

# Neil Garrett, PhD

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## Academic Positions

08/2018 – Present	Sir Henry Wellcome Research Fellow	Oxford / Princeton University
09/2016 – 06/2018	Postdoctoral Researcher <i>Advisor: Nathaniel Daw</i>	Princeton University

## Education

09/2012 – 06/2016	Ph.D. Experimental Psychology <i>Advisor: Tali Sharot</i>	University College London
09/2010 – 09/2011	MSc Cognitive and Decision Sciences <i>Advisors: Benedetto De Martino &amp; Steve Fleming</i>	University College London
09/2001 – 06/2004	BSc Economics and Philosophy	London School of Economics

## Publications

**Garrett N** & Daw ND (2020) [Biased belief updating and suboptimal choice in foraging decisions](#), *Nature Communications*, 11:3417.

Ossola P, **Garrett N**, Sharot T & Marchesi C (2020) [Belief Updating in Bipolar Disorder Predicts Time of Recurrence](#), *eLife*. 9:e58891.

Dundon NM, **Garrett N**, Babenko V, Cieslak M, Daw ND, Grafton ST (2020) [Sympathetic and parasympathetic involvement in time constrained sequential foraging](#), *Cognitive, Affective and Behavioural Neuroscience*, 20, 730-745.

**Garrett N**, González-Garzón AM, Foulkes L, Levita L & Sharot T (2018) [Updating Beliefs Under Perceived Threat](#), *Journal of Neuroscience*, 38(6), 7901-7911.

**Garrett N** & Sharot T (2017) [Optimistic update bias holds firm: Three tests of robustness following Shah et al.](#), *Consciousness & Cognition*, 50, 12-22.

**Garrett N**, Lazzaro S, Ariely D & Sharot T (2016) [The Brain Adapts to Dishonesty](#), *Nature Neuroscience*, 19, 1727-1732.

Sharot T & **Garrett N** (2016) [Forming Beliefs: Why Valence Matters](#), *Trends in Cognitive Sciences*, 20(1).

Moutsiana C, Charpentier C, **Garrett N**, Cohen MX & Sharot T (2015) [Human frontal-subcortical circuit and asymmetric belief updating](#), *Journal of Neuroscience*, 35(42): 14077-14085.

**Garrett N**, Sharot T, Faulkner P, Korn CW, Roiser JP & Dolan RJ (2014) [Losing the rose-tinted glasses: neural substrates of unbiased belief updating in depression](#), *Frontiers in Human Neuroscience*, 8:639.

**Garrett N** & Sharot T (2014) [How robust is the optimistic update bias for estimating self-risk and population base rates?](#) *PLOS ONE*, 9(6).

Charpentier C, Moutsiana C, **Garrett N** & Sharot T (2014) [The brain's temporal dynamics from a collective decision to individual action](#), *Journal of Neuroscience*, 34(17): 5816-5823.

Moutsiana C, **Garrett N**, Clarke RC, Lotto RB, Blakemore SJ & Sharot T (2013) [Human development of the](#)

[ability to learn from bad news](#), *Proceeding of the National Academy of Sciences*, 110 (41): 16396–16401.

De Martino B, Fleming S, **Garrett N** & Dolan RJ (2013) [Confidence in value-based choice](#), *Nature Neuroscience*, 16, 105–110.

## Publications In Preparation

Khalighinejad N\*, **Garrett N**\*, Priestley L\*, Lockwood P & Rushworth MFS (under review) A habenula-insular circuit encodes whether it is worth acting

**Garrett N**\*, Glitz L\*, Juchems K & Summerfield C (in prep) Merging maps: generalising state transition structure in the human medial temporal lobe

**Garrett N**, Allan S, Daw ND (in prep) Habits can arise from model-based planning due to latent cause inference

**Garrett N**, Kroes M, Phelps E & Daw ND (in prep) Model based and model free systems in aversive learning

Vellani V, **Garrett N**, Gaule A, Patil KR & Sharot T (in prep) Heritability of belief updating is valence dependent

Dundon NM, **Garrett N**, Babenko V, Cieslak M, Daw ND, Grafton ST (in prep) Global and contextual hysteresis in value-based action-selection

Ossola P, Bishara A, **Garrett N** & Marchesi C (in prep) Anhedonia in the Wisconsin Card Sorting Task

\*denotes equal contribution

## Teaching

UCL, MSc in Cognitive Neuroscience (2020/2021) (Contributing Lecturer)

UCL, MSc in Cognitive Neuroscience (2018/2019) (Contributing Lecturer)

Oxford University, BSc in Psychology (2018/2019): Memory, Attention and Information Processing (Tutor)

UCL, MSc in Developmental Neuroscience and Psychopathology (2015/2016): Affective Neuroscience Module (Contributing Lecturer)

UCL, MSc in Social Cognition (2015/2016): Understanding Individuals and Groups Module (Contributing Lecturer)

