

CURRICULUM VITAE

Toby Prike

CONTACT INFORMATION

School of Psychological Science,
University of Western Australia,
35 Stirling Highway, Perth,
Australia, 6009

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Phone: +61 424 022 148

EDUCATION

Doctor of Philosophy (Research) 2014 – 2018

Completed the requirements for a PhD in Cognitive Psychology
Thesis Title: *Was That Just a Strange Coincidence or am I Psychic?
Examining the Relationships Between Anomalistic Belief, Reasoning, and Cognitive Bias*
Primary Supervisor: Dr. Michelle M. Arnold (Flinders University)
Associate Supervisor: Dr. Paul Williamson (Flinders University)
SPA Lab, College of Education, Psychology, and Social Work,
Flinders University, South Australia

Bachelor of Psychology (Honours) First Class 2013

Supervisor: Dr. Michelle M. Arnold
School of Psychology, Flinders University, South Australia

Bachelor of Psychological Science 2010 – 2012

School of Psychology, Social Work, and Social Policy, University of South Australia, South Australia

RESEARCH INTERESTS

Cognition (both basic and applied); judgement; decision making; reasoning; metacognition; belief formation and maintenance; cognitive bias; rationality; misinformation; motivated reasoning; context effects; migration; decision making in applied contexts

EMPLOYMENT HISTORY

Research Associate 2021-Present

Working on the Australian Research Council funded project: Combating Misinformation – Designing a Toolkit to Address a Global Problem
School of Psychological Science, University of Western Australia

Research Fellow 2018-2021

Working on the European Research Council funded project: Bayesian Agent-Based Population Studies: Transforming simulation models of human migration
Department of Social Statistics and Demography, University of Southampton

GRANTS, HONOURS, AND AWARDS

WA Defence Science Centre Collaborative Research Grant **2022**

- Psychologically informed mathematical modelling of misinformation spreading
- Awarded to Mengbin Ye, Nicolas Fay, Ullrich K. H. Ecker, **Toby Prike**, & Martin Wood
- Award: \$150,000

University of Western Australia Research Collaboration Award **2022**

- Learning to tell fact from fiction: Applying theories of learning and memory to design effective misinformation interventions
- Awarded to **Toby Prike**, Ullrich K. H. Ecker, Philip A. Higham, & Jakub Bijak
- Award: \$19,944

ANU National Security College Futures Hub & Defence Science and Technology Group (DSTG), Technology Surprise Forum Grant **2022**

- The misinformation threat and the role of emerging social media environments
- Awarded to Mengbin Ye, Nicolas Fay, Ullrich K. H. Ecker, & **Toby Prike**
- Award: \$10,000

The Australian Government Research Training Program Scholarship **2017**

- Australian Government sponsored stipend awarded to research higher degree students of exceptional research potential.
- Award: \$26,682 per annum

School of Psychology PhD Publications Award, Flinders University **2017**

- For publication “Psychics, aliens, or experience? Using the Anomalistic Belief Scale to examine the relationship between type of belief and probabilistic reasoning.”
- Award: \$300

Flinders University Research Student Conference Travel Grant **May 2016**

- Awarded to research higher degree candidates to subsidise attendance at conferences to present a paper or poster, which will result in a significant improvement to the quality of the thesis.
- Award: \$763 to assist with flights to attend the Psychonomic Society's 57th Annual Meeting in Boston, MA, November 17-20, 2016.

Australian Postgraduate Award (APA) **2014 – 2016**

- Australian Government sponsored stipend awarded to research higher degree students of exceptional research potential
- Award: \$25,849 per annum

School of Psychology PhD Conference Funding, Flinders University **2015-2016**

- Award: \$2000

School of Psychology PhD Research Support, Flinders University **2014-2016**

- Award: \$4200

Chancellor’s Letter of Commendation**2013**

- Flinders University
- Awarded to a student whose academic performance is outstanding (GPA is equal to or greater than 6.25 out of 7.00) in a year of study in an undergraduate or postgraduate coursework program.

School of Psychology Honours Research Support, Flinders University**2013**

- Award: \$350

University Merit Award**2011, 2012**

- University of South Australia
- Awarded to students whose cumulative grade point average for a year of study places them in the top 15% of students in their undergraduate program.

