

EXPERIENCE

- 2021 –** **Northeastern University** | Experiential AI Research Associate
Institute for Experiential AI; Department of Psychology
Team: Drs Ajay Satpute, Jennifer Dy, Sarah Ostadabbas
Project: Computational approaches to multiple solutions and degeneracy in functional neuroanatomy
- 2017 – 2021** **Boston College** | Postdoctoral Researcher
Department of Psychology and Neuroscience
Supervisor: Dr Maureen Ritchey

EDUCATION

- 2013 – 2017** **University of Cambridge** | PhD Psychology
Department of Psychology
Supervisor: Professor Jon Simons
Thesis: The neurocognitive basis of recollection in autism
- 2012 – 2013** **University College London** | MSc Cognitive & Decision Sciences
Department of Experimental Psychology
Award: Distinction
- 2009 – 2012** **University of Nottingham** | BSc (Hons) Psychology
Department of Psychology
Award: First Class

AWARDS AND FUNDING

- 2021** Experiential AI Postdoctoral Research Fellowship, Northeastern University
- 2021** Boston College Postdoctoral Association Knowledge Dissemination Award
- 2019** Kavli Summer Institute in Cognitive Neuroscience (SICN) Fellow
- 2019** Boston College Department of Psychology Trainee Education Grant
- 2019** Frith Prize, Experimental Psychology Society: *Exceptional PhD thesis*
- 2018** eLife Early Career Travel Award
- 2018** Boston College Postdoctoral Association Knowledge Dissemination Award
- 2017** Methods in Neuroscience at Dartmouth (MIND) Fellow
- 2016** Guarantors of Brain Travel Grant
- 2013-16** UK Economic and Social Research Council (ESRC) Doctoral Studentship
- 2013-16** St John's College, Cambridge Benefactors' Scholarship

2012	British Psychological Society Undergraduate Award: <i>Highest degree</i>
2012	University of Nottingham Psychology Prize: <i>Highest grades</i>
2011	University of Nottingham Psychology Prize: <i>Highest grades</i>

PUBLICATIONS

[see Google Scholar](#)

1. **Cooper, R. A.**, & Ritchey, M. (preprint). Patterns of episodic content and specificity predicting subjective memory vividness. *PsyArXiv*, Retrieved from psyarxiv.com/gux43.
2. **Cooper, R. A.**, Kurkela, K. A., Davis, S. W., & Ritchey, M. (2021). Mapping the organization and dynamics of the posterior medial network during movie watching. *NeuroImage*, 236, 118075.
3. Ritchey, M.* & **Cooper, R. A.*** (2020). Deconstructing the posterior medial episodic network. *Trends in Cognitive Sciences*, 24(6), 451-465.
4. **Cooper, R. A.** & Ritchey, M. (2020). Progression from feature-specific brain activity to hippocampal binding during episodic encoding. *Journal of Neuroscience*, 40(8), 1701-1709.
5. Samide, R., **Cooper, R. A.**, & Ritchey, M. (2020). A database of news videos for investigating the dynamics of emotion and memory. *Behavior Research Methods*, 52, 1469-1479.
6. **Cooper, R. A.** & Ritchey, M. (2019). Cortico-hippocampal network connections support the multidimensional quality of episodic memory. *eLife*, 8:e45591.
7. **Cooper, R. A.**, Kensinger, E. A., & Ritchey, M. (2019). Memories fade: The relationship between memory vividness and remembered visual salience. *Psychological Science*, 30(5), 657-668.
8. Lazzaro, S. C., Weidinger, L., **Cooper, R. A.**, Baron-Cohen, S., Moutsiana, C., & Sharot, T. (2019). Social conformity in autism. *Journal of Autism and Developmental Disorders*, 49, 1304-1315.
9. **Cooper, R.A.** & Simons, J.S. (2019). Exploring the neurocognitive basis of episodic recollection in autism. *Psychonomic Bulletin & Review*, 26, 163-181.
10. **Cooper, R. A.**, Richter, F. R., Bays, P. M., Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (2017). Reduced hippocampal functional connectivity during episodic memory retrieval in autism. *Cerebral Cortex*, 27, 888-902.
11. **Cooper, R. A.**, Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (2017). Eye movements reveal a dissociation between memory encoding and retrieval in adults with autism. *Cognition*, 159, 127-138.
12. Richter, F. R.*, **Cooper, R. A.***, Bays, P. M., & Simons, J. S. (2016). Distinct neural mechanisms underlie the success, precision, and vividness of episodic memory. *eLife*, 5:e18260.
13. **Cooper, R. A.**, Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (2016). Reality monitoring and metamemory in adults with autism spectrum conditions. *Journal of Autism and Developmental Disorders*, 46, 2186-98.
14. **Cooper, R. A.**, Plaisted-Grant, K. C., Hannula, D. E., Ranganath, C., Baron-Cohen, S., & Simons, J. S. (2015). Impaired recollection of visual scene details in adults with autism spectrum conditions. *Journal of Abnormal Psychology*, 124, 565-575. ***equal contribution**

