

Tom E. Hardwicke

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Academic appointments

2019- present **Postdoctoral Scholar**
Meta-Research Innovation Center Berlin (METRIC-Berlin),
Berlin Institute of Health QUEST Center,
Charité – Universitätsmedizin Berlin, Germany
Advisor: John Ioannidis

2017-2018 **Postdoctoral Fellow**
Meta-Research Innovation Center at Stanford (METRICS),
Stanford University, United States of America
Advisors: John Ioannidis, Steven Goodman, Michael Frank

Education

2016 **PhD Experimental Psychology**
University College London, United Kingdom.
Advisor: David Shanks
Thesis title: “Persistence and plasticity in the human memory system: An empirical investigation of the overwriting hypothesis”

2012 **MRes Brain Imaging and Cognitive Neuroscience**
The University of Birmingham, United Kingdom.

2011 **BSc Psychology** (First Class Honours)
Cardiff University, United Kingdom.

Awards

2013 **Best Poster Prize**
Economic and Social Research Council Annual Meeting.

2011 **The George Westby Prize** (highest degree grade)
Cardiff University.

2011 **The Stuart Diamond Memorial Prize** (best final year project)
Cardiff University.

- 2011 **The British Psychological Society Undergraduate Award**
Cardiff University.
- 2010 **Best Presentation Award**
British Psychological Society Student Conference.

Publications

- Hardwicke, T. E. & Ioannidis, J. P. A.** (2018). Mapping the universe of Registered Reports. *Nature Human Behaviour*. 1-4.
- Hardwicke, T. E., Mathur, M. B., MacDonald, K. E., Nilsonne, G., Banks, G. C., Kidwell, M. C., Hofelich Mohr, A., Clayton, E., Yoon, E. J., Henry Tessler, M., Lenne, R. L., Altman, S., Long, B., & Frank, M. C.** (2018). Data availability, reusability, and analytic reproducibility: Evaluating the impact of a mandatory open data policy at the journal Cognition. *Royal Society Open Science*, 5, e180448.
- Hardwicke, T. E. & Ioannidis, J. P. A.** (2018). Populating the Data Ark: An Attempt to retrieve, preserve, and liberate data from the most highly-cited psychology and psychiatry articles. *PLOS ONE*, 13, e0201856.
- Hardwicke, T. E., Tessler, M. H., Peloquin, B. N., Frank, M. C.** (2018). A Bayesian decision-making framework for replication. *Behavioral and Brain Sciences*, 41, e132.
- Klein, O., **Hardwicke, T. E.**, Aust, F., Breuer, J., Danielsson, H., Hofelich Mohr, A., IJzerman, H., Nilsonne, G., Vanpaemel, W., & Frank, M. C. (2018). A practical guide for transparency in psychological science. *Collabra: Psychology*, 4, 20.
- Cristea, I. A., Naudet, F., Shanks, D. R., **Hardwicke, T. E.** (2017). Post-retrieval Tetris should not be likened to a 'cognitive vaccine'. *Molecular Psychiatry*. 1-2.
- Hardwicke, T. E.** (2016). Persistence and plasticity in the human memory system: An empirical investigation of the overwriting hypothesis. *PhD Thesis*.
- Hardwicke, T. E. & Shanks, D. R.** (2016). Reply to Walker and Stickgold: Proposed boundary conditions on memory reconsolidation will require empirical verification. *Proceedings of the National Academy of Sciences of the United States of America*, 113, 1-2.
- Kidwell, M. C., Lazarević, L. B., Baranski, E., **Hardwicke, T. E.**, Piechowski, S., Falkenberg, L-S., Kennett, C., Slowik, A., Sonnleitner, C., Hess-Holden, C., Errington, T. M., Fiedler, S., & Nosek, B. A. (2016). Badges to acknowledge open practices: A simple, low cost, effective method for increasing transparency. *PLOS Biology*, 14, 1-15.

Hardwicke, T. E., Mahdi, T., & Shanks, D. R. (2016). Post-retrieval new learning does not reliably induce human memory updating via reconsolidation. *Proceedings of the National Academy of Sciences of the United States of America*, 113, 5206-5211.

