Rose Cooper, PhD

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ACADEMIC AND EMPLOYMENT HISTORY

06/2017 – present Postdoctoral Scholar, Boston College

Department of Psychology and Neuroscience Memory Modulation Lab; PI: Dr. Maureen Ritchey

2013 – 2017 PhD Psychology, University of Cambridge

Department of Psychology, Memory Lab

Supervisor: Professor Jon Simons

Thesis: The neurocognitive basis of recollection in autism

2012 – 2013 MSc Cognitive & Decision Sciences, University College London

Department of Experimental Psychology, Affective Brain Lab Supervisors: Professor Tali Sharot & Dr. Stephanie Lazzaro

Award: Distinction

2009 – 2012 BSc (Hons) Psychology, University of Nottingham

Supervisor: Dr. Danielle Ropar

Award: First Class

AWARDS AND FUNDING

Scholarships & Research Grants

| 2013-16 | UK Economic and Social Research Council (ESRC) Doctoral Studentship |
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| 2013-16 | St John's College, Cambridge Benefactors' Scholarship |
| Prizes | |

2019 Frith Prize, Experimental Psychology Society: Exceptional PhD thesis
 2012 British Psychological Society Undergraduate Award: Highest degree score

2012 University of Nottingham Psychology Prize: Highest grades
 2011 University of Nottingham Psychology Prize: Highest grades

Education & Travel Awards

| 2019 | Kavli Summer Institute in Cognitive Neuroscience (SICN) Fellow |
|------|---|
| 2019 | Boston College Department of Psychology Trainee Education Grant |
| 2019 | Boston College Postdoctoral Association Knowledge Dissemination Award |
| 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 |
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PUBLICATIONS

- 1. Ricthey, M.* & Cooper, R. A.* (2020). Deconstructing the posterior medial episodic network. *Trends in Cognitive Sciences*, 24(6), 451-465.
- 2. Cooper, R. A. & Ritchey, M. (2020). Progression from feature-specific brain activity to hippocampal binding during episodic encoding. The *Journal of Neuroscience*, 40(8), 1701-1709.
- 3. Samide, R., Cooper, R. A., & Ritchey, M. (2019). A database of news videos for investigating the dynamics of emotion and memory. *Behavior Research Methods*, doi: 10.3758/s13428-019-01327-w.
- 4. Cooper, R. A. & Ritchey, M. (2019). Cortico-hippocampal network connections support the multidimensional quality of episodic memory. *eLife*, 8:e45591.
- 5. 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.
- 6. 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.
- 7. Cooper, R.A. & Simons, J.S. (2019). Exploring the neurocognitive basis of episodic recollection in autism. *Psychonomic Bulletin & Review*, 26, 163-181.
- 8. 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.
- 9. 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.
- 10. 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.

- 11. 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.
- 12. 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

ONGOING RESEARCH

- > Functional interactions of the posterior medial (PM) system during event processing
 - Analyses of a movie-watching fmri dataset to explore how information flows between PM regions and how connections shift at event transitions.
- > Multidimensional event attributes and their weighting in memory
 - Behavioral studies of memory attributes -- different kinds of content and their specificity -and how they contribute to subjective judgments of memory vividness.
- > Temporal dynamics of episodic reinstatement
 - Time-frequency analyses of memory retrieval using EEG data, including the reactivation of distinct event features.

INVITED TALKS

- Cooper, R. A. (May, 2019). Cortico-hippocampal networks supporting the reactivation of past events. Schacter Memory Lab, Harvard University, USA.
- Cooper, R. A. (April, 2019). The neurocognitive basis of episodic memory in autism. Frith Prize lecture, Experimental Psychology Society Meeting, University of Manchester, UK. *Link to my talk:* youtu.be/pv-liiA18vY
- Cooper, R. A. (March, 2019). Brain networks supporting the reconstruction of past events. Brown Cognition Seminar Series, Brown University, USA.
- Cooper, R. A. (October, 2018). Brain networks supporting the composition and precision of episodic memory. Memory Disorders Research Society annual meeting, Toronto, Canada.
- Cooper, R. A. (July, 2018). Episodic memory reconstruction in autism. Trends in Psychology Summit, Harvard University, Boston, USA.
- Cooper, R. A. (February, 2018). Neural mechanisms of episodic memory reconstruction. Boston University Memory Meeting, Boston, USA.
- Cooper, R. A. (November, 2014). Investigating recollection in adults with autism spectrum conditions. Autism Research Centre talk series, Cambridge, UK.

TEACHING AND MENTORING

Seminar Teaching

2014-16 University of Cambridge:

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

Undergraduate Research Assistants

2017-19 Boston College: Cayley Bliss; Emily Iannazzi; Emily Janin; Elizabeth Judge; Samantha Murphy; Mary Nanna; Julia Napoli; Jenna Phelan; Rebecca Suthard

Senior Thesis Students

2018-19 Maria Khoudary, Boston College (now Research Assistant at Duke)

2019-20 Natale Schmitz, Boston College

Training Courses

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

PROFESSIONAL SERVICE

Ad Hoc Reviewer

Ann. N. Y. Acad. Sci — Autism — Autism Research — Biological Psychiatry: CNNI — Cerebral Cortex — Cortex — Hippocampus — Human Brain Mapping — Journal of Abnormal Psychology — Journal of Autism and Developmental Disorders — Journal of Gerontology: Psychological Sciences — Learning and Memory — Molecular Autism — Network Neuroscience — Neurolmage — Neuropsychologia — Research in Autism Spectrum Disorders — Social Cognitive and Affective Neuroscience

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

Memberships

- Cognitive Neuroscience Society
- Society for Neuroscience

Other Duties

2017-2018 Co-organizer, BC Neuroscience Data Club, Boston College
2018-present Co-organizer, Memory Messabout Meeting, Boston University

OPEN RESEARCH

Preregistered Experiments

Cooper, Kensinger, & Ritchey (2019), Psychological Science: osf.io/nsj65/

Data, Stimuli, and Code

Cooper & Ritchey (2019), J Neurosci: thememolab.org/paper-bindingfmri/

Samide, Cooper, & Ritchey (2019), Beh Res Meth: thememolab.org/paper-videonorming/

Cooper & Ritchey (2019), eLife: thememolab.org/paper-orbitfmri/

Cooper, Kensinger, & Ritchey (2019), Psych Sci: osf.io/cuz8g/

MEDIA COVERAGE

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

CONFERENCE PRESENTATIONS

Talks

- Cooper, R. A. (May, 2020). Progression from feature-specific brain activity to hippocampal binding during episodic encoding. Cognitive Neuroscience Society, Virtual Meeting.
- Cooper, R. A. (May, 2019). Memories fade: Changes in reconstructed perceptual quality over time. Context and Episodic Memory Symposium. Philadelphia, USA.

Posters

- 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.