

EXPERIENCE

- 2021 –** **Northeastern University** | Experiential AI Postdoctoral Research Associate
Roux Institute; Department of Psychology
Supervisor 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. Kurkela, K., **Cooper, R. A.**, Ryu, E., & Ritchey, M. (under review). Integrating region- and network-level contributions to episodic recollection using multilevel structural equation modeling. *bioRxiv*, doi: 10.1101/2022.02.08.478511.
2. **Cooper, R. A.**, & Ritchey, M. (in press). Patterns of episodic content and specificity predicting subjective memory vividness. *Memory & Cognition*, Retrieved from psyarxiv.com/gux43.
3. **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.
4. Ritchey, M.* & **Cooper, R. A.*** (2020). Deconstructing the posterior medial episodic network. *Trends in Cognitive Sciences*, 24(6), 451-465.
5. **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.
6. 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.
7. **Cooper, R. A.** & Ritchey, M. (2019). Cortico-hippocampal network connections support the multidimensional quality of episodic memory. *eLife*, 8:e45591.
8. **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.
9. 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.
10. **Cooper, R.A.** & Simons, J.S. (2019). Exploring the neurocognitive basis of episodic recollection in autism. *Psychonomic Bulletin & Review*, 26, 163-181.
11. **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.
12. **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.
13. 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.
14. **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.

15. **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/mixed effects 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

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/cuz8g/

MENTORING AND TEACHING

Graduate Student Mentees

2021- Yiyu Wang, Alessia Iancarelli, Danlei Chen (Northeastern University)

Undergraduate Senior Thesis Students

2019-20 Natale Schmitz, Boston College

2018-19 Maria Khoudary, Boston College

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

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-lIiA18vY*

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*.
