

Zachary Horne

CONTACT INFORMATION Department of Psychology
University of Edinburgh
Email: Zachary.Horne@ed.ac.uk
Phone: +44 07704486168

EMPLOYMENT **University of Edinburgh**

Lecturer of Psychology, October 2020 to Present
Department of Psychology
School of Philosophy, Psychology & Language Sciences

Arizona State University

Assistant Professor of Psychology, 2018 to 2020
School of Social and Behavioral Sciences
New College

United States Naval Research Laboratory
Washington, D.C., USA

National Research Council Postdoctoral Fellow, 2017 to 2018
Navy Center for Applied Research in Artificial Intelligence

Education

University of Illinois, Urbana-Champaign

Ph.D., Cognitive Psychology, 2017
M.S., Psychology, 2016

Ph.D., Philosophy of Science, 2015
M.A., Philosophy, 2012

Arizona State University

B.A., Philosophy, 2010

Research

Articles (Peer Reviewed)

*Indicates authors contributed equally

†Indicates student is first author

†Line, E., Roberts, S. & **Horne, Z.** (2021). Memory for syntactic differences in mental illness descriptions. *Memory & Cognition, In Press.*

Horne, Z., Rottman, J., & Lawrence, C. (2021). Can coherence-based interventions change dogged moral beliefs about meat-eating? *Journal of Experimental Social Psychology*, *96*, 104160.

†Muradoğlu, M., **Horne, Z.**, Hammond, M., Leslie, Sarah-Jane, & Cimpian, A. (2021). Women—Particularly Underrepresented Minority Women and Early-Career Academics—Feel Like Impostors in Fields that Value Brilliance *Journal of Educational Psychology*, *In Press*.

Horne, Z.*, Muradoğlu, M.*, & Cimpian, A. (2019). Explanation as a Cognitive Process. *Trends in Cognitive Sciences*, *23*(3), 187-199.

Horne, Z. & Cimpian, A. (2019). Intuitions about personal identity are rooted in essentialist thinking across development. *Cognition*, *191*, 103981.

Horne, Z., Cimpian, A. (2018). Subtle syntactic cues affect intuitions about knowledge: Methodological and theoretical implications. In T. Lombrozo, J. Knobe, S. Nichols (Eds.), *Oxford Studies in Experimental Philosophy*, Vol. 2 (pp. 7–37). New York: Oxford University Press.

Horne, Z. & Livengood, J. (2017). Ordering effects, updating effects, and the specter of global skepticism. *Synthese*, *194*(4), 1189-1218.

Powell, D. & **Horne, Z.** (2017). Moral severity is represented as a domain-general magnitude. *Experimental Psychology*, *64*, 142-147.

Horne, Z. & Powell, D. (2016). How large is the role of emotion in judgments of moral dilemmas? *PloS ONE*, *11*(7), e0154780.

† Pritschet, L.* , Powell, D.* , & **Horne, Z.*** (2016). Marginally significant effects as evidence for hypotheses: Changing attitudes over four decades. *Psychological Science*, *27*(7), 1036-1042.

Storage, D., **Horne, Z.**, Cimpian, A., & Leslie, S. (2016). The Frequency of Genius and Brilliant in RateMyProfessor reviews predicts gender representation across academia. *PloS ONE*, *11*(3), e0150194.

Media coverage from Inside Higher Ed, Gawker, The Atlantic.

Harmon, I. & **Horne, Z.** (2016). Evidence for anti-intellectualism about know-how from a sentence recognition task. *Synthese*, *193*(9), 2929-2947.

Horne, Z.*, Powell, D.* , Hummel, J. & Holyoak, K. (2015). Countering Anti-Vaccination Attitudes. *Proceedings of the National Academy of Sciences*, *112*(33), 10321-10324.

In the top 1% of articles ever tracked by Altmetric. This paper has been downloaded from the PNAS website over 40,000 times. Covered in venues like Time, The New York Times, Newsweek, and The Washington Post.

