Matthew Apps
BBSRC Fellow, Centre for Human Brain Health & School of Psychology, University of Birmingham; www.MSN-lab.com

Education and Employment History

2020-present:	**Senior Research Fellow (=Associate Professor),** University of Birmingham
2018-present:	**Senior Associate Research Fellow,** Christ Church College, Oxford
2018-2023:	**BBSRC David Phillips Fellow** (Principal Investigator [PI], Oxford/Birmingham)
2015-2018:	**BBSRC Anniversary Future Leader Postdoctoral Fellow** (PI, EP, Oxford)
2014-2016:	**Fulford Junior Research Fellow** (Somerville College, Oxford)
2013-2015:	**Postdoctoral Research Associate** (w/ Prof. Masud Husain, University of Oxford)
2011-2013:	**Postdoctoral Research Fellow** (w/ Prof. Tsakiris, Royal Holloway, Uni. Of London [RHUL])
2009-2014:	**Visiting Lecturer** (RHUL)
2008-2012:	**PhD. in Cognitive Neuroscience** (w/ Prof. Narender Ramnani, ESRC 1+3 scholarship; RHUL)
2007-2008:	**MSc. Psychology Research Methods** (Reading University) *Grade: Distinction (1st in cohort)*
2004-2007:	**BSc. Psychology** (Royal Holloway) *Grade: 1st Class Honours (3rd in cohort)*

Grants

Research Grants (total ~£1.7m, equivalent to ~$2.35m):

2018-2023:	**BBSRC David Phillips Fellow** *Principal Investigator*	**~£1,244,000**
2020-2021:	**Wellcome Trust Institutional Strategic Support Fund** *Principal Investigator*	**~£20,000**
2019-2020:	**John Fell Fund** *Principal Investigator*	**~£42,000**
2019-2020:	**Christ Church Research Centre** *Principal Investigator*	**~£6,000**
2017-2018:	**Wellcome Trust Institutional Strategic Support Fund** *Principal Investigator*	**~£26,000**
2015-2018:	**BBSRC Anniversary Future Leader Fellowship** *Principal Investigator*	**~£295,000**
2007-2011	**ESRC 1+3 national competition MSc. and PhD Studentship**	**~£70,000**

Grants as supervisor / Co-applicant

2021-2023	**AMS Springboard Fellowship** (Fellow: Dr. Saloni Krishnan) *Collaborator*	**~£100,000**
2021-2024:	**MRC IMPACT DTP PhD studentship** (student: Emma Scholey) *Supervisor*	**~£70,000**
2020-2024:	**BBSRC MIBTP PhD studentship** (student: Katia Dudzikowska) *Supervisor*	**~£75,000**
2020:	**ESRC Impact acceleration grant** (with Dr. Patricia Lockwood) *Co-investigator*	**~£15,000**
2019:	**UK-Israel Synergy grant** (with Dr. Uri Hertz) *Co-applicant*	**~£7,000**
2018-2019:	**ESRC Postdoctoral Fellowship** (Fellow: Dr. Anthony Gabay) *Supervisor*	**~£48,000**
2018-2019:	**British Federation of women graduates grant** (student: Tanja Mueller) *Supervisor*	**~£6,000**
2018-2019:	**Studienstiftung graduate scholarship** (student: Tanja Mueller) *Supervisor*	**~£15,000**

Awards

- Fellowships from the BBSRC: **Future Leader Fellowship and David Phillips Fellowship**
- Competitive fellowships from University of Oxford colleges: Christ Church **Senior Associate Research Fellow** (2018-2023) and **Fulford Junior Research Fellowship** Somerville College (2014-2016)
- British Association for Cognitive Neuroscience Early Career Prize (2021) – one national award annually
- University of Oxford **Recognition of Excellence** (2019)
- Society for Social Neuroscience (S4SN) Early Career Award (2018) – two awarded internationally annually
- **University Research Lecturer title**, University of Oxford (2017)
- Social & Affective Neuroscience Society **Innovation Award** (2017)
- European Society for Cognitive and Affective Neuroscience (ESCAN) Young Scientist Award (2016) – One award every two years across Europe.
- Society for Neuroscience **Professional Development Award** (2016)
- Organization for human brain mapping **Trainee Award** (2009 & 2015)
- Royal Holloway Jack Westaway prize for **best undergraduate project** (2007)

