

# Dr Jo Cutler

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**Topics:** altruism, prosocial behaviour, learning, motivation, development.

**Methods:** fMRI, psychophysiology (ECG, SCR, pulse oximetry), computational modelling.

**Software & programming:** R, Matlab (SPM, PsPM, Psychtoolbox), FSL, Unix.

## EMPLOYMENT

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### Postdoctoral Research Fellow

July 2020 to present

*School of Psychology, University of Birmingham, UK*

### Postdoctoral Research Associate

January to June 2020

*Experimental Psychology, University of Oxford, UK*

Social Decision Neuroscience Lab

*Principle Investigator: Dr Patricia Lockwood*

## EDUCATION

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### PhD Psychology

2016 to 2019

*School of Psychology, University of Sussex, UK*

- *Thesis:* When and why do we value the lives of others? Insights from brain, body and behaviour
- *Supervisor:* Dr Daniel Campbell-Meiklejohn
- Involved in all research ideas, co-designed paradigms and created stimuli
- Wrote scripts to run studies and analyse data
- Tested participants and coordinated other researchers to run studies

### MSc Cognitive Neuroscience, Distinction

2015 to 2016

*School of Psychology, University of Sussex, UK*

- *Dissertation:* Comparing altruistic decisions with those which also benefit the self: A functional imaging meta-analysis of prosocial decisions

### BSc Psychology (International), 1<sup>st</sup> Class Hons

2011 to 2015

*School of Psychology, University of Leeds, UK and University of Sydney, Australia*

- *Dissertation:* Applying the theory of planned behaviour to charitable giving
- Research assistant on 4 projects leading to co-authorship on a conference presentation
- Grant to collect data in Australia

## SELECTED PUBLICATIONS

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Cutler, Nitschke, Lamm & Lockwood (2021) Older adults across the globe exhibit increased prosocial behavior but also greater in-group preferences. *Nature Aging*, 1 (10), 880-888. doi.org/10.1038/s43587-021-00118-3

Cutler, Wittmann, Abdurahman, Hargitai, Drew, Husain & Lockwood (2021) Ageing disrupts reinforcement learning whilst learning to help others is preserved. *Nature Communications*. 12, 4440. doi.org/10.1038/s41467-021-24576-w

Cutler & Campbell-Meiklejohn (2019) A comparative fMRI meta-analysis of altruistic and strategic decisions to give. *Neuroimage*, 184, 227-241. doi.org/10.1016/j.neuroimage.2018.09.009

## PUBLICATIONS

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Lockwood, Wittmann, Nili, Matsumoto-Ryan, Abdurahman, Cutler, Husain & Apps (preprint) Distinct neural representations for prosocial and self-benefitting effort. *bioRxiv*. doi.org/10.1101/2021.09.27.461936

Martins, Lockwood, Cutler, Moran, Paloyelis (preprint) Oxytocin modulates neurocomputational mechanisms underlying prosocial reinforcement learning. *bioRxiv*. doi.org/10.1101/2021.05.26.445739

Van Bavel, ... Cutler, ... & Boggio (accepted) National identity predicts public health support during a global pandemic. *Nature Communications*. Preprint doi.org/10.21203/rs.3.rs-67323/v1

Cutler (accepted) Aligning tax incentives with motivations for philanthropy: Insights from psychology and neuroscience. *Routledge Handbook of Taxation and Philanthropy*.

Rhoads, Cutler & Marsh (2021) A feature-based network analysis and fMRI meta-analysis of the task structure underlying prosocial decision-making reveal three distinct clusters: cooperation, equity, and altruism. *Social Cognitive and Affective Neuroscience*. doi.org/10.1093/scan/nsab079

Livermore, Holmes, Cutler, Levstek, Moga, Brittain & Campbell-Meiklejohn (2021) Selective effects of serotonin on choices to gather more information. *Journal of Psychopharmacology*, 35 (6), 631-640. doi.org/10.1177/0269881121991571

Tierney, ... Culture and Work Morality Forecasting Collaboration, & Uhlmann (2021). A creative destruction approach to replication: Implicit work and sex morality across cultures. *Journal of Experimental Social Psychology*, 93, 104060. (Member of Forecasting Collaboration). doi.org/10.1016/j.jesp.2020.104060

Nitschke, Forbes, Cutler, Apps, Lockwood & Lamm (2020) Resilience During Uncertainty? Greater Social Connectedness During COVID-19 Lockdown is Associated with Reduced Distress and Fatigue. *British Journal of Health Psychology*, 26 (2) 553-569. doi.org/10.1111/bjhp.12485

Cutler, Radua & Campbell-Meiklejohn (preprint) Adjusting for variable brain coverage in voxel-based fMRI meta-analysis. *bioRxiv*. doi.org/10.1101/457028.

