**Matthew Apps, PhD.**

Department of Experimental Psychology

University of Oxford

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**Education and Employment History**

*2015-2018:* **BBSRC Anniversary Future Leader Fellow (Principal Investigator)**

Topic: *A Biological Framework for Understanding and Modulating Apathy in Healthy People*

Institution:Experimental Psychology, Uni. of Oxford.

*2014-2016:* **Somerville College Fulford Junior Research Fellow**

*2013-2015:*  **Postdoctoral Research Associate**

Topic: *Apathy, motivation and effort-based decision-making*

Supervisor:Prof. Masud Husain

Institution:Nuffield Department of Clinical Neuroscience, Uni. of Oxford.

*2011-2013:*  **Postdoctoral Research Fellow**

Topic: *Computational models of self-other distinction*

Supervisor:Prof. Manos Tsakiris

Institution:Royal Holloway, University of London.

*2008-2011:*  **PhD. Student (ESRC scholarship)**

Thesis : *Anterior cingulate cortex: contributions to social cognition*

Supervisor:Prof. Narender Ramnani

*Examiners:* Dr. Mark Walton (University of Oxford), Dr. James Kilner (UCL) and Prof. Johannes Zanker (Royal Holloway)

Institution:Royal Holloway, University of London.

*2007-2008:* **MSc. Research Methods in Psychology (ESRC scholarship)**

Grade:Distinction

Institution: University of Reading.

*2004-2007:*  **BSc. Psychology**

Grade: First Class Honours

Institution: Royal Holloway, University of London.

**Grants**

***Research Grants***

* BBSRC AFLF Fellowship (Principal Investigator) ~£300,000
* ESRC 1+3 open competition MSc. and PhD Studentship (2007-2011) ~£70,000

***Travel Grants***

* Guarantors of Brain travel grant (2009, 2011, 2013) - £2400
* Organization for Human Brain Mapping trainee abstract award (2009, 2015) - $2700
* BPS postdoctoral travel award (2014) - £350
* EPS Grindlay grant (2013) - £500
* Oxford University Autumn School in Cognitive Neuroscience bursary (2008) - £250

**Awards**

* Guardian Research of the Week (2015): <http://www.theguardian.com/teacher-network/2015/feb/20/scientists-teachers-brains-work-weekly-news-review>
* Awarded Fulford Junior Research Fellowship at Somerville College, Oxford (2014-2016)
* *Nature Communications* papernominated for British Psychology Society Cognitive Section Award (2014)
* Elected postgraduate representative (2009-2010)
* OHBM trainee abstract award (2009, 2015)
* Jack Westaway prize for best undergraduate project (2007)
* Experimental Psychology Society undergraduate prize nomination (2007)

**Invited Oral Presentations**

* Neuroscience department, ETH Zurich (2015)
* Neuroimaging group, IOPPN, King’s College London (2015)
* Decision-Making and Motivation Workshop, University of Oxford (2015)
* Experimental Psychology, Ghent University (2015)
* Developmental Risk and Resilience Unit, UCL (2015)
* Psychology Department, Roehampton University (2014)
* Department of Physiology, Development and Neuroscience, University of Cambridge (2013)
* Rushworth lab, Department of Experimental Psychology, University of Oxford (2013)
* Experimental Psychology Society meeting, London (2013)
* Institute of Neuroscience, Trinity College, Dublin (2012)
* Symposia, Annual meeting of the Organization for Human Brain Mapping (2009)

**Publications**

**Apps, M.A.J.,** Lesage, E., & Ramnani, N. (2015) Vicarious Reinforcement Learning Signals When Instructing Others. *Journal of Neuroscience*

Lockwood, P.L., **Apps M.A.J.**, Roiser, J., & Viding, E. (2015) Encoding of vicarious reward prediction in anterior cingulate cortex and relationship with trait empathy. *Journal of Neuroscience*

Manohar, S., Chong, T., **Apps M.A.J**., Batla A., Stamelou M., Jarman PR., Bhatia KP., & Husain, M. (2015). Reward Pays the Cost of Noise Reduction in Motor and Cognitive Control. *Current Biology*

**Apps, M.A.J**., Grima, L., Manohar, S., & Husain, M. (2015). The role of cognitive effort in subjective reward devaluation and risky decision-making. *Scientific Reports*

Ang, Y-S., Manohar, S. & **Apps, M.A.J.** (2015). Commentary: Noradrenaline and Dopamine Neurons in the Reward/Effort Trade-off: A Direct Electrophysiological Comparison in Behaving Monkeys. *Frontiers in Behavioural Neuroscience*

**Apps M.A.J.,** & Ramnani, N. (2014). The anterior cingulate gyrus signals the net-value of others’ rewards. *Journal of Neuroscience.*

**Apps, M.A.J**. & Tsakiris, M (2014). The free-energy self: A predictive coding account of self-recognition. *Neuroscience and Biobehavioural Reviews.*

**Apps, M.A.J.**& Tsakiris, M. (2013).Predictive codes of familiarity and context during the perceptual learning of facial identities. *Nature Communications, 4.*

**Apps, M. A. J**. \*, Tajadura-Jiménez, A. \*, Sereno, M., Blanke, O., & Tsakiris, M. (2013). Plasticity in unimodal and multimodal brain areas reflects multisensory changes in self-face identification. *Cerebral Cortex* ***\*\* equal contributors***

**Apps M.A.J.**, Lockwood, P.L. & Balsters, J.H. (2013). The role of the midcingulate cortex in monitoring others' decisions. *Frontiers in Neurosci*ence

