## Mathew Hardy

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Education

## Princeton University

September 2018 - Summer 2023 (expected)

PhD in Psychology

Advisors: Thomas L. Griffiths and Jonathan D. Cohen

## University of Toronto

August 2017

Honours Bachelor of Science with High Distinction Majors in Economics and Statistics, minor in Mathematics

# Fellowships & awards

DoD NDSEG Fellowship

September 2020

Program on the Cognitive Foundations of Economic Behavior July 2019 Summer Institute on Bounded Rationality June 2019 Centennial Fellowship in the Natural Sciences September 2018

#### Journal articles

**Hardy, M.\***, Thompson, W.\*, Krafft, P. & Griffiths T.L. (2022). Bias amplification in experimental social networks is reduced by resampling. Under review.

Callaway, F.\*, **Hardy**, M.\* & Griffiths T.L. (2022). Optimal nudging for cognitively bounded agents: A framework for modeling, predicting, and controlling the effects of choice architectures. Under review.

**Hardy, M.\***, Krafft, P.\*, Thompson, W., & Griffiths T.L. (2022). Overcoming individual limitations through distributed computation: Rational information accumulation in multi-generational populations. Topics in Cognitive Science.

#### Talks & posters

Garcia-Bernardo, J., Neu, Z., **Hardy, M.**, Santoro, A., Krafft, P.M., Morgan, A., Alorić, A. & Griffiths T.L. (2022). Collective information processing of long-form text in multi-generational social networks: An experimental investigation using Amazon Mechanical Turk. Poster to be presented at the Conference on Complex Systems CCS2022, Palma de Mallorca, Spain.

**Hardy**, M. (2022). "Experimental evidence for bias amplification in social networks and a Bayesian solution." University of California, Berkeley.

Hardy, M., Thompson, W., Krafft, P. & Griffiths T.L. (2020). Population-level amplification of perceptual bias. Talk presented at the 42nd Annual Conference of the Cognitive Science Society, virtual.

Hardy, M., Thompson, W., Krafft, P. & Griffiths T.L. (2020). Population-level amplification of perceptual bias. Poster presented at the 6th International Conference on Computational Social Science, virtual.

Callaway, F., **Hardy**, M. & Griffiths T.L. (2020). Optimal nudging. Poster presented at the 42nd Annual Conference of the Cognitive Science Society, virtual.

**Hardy, M.**, Thompson, W., Krafft, P. & Griffiths T.L. (2019). Population-level amplification and suppression of individual biases. Talk presented at the 1st Symposium on Biases in Human Computation and Crowdsourcing, Sheffield, UK.

**Hardy, M.**, Callaway, F. & Griffiths T.L. (2019). Optimal nudging. Poster presented at the Multi-disciplinary Conference on Reinforcement Learning and Decision Making, Montreal, Canada.

**Hardy, M.** & Griffiths T.L. (2019). Demonstrating the importance of prior knowledge in risky choice. Poster presented at the 41st Annual Conference of the Cognitive Science Society, Montreal, Canada.

#### Working papers

**Hardy, M.**, Hofman, J. & Goldstein, D. How useful is the wrong model? Improving out-of-sample prediction using within-sample modeling.

Garcia-Bernardo, J., Neu, Z., **Hardy, M.**, Santoro, A., Krafft, P.M., Morgan, A., Alorić, A. & Griffiths T.L. Collective information processing of long-form text in multi-generational social networks.

#### **Teaching**

#### PSY 251 - Quantitative Methods

Spring 2020 & 2021

Assistant Instructor Princeton University

# Relevant experience

## Research intern

June - September 2022

Microsoft Research, Computational social science group Interned with Dan Goldstein and Jake Hofman

#### **Data Science Intern**

June - August 2018

Via Transportation

#### Research Assistant

August - December 2017

University of Toronto, Department of Psychology Professor Susanne Ferber

#### Research Assistant

May - September 2015 & 2016

 ${\it Massachusetts\ Institute\ of\ Technology,\ Department\ of\ Economics}$ 

Professors Jerry Hausman and Whitney Newey

## Skills

Programming: Python, R, Stan, Javascript, HTML, CSS, Julia, MATLAB

Software & tools: LATEX, Git, Bash, Stata, Excel

Spoken languages: English, Slovenian