Vadillo, M. A., **Hardwicke, T. E.,** Shanks, D. R. (2016). Publication bias, vote counting, and money priming effects: A comment on Rohrer, Pashler, and Harris (2015) and Vohs (2015). *Journal of Experimental Psychology: General*, 145, 655-663.

Baker, R., Dexter, M., **Hardwicke, T. E.,** Goldstone, A., Kourtzi, Z. (2014). Learning to predict: Exposure to temporal sequences facilitates prediction of future events. *Vision Research*, 99, 124-133.

Ludwig, C. J. H., Farrell, S., Ellis, L. A., **Hardwicke, T. E.,** & Gilchrist, I. D. (2012). Context-gated statistical learning and its role in visual-saccadic decisions. *Journal of Experimental Psychology: General*, 141, 150-169.

Invited presentations

Hardwicke, T. E. (2019). Calibrating the scientific ecosystem through meta-research. *Open Science Conference 2019, University of Trier*.

Hardwicke, T. E. (2018). Rehabilitating the scientific ecosystem. *The Bank of England*.

Hardwicke, T. E. (2018). What is this thing we call 'open science'? *Reproducible Science at Stanford, Stanford University*.

Hardwicke, T. E. (2018). Fostering the preservation, liberation, and re-use of data in psychological science. *Department of Psychology, University of California, Davis*.

Hardwicke, T. E. (2017). Principles of reproducible research. *Stanford SPECTRUM Scholars Seminar, Stanford University*.

Conference presentations

Hardwicke, T. E., Mathur, M. B., Nilsson, G., McCarthy, R., Hofelich Mohr, A., & Lindsay, D. S. (2018). Analysis Exchange: Developing an online platform to request verification of analytic reproducibility and statistical expertise. *Society for Improving Psychological Science Conference*.

Hardwicke, T. E. (2018). SMART pre-registrations: Developing a citation system to facilitate comparison of protocols and papers. *Society for Improving Psychological Science Conference*.

- Hardwicke, T. E.** (2017). Open data are not enough: An evaluation of data availability and computational reproducibility at the journal *Cognition*. *Department of Psychology, Stanford University*.
- Hardwicke, T. E.** (2017). Open data are not enough: An evaluation of data availability and computational reproducibility at the journal *Cognition*. *Society for Improving Psychological Science Conference*.
- Hardwicke, T. E., & Shanks, D. R.** (2016). Revisiting the misinformation effect: Does reconsolidation overwrite existing memories? *6th International Conference on Memory*. [poster]
- Hardwicke, T. E., Mahdi, T., & Shanks, D. R.** (2016). Post-retrieval new learning does not reliably induce human memory updating via reconsolidation. *6th International Conference on Memory*.
- Hardwicke, T. E., & Shanks, D. R.** (2015). Does reconsolidation enable human memory updating? *Experimental Psychology Society London Meeting*.
- Hardwicke, T. E., & Shanks, D. R.** (2014). Does reconsolidation enable human memory updating? *UCL Faculty of Brain Sciences Symposium*. [poster]
- Hardwicke, T. E.** (2013). The stability and plasticity of human knowledge. *ESRC UCL DTC Annual Meeting*. [poster]
- Hardwicke, T. E., Ludwig, C. J. H., Farrell, S., Ellis, L. A., & Gilchrist, I. D.** (2010). Learning the environmental statistics facilitates effective gaze allocation. *BPS Welsh Branch Annual Student Conference*.
- Hardwicke, T. E., Ludwig, C. J. H., Farrell, S., Ellis, L. A., & Gilchrist, I. D.** (2010). Statistical learning facilitates effective gaze allocation. *BVI Young Researchers' Colloquium*. [poster]

Grants and funding

- 2017- **Postdoctoral Fellowship**
- 2018 Meta-Research Innovation Center at Stanford (METRICS), USA.
- 2016 **Grindley Grant (travel), International Conference on Memory**
Experimental Psychology Society, UK.
- 2016 **Travel Grant, International Conference on Memory**
University College London, UK.