Academic Service

- ***Selected Collaborators:*** Dr. Molly Crockett & Dr. Steve Chang (Yale University); Prof. Claus Lamm (Vienna University); Dr. Trevor Chong (Melbourne); Dr. Eliana Vassena (Radbound University, Netherlands); Prof. Nici Wenderoth (ETH Zurich); Dr. Jerome Sallet (INSERM, France); Prof. Essi Viding (UCL); Dr. Henk Van Steenbergen (Leiden, Netherlands); Prof Matthew Rushworth & Prof. Geoff Bird (Oxford).
- ***Major Collaboration:*** National team leader of ICSMP- COVID19 https://icsmp-covid19.netlify.app (2020)
- ***Major Collaboration***: Member of HIVE (2020 - present) - http://pc.rhul.ac.uk/sites/hive/
- ***Editorial Board:*** *Scientific Reports* (2017 - present)
- ***Society Board:*** *Society for Social Neuroscience board member (2019 – present)*
- ***Conference organiser:*** S4SN 2020 virtual meeting; Social Motivation Symposium, Israel (2019)
- ***Grant reviewing:*** *ERC, BBSRC, MRC, Wellcome Trust, National Science Foundation (US), Czech Science foundation*
- ***Journal reviewing:*** *Trends in Cognitive Sciences, eLife, Nature Human Behaviour, Nature Communications, Journal of Experimental Psychology: General, Current Biology, PLoS Biology, Brain, +30 more other journals*

Committees, mentorship and pastoral care:

- UoB BBSRC strategy committee (2021 – Present)
- Centre for Human Brain Health events committee (2021 - present)
- Medical Sciences Division Research Staff Advisory group (2019-2020)
- People and Culture committee member (2019 -2020)
- Early Career Departmental board representative and early career committee lead (2017 - 2019)
- Organiser of multiple early career training events, including "careers in academia", "how to apply and make a success of a fellowship", "how to get a lectureship", "Careers outside of academia", (2017-2019)
- Behavioural and Cognitive Neuroscience seminars organiser (2015-2019)
- PhD mentorship program creator and management (2010-2011)

Selected Media/Public engagement

Outreach:

- Neuropsychology centre patient & carer events organiser and contributor (2015-2019)
- UNIQ A' level school hosting – encouraging disadvantaged children to apply to University (2015-2016)
- Oxfordshire Science Festivals – IF science / Abingdon Science festival (2016 – 2019)
- 'the conversation': TinyURL.com/yauqrjjw

Media: News reports on TV, radio or newspapers: BBC Radio 4, BBC online, BBC Oxfordshire, That's Oxfordshire (TV), Guardian, Men's Health, The Times, The Daily Telegraph, Daily Mail, O Globo, Le Figaro, ScienceDaily, HealthCanal, La Scienza and more.

Social media: @MSNlab / @brain_apps (>4000 scientist/public followers);

Teaching

Organiser:

- 3rd year BSc. Psychology Neuroanatomy post-mortem brain practical (2013)
- Core-practical for 2nd year Psychology (2018-2019)

Lecturer (+ marking):

- MSc. Cognitive neuroscience – Gross anatomy (2010- 2011)
- MSc. Cognitive neuroscience – Functional anatomy (2010-2011)
- Applied Social Psychology MSc. – Methods to study the social brain (2011)
- 2nd year Psychology – Learning and the brain: Dopamine (2010-2015)
- 2nd year Psychology – The self in perception and cognition (2012)
- MSc. in Psychology and Neuroscience – Computational basis of social cognition (2018-2019)

Demonstrating/Tutorials:

- 1st, 2nd and 3rd year Psychology (2009-2017)
- 1st and 2nd year Psychology statistics (2008)
- 3rd year BSc. Psychology Neuroanatomy post-mortem brain practical (2011-2013)

Supervision

PhD Main Supervisor:

- Dr. Luis Sebastian Contreras-Huerta (2016 – 2021; Now a postdoc at the University of Birmingham)
- Dr. Tanja Mueller (2016 - 2021)
- Cody Kommers (2019 - present)
- Katia Dudzikowska (2020 – present)

PhD Co-supervision:

- Dr. Harry Farmer (2011-2013; Lecturer Greenwich University)
- Dr. Campbell Le Heron (2014-2018; Lecturer and Neurologist, New Zealand Brain Research Initiative)

MSc students:

- 15 Students across MSc in Psychology and Cognitive Neuroscience programs, both locally and from international Erasmus exchanges.