UCL, MSc in Neuroscience (2015/2016): Cognitive Systems Neuroscience Module (Contributing Lecturer)

UCL, MSc in Cognitive Neuroscience (2015/2016): Cognitive Neuroscience II: Elaborative and Adaptive Processes (Contributing Lecturer)

UCL, MSc in Research Methods (2014/2015): Cognitive Psychology Module (Contributing Lecturer)

UCL, MSc in Social Cognition (2014/2015): Understanding Individuals and Groups Module (Contributing Lecturer)

## Awards & Research Grants

2020 John Fell Fund, Oxford University: £5K

2019 Wellcome Centre for Integrative Neuroimaging Seed Grant, Oxford University (joint w/Nima Khalighinejad): £12K

2018-2022 [Sir Henry Wellcome Postdoctoral Fellowship](#) (lead PI, 209108/Z/17/Z): £250K

2015 [Kavli Summer Institute for Cognitive Neuroscience Fellowship](#)

2014 Graduate Student Conference Fund, University College London: £0.5K

2013 [Guarantors of Brain Award](#): £0.5K

2012 [UCL Impact Award](#): £33K

## Students Supervised

[Leonie Glitz](#); Oxford University PhD Student  
 Luke Priestly (co-supervised w/Nima Khalighinejad); Oxford University PhD Student  
 Ana Maria Gonzalez: UCL MSc Cognitive Neuroscience Student  
 Sean Allan: Princeton University Research Assistant (Daw Lab)  
[Tara Srirangarajan](#): UCL Lab Manager (Affective Brain Lab)  
[Lennart Wittkuhn](#): UCL Internship Student  
 Molly Wilner: UCL Affiliate Student  
 Sarah Hadden: UCL Internship Student  
 Raeesa Anjum: UCL Undergraduate Student  
 Gabriella Montinola: UCL Affiliate Student  
 Anja Hallan Wolff: UCL Internship Student

## Additional Roles & Responsibilities

12/2020 – present	Public Engagement Ambassador Wellcome Centre for Integrative Neuroimaging, (University of Oxford)
09/2018-05/2020	SBDM Organising Committee Member Biology of Decision-Making Conference (University of Oxford)

## Research Collaborators

Daw Lab, Princeton University  
 Rushworth Lab, Oxford University  
 Summerfield Lab, Oxford University  
 Shohamy Lab, Columbia University  
 Grafton Lab, University of Santa Barbra  
 Affective Brain Lab, Max Planck UCL Centre for Computational Psychiatry and Ageing Research  
 Phelps Lab, Harvard University  
 Graybiel Lab, Massachusetts Institute of Technology  
 McLean Medical School, Harvard University  
 Department of Neuroscience, University of Parma  
 Social Decision Neuroscience Lab, University of Birmingham  
 Department of Psychology, Roehampton University

## Keynote Lectures

10/2017	<b><i>Using Information to Change Beliefs</i></b> EmTech MIT Technology Review
06/2016	<b><i>How the Human Brain Forms Optimistic Beliefs</i></b> European Conference on Positive Psychology (ECP)

## Invited Talks

01/2021	Neuroscience and Humanities Lab, University of Parma, Italy
10/2020	Society for Neuroeconomics Conference <i>Symposium Session</i> : Efficient coding and statistical regularities.
04/2020	New York Medical College, Department of Psychiatry and Behavioural Sciences, USA
03/2019	WIN Mood Disorders Day, University of Oxford, Oxford, UK
03/2019	Psychology Seminar Series, University of Roehampton, London, UK

- 03/2019 Affective Brain Lab Seminar Series, UCL, London, UK
- 02/2019 Computational Psychiatry Seminar Series, Max Planck UCL, London, UK
- 10/2018 Italian Society of Biological Psychiatry, Turin, Italy  
*Symposium session: Mood Congruency and Bipolar Disorder*
- 10/2018 University of Parma, Department of Neuroscience, Parma, Italy
- 10/2018 Kappes Lab, London City University, London, UK
- 10/2018 Spotlight Poster Presentation, Society for Neuroeconomics Conference, Philadelphia, USA
- 05/2018 Manhattan Area Memory Meeting (MAMM), Columbia University, USA
- 09/2017 Parallel Distributed Processing (PDP) Seminar Series, Princeton University, USA
- 08/2017 Law and the Whole Truth, University of Glasgow, UK
- 04/2017 Neuroscience and Social Decision Making Seminar Series, Princeton University, USA
- 05/2016 Daw Lab, Princeton Neuroscience Institute, Princeton University, USA
- 05/2016 Summerfield Lab, Department of Psychology, University of Oxford, Oxford, UK
- 01/2016 Marr Club, Department of Psychology, University of Cambridge, Cambridge, UK
- 09/2015 Society for Neuroeconomics Conference, Miami, USA  
*Symposium Session: Social preferences and strategic interactions.*
- 04/2015 Harvard Intergroup Neuroscience Lab, Harvard University, Boston, USA
- 03/2015 Affective Brain Lab Seminar Series, University College London, London, UK
- 03/2015 EEG Journal Club, Department of Psychology, Goldsmiths University, London, UK
- 09/2014 Saxe Lab, Massachusetts Institute of Technology, Boston, USA
- 09/2013 Society for Psychophysiological Research Conference, Florence, Italy  
*Symposium session: Neural mechanisms underlying positive and negative cognitive biases in emotion.*
- 10/2012 Society for Neuroscience Conference, New Orleans, USA  
*Nanosymposium session: Effects of Feedback, Reinforcement and Reward on Human Learning.*