- 2015 **ESRC Collaborative Placement Funding**
Economic and Social Research Council, UK.
- 2014 **Travel Grant, Human Factors in Science Symposium**
University College London, UK.
- 2012 **ESRC PhD Studentship**
Economic and Social Research Council, UK.
- 2009 **Undergraduate Research Opportunities Program**
Cardiff University, UK.

Teaching experience

- 2018 **Ad-Hoc Lecturer** (“Principles of research reproducibility and transparency”). *Essentials of Clinical Research (graduate level)*, Stanford Medicine, Stanford University.
- 2018 **Ad-Hoc Lecturer** (“Creating reproducible research reports using R Markdown”). *SPSP Webinar*. [with Michael Frank]
- 2018 **Ad-Hoc Lecturer** (“How to write a reproducible scientific paper”). *Experimental Methods (graduate-level)*, Department of Psychology, Stanford University.
- 2018 **Ad-Hoc Lecturer** (“Data visualization in R”). *Introduction to R (undergraduate-level)*, Department of Psychology, Stanford University.
- 2018 **Ad-Hoc Lecturer** (“Repeatability, reproducibility, and validation”). *Scientific Method and Bias (undergraduate-level)*, Stanford University.
- 2018 **Ad-Hoc Lecturer** (“Principles of reproducible research”). *Essentials of Clinical Research (graduate level)*, Stanford Medicine, Stanford University.
- 2017 **Ad-Hoc Lecturer** (“On the nature of replication”). *CSLI Summer School (undergraduate-level)*, Center for the Study of Language and Information, Stanford University.
- 2017 **Ad-Hoc Lecturer** (“Building a reproducible research workflow”). *Essentials of Clinical Research (graduate-level)*, Stanford Medicine, Stanford University.
- 2014–2016 **Postgraduate Teaching Assistant**. *Research and Quantitative Methods in Psychology (undergraduate-level)*, Department of Experimental Psychology, University College

London.

2016 **Ad-hoc lecturer** (“Introduction to open science”). *Social Cognition (graduate-level)*, Department of Experimental Psychology, University College London.

2015 **Ad-hoc lecturer** (“Introduction to memory & learning”). *Cognitive and Decision Sciences (graduate-level)*, Department of Experimental Psychology, University College London.

Supervision of student projects

2018 Athena Braun (undergraduate).

2017 Emily Huxtable (undergraduate).

2016 Bethany Manning (undergraduate).

2015 Gudmundur Haraldsson (masters).

2014 Mahdi Taqi (masters).

Additional roles and professional service

- 2018 - present **Chair (Conference Program Committee).** Society for Improving Psychological Science 2019 Annual Conference.
- 2018 - present **Executive Committee Member.** Society for Improving Psychological Science
- 2017 - present **Open Science Catalyst.** Berkeley Initiative for Transparency in the Social Sciences (BITSS).
- 2015 - present **Open Science Ambassador.** Center for Open Science.
- 2015 **Scholar in Residence.** Center for Open Science.
- 2015 **Convener.** Is Science Broken? | Public debate | University College London.
- 2012 - 2015 **Co-founder of CRITUCL.** Postgraduate discussion group.
- 2012 - 2015 **Opticon1826 Faculty Editor (Brain Sciences).** University College London.
- 2012 - 2014 **ESRC Student Representative.** University College London.
- 2009-2010 **Research collaborator.** School of Psychology | University of Bristol
- Ad-hoc **Peer-reviewer.** Royal Society Open Science | Nature Human Behaviour | Research Integrity and Peer Review | Advances in Methods and Practices in Psychological Science | Collabra: Psychology | Journal of Experimental Psychology: Learning Memory & Cognition | Behavioural Brain Research | PeerJ | Sports Medicine | Communications of the ACM | Perspectives on Psychological Science

Open research practices

The following can be found via my Open Science Framework page (osf.io/i8w73):

- Pre-prints
- Open data
- Open materials
- Open analysis scripts
- Pre-registered study protocols

Programming languages

R, Javascript, HTML.

Referees

Available on request.