PUBLISHED JOURNAL ARTICLES

Butler, L. H., Lamont, P., Wan, D. L. Y., **Prike, T.**, Nasim, M., Walker, B., Fay, N., & Ecker, U. K. H. (2023). The (Mis)Information Game: A social media simulator. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-023-02153-x>

Bijak, J., Modirrousta-Galian, A., Higham, P. A., **Prike, T.**, Hinsch, M., & Nurse, S. (2023). Investigating immersion and migration decisions for agent-based modelling: A cautionary tale [version 1; peer review: 2 approved with reservations]. *Open Research Europe*, 3(34). <https://doi.org/10.12688/openreseurope.15581.1>

Prike, T., Blackley, P., Swire-Thompson, B., & Ecker, U. K. H. (2023). Examining the replicability of backfire effects after standalone corrections. *Cognitive Research: Principles and Implications*, 8(1), 39. <https://doi.org/10.1186/s41235-023-00492-z>

Prike, T., Reason, R., Ecker, U. K. H., Swire-Thompson, B., & Lewandowsky, S. (2023). Would I lie to you? Party affiliation is more important than Brexit in processing political misinformation. *Royal Society Open Science*, 10(2), 220508. <https://doi.org/10.1098/rsos.220508>

Greene, C. M., de Saint Laurent, C., Murphy, G., **Prike, T.**, Hegarty, K., & Ecker, U. K. H. (2022). Best practices for ethical conduct of misinformation research: A scoping review and critical commentary. *European Psychologist*, 28(3), 139–150. <https://doi.org/10.1027/1016-9040/a000491>

Prike, T., Bijak, J., Higham, P. A., & Hilton, J. (2022). How safe is this trip? Judging personal safety in a pandemic based on information from different sources. *Journal of Experimental Psychology: Applied*, 28, 509–524. <https://doi.org/10.1037/xap0000415>

Czaika, M., Bijak, J., & **Prike, T.** (2021). Migration Decision-Making and Its Key Dimensions. *The ANNALS of the American Academy of Political and Social Science*, 697(1), 15–31. <https://doi.org/10.1177/00027162211052233>

Prike, T., Arnold, M. M., & Williamson, P. (2020). The relationship between anomalistic belief, misperception of chance and the base rate fallacy. *Thinking & Reasoning*, 26(3), 447–477. <https://doi.org/10.1080/13546783.2019.1653371>

Prike, T., Arnold, M. M., & Williamson, P. (2018). The relationship between anomalistic belief and biases of evidence integration and jumping to conclusions. *Acta Psychologica, 190*, 217–227. <https://doi.org/10.1016/j.actpsy.2018.08.006>

Prike, T., Arnold, M. M., & Williamson, P. (2017). Psychics, aliens, or experience? Using the Anomalistic Belief Scale to examine the relationship between type of belief and probabilistic reasoning. *Consciousness and Cognition, 53*, 151–164. <https://doi.org/10.1016/j.concog.2017.06.003>

Arnold, M. M., Chisholm, L. M., & **Prike, T.** (2016). No pain no gain: The positive impact of punishment on the strategic regulation of accuracy. *Memory, 24*(2), 146–153. <https://doi.org/10.1080/09658211.2014.990982>

Arnold, M. M., & **Prike, T.** (2015). Comparative difficulty and the strategic regulation of accuracy: The impact of test-list context on monitoring and meta-metacognition. *Acta Psychologica, 157*, 155–163. <https://doi.org/10.1016/j.actpsy.2015.02.018>

SUBMITTED MANUSCRIPTS

Prike, T., Butler, L. H., & Ecker, U. K. H. (2023). *Source-Credibility Information and Social Norms Improve Truth Discernment and Reduce Engagement with Misinformation Online*. PsyArXiv. <https://doi.org/10.31234/osf.io/dhx6f>

Reinhardt, O., **Prike, T.,** Hinsch, M., Bijak, J., Wilsdorf, P., & Uhrmacher, A. M. (2023). *Simulation Studies of Social Systems – Telling the Story Based on Provenance Patterns*. TechRxiv. <https://doi.org/10.36227/techrxiv.20209844.v2>

