

# Neil Garrett, PhD

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## Academic Positions

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

## Education

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

## Publications

### Journal Articles

Glitz L, Juchems K, Summerfield C & **Garrett N** (in press) [Generalising state transition structure in the human medial temporal lobe](#), *Journal of Neuroscience*

Sharot T & **Garrett N** (2022) [A Guideline and Cautionary Note: How to Use the Belief Update Task Correctly](#), *Methods in Psychology*, 100091

Dundon N, Colas JT, **Garrett N**, Babenko V, Rizor E, Yang D, MacNamara M, Petzold L & Grafton ST (2022) [Decision heuristics in contexts exploiting intrinsic skill](#), *BioRxiv*

Khalighinejad N\*, **Garrett N**\*, Priestley L\*, Lockwood P & Rushworth MFS (2021) [A habenula-insular circuit encodes whether it is worth acting](#), *Nature Communications*, 12:6329

**Garrett N** & Sharot T (2021) [Failure to Replicate Burton, Harris, Shah & Hahn \(2021\): There is No Belief Update Bias for Neutral Events](#), *PsyArXiv*

**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.

*\*denotes equal contribution*

## **Forthcoming Articles**

**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

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

## **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](#)

## Teaching Experience

University of Oxford: Psychology for Medicine - College Tutor	2020/2021
UCL: MSc in Cognitive Neuroscience - Contributing Lecturer	2020/2021
UCL: MSc in Cognitive Neuroscience - Contributing Lecturer	2018/2019
University of Oxford: BSc in Psychology, Memory, Attention and Information Processing - College Tutor	2018/2019
UCL: MSc in Developmental Neuroscience, Affective Neuroscience - Contributing Lecturer	2015/2016
UCL: MSc in Social Cognition, Understanding Individuals and Groups - Contributing Lecturer	2015/2016
UCL: MSc in Neuroscience, Cognitive Systems Neuroscience - Contributing Lecturer	2015/2016
UCL: MSc in Cognitive Neuroscience: Cognitive Neuroscience II: Elaborative and Adaptive Processes - Contributing Lecturer	2015/2016
UCL: MSc in Research Methods, Cognitive Psychology - Contributing Lecturer	2014/2015
UCL: MSc in Social Cognition: Understanding Individuals and Groups - Contributing Lecturer	2014/2015

## Awards & Research Grants

<a href="#">John Fell Fund</a> , Oxford University Press: £5K	2020-2021
<a href="#">Wellcome Centre for Integrative Neuroimaging</a> (WIN) Seed Grant, University of Oxford (joint w/Nima Khalighinejad): £12K	2019-2022
<a href="#">Sir Henry Wellcome Postdoctoral Fellowship</a> (lead PI, 209108/Z/17/Z): £250K	2018-2022
<a href="#">Kavli Summer Institute for Cognitive Neuroscience Fellowship</a>	2015
Graduate Student Conference Fund, University College London: £0.5K	2014
<a href="#">Guarantors of Brain Award</a> : £0.5K	2013
<a href="#">UCL Impact Award</a> : £33K	2012

## 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  
 Department of Neuroscience, University of Parma  
 Social Decision Neuroscience Lab, University of Birmingham  
 Department of Psychology, Roehampton University

## Students Supervised

[Leonie Glitz](#): Oxford University PhD Student  
 Joshua Cheung: Oxford University MSc Student  
 Luke Priestly (co-supervised w/Nima Khalighinejad); Oxford University PhD Student  
 Eoghan McCauley: Oxford University Undergraduate Student and Summer RA  
 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

## Keynote Lectures

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

## Invited Talks

- 10/2022      Neuroeconomics Seminar, University of Zurich, Switzerland  
 (upcoming)
- 03/2022      Centre for Integrative Neuroscience and Neurodynamics, University of Reading, UK
- 01/2022      Centre for Behavioural and Experimental Social Science, University of East Anglia, UK
- 10/2021      Credition: An Interdisciplinary Challenge, Hannover-Herrenhausen, Germany
- 02/2021      Neuroscience and Humanities Lab, University of Parma, Italy
- 10/2020      Society for Neuroeconomics Conference  
*Symposium Session: 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.*

## Poster Presentations

- 02/2021 Computational and Systems Neuroscience (Cosyne)
- 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

## Additional Academic Roles & Responsibilities

### Organising Committees

- 09/2018-05/2019 SBDM Committee Member  
Biology of Decision-Making Conference, University of Oxford

### Ad Hoc Reviewer

**Journals:** Journal of Experimental Psychology; Psychological Science; Neuroimage; Journal of Neuroscience; Social Cognitive and Affective Neuroscience (SCAN); Emotion; Cerebral Cortex; Cognition; Cognition and Emotion; Cognitive, Affective & Behavioural Neuroscience (CABN); Consciousness and Cognition; Brain Structure and Function; ; Journal of Environmental Psychology; Cognition; iScience; Perspectives on Psychological Science; Proceedings of the National Academy of Sciences (PNAS); PLOS Computational Biology; eLife; Nature Communications Biology; Trends in Cognitive Science

**Conferences:** Cognitive Science Society (CogSci)

## Public Engagement

- 05/2022 Pint of Science Festival, Norwich
- 12/2020 – 01/2021 Public Engagement Ambassador  
*Wellcome Centre for Integrative Neuroimaging*, University of Oxford
- 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 & 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*  
**NPR:** *How Small Fibs Lead To Big Lies*

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