Dr Cameron Rouse Turner

Computational Cognitive Science Lab
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Education

2016 – 2022	**PhD Ecology, Evolution and Genetics** Australian National University
	Using information from others: The evolution and cognition of animal-to-animal information use Prof Robert Magrath, Prof Kim Sterelny
2012	**MSc Neuroscience** University of Queensland
	The effect of TMS induced plastic change in M1 on functional connectivity Prof Jason Mattingley
	The neural basis of motor learning: An EEG examination Prof Ross Cunnington
2008 – 2011	**BSc (Hons I) Psychology** University of Queensland
	Are moral intuitions socially learned? An investigation in three-year-olds Prof Mark Nielsen, Dr Emma Collier-Baker

Research Appointments

2022 – *present*	**Postdoctoral Research Associate** Princeton University
	I conduct research examining the nature of animal intelligence, as part of the Diverse Intelligences project, funded by the Templeton World Charity Foundation.
	Principal Investigator: Prof Tom Griffiths

2019	**DAAD Visiting Student** Max Planck Institute for Evolutionary Anthropology I visited to collaborate on a model of the evolution of eavesdropping on alarm calls between species, supported by a DAAD scholarship. Host: Dr Anne Kandler
2018	**Endeavour Visiting Student** University of St Andrews I visited to receive training in producing mathematical models of evolution. Host: Prof Andy Gardner
2013 – 2015	**Research Assistant in Developmental Psychology** Durham University I was involved in all elements of research in a project funded by a European Research Council grant examining social and individual learning in young children. Assistant to: Prof Emma Flynn, Prof Luc-Alain Giraldeau
2011 – 2012	**Research Assistant** University of Queensland I led all elements of a research project growing out of my Honours thesis examining moral learning in three-year-olds. Assistant to: Dr Mark Nielsen
2011	**Volunteer Research Assistant** University of Queensland I gained experience in doing research in comparative psychology by volunteering on a project examining metacognition in chimpanzees, capuchin and spider monkeys. Assistant to: Dr Emma Collier-Baker

Awards and Grants

2019	**Deutscher Akademischer Austauschdienst (DAAD) / German Academic Exchange Service Short-Term Grant** Short-term postgraduate scholarship supporting a research visit of up to six months within Germany
2018	**Endeavour Postgraduate Scholarship** Australia-wide scholarship providing comprehensive support for a year of research abroad towards a PhD
2017	**ANU Vice-Chancellor's HDR Travel Grant** Competitive travel grant to support postgraduate research abroad
2016	**Gwendolyn Woodroofe PhD Scholarship in the Biological Sciences** Comprehensive support for the course of the PhD program given to the most meritorious applicant to the Australian National University's Research School of Biology in a given year
2010	**Social and Behavioural Sciences Dean's Scholar** Honorary award given to undergraduates in the top 5% of achievement in the Faculty of Social and Behavioural Sciences
2009	**UQ Summer Research Scholarship** Supports involvement in a research project over summer at the University of Queensland

Teaching Experience

	Tutor University of Queensland
2021 – 2022	Measurement in Psychology (PSYC3020) Prof Mark Horswill, Dr Jo Brown
2020 – 2022	Psychological Research Methods IV (PSYC4050) Dr David Sewell, Dr Brendan Zietsch
2012, 2020	Developmental Psychology (PSYC2030) Prof Mark Nielsen, Dr Nicole Nelson
2012	Developmental Perspectives on the Origin of Human Culture (PSYC3282) Prof Mark Nielsen
	Invited Lecturer Durham University
2014 – 2015	Current Issues in Biological Anthropology (HUSS3261) Prof Alex Mesoudi

Academic Publications

Turner, C., & Griffiths, T. (Under review). Evolutionary theory makes predictions beyond rational optimization. *Proceedings of the Annual Meeting of the Cognitive Science Society, 48.*

Turner, C.*, Russek, E.*, Seed, A., McEwen, E., Vélez, N., Morgan, T., & Griffiths, T. (*In revision*). Cognitive capacity and control in the evolution of intelligence. *Proceedings of the National Academy of Sciences of the United States of America.*

Turner, C., Morgan, T., & Griffiths, T. (2025). Complex brains allow functioning in a complex environment by using information. *Behavioral and Brain Sciences, 48*: e96.