Undergraduate:

- >30 project students in Psychology, Biomedical and Medical sciences (2009-2021)

Selected Oral Presentations

- Symposium: ESCAN virtual conference (2021)
- Virtual FENS, Symposia chair and speaker (2020)
- Symposium: Neuroeconomics, Dublin (2019)
- Symposium: ESCOP, Spain (2019)
- Symposium: ISRE, Amsterdam (2019)
- Speaker: 'Brain Camp', Kavli institute summer school in cog. neuroscience, US (2019)
- Dept. Seminar: Birmingham University (2019)
- Symposium: Society of the Biology of Decision-making (2019)
- Seminar: Affective brain, UCL (2019)
- Seminar: University of Zurich (2019)
- Seminar: University of Kent Psychology Department (2019)
- Seminar: Pompeu University, Barcelona (2019)
- Seminar: Dept. of Psychology, Royal Holloway (2019)
- Invited Symposium: Trends in decision-making, Paris, (2018)
- **Keynote + Symposium**: S4SN annual conference (2018)
- **Invited Keynote + workshop**: Aegina Social Cognition, Greece (2018)
- Invited Dept. Seminar: UCL Computational Psychiatry (2018)
- Symposium American Psychological Society meeting, San Francisco (2018)
- Symposia (x2): ESCAN, Netherlands (2018)
- Symposium: Experimental Psychology Society meeting, Leicester (2018)
- Dept. Seminar: Psychology, Gent University (2018)
- Dept. Seminar: Donders Centre, Radbound University (2018)
- **Invited Keynote**: Aspects of Neuroscience, Warsaw (2017)
- Symposium: Dutch Experimental Psychology society (2017)
- Invited Symposium: UK-Israel Social Cognition, UCL (2017)
- Symposia (x2): ICON, Amsterdam (2017)
- Invited Dept. Seminar: Freie Universität Berlin's (2017)
- Symposium: Control Processes, San Diego (2016)
- **Keynote**: ESCAN 2016 meeting, Porto (2016)
- Invited Dept. Seminar: Psychology, UCL (2016)
- Symposium: Social and Affective Neuroscience Society, NY, USA (2016)
- Invited Dept. Seminar: Experimental Psychology, Ghent University (2015)
- Invited Dept. Seminar: ETH Zurich (2015)
- Symposium: Experimental Psychology Society, London (2013)
- Invited Dept. seminar: Institute of Neuroscience, Trinity College, Dublin (2012)
- Symposium: Annual meeting of the Organization for Human Brain Mapping (2009)

Publications

Citations: **>2900** (as of June 2021); H-Index: 28; Google Scholar: https://bit.ly/2Lr6wOC