## INVITED TALKS

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### Academic

- *London Judgement and Decision Making Seminar*. When and why do we value outcomes for others? Insights from brain, body and behaviour, June 2020.
- *University College London, Affective Brain Lab Meeting*. When and why are we altruistic? Insights from brain, body and behaviour, August 2019.
- *Dartmouth College, Dartmouth Social Neuroscience Lab Meeting*. When and why are we altruistic? Insights from brain, body and behaviour, August 2019.
- *Brown University, FeldmanHall Lab Meeting*. When and why are we altruistic? Insights from brain, body and behaviour, July 2019.
- *California Institute of Technology, Social & Decision Neuroscience Lab Meeting*. Why do we donate money to strangers? Insights from brain, body and behaviour, February 2019.
- *The University of Cardiff, Social Psychology Lab Meeting*. Using neuroscience to understand prosocial decisions, June 2018.
- *The University of Sussex, Kindness Symposium*. The neuroscience of kindness, December 2017.

### Engagement

- *Kindfest: The science of kindness, online*. Panel member, November 2020.
- *New Note Orchestra: Kind Rebellion, Brighton*. Panel member, November 2019.
- *UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development World Youth Conference on Kindness, Delhi*. Kindness Lab: Why are we kind and how can we inspire others to be kind? August 2019.
- *Institute of Fundraising Consultants Special Interest Group, London*. Getting inside your supporter's head, September 2018.
- *UNICEF, Macmillan Cancer Support and WaterAid, London*. The charitable brain: Biological and neural foundations of giving, Spring 2018.
- *Institute of Fundraising Insight conference, London*. The neuroscience of giving: who, what, how and why? November 2017.

## GRANTS, SCHOLARSHIPS & ACADEMIC AWARDS

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Delegate's Choice Poster Prize winner - PERCAT Conference, £150 prize	2021
Co-applicant - University of Birmingham School of Psychology Pump-Priming, £672	2021
Principle investigator - University of Birmingham School of Psychology Pump-Priming, £500	2021
Finalist - Foundation Lombard Odier Prize for Academic Excellence in Philanthropy	2020
Contributor - Economic, Social, Cultural, & Environmental Impacts of COVID-19 Grant, £15,000	2020
International Association for Research in Economic Psychology Travel Grant, €200	2019
Sussex Fund Doctoral Overseas Conference Grant, £980	2019
Principle investigator - ESRC SeNSS Industry Engagement Fund, £4,980	2018
Collaborator - shortlisted but unsuccessful ESRC Collaborative Studentship Grant	2018
Sussex Three Minute Thesis winner, £500 research grant prize	2018
Sussex Neuroscience Travel Grant, £1,300	2018
Clinical Imaging Science Centre PhD scanning award, 36 hours fMRI funding	2017
Sussex Psychology Impact Fund, £340	2017
Kindness UK & Sussex Doctoral School Conference Award, £1,000	2017
Sussex Cumberland Lodge Conference Grant, £450	2017
Economic and Social Research Council (ESRC) 1+3 MSc & PhD Studentship	2015
University of Leeds BSc Psychology 2015 award	2015
Santander Study Abroad Research Scheme, £400	2013

## CONFERENCE PRESENTATIONS

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- Cutler, Nitschke, Lamm & Lockwood (2021) Older adults across the globe exhibit increased prosocial behavior but also greater in-group preferences. Poster (recorded short talk). *Society for Neuroeconomics Annual Meeting* (online). *University of Birmingham PERCAT Conference* (online).
- Cutler, Wittmann, Abdurahman, Hargitai, Drew, Husain & Lockwood (2021) Ageing disrupts reinforcement learning whilst learning to help others is preserved. Poster (recorded short talk). *European Society for Cognitive and Affective Neuroscience* (online) *Social Affective Neuroscience Society* (online) *Society for Social Neuroscience* (online)
- Cutler (2020) Aligning tax incentives with motivations for philanthropy: Insights from brain and behaviour. Oral presentation. *Geneva Centre for Philanthropy International Conference on Taxation and Philanthropy* (online).
- Cutler, Wittmann, Abdurahman, Hargitai, Drew, Husain & Lockwood (2020) Ageing-related changes in prosocial reinforcement learning and links to psychopathic traits. Poster. *Organization for Computational Neuroscience* (online). Oral presentation. *Neuromatch* (online).
- Cutler & Campbell-Meiklejohn (2019) A comparative fMRI meta-analysis of altruistic and strategic decisions to give. Poster. *Society for Social and Affective Neuroscience*.
- Cutler, Miles-Wilson & Campbell-Meiklejohn (2019) Physiological responses to lives at risk depend on whether they are at home or abroad. Poster. *Society for Social and Affective Neuroscience*.
- Cutler, Miles-Wilson & Campbell-Meiklejohn (2018) Heart rate changes in response to people living or dying show evidence of cognitive biases. Poster. *Society for Neuroscience and Society for Social Neuroscience*.
- Cutler & Campbell-Meiklejohn (2018) What can neuroscience reveal about #charity giving? Twitter presentation. *Brain Twitter Conference* (online).
- Cutler & Campbell-Meiklejohn (2017) Differentiating altruistic and strategic decision making in striatum and vmPFC. Poster. *Organisation for Human Brain Mapping Annual Meeting*.
- Cutler & Campbell-Meiklejohn (2017) The neural basis of prosocial decision making: An fMRI meta-analysis. Poster. *British Psychological Society Annual Conference* *British Chapter of the Institute of Magnetic Resonance in Medicine Postgraduate Meeting*.