Mieczkowski, E., **Turner, C.**, Vélez, N., & Griffiths, T. (2025). People evaluate idle collaborators based on their impact on task efficiency. *Cognition, 264*, 106200.

Turner, C., Arumugam, D., Nelson, L., & Griffiths, T. (2025). Trade-offs between tasks induced by capacity constraints bound the scope of intelligence. *Proceedings of the Annual Meeting of the Cognitive Science Society, 47.*

Turner, C., Morgan, T., & Griffiths, T. (2024). Environmental complexity and regularity shape the evolution of cognition. *Proceedings of the Royal Society B*, *291*: 20241524

Mieczkowski, E., **Turner, C.**, Vélez, N., & Griffiths, T. (2024). Many hands don't always make light work: Explaining social loafing via multiprocessing efficiency. *Proceedings of the Annual Meeting of the Cognitive Science Society, 46*.

Russek, E., **Turner, C.**, McEwen, E., Miscov, A., Seed, A., & Griffiths, T. (2024). Modeling the contributions of capacity and control to working memory development. *Proceedings of the Annual Meeting of the Cognitive Science Society, 46*.

Turner, C., Spike, M., & Magrath, R. (2023). The evolution of eavesdropping on heterospecific alarm calls: Relevance, reliability, and personal information. *Ecology and Evolution, 13*, e10272.

Turner, C., Mann, S., Spike, M., Magrath, R., & Sterelny, K. (2023). Joint evolution of traits for social learning. *Behavioral Ecology and Sociobiology, 77*, 47.

Gregory, D., Hendrickx, M. & **Turner, C.** (2022). Who knows what Mary knew? An experimental study. *Philosophical Psychology, 35*, 522–545.

Turner, C., & Walmsley, L. (2021). Preparedness and cultural learning. *Synthese, 99*, 81-100.

Rawlings, R., Durta, N., **Turner, C.**, & Flynn, E. (2019). Overimitation across development. N. Jones, M. Platt, K. Mize, & J. Hardin (eds), *Conducting Research in Developmental Psychology: A Topical Guide for Research Methods Utilized Across the Lifespan*. New York, NY: Routledge.

Flynn, E.*, **Turner, C.***, & Giraldeau, L-A. (2018). Follow (or don't follow) the crowd: Young children's conformity is influenced by age and task domain. *Journal of Experimental Child Psychology, 167*, 222–233.

Turner, C., Giraldeau, L-A., Flynn, E. (2017). How do unreliable models affect children's choice to learn socially or individually? *Evolution and Human Behavior, 38*, 341-349.

Turner, C., & Flynn, E. (2016). Learning by diffusion: A review of cultural diffusion experiment methodology, and future directions using social network analyses. S. Obhi & E. Cross (eds), *Shared Representations: Sensorimotor Foundations of Social Life*. Cambridge, UK: Cambridge University Press.

Flynn, E., **Turner, C.**, Giraldeau, L-A. (2016). Selectivity in social and asocial learning: investigating the prevalence, effect and development of young children's learning preferences. *Philosophical Transactions of the Royal Society B, 371*, 20150189.

Turner, C., Nielsen, M., & Collier-Baker, E. (2014). Groups' actions trump injunctive reaction in an incidental observation by young children. *PLOS One, 9*(9): e107375.

Academic Presentations

Turner, C., Arumugam, D., Nelson, L., & Griffiths, T. (2025, July). Trade-offs between tasks induced by capacity constraints bound the scope of intelligence. Presentation at the 47th Annual Conference of the Cognitive Science Society, San Francisco, USA.