MANUSCRIPTS IN PREPARATION

Prike, T., Bijak, J., & Higham, P. A. (2023). *Eliciting utility functions for migration decisions* [Manuscript in preparation]. Working paper: https://www.baps-project.eu/inventory/project_outputs/cognitive_experiments/Background%20paper%20Decision%20making.pdf

Prike, T., Butler, L. H., Modirrousta-Galian, A., Higham, P. A., Bijak, J., & Ecker, U. K. H. (2023). *Learning to tell fact from fiction: Exemplar based training for fake news detection*. [Manuscript in preparation].

Prike, T. & Ecker, U. K. H. (2023). *Effective correction of misinformation*. [Manuscript in preparation].

BOOK CHAPTERS

Bijak, J., Hinsch, M., Nurse, S., **Prike, T.**, & Reinhardt, O. (2022). Bayesian model-based approach: Impact on science and policy. In J. Bijak (Ed.), *Towards Bayesian model-based demography: Agency, complexity and uncertainty in migration studies* (Methodos Series). Springer. https://doi.org/10.1007/978-3-030-83039-7_9

Prike, T., Higham, P.A., & Bijak, J. (2022). The boundaries of cognition and decision-making. In J. Bijak (Ed.), *Towards Bayesian model-based demography: Agency, complexity and uncertainty in migration studies* (Methodos Series). Springer. https://doi.org/10.1007/978-3-030-83039-7_6

Prike, T. (2022). Open science, replicability, and transparency in modelling. In J. Bijak (Ed.), *Towards Bayesian model-based demography: Agency, complexity and uncertainty in migration studies* (Methodos Series). Springer. https://doi.org/10.1007/978-3-030-83039-7_10

PEER REVIEWED CONFERENCE PROCEEDINGS

Bijak, J., Higham, P. A., Hilton, J., Hinsch, M., Nurse, S., **Prike, T.**, Smith, P. W. F., Reinhardt, O., & Uhrmacher, A. M. (2020). Modelling migration: Decisions, processes and outcomes. *2020 Winter Simulation Conference (WSC)*, 2613–2624. <https://doi.org/10.1109/WSC48552.2020.9384072>

Bijak, J., Hilton, J., Hinsch, M., Lipscombe, K., Nurse, S., **Prike, T.**, Smith, P. W. F., Reinhardt, O., Uhrmacher, A. M., Higham, P. A., & Grow, A. (2021). Teaching a modeling process: Reflections from an online course. *2021 Winter Simulation Conference (WSC)*, 1–12. <https://doi.org/10.1109/WSC52266.2021.9715415>

CONFERENCE/WORKSHOP PRESENTATIONS

Prike, T., Butler, L. H., & Ecker, U. K. H. (2023, August). *Source-credibility information and social norms reduce misinformation sharing online*. Paper presented at the 14th Biennial Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Nagoya, Japan.

Prike, T., Blackley, P., Swire-Thompson, B., & Ecker, U. K. H. (2023, August). *No evidence for familiarity backfire effects with standalone corrections of novel misinformation*. Paper presented at the 14th Biennial Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Nagoya, Japan.

Butler, L. H., Lamont, P., Wan, D. L. Y., **Prike, T.**, Nasim, M., Walker, B., Fay, N., & Ecker, U. K. H. (2023, August). *The (Mis)Information Game: A social media simulator*. Paper presented at the 14th Biennial Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Nagoya, Japan.

