

Manikya Alister

PHD CANDIDATE · COMPUTATIONAL COGNITIVE SCIENCE

University of Melbourne, 700 Swanston Street, Carlton, VIC 3056

✉ alisterm@student.unimelb.edu.au | 🏷 manikyaalister.github.io | Australia & USA Citizenship

Education

University of Melbourne

PHD COMPUTATIONAL COGNITIVE SCIENCE

Melbourne, Australia

Jan 2022 - Sep 2025 (expected)

University of California, Irvine

SUMMER SCHOOL FOR THE COMPUTATIONAL MODELLING OF LANGUAGE

Irvine, California

August 2022

University of Queensland

BACHELOR OF PSYCHOLOGICAL SCIENCE (WITH HONOURS* CLASS 1)

Brisbane, Australia

2017 - 2020

*Honours in Australia is a 1 year postgraduate research degree, similar to a European masters.

- Graduated rank #1 in my cohort (out of ≈ 250 students).
- Best honours thesis in cohort.

Awards, Fellowships, & Grants (in USD): \$149,791 Total

2025	Student Presentation Award, Australasian Experimental Psychology Society	\$327
2024	Career Development Award, Melbourne School of Psychological Sciences	\$2,724
2023	Cognitive Science Society Travel Award, Cognitive Science Society	\$1,200
2022	Summer School Travel Scholarship, University of California, Irvine	\$500
2022-2025	Research Training Program Scholarship, University of Melbourne/Australian Government	\$140,000
2018,2019	Summer Research Scholarship, University of Queensland	\$4,700
2020	University Medal, University of Queensland (Top ~2% of all university graduates)	
2020	APS Prize, Australian Psychological Society (Rank #1 in cohort)	
2020	McElwain Prize, University of Queensland (Best Honours thesis in psychology)	\$340

Research & Industry Experience

University of Melbourne

RESEARCH FELLOW (COGNITIVE SCIENTIST)

March 25 - Feb 26 (part time)

- Primary supervisor of an honours student and leading multiple research projects related to social learning influence campaigns on social media.

University of Adelaide

RESEARCH ASSOCIATE (SOFTWARE ENGINEERING & DATA SCIENCE)

May - September 2023

- Built a web-based software prototype that uses generative AI and other natural language processing techniques to analyse how narratives emerge and spread on social media.
- Based on the prototype, Australian Defense Science & Technology Group invested over \$3 million into further development.

Freelance Data Scientist

EXAMPLE PROJECTS:

August 2022 - Present

- Good Data Institute:
 - See this article I wrote outlining the work I did for them.
- Queensland Mind Project:
 - Consulted on data analysis and implemented reproducible Bayesian and Frequentist statistical models using R.

University of Queensland

RESEARCH ASSISTANT (COMPUTATIONAL COGNITIVE PSYCHOLOGY)

Brisbane, Australia

Jan 2021 - Dec 2021

- Simulated computational models of decision-making, fitted them to experimental data, and estimated their parameters using Bayesian hierarchical and individual-level techniques.
- Wrote up findings for publications.

Publications

PUBLISHED (PEER REVIEWED)