PROFESSIONAL SERVICE

Ad Hoc Reviewer

Ann. N. Y. Acad. Sci — Autism — Autism Research — Biological Psychiatry: CNNI — Cerebral Cortex — Consciousness & Cognition — Cortex — Hippocampus — Human Brain Mapping — Journal of Abnormal Psychology — Journal of Autism and Developmental Disorders — Journal of Experimental Psychology: General — Journal of Gerontology: Psychological Sciences — Journal of Neuroscience — Learning and Memory — Molecular Autism — Network Neuroscience — NeuroImage — Neuropsychologia — Research in Autism Spectrum Disorders — Royal Society Open Science — Science Advances — Social Cognitive and Affective Neuroscience

See: <https://publons.com/author/1531130/rose-cooper#profile>

Memberships

- Cognitive Neuroscience Society
- Society for Neuroscience

Other Duties

March 2021	Organizer & Chair of a Cognitive Neuroscience Society symposium — <i>The Network Structure of Episodic Thought</i>
2018-2019	Co-organizer, Memory Messabout Meeting, Boston University
2017-2018	Co-organizer, BC Neuroscience Data Club, Boston College

RESEARCH

Technical Skills

- Experimental design, quantitative statistics, hierarchical linear modeling, machine learning (e.g. classification, clustering, deep learning), neuroimaging (fMRI + EEG), eye-tracking
- Proficient in R, Python, and Matlab for data analysis and visualization
- Coursera IBM [Data Science](#) and [Machine Learning](#) specializations
- Version control using Git

Experiment Data & Code

Publicly available fMRI analysis guide
Cooper et al. (2020), *bioRxiv*:
Cooper & Ritchey (2019), *J Neurosci*:
Samide et al. (2019), *Beh Res Meth*:
Cooper & Ritchey (2019), *eLife*:
Cooper et al. (2019), *Psych Sci*:

GitHub: rose-cooper

<https://github.com/rose-cooper/fmri-functions>
thememolab.org/paper-camcan-pmn/
thememolab.org/paper-bindingfmri/
thememolab.org/paper-videonorming/
thememolab.org/paper-orbitfmri/
osf.io/cuz8q/

MENTORING AND TEACHING

Undergraduate Research Assistants

2017-21 Cayley Bliss; Emily Iannazzi; Emily Janin; Elizabeth Judge; Samantha Murphy; Mary Nanna; Julia Napoli; Jenna Phelan; Rebecca Suthard; Zoe Ting

Senior Thesis Students

2019-20 Natale Schmitz, Boston College

2018-19 Maria Khoudary, Boston College

Additional Mentoring Roles

2019-20 Advisor to neuroscience undergraduate students within the international Action Potential Advising Program (APAP) from <https://www.simplyneuroscience.org/>

Seminar Teaching

2014-16 University of Cambridge:

- Statistics
- Psychological Enquiry and Methods
- Cognitive and Experimental Psychology
- Cognitive Psychology, Practical Classes

Training Courses

2019-20 Teaching in the U.S. classroom (Boston College, Center for Teaching Excellence)

MEDIA

Article on Richter*, Cooper* et al. (2016; eLife): “*Memory lane has a three-way fork*”
theatlantic.com/science/archive/2016/10/memory-lane-has-a-three-way-fork/505250/

Article on Cooper, Kensinger, & Ritchey (2019, Psychological Science): “*Like old photographs, memories fade over time*” sciencedaily.com/releases/2019/04/190405080919.htm

INVITED TALKS

Functional heterogeneity of the posterior medial network during movie watching. (April, 2021).
Dynamic Memory Lab, University of California, Davis, USA.