Key publications

1. Muller. T., Klein-Flugge, M., Manohar, S., Husain, M., & **Apps, M.A.J**. (2021). Neural and computational mechanisms of fatigue and persistence in effort-based choice. *Nature Communications.*
2. Lockwood, P.L., Abdurahman, A., Tamm, M., Drew, D., Gabay, A., Husain, M., & **Apps, M.A.J.,** (2021). Ageing increases prosocial motivation for effort. *Psychological Science. Preprint* doi: 10.31234/osf.io/8c5ra *Cited: 1*
3. Contreras-Huerta, S., Pisauro, A., & **Apps, M.A.J.** (2020). Effort shapes social cognition and behaviour. *Neuroscience and Biobehavioural Reviews. Cited:2*
4. Le Heron, C., Kolling, N., Plant, O., Kienast, A., Janska, R., Fallon, S., Husain, M., & **Apps, M.A.J.** (2020). Dopamine modulates dynamic decision-making during foraging. *Journal of Neuroscience. Cited:14*
5. Lockwood, P.L., **Apps, M.A.J**.^ & Chang, S.W.C.^ (2020). Is there a social brain? Implementations and Algorithms. *Trends in Cognitive Science. Cited:29* ^ equal contributors
6. Lockwood, P.L., Hamonet, M., Zhang, S.H., Ratnavel, A., Salmony, F.U., Husain, M., **Apps, M.A.J.** (2017). Prosocial apathy for helping others when effort is required. *Nature Human Behaviour. Cited: 69*
7. Chong, T-J. T.^, **Apps, M.A.J**.,^ Sillence, A., Giehl, K., Grima, L., & Husain, M. (2017). Neurocomputational mechanisms underlying subjective valuation of effort costs. *PLoS Biology. Cited: 133 ^ equal contributors.*
8. **Apps, M.A.J.**, Rushworth, M.F.S., Chang, S.W.C. (2016). The anterior cingulate gyrus and social cognition: tracking the motivation of others. *Neuron. Cited: 259*
9. **Apps, M.A.J.,** Lesage, E., & Ramnani, N. (2015). Vicarious Reinforcement Learning Signals When Instructing Others. *Journal of Neuroscience. Cited: 76*
10. **Apps, M.A.J.,** & Ramnani, N. (2014). The anterior cingulate gyrus signals the net-value of others' rewards. *Journal of Neuroscience. Cited: 96*
11. **Apps, M.A.J**., & Tsakiris, M (2014). The free-energy self: A predictive coding account of self-recognition. *Neuroscience and Biobehavioural Reviews. Cited: 392*
12. **Apps, M.A.J.** & Tsakiris, M. (2013). Predictive codes of familiarity and context during the perceptual learning of facial identities. *Nature Communications, 4. Cited: 37*

All publications:

13. Lockwood, P.L., O'Nell, K., & **Apps, M.A.J.,** (2020). Anterior cingulate cortex: A brain system necessary for learning to reward others? *PLoS Biology. Cited: 4*
14. Contreras-Huerta, S., Lockwood, P.L., Bird, G., **Apps, M.A.J.,^** & Crockett, M.,^(2020) Prosocial behaviour is associated with transdiagnostic markers of affective sensitivity in multiple domains. *Emotion. Cited: 3* ^Equal
15. Nitschke, J., Forbers, P.A.G., Ali, N., Cutler, J., **Apps, M.A.J.,** Lockwood, P.L., Lamm, C., (2020). Resilience During Uncertainty: Greater Social Connectedness During COVID-19 Lockdown is Associated with Reduced Distress and Fatigue. *British Journal of Health Psychology. doi: 10.31234/osf.io/9ehm7 Cited: 47*
16. Gabay, A. S., & **Apps, M.A.J.** (2020). Foraging Optimally in Social Neuroscience: Computations and Methodological considerations. *Social Cognitive Affective Neuroscience. Cited: 10 [Invited for special issue]*
17. Mueller, T., & **Apps, M.A.J.,** (2019). Motivational fatigue: A neurocognitive framework of the impact of effort on subsequent motivation. *Neuropsychologia. Cited: 56 [Invited for special issue]*
18. **Apps, M.A.J.** (2018). Stimulating Cingulate: Distinct behaviours arise from discrete zones. *Brain. Cited: 1* [Invited]
19. Lockwood PL, Wittmann MK, **Apps, M.A.J.**, Klein-Flügge MC, Crockett MJ, Humphreys GW, Rushworth MFS (2018). Neural mechanisms for learning self and other ownership. *Nature Communications. Cited: 34*
20. Le Heron, C., **Apps, M.A.J.,** & Husain, M. (2018). The anatomy of apathy: a neurocognitive framework for amotivated behaviour. *Neuropsychologia. Cited: 125*
21. Chong, T., **Apps M.A.J.,** Giehl, K., Hall, S., Clifton, C., Husain, M. (2018). Computational modelling reveals distinct patterns of cognitive and physical motivation in elite athletes. *Scientific Reports. Cited: 11*