Turner, C., Morgan, T., & Griffiths, T. (2023, July). *The joint evolution of sensory systems and decision policy allows cognition.* Presentation at the Diverse Intelligences Summit, St Andrews, UK.

Turner, C., Morgan, T., & Griffiths, T. (2023, April). *The joint evolution of sensory systems and decision policy allows cognition.* Invited presentation in the Social and Cognitive Origins Series at Johns Hopkins University, Baltimore, US.

Turner, C. (2018, October). *The coevolution of adaptations for social learning*. Presentation at the conference of the Cultural Evolution Society, Tempe, US.

Turner, C., Giraldeau, L-A., & Flynn, E. (2015, July). *Investigating the factors affecting young children's social and asocial learning preferences.* Presentation at the conference of the International Society for Developmental Psychobiology, San Sebastian, Spain.

Turner, C., Giraldeau, L-A., & Flynn, E. (2014, July). *Investigating the developmental foundation of cumulative-culture: establishing young children's preference for learning individually versus socially*. Presentation at the conference of the International Society for Behavioural Ecology, New York, US.

Turner, C., Giraldeau, L-A., & Flynn, E. (2014, April). *What role does model reliability play in young children's choice to learn individually or socially?* Presentation at the conference of the European Human Behaviour and Evolution Association, Bristol, UK.

Academic Posters

Turner, C., Russek, E., Vélez, N., Morgan, T., Seed, A., Griffiths, T. (2024, October). *Constraints affect capacity-control interactions in the evolution of cognition*. Poster at the Many Minds Meeting, Princeton, US.

Turner, C., Morgan, T., & Griffiths, T. (2023, July). *The joint evolution of sensory systems and decision policy allows cognition.* Poster at the conference of the Cognitive Science Society, Sydney, Australia.

Turner, C., Giraldeau, L-A., & Flynn, E. (2015, March). *Investigating the factors affecting young children's social and asocial learning preferences.* Poster at the conference of the Society for Research in Child Development, Philadelphia, US.

Popular Publications

Turner, C. (2014, January). Meet Sir Lawrence Bragg: the greatest Australian you've never heard of. *Crikey.*

Acknowledged

Harrison, W. (2022). Luminance and contrast of images in the THINGS database. *Perception, 51*, 244–262.

Mann, S., Pain, R., & Kirchhoff, M. (2022). Free energy: a user's guide. *Biology & Philosophy, 37*:33.

Neldner, K., Collier-Baker, E., & Nielsen, M. (2015). Chimpanzees (*Pan troglodytes*) and human children (*Homo sapiens*) know when they are ignorant about the location of food. *Animal Cognition, 18*, 683–699.

Service and Mentorship

Tutor, Prison Teaching Initiative, 2023 – *present*: I provide bi-monthly individual tutoring to incarcerated students in New Jersey, aligning with Princeton University's mission to address systemic inequalities.

Diversity, Equity, and Inclusion Committee, 2023 – *present*: I develop and implement programs to foster inclusion in the Department of Psychology, Princeton University.

Co-supervision of the PhD project of Elizabeth Mieczkowski, 2023 – *present*: *Many hands don't always make light work: explaining social loafing via group-level efficiency*. Computer Science Department, Princeton University.

Co-supervision of the Masters project of Raquel Garnelo Nicolás, 2020: *Signal detection theory and the evolution of heterospecific eavesdropping*. School of Philosophy, Psychology and Language Sciences, The University of Edinburgh.

Mentor, Hatfield College, Durham University, 2014 – 2015: I was responsible for the care of 19 first year undergraduates.

Peer-reviewed for: Nature, Behavioral Ecology, Cognitive Science, Cognitive Development, Journal of Experimental Child Psychology, Philosophical Psychology, Synthese, PlosOne, The British Journal for the Philosophy of Science.

Reviewed Grant for European Science Foundation, 2024.