1. **Alister, M.**, Evans, Nathan J. (in press). ParAcT-DDM: A diffusion-based framework for modelling systematic, time-varying cognitive processes. *Psychological Review*. Preprint.
2. **Alister, M.**, Ransom, K.J., Connor-Desai, S., Soh, E.V.⁺ Hayes, B., Perfors, A. (2025). How convincing is a crowd? Quantifying the persuasiveness of a consensus across individuals and claim types. *Psychological Science*.
3. **Alister, M.**, Perfors, A. (2025) Stochastic search algorithms can tell us who to trust (and why). *Proceedings of the Annual Meeting of the Cognitive Science Society* 46 (46).
4. **Alister, M.**, Ransom, K.J., Lua, A., Perfors, A. (accepted). The impact of engagement and partisan influence campaigns in an isolated social media environment. *Proceedings of the Annual Meeting of the Cognitive Science Society* 46 (46).
5. **Alister, M.**, Ransom, K.J., Connor-Desai, S., Soh⁺, E.V. Hayes, B., Perfors, A (2024). Sensitivity to Online Consensus Effects Within Individuals and Claim Types. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 46(46). Link.
6. **Alister, M.**, Herbert, S., Sewell, DK., Neal, A. Ballard, TJ. (2024). The Impact of Cognitive Resource Constraints on Goal Prioritization. *Cognitive Psychology*, 148. Link.
7. **Alister, M.**, Ransom, K. J., & Perfors, A. (2023). Inferring the truth from deception: What can people learn from helpful and unhelpful information providers? *Proceedings of the Annual Meeting of the Cognitive Science Society*, 45(45). Link.
8. **Alister, M.**, McKay, KT., Sewell, DK., Evans, NJ., (2023). Uncovering the Cognitive Mechanisms Underlying the Gaze Cueing Effect. *Quarterly Journal of Experimental Psychology*, 803-827. Link.
9. McKay, K. T., Grainger, S. A., **Alister, M.**, & Henry, J. D. (2023). Enhancing ecological validity of gaze-cueing stimuli is associated with increased gaze following for older but not younger adults. *Psychology and Aging*, 562–572, 38(6). Link.
10. Grainger, S. A., Henry, J. D., **Alister, M.**, Bourdaniotis, X. E., Mead, J., Bailey, T. G., Coombes, J. S., & Vear, N. (2023). Cardiorespiratory fitness and muscular strength do not predict social cognitive capacity in older age. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 1824–1833. Link.
11. **Alister, M.**, Ransom, KJ., Perfors, A. (2022). Source independence affects argument persuasiveness when the relevance is clear. *Proceedings of the Annual Meeting of the Cognitive Science Society* 44 (44). Link.
12. McKay, KT., Talipski, LA., Grainger, SA, **Alister, M.**, Henry, JD. (2022). How Does Ageing Affect Social Attention? A Test of Competing Theories using Multi-Level Meta-Analysis. *The Journals of Gerontology: Series B*, 1454-1463. Link
13. **Alister, M.**, Vickers-Jones, R., Sewell, DK., Ballard, TJ., (2021). How do we Choose Our Giants? Perceptions of Replicability in Psychological Science. *Advancements in Methods and Practices in Psychological Science*, 25152459211018199. Link.

PUBLICATIONS UNDER REVIEW

1. **Alister, M.**, Ransom, K. J., & Perfors, A. When a helpful bias is unhelpful: Limitations in reasoning about random and deliberately misleading evidence. In revision at the *Journal of Experimental Psychology General* Preprint.
2. Budden, T, **Alister, M.**, Ballard, T., Milyavskaya, M. & Ntoumanis, N. Modeling the Dynamics of Goal Pursuit: A Scoping Review of Computational Approaches

NON-ACADEMIC PUBLICATIONS AND MEDIA FEATURING MY RESEARCH

1. **Alister, M.** When Consensus Changes Minds, *Character and Context* (official blog of the Society for Personality and Social Psychology). Link.
2. Melbourne School of Psychological Sciences. ‘We are social creatures that learn from each other every day’: Manikya Alister explores social learning and decision-making. Link
3. **Alister, M.**, How does an organisation of data professionals leverage its own data? *Good Data Institute*. Link.
4. Wilcox, C. The life academic: Getting your priorities straight, with a little help from science, *Science Advisor*. Link.

Presentations

* presenting author if not the first author

INVITED TALKS

Social Cognition Seminar, **University of California, Berkeley** (Remote). *Stochastic search algorithms can tell us who to trust (and why)*. April 2025.

Causal Cognition Laboratory, **University College London**. *How do people use social consensus to infer ground truth?* July 2024.

Computational Modelling in Psychology Group, **Ludwig Maximilian University**, Munich. *How does social inference facilitate efficient cognition?* July 2024.

Computational Cognitive Science Lab, **Massachusetts Institute of Technology (MIT)**, Cambridge MA. *How does social inference facilitate efficient cognition?* March 2024.

Cognition Colloquium, **University of California, Berkeley** (Remote). *What can we learn from helpful and unhelpful information providers?* February 2024.

Sydney Thinking and Reasoning Laboratory, **University of New South Wales**, Sydney. *What is the role of social inference in cognition?* August 2023.