Horne, Z., Powell, D., & Hummel, J.E. (2015). A single counter-example leads to moral belief revision. *Cognitive Science*, *39*(8), 1950-1964.

Powell, D., **Horne, Z.**, Pinillos, A., & Holyoak, K. (2015). A Bayesian Framework for Knowledge Attribution: Evidence from Semantic Integration. *Cognition*, *139*, 92-104.

Waskan, J., Harmon, I., **Horne, Z.**, Spino, J. & Clevenger, J. (2014). Explanatory Anti-Psychologism Overturned by Lay and Scientific Case Classifications. *Synthese*, 191(5), 1013-1035.

Horne, Z., Powell, D., & Spino, J. (2013). Belief Updating in Moral Dilemmas. *Review of Philosophy and Psychology*, 4(4), 705-714.

Articles under revision

Horne, Z. & Cimpian, A. (Invited Revision). Historical and Experimental Evidence for an Inherence Bias in Scientific Explanation. *Science*.

Draft available upon request

†Reinecke, M. & **Horne, Z.** (Invited Revision). Immutable morality: Even God could not change some moral facts. *Cognition*

<https://psyarxiv.com/yqm48/>

Horne, Z. & Khemlani, S. (Invited Revision). Principled connections and the inherence bias in explanatory reasoning. *Cognitive Science*

Articles submitted or in preparation

†Rose, D., Jaramillo, S., Nichols, S. & **Horne, Z.** (Submitted). The Emergence of Teleological Essentialism.

Dougherty, M. & **Horne, Z.** (Submitted). Citation counts and journal impact factors do not capture key aspects of research quality in psychological science.

†Jaramillo, S., **Horne, Z.**, Goldwater, M. (In Preparation). A single anecdote impacts medical decision-making for hypothetical and actual medical decisions.

Powell, D. & **Horne, Z.** (In Preparation). Rational mechanisms can produce immoral observations.

<https://psyarxiv.com/s7fu2/>

†Solanki, P., Priniski, H. & **Horne, Z.** (In preparation). Children and adults are accurately tuned to evidence and prospective utility in a motivated reasoning task.

†Line, E. Denne, E., Dougherty, M., Stolzenberg, S. & **Horne, Z.** (In preparation). Type-M and Type-S Errors in Developmental Psychology.

Peer-reviewed Conference Proceedings

†Priniski, H. & **Horne, Z.** (2019). Crowdsourcing effective educational interventions. *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

†Jaramillo, S., **Horne, Z.**, & Goldwater, M. (2019). The impact of anecdotal information on medical decision-making. *Proceedings of the 41st Annual Conference of the Cognitive*

Science Society.

†Mirabile, P. & **Horne, Z.** (2019). Explanatory Virtues and Belief in Conspiracy Theories. *Proceedings of the 41st Annual Conference of the Cognitive Science Society.*

Pinillos, N. A., Jaramillo, S. & **Horne, Z.** (2019). Asymmetrical belief sensitivity and justification explains the Wells Effect. *Proceedings of the 41st Annual Conference of the Cognitive Science Society.*

†Miske, O., Schweitzer, N. & **Horne, Z.** (2019). What shapes and shifts attitudes about the death penalty. *Proceedings of the 41st Annual Conference of the Cognitive Science Society.*

Bekele, E., Lawson, W. E., **Horne, Z.** & Khemlani, S. (2018). Implementing a Robust Explanatory Bias in a Person Re-identification Network. *IEEE:CVPR*, 2278-2285.