### Ad Hoc Reviewer

**Journals:** Journal of Experimental Psychology; Psychological Science; Neuroimage; Journal of Neuroscience; Social Cognitive and Affective Neuroscience (SCAN); Emotion; Cerebral Cortex; Cognition and Emotion; Cognitive, Affective & Behavioural Neuroscience (CABN); Consciousness and Cognition; Brain Structure and Function; Cognition; Perspectives on Psychological Science; Proceedings of the National Academy of Sciences (PNAS)

**Conferences:** Cognitive Science Society (CogSci); Computational and Systems Neuroscience (Cosyne)

## Poster Presentations

01/2021 Society for Neuroscience Global Connectome Conference  
 07/2019 Reinforcement Learning and Decision-Making Conference, Montreal, Canada  
 05/2019 Symposium on Biology of Decision Making (SBDM), Oxford, UK  
 10/2018 Society for Neuroeconomics Conference, Philadelphia, USA  
 04/2015 Social and Affective Neuroscience Society (SANS) Conference, Boston, USA  
 11/2014 Society for Neuroscience Conference, Washington DC, USA  
 09/2013 Society for Neuroeconomics Conference, Lausanne, Switzerland

## Essays In Popular Media

**The Conversation:** *Why being dishonest is a slippery slope*

**Aeon Magazine:** *Dishonesty gets easier the more you do it*

**NBC op-ed:** *Trump's lying seems to be getting worse. Psychology suggests there's a reason why*

**The Dana Foundation:** *How dishonesty can snowball*

## Public Engagement

09/2019 Roundtable on Lying (panellist): The Helix Center, New York (watch [here](#))  
 05/2019 Pint of Science Festival, London  
 01/2017 Imperfect Cognitions Blog (article on Optimistic Belief Updating)  
 06/2016 Michelle McQuaid Podcast series (<http://www.michellemcquaid.com>)  
 03/2016 Imperfect Cognitions Blog (article on [Depressive Realism](#))  
 07/2013 Wrong! Wellcome Collection, London (July 2013)

## TV and Radio

**Radio:** BBC Radio 4 (Bringing Up Britain), BBC Radio 5 Live (Rod Sharpe), CBC Canada, KABC Radio, Newstalk1010, Radio New Zealand, Deutschland Radio, Swedish National Radio (SVT)

**TV:** Sky (Secrets of the Brain)

## Written Press Coverage (selected\*)

**The Guardian:** *From porkies to whoppers: over time lies may desensitize brain to dishonesty*

**New York Times:** *Why Big Liars Often Start Out as Small Ones*

**TIME Magazine:** *The Fascinating Reason Why Liars Keep On Lying*

**New Scientist:** *Lying feels bad at first but our brains soon adapt to deceiving*

**Wired:** *The more we lie, the easier it is for our brains to be increasingly more deceitful*

**Associated Press:** *Slippery slope: Study finds little lies lead to bigger ones*

**Huffington Post:** *How lying changes your brain in just a short period of time*

**Discover Magazine:** *From Fibs to Fraud: Why Lying Is a Slippery Slope*

**Scientific American:** *Liar, Liar: How the Brain Adapts to Telling Tall Tales*

**New Scientist:** *Lying feels bad at first but our brains soon adapt to deceiving*

**The Telegraph:** *Little white lies make it easier to go on and tell big whoppers*

**The Independent:** *Whenever you lie, your brain adjusts to make telling bigger whoppers study finds*

**LA Times:** *Neuroscientists show how tiny fibs snowball into big lies*

**Washington Post:** *Neuroscientists show how tiny fibs snowball into big lies*

**CBS News:** *How little lies lead to bigger lies*

**Newsweek:** *Why Telling Lies Trains Our Brains to be Dishonest*

**Vice:** *Lying Appears to Make It Easier to Tell More Lies*

**CNN:** *Lying may be your brain's fault, honestly*

**Sky News:** *Brain adapts to dishonesty*

**Forbes:** *Why Lying Becomes Easier Over Time: It's A 'Slippery Slope', Study Finds*

**Smithsonian Magazine:** *How White Lies Snowball Into Full-On Deception*

**NPR:** *How Small Fibs Lead To Big Lies*

\*see <http://neilgarrett.org/media-all/> for a complete list