**Apps, M.A.J**., Green, R., & Ramnani, N. (2013). Reinforcement learning signals in the anterior cingulate cortex code for others’ false beliefs. *Neuroimage.*

**Apps, M.A.J.\***, Tajadura-Jimenez, A.\*, Turley, G,. & Tsakiris, M. (2012). The different faces of one’s self: an fMRI study into the recognition of current and past self-facial appearances. *Neuroimage.*

**Apps, M.A.J**., Balsters, J. H., & Ramnani, N. (2012). The Anterior Cingulate Cortex: Monitoring the outcomes of others’ decisions. *Social Neuroscience.*

Lesage E., **Apps, M. A. J**., Hayter, A. L., Beckmann, C. F., Barnes, D., Langdon, D. W., & Ramnani, N. (2010). Cerebellar Information Processing In Relapsing-Remitting Multiple Sclerosis (RRMS). *Behavioural Neurology*.

**Forthcoming**

Balsters, J.H. Mantini, D., **Apps, M.A.J**., Eickhoff, S., & Wenderoth, N. (under review)

Connectivity-based parcellation of the cingulate cortex in Autism Spectrum Disorder.

Farmer, H., **Apps, M.A.J.,** & Tsakiris, M. (under review). Reputation in an Economic Game Modulates Premotor Cortex Activity during Action Observation.

**Apps, M.A.J**., Murray, E.A., & Chang, S., (in prep). Contributions of the cingulate cortex to social cognition: A unifying, computational framework.

**Apps, M.A.J**., & Ramnani, N. (in prep). Medial prefrontal contributions to subjective and normative economic decision-making.

Chong, T-J. T.\*\*, **Apps, M.A.J**.\*\*, Blake, A., Giehl, K., Grima, L., & Husain, M. (in prep). The neural basis of subjective reward devaluation by cognitive and physical effort. ***\*\* equal contributors***

Lockwood, P.L., **Apps M.A.J.**, Valton, V., Roiser, J., & Viding, E. (in prep). Prosocial reinforcement learning.

Ainley, V., **Apps, M.A.J.,** & Tsakiris, M. (in prep). ‘Bodily Precision’: A Predictive Coding Account of Individual Differences in the Interoceptive Accuracy.

**Collaborators**

* Prof. Masud Husain (Oxford)
* Prof. Matthew Rushworth (Oxford)
* Dr. Patricia Lockwood (Oxford)
* Dr Trevor Chong (Macqaurie University)
* Dr. Sanjay Manohar (Oxford)
* Prof. Nicole Wenderoth (ETH Zurich)
* Dr. Joshua Balsters (ETH Zurich)
* Prof. Essi Viding (UCL)
* Prof. Jon Roiser (UCL)
* Prof. Narender Ramnani (Royal Holloway)
* Prof. Manos Tsakiris (Royal Holloway)
* Dr. Steve Chang (Yale)
* Prof. Betsy Murray (NIH)

**Public Engagement**

***Public engagement***

* Demonstrator at British Neuroscience Society Festival of Neuroscience
* Professional twitter account (>1000 followers incl. scientists and general public)
* Royal Holloway open day demonstrator
* Royal Holloway UCAS day presenter

***Media***

* Invited blog on the conversation website: https://theconversation.com/what-goes-on-in-teachers-brains-as-they-help-students-to-learn-37672
* Guardian Research of the Week: <http://www.theguardian.com/teacher-network/2015/feb/20/scientists-teachers-brains-work-weekly-news-review>
* Study reported on BBC news: http://www.bbc.co.uk/news/education-31503265
* Study reported in the Times newspaper and the Times online: http://www.thetimes.co.uk/tto/science/article3921675.ece
* Report in Men’s Health US: <http://www.menshealth.com/best-life/remember-faces>
* Comment in Nature news section: doi:10.1038/nature.2012.1211
* Studies also reported in: La Scienza, O Globo, Le Figaro, Psypost, ScienceDaily, HealthCanal

**Teaching**

***Supervision:***

* Psychology, Biomedical sciences and Medical student projects
* MSc student solo and co-supervision:
  + Robin Green (Now a University of Birmingham PhD student)
  + Dr. Vivien Ainley (PhD awarded from Royal Holloway)
  + Dr. Erman Misirlisoy, (PhD awarded from UCL)
  + Laura Grima (Now a DPhil student at University of Oxford)
  + Mathilde Hamonet (former MSc student at University of Oxford)
  + Dariusz Pilucik (Current MSc student at University of Oxford)

***Postgraduate*:**

* ‘The Primate Brain: Structural Anatomy’, Lecture, Human Neuroscience MSc. (2010)
* ‘The Social Brain’, Lecture, Human Neuroscience MSc. (2010)
* ‘Social Neuroscience Techniques’, Lecture, Applied Social Psychology MSc. (2010)
* MSc./BSc. Neuroanatomy practical (post-mortem tissue demonstration; 2009-2012)

***Undergraduate*:**

* ‘Learning in the Brain: Dopamine, Reward and Reinforcement’, 2nd year Brain and Behaviour Lecture, Psychology BSc. (2011-2014)
* ‘How to use Linux and MATLAB’ tutorial (2010)
* ‘Preprocessing and General Linear Model Analysis in SPM’ tutorial (2010)
* ‘Dynamic Causal Modelling for fMRI: Theory and Practice’ tutorial (2010)
* Statistics Tuition, 2nd Year Undergraduate statistical theory and SPSS training (2007-2008)