Horne, Z. & Khemlani, S. (2018). Conceptual constraints on generating explanations. *Proceedings of 40th Annual Cognitive Science Society.*

†Priniski, J. H., & **Horne, Z.** (2018). Attitude Change on Reddit's Change My View. *Proceedings of 40th Annual Cognitive Science Society.*

Powell, D. & **Horne, Z.** (2018). Expectations bias judgments of harm against others. *Proceedings of the 40th Annual Conference of the Cognitive Science Society.*

Horne, Z., & Powell, D. (2013). More than a feeling: When Emotional Reactions Don't Predict Moral Judgments. *Proceedings of the 35th Annual Conference of the Cognitive Science Society.*

Powell, D., **Horne, Z.**, Pinillos, A. & Holyoak, K. (2013, August). Justified True Belief Triggers False Recall of Knowing. *Proceedings of the 35th Annual Conference of the Cognitive Science Society.*

Braverman, M., Clevenger, J., Harmon, I., Higgins, A., **Horne, Z.**, Spino, J., & Waskan, J. (2012, August). Intellig-ability is Necessary for Explanation but Accuracy May Not Be. *Proceedings of the 34th Annual Conference of the Cognitive Science Society.*

Edited Book Chapters (Invited)

Powell, D., **Horne, Z.**, & Pinillos, A. (2014). Semantic Integration as a method for investigating concepts. Beebe, J. (ed.) *Advances in Experimental Epistemology.* (pp. 119-144) Continuum Press.

Funding, Fellowships, and Awards

Institute for Social Science Research Seed Grant (2019)
National Research Council Award (2017 – 2020; Award declined for 2018 – 2020)
University of Illinois J. McVicker Hunt Award for excellence in research (2016)
University of Illinois Beckman Institute Cognitive Science Award (2013, 2014)

University of Illinois Smalley Fellowship (2013)
University of Illinois Caton Prize - Best Philosophy Graduate Student Paper (2012)
Arizona State University - Best Undergraduate Philosophy Paper (2010)

Presentations

Invited Talks

Attitude change in the wild.

University of Stirling – Online Psychology Symposium, 2020.

Mining arguments from social media to change moral beliefs.

Southern Society for Philosophy and Psychology – Moral Psychology Symposium, 2020.

Correcting scientific misconceptions.

University of Edinburgh – Psychology Department Speaker Series, 2020.

The formation and correction of scientific misconceptions.

University of California, Berkeley – Psychology Department Speaker Series, 2020.

Immutable Morality: Even God could not change some moral facts.

Columbia University – Heiphetz Developmental Colloquium (Video conference presentation), 2019.

Belief updating in adults and children.

University of California, Los Angeles – Developmental Psychology Colloquium, 2019.

Attitude change on Reddit's ChangeMyView.

Duke University – Moral Psychology Colloquium (Video conference presentation), 2018.

The influence of cognitive biases on scientific explanation.

Arizona State University – Center for Biology & Society Conversation Series, 2018.

A domain-general inference bias in explanatory reasoning.

University of Chicago – Conference on Analogical Reasoning, Paris, FR. 2017.

Expectations influence evaluations of moral actions.

University of Maryland – Psychology Department Colloquium, 2016.

Scientific explanation in adults and children.

U.S. Naval Research Laboratory – Artificial Intelligence Colloquium, 2016.

The influence of an inference heuristic on scientific explanation.

University of California, Los Angeles – Cognitive Psychology Colloquium, 2014.

Intuitions about personal identity are rooted in essentialist thinking across development.

Northwestern University – Cognitive Psychology Colloquium, 2014

The link between intuitions about personal identity and essentialist beliefs about objects.

Indiana University – Cognitive Psychology Colloquium, 2014

Anti-intellectualism about know-how: Evidence from a sentence recognition task.
University of Buffalo – Experimental Philosophy Colloquium, 2014

Order Effects, Evidence Effects, and the Specter of Global Skepticism.
University of Bristol – UK Experimental Philosophy Colloquium, 2013

Emotional Arousal and Moral Judgment.
University of London – Workshop on Moral Dilemmas, 2012

Experimental Philosophy of Free Will.
Yale University – Cognitive Science Workshop, 2011

The Empirical Implications of Pure Expressivism.
University of Auckland – Naturalism in Ethics Talk Series, 2011

Selected Conference Talks

†Line, E., Jaramillo, S., Neal, T.M.S., & **Horne, Z.** (2020, March). Using Bayesian Models to Assess Juror Decision-Making in Ecologically Valid Contexts. *American Psychology and Law Society Conference*. New Orleans, LA.