The cognitive and neural architecture of episodic memory. (December, 2020). *Affective and Brain Sciences Lab, Northeastern University, USA.*

Cortico-hippocampal networks supporting the reactivation of past events. (May, 2019). *Schacter Memory Lab, Harvard University, USA.*

The neurocognitive basis of episodic memory in autism. (April, 2019). *Frith Prize lecture, Experimental Psychology Society Meeting, University of Manchester, UK. Watch here: youtu.be/pv-ljiA18vY*

Brain networks supporting the reconstruction of past events. (March, 2019). *Brown Cognition Seminar Series, Brown University, USA.*

Brain networks supporting the composition and precision of episodic memory. (October, 2018). *Memory Disorders Research Society annual meeting, Toronto, Canada.*

Episodic memory reconstruction in autism. (July, 2018). *Trends in Psychology Summit, Harvard University, Boston, USA.*

Neural mechanisms of episodic memory reconstruction. (February, 2018). *Boston University Memory Meeting, Boston, USA.*

Investigating recollection in adults with autism spectrum conditions. (November, 2014). *Autism Research Centre talk series, Cambridge, UK.*

CONFERENCE PRESENTATIONS

Talks

Functional heterogeneity of the posterior medial episodic network. (March, 2021). *Cognitive Neuroscience Society, Virtual Meeting.*

Progression from feature-specific brain activity to hippocampal binding during episodic encoding. (May, 2020). *Cognitive Neuroscience Society, Virtual Meeting.*

Memories fade: Changes in reconstructed perceptual quality over time. (May, 2019). *Context and Episodic Memory Symposium. Philadelphia, USA.*

Posters

Cooper, R. A. & Ritchey M. (August, 2020). Mapping the functional dynamics of the posterior medial episodic network. *Context and Episodic Memory Symposium, Virtual.*

Schmidt, H., Cooper, R. A., & Ritchey, M. (May, 2020). Temporal dynamics supporting the multidimensional quality of episodic memory. *Cognitive Neuroscience Society, Virtual Meeting.*

Cooper, R. A. & Ritchey M. (May, 2020). Progression from feature-specific brain activity to hippocampal binding during episodic encoding. *Cognitive Neuroscience Society, Virtual Meeting.*

Cooper, R. A. & Ritchey M. (October, 2019). Probing intra-network dynamics of the posterior medial system during episodic memory retrieval. *Society for Neuroscience Annual Meeting, Chicago, USA.*

Schmidt, H., Samide, R., Cooper, R. A., & Ritchey, M. (May, 2019). News flash! Investigating the dynamics of emotional memory using real-life event videos. *Context and Episodic Memory Symposium. Philadelphia, USA.*

Samide, R., Cooper, R. A., & Ritchey, M. (March, 2019). From hurricanes to homecomings: A database of news broadcast videos for investigating the dynamics of emotional memory. *Cognitive Neuroscience Society Annual Meeting, San Francisco, USA.*

- Cooper, R. A. & Ritchey M. (November, 2018). Brain networks supporting the composition and precision of episodic memory reconstruction. *Society for Neuroscience Annual Meeting, San Diego, USA*.
- Cooper, R. A. & Ritchey M. (March, 2018). Effects of negative emotion on item-specific and spatial-context memory precision. *Cognitive Neuroscience Society Annual Meeting, Boston, USA*.
- Cooper, R. A., Richter, F. R., Bays, P. M., Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (April, 2017). Reduced hippocampal – fronto-parietal control network connectivity during memory retrieval in adults with autism. *Cambridge Memory Meeting, Cambridge, UK*.
- Cooper, R. A., Richter, F. R., Bays, P. M., Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (July, 2016). Reduced functional connectivity during episodic memory retrieval in adults with autism. *International Conference on Memory, Budapest, Hungary*.
- Cooper, R. A., Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (June, 2016). Eye movements reveal a dissociation between memory encoding and retrieval in adults with autism. *Cambridge Neuroscience External Review, Cambridge, UK*.
- Richter, F. R., Cooper, R. A., Bays, P. M., & Simons, J. S. (April, 2016). Distinct neural mechanisms underlie the success, precision, and vividness of episodic memory. *Cognitive Neuroscience Society Annual Meeting, New York, USA*.
- Cooper, R. A., Plaisted-Grant, K. C., Baron-Cohen, S., & Simons, J. S. (April, 2016). Using eye-tracking to investigate long-term memory encoding and retrieval in adults with autism spectrum conditions. *Cognitive Neuroscience Society Annual Meeting, New York, USA*.
- Cooper, R. A., Plaisted-Grant, K. C., Hannula, D. E., Ranganath, C., Baron-Cohen, S., & Simons, J.S. (May, 2015). Impaired recollection of visual scene details in adults with autism spectrum conditions. *Cambridge Memory Meeting, Cambridge, UK*.
-