22. Lakens (+82) et al., (2018). Justify your alpha. *Nature Human Behaviour. Cited: 269*

23. Weiss, A., Gillies, M., Philiastides, M., **Apps, M.A.J.,** Whittington, M.A., Fitzgerald, J., Boccard, S., Aziz, T.Z., Green, A., (2018). Dorsal Anterior Cingulate Cortices Differentially Lateralize Prediction Errors and Outcome Valence in a Decision-Making Task. *Frontiers in Human Neuroscience*. *Cited: 13*

24. **Apps, M.A.J**.,^ Mckay, R.,^ Azevedo, R., Tsakiris, M.,^ & Whitehouse, H.,^ (2018). Medial prefrontal cortex contributions to ingroup unfairness. *Brain and Behaviour Cited: 42 ^ equal contributors*

25. **Apps, M.A.J.,** & Ramnani, N. (2017). Contributions of the medial prefrontal cortex to social influence in economic decision-making. *Cerebral Cortex. Cited: 20*

26. **Apps, M.A.J**, & Sallet, J. (2017). Social Learning in Medial Prefrontal Cortex. *Trends in Cognitive Sciences. Cited: 22*

27. Draper, A., Koch, R., Van der Meer.J, **Apps, M.A.J.,** Pickkers, P., Husain, M., & Van der Schaaf. M. (2017). Effort but not reward sensitivity is altered by acute sickness induced by experimental endotoxemia in humans. *Neuropsychopharmacology. Cited: 33*

28. Balsters, J.H., **Apps, M.A.J.,** Bolis, D., Lehner, R., Gallagher, l., & Wenderoth, N. (2017). Prediction errors index social deficits in the autism spectrum. *Brain. Cited: 48*

29. Ang., Y., Lockwood, P.L., Muhammed, K., **Apps, M.A.J.,** Husain, M., (2017). Distinct subtypes of apathy revealed by the apathy-motivation index. *PLoS one. Cited: 78*

30. Lockwood, P.L., **Apps M.A.J.**, Valton, V., Roiser, J., & Viding, E. (2016). Neurocomputational mechanisms of prosocial learning and links to empathy *Proceedings of the National Academy of Sciences. Cited: 103*

31. Ainley, V., **Apps, M.A.J.,** Fotopolou, A., & Tsakiris, M. (2016) 'Bodily Precision': A Predictive Coding Account of Individual Differences in the Interoceptive Accuracy. *Philosophical Transactions of the Royal Society Biological Sciences B. Cited: 149*

32. Farmer, H., **Apps, M.A.J.,** & Tsakiris, M. (2016). Reputation in an Economic Game Modulates Premotor Cortex Activity during Action Observation. *European Journal of Neuroscience Cited: 8*

33. Balsters, J.H., Mantini, D., **Apps, M.A.J.,** Eickhoff, S., Wenderoth, N. (2016). Connectivity-based parcellation increases network detection sensitivity in resting state fMRI: An investigation into the cingulate cortex in autism. *Neuroimage: Clinical. Cited: 39*

34. 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. Cited: 201*

35. 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. Cited: 78*

36. **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. Cited: 75*

37. 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. Cited: 8*

38. **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 Cited: 69*

39. **Apps M.A.J.**, Lockwood, P.L. & Balsters, J.H. (2013). The role of the midcingulate cortex in monitoring others' decisions. *Frontiers in Neuroscience. Cited: 98*

40. **Apps, M.A.J**., Green, R., & Ramnani, N. (2013). Reinforcement learning signals in the anterior cingulate cortex code for others' false beliefs. *Neuroimage. Cited: 37*

41. **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. Cited: 42*

42. **Apps, M.A.J**., Balsters, J. H., & Ramnani, N. (2012). The Anterior Cingulate Cortex: Monitoring the outcomes of others' decisions. *Social Neuroscience. Cited: 39*

43. Lesage E., **Apps, M.A.J**., et al. (2010). Cerebellar Information Processing In Relapsing-Remitting Multiple Sclerosis (RRMS). *Behavioural Neurology*. *Cited: 14*