

Paula P. Brooks

Doctoral Candidate, Princeton Neuroscience Institute

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- EDUCATION** **Princeton University**, Ph.D., Neuroscience, 2017 – present
Advisor: Professor Kenneth Norman
Thesis Committee: Professors Kenneth Norman, Uri Hasson, Yael Niv, & Maureen Ritchey (Boston College)
- Princeton University**, M.A., Neuroscience, September 2019
- Princeton University**, A.B., Psychology, June 2015
Certificate in Neuroscience
- RESEARCH EXPERIENCE** **Visiting Scholar**, 2019 – present
Memory Modulation Lab, Boston College
- Graduate Researcher**, 2017 – present
Princeton Computational Memory Lab, Princeton University
- Laboratory Manager**, 2016 – 2017
Princeton Computational Memory Lab, Princeton University
- Research Assistant**, 2015 – 2017
Princeton Computational Memory Lab, Princeton University
- Undergraduate Researcher**, 2014 – 2015
Princeton Computational Memory Lab, Princeton University
- Undergraduate Researcher**, 2013
Developmental Psychology Lab, Princeton University
- RESEARCH GRANTS** **NIH Diversity (D-SPAN) F99 Award | NINDS**, 2020 – 2022
The role of memory reactivation in emotional memory suppression and regulation
F99 NS120647 – \$93,040 total direct costs approved
Mechanism provides for 2 yrs of predoctoral and 4 yrs of postdoctoral funding, (total: \$445,000)
- PRE-PRINTS** Kumar, M., Anderson, M.J., Antony, J.W., Baldassano C., **Brooks, P.P.**, Cai, M.B., Chen, P.H.C., Ellis, C.T., Henselman-Petrusek, G., Huberdeau, D., Hutchinson, J.B., Li, P.Y., Lu, Q., Manning, J.R., Mennen, A.C., Nastase, S.A., Hugo, R., Schapiro, A.C., Schuck, N.W., Shvartsman, M., Sundaram, N., Suo, D., Turek, J.S., Vo, V.A., Wallace, G., Wang, Y., Zhang, H., Zhu, X., Capota, M., Cohen, J.D., Hasson, U., Li, K., Ramadge, P.J., Turk-Browne, N.B., Willke, T.L. & Norman, K.A. (2020). BrainIAK: The Brain Imaging Analysis Kit *OSF Preprints*.
- PUBLICATIONS** Wang, B., Antony, J.W., Lurie, S., **Brooks, P.P.**, Paller, K., & Norman, K.A. (2019). Targeted memory reactivation during sleep elicits neural signals related to learning content. *Journal of Neuroscience*.

Antony, J., Cheng, L.Y., **Brooks, P.P.**, Paller, K., & Norman, K.A. (2018). Competitive learning modulates memory consolidation during sleep. *Neurobiology of Learning and Memory*.

Rafidi, N.S., Hulbert, J.C., **Brooks, P.P.**, & Norman, K.A. (2018). Reductions in retrieval competition predict the benefit of repeated testing. *Scientific Reports*.

Antony, J., Piloto, L., Wang, M., **Pacheco, P.**, Norman, K.A., & Paller, K. (2018). Sleep spindle refractoriness segregates periods of memory reactivation. *Current Biology*.

FELLOWSHIPS
& HONORS

Harvey Fellowship (\$32,000), 2020 – 2022
Mustard Seed Foundation

Diversity Supplement (\$107,805), 2020 – 2021
National Institutes of Health

Neuroscience Scholars Program Fellow (\$6,000), 2019 – 2021
Society for Neuroscience

Neuroscience Scholars Program Associate (\$1,000), 2018 – 2019
Society for Neuroscience

Summer Fellowship (\$3,000), 2014
Program on U.S. Health Policy, the Keller Center for Innovation in Engineering Education, and Princeton Internships in Civic Service

OPEN SCIENCE

Brooks, P.P., McDevitt, E.A., Mennen, A.C., Visconti di Oleggio Castello, M., & Nastase, S.A. (2020). Princeton Handbook for Reproducible Neuroimaging (Version v0.1.0). Zenodo. <http://doi.org/10.5281/zenodo.3688789>

OPEN DATASETS

OpenNeuro ds002345

Nastase, S. A., Liu, Y.-F., Hillman, H., Zadbood, A., Hasenfratz, L., Keshavarzian, N., Chen, J., Honey, C. J., Yeshurun, Y., Regev, M., Nguyen, M., Chang, C. H. C., Baldassano, C. B., Lositsky, O., Simony, E., Chow, M. A., Leong, Y. C., **Brooks, P. P.**, Micciche, E., Choe, G., Goldstein, A., Halchenko, Y. O., Norman, K. A., & Hasson, U. Narratives: fMRI data for evaluating models of naturalistic language comprehension.