- Prike, T.**, Butler, L. H., Modirrousta-Galian, A., Higham, P. A., Bijak, J., & Ecker, U. K. H. (2022, November). *Learning to tell fact from fiction: Exemplar based training for fake news detection*. Paper presented at the Regional Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Portsmouth, United Kingdom.
- Czaika, M., Bijak, J., & **Prike, T.** (2021, December). *Migration decision-making and its key dimensions*. Paper presented at the 29th International Population Conference of the International Union for the Scientific Study of Population. Online.
- Prike, T.**, Bijak, J., & Higham, P. A. (2020, November). *Prike, T., Judging Likelihood of Safety Based on Information from Different Sources*. Paper presented at the 61st Annual Meeting of the Psychonomic Society. Online.
- Prike, T.**, Bijak, J., & Higham, P. A. (2019, November). *Generalizing Financial Decision Making to Other Domains*. Paper presented at the 60th Annual Meeting of the Psychonomic Society. Montreal, Canada.
- Prike, T.**, Bijak, J., & Higham, P. A. (2019, November). *Generalizing Financial Decision Making to Other Domains*. Poster presented at the 40th Annual Meeting of the Society for Judgment and Decision Making. Montreal, Canada.
- Prike, T.**, Bijak, J., & Higham, P. A. (2018, November). *Eliciting Utility Functions for Migration Decisions*. Paper presented at the Uncertainty and Complexity of Migration Workshop. London, England.
- Arnold, M. M., **Prike, T.**, & Christian, M. W. (2017, November). *The Role of Non-Evidence Based Beliefs and Thinking Style in the Receptivity to Pseudo-Profound Bullshit*. Paper presented at the 58th Annual Meeting of the Psychonomic Society. Vancouver, Canada.
- Prike, T.**, Arnold, M. M. & Williamson, P. (2017, November). *Exploring the Relationships Between Biases in Information Integration, Thinking Styles, and Conspiracy Theory Beliefs*. Poster presented at the 58th Annual Meeting of the Psychonomic Society. Vancouver, Canada.
- Arnold, M. M., **Prike, T.**, & Williamson, P. (2017, January). *Equal, But Not the Same: The Effect of Context Manipulations on the Strategic Regulation of Accuracy*. Paper presented at the 12th Biennial Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Sydney, Australia.
- Hodge, J. H., Arnold, M. M., Welch, D.A. & **Prike, T.** (2017, January). *Extraordinary Beliefs and Memory: Exploring the Relationship Between Anomalistic Belief and Both True and False Memory*. Poster presented at the 12th Biennial Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Sydney, Australia.
- Prike, T.**, Arnold, M. M. & Williamson, P. (2017, January). *The Relationship Between Type of Anomalistic Belief, Reasoning Ability, and Cognitive Bias*. Poster presented at the 12th Biennial Meeting of the Society for Applied Research in Memory and Cognition (SARMAC). Sydney, Australia.

Arnold, M. M., Klindzic, N., Hodge, J. H. & **Prike, T.** (2016, November). *Investigating Rates of False Memory and Confirmation Bias for Believers of Anomalistic Phenomena*. Poster presented at the 57th Annual Meeting of the Psychonomic Society. Boston, USA.

Prike, T., Arnold, M. M. & Williamson, P. (2016, November). *Anomalistic Belief, Base Rates, and Perception of Randomness: Relationships Vary Depending on Type of Anomalistic Belief*. Poster presented at the 57th Annual Meeting of the Psychonomic Society. Boston, USA.

Arnold, M. M., **Prike, T.** & Williamson, P. (2016, May). *It's context all the way down: The impact of filler-item difficulty and default options on the strategic regulation of accuracy*. Paper presented at the International Meeting of the Psychonomic Society. Granada, Spain.

Prike, T., Arnold, M. M. & Williamson, P. (2016, May). *Psychics, aliens, and bias: the relationship between anomalistic beliefs, the bias against disconfirming evidence and the jumping to conclusions bias*. Poster presented at the International Meeting of the Psychonomic Society. Granada, Spain.

Arnold, M. M., Vozzo, N., Welch, D. A., McCann, L. M. & **Prike, T.** (2015, November). *Understanding anomalistic belief: Exploring memory and reasoning for believers of extraordinary phenomena*. Paper presented at the 56th Annual Meeting of the Psychonomic Society. Chicago, USA.

Prike, T., Arnold, M. M. & Williamson, P. (2015, November). *Understanding belief in the extraordinary: Anomalistic belief and probabilistic reasoning*. Poster presented at the 56th Annual Meeting of the Psychonomic Society, Chicago, USA.

Arnold, M. M. & **Prike, T.** (2014, September). *The influence of comparative difficulty on the strategic regulation of accuracy and confidence*. Paper presented at the 2nd International Conference on Metacognition. Clermont-Ferrand, France.