## INTERNAL TALKS

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- *Birmingham Centre for Human Brain Health seminar series*. Age is associated with increased but more biased prosocial behaviour across the globe, March 2021.
- *Motivation & Social Neuroscience and Social Decision Neuroscience Lab meeting*. Are older adults more prosocial? October 2020.
- *Birmingham Centre for Human Brain Health seminar series*. Ageing disrupts reinforcement learning whilst learning to help others is preserved, July 2020.
- *Oxford Experimental Psychology Away Day Early Career Researcher talks*. Ageing-related changes in prosocial learning, April 2020.
- *Sussex Early Career Researchers in Neuroimaging Day*. Using physiological measures to understand biases in charitable giving, May 2018.
- *Sussex Cognitive Brown Bag*. Cognitive biases in the valuation of other people's lives, May 2018.
- *Sussex CISC Neuroimaging Methods meeting*. Meta-analysis of neuroimaging data: Using AES:SDM, April 2018.
- *Sussex CISC Neuroimaging Methods meeting*. Physiological recording with Biopac, April 2018.
- *The University of Sussex Impact Day*. Creating impact early in your academic career, June 2017.
- *Sussex Behavioural and Clinical Neuroscience meeting*. The neural basis of prosocial decisions: an fMRI meta-analysis, April 2017.
- *Sussex CISC Neuroimaging Methods meeting*. Running an fMRI meta-analysis using AES:SDM, March 2017.

## IMPACT, MEDIA & ENGAGEMENT

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- Appearance on Australian Broadcasting Corporation (ABC) NewsRadio, November 2020.
- Appearance on BBC Radio 5 Live, May 2020.
- Consultant, European company developing a fundraising platform.
- Research Fellow, Better Good (American company which created the Momentum fundraising app) following research funded by ESRC SeNSS Industry Engagement Fund grant.
- Advisor, UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development Kindness Matters campaign.
- The psychology of opting in. Guest blog for the Institute of Fundraising, August 2018.
- Three articles for The Conversation (February 2018, March 2017, March 2016) 100,000+ total views.
- Appearance on BBC Sussex radio and TV, January 2018.
- Why do we give at Christmas? Article for Impakter.com, December 2017.

## TEACHING & SUPERVISION

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### Project Student Co-supervisor

- Co-designed studies, wrote scripts to run experiments, trained students in completing ethics applications, data collection and analysis. 2015 to present
- 2020 – 2021: One MSc student.
- 2019 – 2020: Two MRes students and a Research Assistant.
- 2018 – 2019: Two BSc and two MSc students.
- 2017 – 2018: One MSc student and a summer project student.
- 2016 – 2017: Two BSc students.
- 2015 – 2016: One BSc student.

### Guest Lecturer

- *MSc Contemporary Applications in Consumer Psychology: Neuromarketing and Beyond* – guest lecture to 50 students, “Using physiology to understand consumer behaviour”. April 2019

### Associate / Doctoral Tutor

- *BSc Biological Psychology* – led seminars of up to 20 students, conducted support sessions, marked exams. 2018
- *MSc Statistics* – tutored workshops (approximately 80 students), mentored students learning to use R through novel teaching methods. 2017
- *BSc Social Psychology* - ran seminars (up to 20 students), supported workshops (80 students), marked research reports. 2017
- Completed Starting to Teach training with distinction. 2017
- Associate Fellow of the Higher Education Academy.

## ADMINISTRATION & SERVICE

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- The Social Decision Lab mailing list* – creator and organiser. 2017 to 2020
- Sussex Postgraduate Open Days* – presenter as a current postgraduate student. 2016 to 2019
- Sussex Psychology Impact Fund* – application reviewer. October 2018
- Early Career Researchers in Neuroimaging Day* – organising committee secretary. 2018
- ESRC Festival of Social Science event Meet the Neuroscientists Researching Charity Giving* – event organiser: designed, organised, funded and ran event. November 2017
- Psychology Impact Group for Early Career Researchers* – founder and organiser. 2016 to 2017

## **PEER REVIEW**

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Neuroimage  
Social Cognitive and Affective Neuroscience  
Nature Scientific Reports  
European Journal of Marketing  
Nature Human Behaviour \*  
Neuroscience and Biobehavioral Reviews  
PNAS \*  
Psychological Science \*  
Developmental Cognitive Neuroscience \*

Note: \* indicates review in partnership with Principle Investigator