Dougherty, M. & **Horne, Z.** (2019, November). Citation counts and impact factors do not predict key aspects of research quality. *Annual Meeting of the Psychonomics Society*. Montreal, CA.

†Miske, O., Schweitzer, N. & **Horne, Z.** (2019, June). What shifts information shifts attitudes about capital punishment. *Society for Philosophy and Psychology*. San Diego, CA.

†Jaramillo, S., **Horne, Z.**, & Goldwater, M. (2019, July). The impact of anecdotal information on medical decision-making. *The 41st Annual Meeting of the Cognitive Science Society*. Montreal, CA.

†Miske, O., Schweitzer, N. & **Horne, Z.** (2019, July). What shapes and shifts attitudes about the death penalty. *The 41st Annual Meeting of the Cognitive Science Society*. Montreal, CA.

†Miske, O., Schweitzer, N. & **Horne, Z.** (2019, March). What shapes and shifts attitudes about the death penalty. *American Psychology and Law Society Conference*. Portland, OR.

Horne, Z., Rottman, J. & Lawrence, C. (2017, July). Relational Matching Induces Coherence Shifts in Moral Attitudes about Meat. *Society for Philosophy and Psychology*. San Diego, CA.

Horne, Z. & Khemlani, S. (2017, July). Principled connections and the inherence bias in explanatory reasoning. *London Reasoning Workshop*. London, UK.

Horne, Z. & Cimpian, A. (2017, March). Intuitions about personal identity are underlain by essentialist thinking in adults and children. *Society for Research on Child Development*. Austin, TX.

Horne, Z. & Livengood, J. (2015, June). Ordering Effects, Updating Effects, and the Specter of Global Skepticism. Ludwig Maximilian University of Munich, Munich, DE.

Horne, Z. & Livengood, J. (2015, June). Ordering Effects, Updating Effects, and the Specter of Global Skepticism. *Society for Philosophy and Psychology*, Durham, NC.

Horne, Z. & Powell, D. More than a feeling: When Emotional Reactions Don't Predict Moral Judgments. (2014, July). *35th Annual Conference of the Cognitive Science Society*. Berlin, DE.

Horne, Z., Powell, D., Pinillos, N.A., & Holyoak, K. (2014, July). Justified True Belief Triggers False Recall of Knowing. *35th Annual Conference of the Cognitive Science Society*. Berlin, DE.

Horne, Z., Powell, D., Pinillos, N.A., & Holyoak, K. (2013, July). Justified True Belief Triggers False Recall of Knowing. *Society for Philosophy and Psychology*. Providence, RI.

Selected Conference Posters

†Line, E., Jaramillo, S., Neal, T.M.S., & **Horne, Z.** (2020, July). Prior Beliefs About the Evidentiary Weight of Crime Scene Data Impacts Juror Verdicts. *The 42nd Annual Conference of the Cognitive Science Society*. Toronto, Canada.

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

†Lobo, N. & **Horne, Z.** (2019, October). Reasoning about Arguments by Analogy. *Cognitive Developmental Society*. Louisville, KY.

†Lobo, N. & **Horne, Z.** (2019, July). Understanding of Arguments by Analogy. *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. *The Society for Personality and Social Psychology Intervention Science Preconference*. Portland, OR.

†Mirabile, P. & **Horne, Z.** (2019, July). Explanatory Virtues and Belief in Conspiracy Theories. *The 41st Annual Conference of the Cognitive Science Society*. Montreal, CA.

†Mirabile, P. & **Horne, Z.** (2019, July). Reasoning about abductive, inductive and deductive conditionals across development. *The 41st Annual Conference of the Cognitive Science Society*. Montreal, CA.