Nastase, S.A., Mennen, A.C., **Brooks, P.P.**, & McDevitt, E.A. (2020). Princeton Handbook for Reproducible Neuroimaging: Sample Data (Versions 1.0.0) [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.3677090>

CONFERENCE
PRESENTATIONS

Brooks, P.P., Hulbert, J., Lormestoire, A., Ritchey, M., & Norman, K.A. (2019). Investigating the impact of memory reactivation on the successful forgetting of negative memories. Poster presented at the Society for Neuroscience annual meeting, Chicago, IL.

Antony, J.W., Piloto, L.R., Wang, M., **Brooks, P.P.**, Paller, K.A., & Norman, K.A. (2018). Sleep spindle refractoriness segregates periods of memory reactivation. Poster will be presented at the Society for Neuroscience annual meeting, San Diego, CA.

Antony, J.W., Cheng, L.Y., **Pacheco, P.**, Wang, B., Paller, K.A. & Norman, K.A. (2017). Competition between items during learning influences targeted memory reactivation during sleep. Poster presented at the Society for Neuroscience annual meeting, Washington, DC.

Wang, B., Antony, J.W., Lurie, S., **Pacheco, P.**, Paller, K.A. & Norman, K.A. (2017). Detecting content-specific patterns using targeted memory reactivation. Poster presented at the Society for Neuroscience annual meeting, Washington, DC.

Antony, J.W., Piloto, L.R., Wang, B., Wang, M., **Pacheco, P.**, Paller, K.A., & Norman, K.A. (2017). Mechanisms of targeted memory reactivation during sleep: The role of pre- and post-cue spindles. Poster presented at the Cognitive Neuroscience Society annual meeting, San Francisco, CA.

Cheng, L.Y., Antony, J.W., **Pacheco, P.**, Norman, K.A. & Paller, K.A. (2017). Sensory stimulation during sleep to selectively strengthen memories: Sounds can be arbitrarily associated with visuospatial learning. Poster presented at the Cognitive Neuroscience Society annual meeting, San Francisco, CA.

Antony, J. W., Piloto, L. R., Cheng, L., **Pacheco, P.**, Paller, K. A., & Norman, K. A. (2016). Competition between items during learning influences targeted memory reactivation during sleep. Poster presented at the International Conference on Memory, Budapest, Hungary.

Pacheco, P. (2014). Rough sleepers: Who they are and what we can learn from them. Talk given at the Center for Health and Wellbeing Student Research Symposium, Princeton, NJ.

TEACHING & MENTORING

Mentor, 2019 – present

Princeton Computational Memory Lab, Princeton University

- Arlene Lormestoire († research assistant)

Graduate Student Mentor, 2019 – 2020

McNair Scholars Program, Boston College

Guest Instructor for MATLAB Summer Workshop, 2019

Princeton Neuroscience Institute Summer Internship Program, Princeton University

Assistant-in-Instruction, 2018 – 2019

Neuroscience Department, Princeton University

- NEU 200: Functional Neuroanatomy
- NEU 202: Introduction to Cognitive Neuroscience
- Guest Lecturer: *The Lobotomist and Ethics in Human Subjects Research*

Resident Graduate Student, 2018 – 2019

Forbes College, Princeton University

Graduate Fellow, 2017 – 2018

Scholars Institute Fellows Program, Princeton University

Panelist, 2017, 2018

HISPA Latinos in College Conference, Princeton University

Mentor, 2016 – 2017

Princeton Computational Memory Lab, Princeton University

- Erin Chatman (* visiting student)
- Jesse McDonough**
- Margaret Wang**
- Sarah Lurie (** Princeton senior)
- Gianna Perez*

Co-Project Coordinator, 2012 – 2015

Princeton One-on-One Mentoring, Princeton University

SCIENCE
COMMUNICATION

“Surprising events create event boundaries in memories”, Princeton Insights

“Beyond the Science: 4 Lessons Learned from the Kanwisher Award Talk”,
Guest post for the 2020 Cognitive Neuroscience Society annual conference

PROFESSIONAL
ACTIVITIES &
SERVICE

Co-Organizer, 2019, 2020

Brainhack Princeton Conference

Participant, 2020

Communicating Science Conference – Michigan (ComSciCon-MI)

Reviewer, 2020 – present

Association for Psychological Science Student Caucus competitions

Co-Student Organizer, 2019

Manhattan Area Memory

PROFESSIONAL
AFFILIATIONS

Cognitive Neuroscience Society, 2020 – present

Association for Psychological Science, 2018 – present

Society for Neuroscience, 2016 – present

SKILLS & SPECIAL
KNOWLEDGE

Languages

- Spanish: fluent (speaking, reading, writing)

Programming

- MATLAB (Psychtoolbox-3, EEGlab, sleepSMG)
- Python (Psychopy)
- R
- Inquisit
- HTML/CSS

Certifications

- Human Subjects Protection (CITI)
- EEG
- MRI Level 1 and Level 2

Last Updated: December 28, 2020