COLLOQUIA & BROWNBAG PRESENTATIONS

Prike, T., Arnold, M. M., & Williamson, P. (2021, April). *Was that just a Strange Coincidence or am I Psychic? Examining the Relationships Between Anomalistic Belief, Reasoning, and Cognitive Bias*. Cognitive and Affective Regulation Laboratory, University of Lausanne, Lausanne, Switzerland.

Prike, T., Arnold, M. M., & Williamson, P. (2021, March). *Was that just a Strange Coincidence or am I Psychic? Examining the Relationships Between Anomalistic Belief, Reasoning, and Cognitive Bias*. School of Psychological Science, Swansea University, Swansea, UK.

Prike, T., Bijak, J., & Higham, P. A. (2019, November). *Generalizing Financial Decision Making to Other Domains*. Strategic Organization Design Unit: Research Seminar Series, University of Southern Denmark, Denmark.

Prike, T., Arnold, M. M., & Williamson, P. (2017, November). *Was that just a Strange Coincidence or am I Psychic? Examining the Relationships Between Anomalistic Belief, Reasoning, and Cognitive Bias*. School of Psychological Science, Oregon State University, Oregon, USA.

Prike, T., Arnold, M. M., & Williamson, P. (2015, April) *The Relationship between Cognitive Biases and Anomalistic Beliefs*, School of Psychology Colloquium Series, School of Psychology, Flinders University, South Australia.

Prike, T. & Arnold, M. M. (2013, September). *Monitoring and Meta-metacognition for Words and Faces*. Psychology Honours Presentation Series, School of Psychology, Flinders University, South Australia.

TEACHING EXPERIENCE

Honours Supervisor, University of Western Australia **2022, 2023**
Primary supervisor for two students, co-supervisor for four students.

Teaching and Theme Tutor (Fake News) for Short Course on Agent-based Modelling for Social Research **2020**

Prepared a prerecorded video, reading list, activities, and conducted the live discussion for a session titled “Towards psychological realism in agent-based models”. Available at:

https://www.ncrm.ac.uk/resources/online/ABM_index.php

Was the theme tutor for the topic “Political Fake News” and supervised and helped course participants to develop agent-based models of the spread of political fake news.

Topic Coordination, Flinders University **2018**

Coordinated the topic PSYC1108: Psychology of Surviving and Thriving. Primary responsibilities included: managing day to day running of the topic, responding to student queries, marking, dealing with extension requests, announcements etc.

Undergraduate Teaching Assistance, Flinders University:

PSYC 2018: Research Methods 2 – Teaching assistant **2018**

PSYC 1108: Psychology of Surviving and Thriving – Teaching assistant **2017**

PSYC 2018: Research Methods 2 – Teaching assistant **2017**

PSYC 2021: Human Development – Teaching assistant **2016**

PSYC 2018: Research Methods 2 – Teaching assistant **2016**

PSYC 2021: Human Development – Teaching assistant **2015**

PSYC 2018: Research Methods 2 – Teaching assistant **2015**

Assistance with Supervision of Honours Students **2015, 2016, 2017**

Provided assistance with the supervision of honours students, primarily in the areas of study design, creation of stimuli, experimental set up, and data collection.

Assistance with Exchange Student Research Project **2016**

Provided assistance with the supervision of a research project for two exchange students from Temasek Polytechnic, Singapore. Assistance was provided in the areas of study conception and design, experimental set up, and data collection.

ADMINISTRATION AND PROFESSIONAL SERVICE

School of Psychology Research Committee: Student Representative 2015-2017

Representing Psychology research postgraduates on the School of Psychology Research Committee. Involved in the approval of funding for all student research and the approval of conference support and publication incentives for postgraduate students and staff members. Also involved in discussions to establish eligibility criteria and administrative processes for funding and incentives provided by the School of Psychology. Contributing to the design and implementation of funding schemes and incentives designed to support students and staff and improve the research output of the school.

External Moderation of a Topic 2017, 2018

Moderated and provided feedback on the grades, assignments, and exams for PSYC 338: Child Development in a Cultural Context, at HELP University, Malaysia.