Pinillos, N. A., Jaramillo, S. & **Horne, Z.** (2019, July). Asymmetrical belief sensitivity and justification explains the Wells Effect. *The 41st Annual Conference of the Cognitive Science Society*. Montreal, CA.

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

†Solanki, P. & **Horne, Z.** (2018, November). Evidence assimilation in a repeated judgment task. *Annual Meeting of the Psychonomics Society*. Madison, WI.

Bekele, E., Lawson, W. E., **Horne, Z.** & Khemlani, S. (2018, July). Implementing a Robust Explanatory Bias in a Person Re-identification Network. *IEEE:CVPR*. Salt Lake City, UT.

Horne, Z. & Khemlani, S. (2018, July). Conceptual constraints on generating explanations. *The 40th Annual Meeting of the Cognitive Science Society*. Madison, WI.

†Priniski, J. H., & **Horne, Z.** (2018, July). Attitude Change on Reddit's Change My View. *The 40th Annual Meeting of the Cognitive Science Society*. Madison, WI.

†Roberts, S. & **Horne, Z.** (2018, July). The effect of trait labels on the perception of clinical disorders. *The 40th Annual Meeting of the Cognitive Science Society*. Madison, WI.

Powell, D. & **Horne, Z.** (2018, July). Expectations bias judgments of harm against others. *The 40th Annual Meeting of the Cognitive Science Society*. Madison, WI.

†Muradoğlu, M., **Horne, Z.**, Hammond, M.D., Leslie, S.J., & Cimpian, A. (2018, March). Mechanisms underlying women's underrepresentation in fields that prize brilliance. *Society for Personality and Social Psychology*, Atlanta, GA.

†Muradoğlu, M., **Horne, Z.**, Hammond, M.D., Leslie, S.J., Cimpian, A. (2018, March). Mechanisms underlying women's underrepresentation in fields that prize brilliance. *Illinois Summit on Diversity in Psychological Science*, Urbana-Champaign, IL.

Horne, Z. & Cimpian, A. (2015, October). The influence of an inherence heuristic on scientific explanation. *Annual Meeting of the Cognitive Development Society*. Columbus, OH.

Horne, Z. & Cimpian, A. (2015, July). The influence of an inherence heuristic on scientific explanation. *The 34th Annual Conference of the Cognitive Science Society*. Pasadena, CA.

Horne, Z. & Powell, D. (2015, March). Once More With a Measure of Feeling: Examining the Role of Emotion in Moral Judgment. *Society for Personality and Social Psychology*, Austin, TX.

Horne, Z. & Cimpian, A. (2014, November). The influence of an inherence heuristic on scientific explanation. *Annual Meeting of the Psychonomic Society*. Minneapolis, MN.

Horne, Z., Powell, D. & Hummel, J. (2014, July). Moral Belief Updating. *The 35th Annual Conference of the Cognitive Science Society*. Berlin, DE.

Horne, Z. & Cimpian, A. (2014, March). The link between intuitions about personal identity and essentialist beliefs about objects. *Society for Personality and Social Psychology*. Austin, TX.

**Service
to the Profession**

Journal Refereeing

Psychological Review, Psychological Science, Journal of Experimental Psychology: General, Science Advances, Pediatrics, Vaccine, Cognition, Cognitive Science, Cognitive Psychology, Journal of Experimental Social Psychology, Cognitive Development, Journal of Experimental Child Psychology, Oxford Studies in Philosophy, Mind and Language, Synthese, Journal of Philosophy, Topics in Cognitive Science, Oxford University Press, Princeton University Press

Conference Refereeing

Annual Meeting of the Cognitive Science Society, Society for Philosophy and Psychology, University of Buffalo Experimental Philosophy Conference, American Philosophical Association, Cognitive Development Society, Society for Research on Child Development

