models. *Manuscript in prep for 2023 proceedings of Cognitive Science Society, available upon request.*

Priniski, J.H., Verma, I., Shi Z., Morstatter, F., Lu H., & Holyoak, K.J. Mining causal belief systems with large language models. *Manuscript in prep for 2023 proceedings of ICWSM, available upon request.*

Presentations **Priniski, J.H.** (2022, July) *Modeling causal relations in natural language: why do it, why it's difficult, paths forward*. 1st Edinburgh Computational Cognitive Science Workshop, University of Edinburgh, Scotland.

*Horne, Z. & ***Priniski, J.H.** (2021, Dec) *Correcting misconceptions in the lab and wild*. DeepMind, London, U.K. (Remote).

Priniski, J.H.. (2021, June). *Mapping Moral Valence of Tweets Following the Killing of George Floyd*. 6th International Workshop on Social Sensing (Remote).

Priniski, J.H. (2021, January). *Guiding Intervention Development with Naturalistic Data*. Guest lecture in *Naturalistic data in psychology*. Department of Psychology and

Language Sciences, University of Edinburgh, Scotland (Remote).

Priniski, J.H. (2020, July). *Crowdsourcing to Analyze Belief Systems Underlying Social Issues*. 42nd Annual Conference of the Cognitive Science Society, Toronto, CA.

Poster Presentations

Priniski, J.H., McClay, M., & Holyoak, K.J. (2021, July). *Rise of QAnon: A Mental Model of Good and Evil Stews in an Echochamber*. Poster session presented at the 43rd Annual Conference of the Cognitive Science Society, Vienna, Austria (Remote).

Priniski, J.H. & Horne, Z. (2020, July). *Intuitive theories of persuasion shape engagement in discussion of polarizing issues*. Poster session presented at the 42nd Annual Conference of the Cognitive Science Society, Toronto, CA (Remote).

Priniski, J.H. & Horne, Z. (2019, July). *Crowdsourcing effective educational interventions*. Poster session presented at the 41st Annual Conference of the Cognitive Science Society, Montreal, CA.

Priniski, J.H. & Horne, Z. (2019, February). *Crowdsourcing Attitude Change from Reddit's Change My View*. Poster session presented at the Society for Personality and Social Psychology Intervention Science Preconference, Portland, OR.

Priniski, J.H. & Horne, Z. (2018, July). *Attitude Change on Reddit's Change My View*. Poster session presented at the 40th Annual Conference of the Cognitive Science Society, Madison, WI.

Awards

Edwin W. Pauley Fellowship, UCLA, 2019 – 2020

Research Experience

Graduate Student Researcher, Dept of Psychology, UCLA, fall 2019 - current

I work for PIs Dr. Keith Holyoak (Reasoning Lab), Dr. Hongjing Lu (Computational Vision and Learning Lab), Dr. Jeff Brantingham (Anthropology), and Dr. Fred Morstatter (Information Sciences Institute) as a graduate student researcher on various projects funded by Google, the NSF, and Darpa. Research topics include: belief change in individuals and social networks, causal language in humans and machines, mechanisms of misinformation, science denialism, conspiracy thinking, causal language NLP, and cognitive AI.

Visiting Research Assistant, Information Sciences Institute, USC, summer 2022

With Dr. Fred Morstatter, I applied psychological theory to understand contributors to persuasion and polarization in online social networks.

Graduate Student Researcher and TA, zero-knowledge university, harmony.one, winter 2021 - spring 2022

I worked for Dr. Hakwan Lau at the blockchain startup, harmony, researching potential applications of zero-knowledge proof technology and helped develop a developer training course.

Teaching

Teacher Assistant

Cognitive Psychology Laboratory, Department of Psychology, UCLA, Winter 2021

Signal Detection Theory – Psychophysical Theories and Methods, Fall 2020

Introduction to Psychology, Fall 2019