CONFERENCE PRESENTATIONS

Symposia I Have Been Invited to Present in

1. **Alister, M.**, Ransom, K.J., Connor-Desai, S., Soh, E.V.⁺ Hayes, B., Perfors, A. (2025, July). When a helpful bias is unhelpful: limitations in reasoning from random and deliberately misleading evidence. In symposium “Reasoning about the opinions of others”, Australasian Experimental Psychology Conference.
2. **Alister, M.**, Ransom, K. J., Perfors, A. (2024, June). What can people infer from helpful and unhelpful information providers? In symposium “Information sampling approaches to reasoning and decision making”. International Conference of Thinking, Milan, Italy. Talk.

International Conferences

1. **Alister, M.**, Perfors, A*. Stochastic search algorithms can tell us who to trust (and why). *Annual Meeting of the Cognitive Science Society*, San Francisco.
2. **Alister, M.**, Ransom, K.J., Lua, A., Perfors, A*. (accepted). The impact of engagement and partisan influence campaigns in an isolated social media environment. *Annual Meeting of the Cognitive Science Society* San Francisco.
3. **Alister, M.**, Ransom, K.J., Connor-Desai, S., Soh, E.V.⁺ Hayes, B., Perfors, A. (2024, July). Quantifying the persuasiveness of a consensus across individuals and claim types. Annual Meeting of the Cognitive Science Society, Rotterdam, NL. Talk.
4. **Alister, M.**, Ransom, K. J., Perfors, A. (2024, July) *Practising Deception Does Not Make You Better at Learning from Deceptive Samples*. Annual Meeting of the Cognitive Science Society, Rotterdam, NL. Poster.
5. **Alister, M.**, Evans, N. (2024, July) *A diffusion based framework for modelling time-varying changes in cognitive processes*. International Mathematical Psychology Conference, Tilburg, NL. Poster.
6. **Alister, M.**, Ransom, K.J., Connor-Desai, S., Soh, E.V. Hayes, B., Perfors, A. (2024, June). Quantifying the persuasiveness of a consensus across individuals and claim types. International Conference of Thinking, Milan, Italy. Talk.

7. **Alister, M.**, Evans, N. (2023, July) *A model to describe how cognitive processes change across time*. Annual Meeting of the Cognitive Science Society, Sydney, Australia. Poster.
8. **Alister, M.**, Ransom, K. J., Perfors, A. (2023, July) *Inferring the truth from deception: What can people infer from helpful and unhelpful information providers?* Annual Meeting of the Cognitive Science Society, Sydney, Australia. Talk.
9. **Alister, M.**, Ransom, K. J., Perfors, A. (2022, July) *Source Dependence Influence Argument Persuasiveness When Relevance is Clear*. Annual Meeting of the Cognitive Science Society, Toronto, Canada. Poster.
10. **Alister, M.**, Ransom, K. J., Perfors, A. (2022, July) *Source Dependence Influence Argument Persuasiveness When Relevance is Clear*. Mathematical Psychology Society Conference/International Conference in Computational Modelling, Toronto, Canada. Talk.
11. **Alister, M.**, McKay, K.T. R., Sewell, D. K., Evans, N.J. (2021, November), *Uncovering the Cognitive Mechanisms Underlying the Gaze Cueing Effect*, Meeting of the Psychonomic Society (Remote). Poster.
12. **Alister, M.**, Vickers-Jones, R., Sewell, D. K., Ballard, T.* (2020, November), *How do we choose our giants? Perceptions of replicability in psychological science*, 61st Meeting of the Psychonomic Society (Remote). Talk.

