

ELEANOR HOLTON

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eleanorholton.github.io

EMPLOYMENT

C.V. Starr Postdoctoral Fellow – Princeton Neuroscience Institute Sept 2025 – Present
Princeton University, USA
Mentor: Yael Niv

Postdoctoral Researcher – Experimental Psychology April 2024 – June 2025
University of Oxford, UK
Advisor: Christopher Summerfield

EDUCATION

Doctor of Philosophy – Neuroscience Oct 2020 – Sept 2024
Wellcome Trust Fellow
University of Oxford, UK
Supervisors: Jill O'Reilly, Christopher Summerfield, & Nils Kolling
Thesis: *Mechanisms of Goal Commitment and Pursuit*
Divisional Letter of Commendation
Examiners: Mark Walton & Mathias Pessiglione

Master of Science – Neuroscience Oct 2019 – Aug 2020
University of Oxford, UK
Project Supervisors: Nils Kolling, Jacqueline Scholl, Matthew Rushworth

Bachelor of Arts – Philosophy & Psychology (Double First Class) Oct 2016 – June 2019
New College, University of Oxford, UK
Gibbs Prize for highest mark in Psychology & Philosophy Finals

PUBLICATIONS

E Holton, J Grohn, H Ward, S Manohar, J O'Reilly, N Kolling (2024). Goal commitment is supported by vmPFC through selective attention. *Nature Human Behaviour* 8, 1351–1365. [Pdf](#).

E Holton, B van Opheusden, J Grohn, H Ward, J Grogan, PL Lockwood, I Ma, WJ Ma, SG Manohar (2025). Disentangling the component processes in complex planning impairments following ventromedial prefrontal lesions. *Journal of Neuroscience* 45(12), e1814242025. [Pdf](#).

E Holton, Y Niv, J O'Reilly. The adaptive value of stubborn goals (2025). *Trends in Cognitive Science* 30(4), 379–390. [Pdf](#).

E Holton, L Braun, JAF Thompson, J Grohn, C Summerfield (2026). Humans and neural networks show similar patterns of transfer and interference during continual learning. *Nature Human Behaviour* 10, 111–125. [Pdf](#).

E Holton, R Holton (2026). When do we experience effort? *Synthese* 207(30).

M Binz, E Akata, A Almaatouq, ..., **E Holton**, ..., E Schulz, et al. (2026). Post-training makes large language models less human-like. arXiv:2605.07632.

AWARDS & FELLOWSHIPS

2026	Conference Travel Award, Bernstein Network Computational Neuroscience
2025	Future Values Fellowship, Centre for Human Values, Princeton
2025	C.V. Starr Fellowship, Princeton Neuroscience Institute (3 years)
2024	Letter of Commendation for Doctoral Thesis, Medical Sciences Division, Oxford
2023	Goodger and Schorstein Research Scholarship in Medical Sciences
2020	Oxford Student Union Sustainability award for Sustainable Energizer (for organizing college climate workshops with Bart Ashton)
2019	Wellcome Trust DPhil Studentship in Neuroscience (4 years)
2019	Gibbs Prize for highest mark in Psychology & Philosophy Finals, Oxford
2018	Wellcome Trust Biomedical Vacation Scholarship
2018	Proxime Accessit for the Iversen Prize (best performance in Psychology Exams)
2017	New College, Oxford Academic Scholarship
2017	Proxime Accessit for the Susan Mary Rouse Memorial Prize for Psychology

INVITED TALKS AND WORKSHOPS

September 2026	Bernstein Conference Satellite Workshop, Frankfurt, Germany <i>1, 2, 3, 4, 5, Once I Caught a Fish Alive": Sequential Learning in Recurrent Neural Networks</i>
August 2026	CCN Conference Workshop, New York, USA <i>Adaptive, degenerate, and yet comparable? Rethinking representational comparisons</i>
Dec 2025	Parallel Distributed Processing (PDP) Colloquium, Princeton <i>Learning without forgetting: Trade-offs in knowledge structuring for humans and neural networks</i>
Nov 2025	NYU-Concats Colloquium, NYU <i>Learning without forgetting: Trade-offs in knowledge structuring for humans and neural networks</i>
June 2025	RLDM Conference Workshop, Dublin <i>Chess as a Bridge Between Human Cognition and Artificial Intelligence</i>
May 2025	MRC Cognition and Brain Science Unit Seminar, Cambridge University <i>Learning without forgetting: Trade-offs in knowledge structuring for humans and neural networks</i>
June 2023	Workshop on Philosophy of Psychopathology, Cambridge <i>Balancing Commitment and Flexibility during Goal Pursuit</i>
April 2023	Tubingen Cognitive Science Colloquium, Tubingen <i>Balancing Commitment and Flexibility during Goal Pursuit</i>
May 2022	Effort & Self-Control Workshop, Institut de Philosophie, Université de Neuchâtel <i>Giving up or Giving in? Mechanisms of Goal Persistence</i>

CONFERENCE POSTERS & PROCEEDINGS

August 2026	Conference on Cognitive Computational Neuroscience, New York
June 2025	Reinforcement Learning and Decision Making Conference, Dublin
October 2023	Princeton Symposium on Biological & Artificial Intelligence, Princeton
Aug 2023	Conference on Cognitive Computational Neuroscience, Oxford
May 2023	NeuroFrance Conference, Lyon
July 2022	FENs Forum, Paris
March 2022	Symposium on the Computational Properties of the Prefrontal Cortex, Oxford

TEACHING

2022-2023	<i>Statistics in Python</i> (for Psychology and Human Science undergraduates). Class Tutor, Oxford University
2021	<i>Introduction to Computational Neuroscience</i> Tutor for visiting students, Lady Margaret Hall, Oxford University
2020-2024	Private Tutor: Individualized academic support for adults with autism

RESEARCH VISITS

2023	Princeton Visiting Student Research Collaborator (3 months), Niv Lab, Princeton University
2018	Summer internship (6 weeks), Stokes Lab, Oxford University (Wellcome Trust Biomedical Vacation Scholarship)
2017	Summer internship (4 weeks), Banaji Lab, Harvard University

AD HOC REVIEWER

Proceedings of the National Academy of Sciences (PNAS)
Nature Communications
Journal of Experimental Psychology: General
Motivation Science
Frontiers in Psychiatry