Honours Proposal Committee Member 2017

Provided feedback and advice regarding the research proposals for two separate student projects. Required to consider aspects such as feasibility of the project, appropriateness of size and scope, research design, and planned statistical analyses.

Student Consultative Committee: Student Representative 2016

Represented postgraduate students on the Student Consultative Committee for the Faculty of Social and Behavioural Sciences. Involved in discussions with the faculty leadership team about future directions and plans for the faculty and the university. Primarily responsible for providing student feedback on planned changes within the faculty and for highlighting issues relevant to students.

University Open Day Volunteer 2016

Volunteered at the Psychology booth for the Flinders University Open Day. Was responsible for providing demonstrations for prospective students and answering their questions about studying Psychology at Flinders University.

Placement Supervisor for 3rd Year Psychology Student 2015

Provided support and training for a 3rd Year Psychology student.

Volunteer for High School Student Visits 2015, 2016, 2017

Volunteered to discuss research and provide demonstrations of psychology experiments to high school students who were visiting the School of Psychology at Flinders University.

Undergraduate Topic and Exam Marker, Flinders University:

PSYC 1108: Psychology of Surviving and Thriving – Topic marker 2017

PSYC 2018: Research Methods 2 – Topic marker 2014-2017

Psychonomic Society 2015-Present
Member

Society for Applied Research in Memory and Cognition (SARMAC) 2016-Present
Member

Society for the Improvement of Psychological Science (SIPS) 2018-Present
Member

Society for Judgment and Decision Making (SJDM) 2018-Present
Member

MEDIA AND ENGAGEMENT

Managing Migration: What Can We Learn From Simulation Experiments? – Policy Brief for Population Europe (with J. Bijak, M. Hinsch, S. Nurse, & O. Reinhardt) 2023

We Know Politicians Lie But Do We Care – The Conversation (with U. Ecker; 36k+ reads) 2022

How Misinformation Spreads Faster Than Truth – Beyond the Hall of Winthrop, UWA Alumni Podcast 2022

Written Evidence on Immigration Enforcement – Public Accounts Committee (UK Parliament, with J. Bijak, M. Hinsch, & S. Nurse) 2020

REVIEWING

Grants: European Commission Horizon Europe 2022 – “Decision-making processes of (aspiring) migrants”

Journals: Applied Cognitive Psychology, Cognitive Neuropsychiatry, Cognitive Research: Principles and Implications, Computational Brain and Behavior, Demographic Research European Psychologist, Frontiers in Psychology, Imagination, Cognition and Personality, Journal of Experimental Social Psychology, PLOS One, Psychological Reports, Royal Society Open Science, Scientific Reports

PROFESSIONAL DEVELOPMENT AND COURSES

- Psychology Journal Club Organiser, University of Western Australia 2022, 2023
- MetaScience Symposium 2019
- Society for the Improvement of Psychological Science Conference 2019
- Twitter Data Workshop 2017
- Flinders Psychology Postgrad Fortnightly Statistics Workshops 2017
- Bayesian Hierarchical Modelling Weekly Workshops Member 2016
- Flinders Psychology Postgrad Professional Development Workshops 2015, 2017
- COMS 9001 Communication Skills for Research Higher Degree Students 2014
- Cognitive Psychology Journal Club Member, Flinders University 2014-2017

TECHNICAL SKILLS AND PROFICIENCIES

Proficient with statistical software programs:

- R
- IBM SPSS Statistics
- JASP statistics software

Experience with programming languages:

- Javascript
- Python

Proficient with online survey software:

- Qualtrics Survey Software

Experience running experiments and surveys online:

- Prolific
- Amazon's Mechanical Turk
- CrowdFlower
- MicroWorkers

REFEREES

Professor Ullrich Ecker

School of Psychological Science
University of Western Australia, Western Australia, Australia
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Professor Jakub Bijak

Department of Social Statistics and Demography
University of Southampton, Southampton, United Kingdom
J.Bijak@soton.ac.uk

Professor Philip A. Higham

School of Psychology
University of Southampton, Southampton, United Kingdom
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Dr. Michelle M. Arnold

Primary Doctoral Supervisor
Department of Psychology
Okanagan College, Kelowna, Canada
MArnold@okanagan.bc.ca