Grant Refereeing

National Science Foundation – Decision, Risk, and Management Sciences, 2018

Service to ASU

2021 – Organizer of Arizona State University Machine Learning Day
2020 – Organizer of Behavioral Data Science Colloquium
2020 – Graduate student interviewing workshop
2019 – Executive Member and Founder, Behavioral Data Science Research Initiative
2019 – 2020 Member, Search Committee for Advanced Assistant Professor (Psychology)
2019 – 2020 Member, Search Committee for Assistant Professor (Behavioral Data Science)
2019 – 2020 Member, Search Committee for Postdoctoral Scholar (Behavioral Data Science)
2019 – Director, Undergraduate Psychology Program, School of Social and Behavioral Sciences
2019 – Faculty and graduate student statistics consultant
2019 – Organizer of Bayesian Data Analysis Summer Workshop

Teaching and Mentoring

Teaching at Arizona State University

PSY 434: Cognitive Psychology (Spring 2020)
Overall Teaching Rating: 5/5

PSY 598: Data Visualization and Analysis in R (Fall 2019)
Overall Teaching Rating: 4.8/5

PSY 341: Developmental Psychology (Fall 2019)
Overall Teaching Rating: 4.9/5

PSY 320: Learning and Motivation (Spring 2019)
Overall Teaching Rating: 4.8/5

PSY 500: Research Methods (Spring and Fall 2018)
Overall Teaching Rating: 3.3 and 4.3/5

PhD and Master's Thesis Committee at Arizona State University

Christopher Gonzales (PhD student in developmental psychology)
Adi Weizel (PhD student in social psychology)
Emily Line (Master's student)
Daisy Ornelas (Master's student)

Master's Thesis Advisor at Arizona State University

2019 – Present

Hao Chen
Grace Wallace

2018 – 2020

Nicole Lobo
Emily Line

2017 – 2019

Olivia Miske
Prachi Solanki
Samantha Roberts

Student Placement

2018 – 2020 Sara Jaramillo (Undergraduate student)

PhD program acceptances:

University of California, Irvine; University of California, Merced; University of Pittsburgh;
University of Maryland; Rutgers University; University of Kansas; Virginia Tech

2018 – 2020 Nicole Lobo (Master's student)

PhD program interviews:

University of Maryland; University of Pittsburgh; University of Miami; University of
Iowa

2018 – 2020 Emily Line (Master's student)

PhD program interviews:

Princeton University, Arizona State University; University of Illinois, Urbana-Champaign;

University of Missouri; McGill University; Ohio State University

2017 – 2019 Hunter Priniski (Undergraduate student)

PhD program acceptances:

University of California, Irvine; University of California, Los Angeles*; University of Illinois, Urbana-Champaign; New York University; Indiana University; University of Wisconsin, Madison

2017 – 2019 Prachi Solanki (Master’s student)

PhD program acceptances:

Michigan State University; University of Illinois, Chicago

2017 – 2019 Olivia Miske (Master’s student)

Project coordinator at Center for Open Science*

2017 – 2019 Samantha Roberts (Master’s student)

Grants and Contracts Specialist position at the Geneva Foundation*

External PhD Student Mentoring

Madeline Reinecke (PhD student in Developmental Psychology, Yale University)

Melis Muradoğlu (PhD student in Developmental Psychology, New York University)

Hunter Priniski (PhD student in Computational Cognition, UCLA)

Community Outreach

2018 – Project aimed at improving gender representation at the Herberger Young Scholar’s Academy

2018 – Research partnership with the Children’s Museum of Phoenix

2018 – ASU Open Door laboratory tour

Technical

Formal Languages:

R (Proficient), Python (Novice)

Math/Statistical/Tools:

R (brms, rstan, tidyverse, etc.)

Survey Software:

Qualtrics, Amazon Mechanical Turk

Professional Affiliations

Cognitive Science Society
Psychonomics Society
Cognitive Development Society

References

Andrei Cimpian – Professor of Psychology – New York University
andrei.cimpian@nyu.edu

Keith Holyoak – Distinguished Professor of Psychology – UCLA
holyoak@psych.ucla.edu

John Hummel – Professor of Psychology – University of Illinois
jehummel@illinois.edu