Domestic Conferences

1. **Alister, M.**, Ransom, K.J., Connor-Desai, S., Soh, E.V.⁺ Hayes, B., Perfors, A. (Accepted). *How convincing is a crowd? Quantifying the persuasiveness of a consensus across individuals and claim types*. Australasian Experimental Psychology Conference, Sydney. Talk. Winner of student presentation award.
2. **Alister, M.**, Perfors, A. (2025, February) *Stochastic search algorithms can (and should?) tell us who to listen to*. Australasian Mathematical Psychology Conference, Sydney. Talk.
3. **Alister, M.**, Evans, N. (2024, February) *A diffusion based framework for modelling time-varying changes in cognitive processes*. Australasian Mathematical Psychology Conference, Perth. Talk.
4. **Alister, M.**, Ransom, K. J. (2023, September) *Rhetorical Mapping and Narrative Detection Online*. DSTG Mis/Disinformation Conference, Melbourne. Talk.
5. **Alister, M.**, Ransom, K. J., Perfors, A. (2023, February) *Inferring the truth from deception: What can people infer from helpful and unhelpful information providers?*. Australasian Mathematical Psychology Conference, Melbourne. Talk.
6. **Alister, M.**, McKay, K. T., Sewell, D. K., Evans, N. J. (2022, February), *A computational modelling investigation of the mechanisms subserving the gaze-cueing effect*, Australasian Mathematical Psychology Conference (Remote). Talk.
7. **Alister, M.**, Vickers-Jones, R., Sewell, D. K., Ballard, T. (2021, February), *Perceptions of replicability in psychological science*, Australasian Mathematical Psychology Conference (Remote). (recording)
8. **Alister, S.**, Herbert, S., Ballard, T. (2021, February), *Pursuing Multiple Goals under Time Pressure: A Computational Investigation*, Australasian Mathematical Psychology Conference (Remote). Talk (recording)
9. **Alister, M.**, Vickers-Jones, R., Sewell, D. K., Ballard, T. (2020, November), *Perceptions of replicability in psychological science*, UQ Centre for Perception & Cognitive Neuroscience Mini-Conference, Brisbane. Talk.

WORKSHOPS AND TUTORIALS

Organised and led myself unless denoted by * which indicates that I assisted.

1. *Introduction to Zotero: The ultimate reference management tool* (2025). Melbourne School of Psychological Sciences
2. *Version Control and Virtual Environment Workshop** (2025). Part of a graduate student skills workshop series, Melbourne School of Psychological Sciences
3. *How to code an MCMC sampler from scratch* (2022). Part of a Bayesian analysis workshop series for graduate students, Melbourne School of Psychological Sciences
4. *Intro to R and open science workshop** (2021). School of Psychology, University of Queensland

Open Source Software

Alister, M. ModelProb: an R package to convert raw model comparison information criteria into relative probabilities.
github.com/ManikyaAlister/modelProb .

Teaching Experience

Academic Tutor = Teaching Assistant in Australia

University of Melbourne

Melbourne, Australia

ACADEMIC TUTOR

- **Sem 1, 2022, 2023, 2024:** Research Methods for Human Inquiry (R and Statistics)

University of Queensland

Brisbane, Australia

LEAD ACADEMIC TUTOR

- **Sem 2, 2021:** Introduction to Social, Developmental, and Clinical Psychology

Brisbane, Australia

ACADEMIC TUTOR

- **Sem 2, 2021:** Judgement and Decision Making
- **Sem 1, 2021:** Introduction to Social, Developmental, and Clinical Psychology

Supervision

* sole/primary supervisor; + secondary supervisor

2025	* Tony Li , Honours Student, University of Melbourne
2025-2026	* Anthony Lua , Summer Research Intern, University of Melbourne
2024	+ Betül Ayça Coşar , Masters Student, Ludwig Maximilian University, Munich
2024	+ Spike Huang , Honours Student, University of Melbourne
2024	+ Meila Wong , Honours Student, University of Melbourne
2023-2024	* Ee Von Soh , Summer Research Intern, University of Melbourne

Service & Professional Memberships

OUTREACH

2022-now	Good Data Institute , Initial short-term paid position then continued as a volunteer
2021	Australasian Mathematical Psychology Conference Planning Committee , Committee Member

PEER REVIEW

Behavior Research Methods, Cognitive Psychology, Cognition, Collabra Psychology, Computational Brain and Behaviour, Cognitive Science Society

PROFESSIONAL MEMBERSHIPS

Cognitive Science Society, Australasian Mathematical Psychology Society, International Mathematical Psychology Society

Skills

Data Analysis Specializing in Bayesian statistical & computational modelling, and machine learning.

Artificial intelligence Experience building tools that leverage both closed source and open source AI models.

Programming R, Python, JavaScript, CSS, HTML, R Shiny, Stan, Bash.

Software and Data Engineering Experience implementing web-based applications and online data systems.

Research Design With experience designing and implementing novel behavioural experiments and surveys with human participants across multiple platforms and software.

Other Programs/Software Github, Cloud Computing, Google App Engine, Firestore, LaTeX.

Public Speaking To many audiences including scientists & academics, industry stakeholders, and undergraduates.

Spoken Languages English (native), Spanish (conv.).