Laura Saad

(856) 520-6848 · laura.saad.ctr@nrl.navy.mil · Washington, DC

Education

2023 Ph.D. in Cognitive Psychology, Rutgers University, New Brunswick, NJ

2023 Certificate in Cognitive Science, Rutgers Center for Cognitive Science, New Brunswick, NJ

2021 M.S. in Cognitive Psychology, Rutgers University, New Brunswick, NJ

2015 B.S. in Psychology, University of the Sciences, Philadelphia, PA

Experience

U.S. Naval Research Laboratory
Navy Center for Applied Research in Artificial Intelligence, Washington, DC
National Research Council Postdoctoral Research Associate, 2023-present
Mentor: Dr. Gregory Trafton

- Conduct research as primary investigator with projects aimed at developing better measures of the sense of agency
- Collect, analyze, and visualize data in R
- Refine theoretical framework to aid in improving design of empirical studies and future explicit and implicit measures of the sense of agency

Human Computational Cognition Laboratory
Rutgers University, Department of Psychology, New Brunswick, NJ
Doctoral student, 2018-2023
Advisors: Drs. Pernille Hemmer and Julien Musolino

- Conducted research as primary investigator which resulted in 10 poster presentations, 5 talks, 1 invited colloquium presentation, and 2 peer-reviewed publications.
- Implemented cognitive and computational modeling to answer specific research questions.
- Collected, analyzed and visualized data using R, MATLAB, and Python.
- Developed mixed methods perceptual and behavioral tasks in MATLAB.
- Fostered interdisciplinary collaboration with clinicians and cognitive scientists.

Air Force Research Laboratory
Oak Ridge Institute for Science and Education
Carnegie Mellon University, Pittsburgh, PA
Repperger Research Summer Intern, Summer 2021 and 2022
Scientist Mentors: Drs. Alexander Hough and Leslie Blaha

- Designed and programmed a cognitive model of behavioral task in an applied research setting.
- Developed mastery of visualization techniques in R using ggplot2 leading to new insights on project data, new ideas for analysis, and effective communication of results.
- Effectively tracked and reported progress regarding personal research project to team weekly.

University of Pennsylvania Memory Center
Department of Neurology, Perelman School of Medicine, Philadelphia, PA
Clinical Research Coordinator, 2015 – 2018

Health Behavior Research Laboratory
University of the Sciences, Department of Behavioral and Social Sciences, Philadelphia, PA
Research Assistant, 2014 – 2018

Cognitive Neuropsychology Laboratory
University of the Sciences, Department of Behavioral and Social Sciences, Philadelphia, PA
Research Assistant, 2012 – 2015

Honors and Awards

2022 Rutgers School of Graduate Studies Research and Travel Award
2020 NSF-GRFP, Honorable Mention
2019 Society for Mathematical Psychology Student Travel Award
2015 First Place Student Poster, Psi Chi Research Day

Peer-reviewed Publications

1. **Saad, L.,** Hough, A.R., Blaha, L., & Lebiere, C.A. (2023) A cognitive model of a temporal binding task. *In Proceedings of the 21st International Conference on Cognitive Modeling (ICCM).* Via mathpsych.org/presentation/1115.

2. **Saad, L**., Musolino, J., & Hemmer, P. (2022) Bayesian Rational Memory Model Simulates Temporal Binding Results. *Proceedings of the 44th Annual Conference of the Cognitive Science Society.*

3. Devlin, K. N., Brennan, L., **Saad, L.,** Giovannetti, T., Hamilton, R. H., Wolk, D. A., Xie, S. X., & Mechanic-Hamilton, D. (2021*).* Diagnosing Mild Cognitive Impairment Among Racially Diverse Older Adults: Comparison of Consensus, Actuarial, and Statistical Methods. *Journal of Alzheimer's Disease*.

4. Delhaye, E., Mechanic-Hamilton, D., **Saad, L.,** Sandhitsu, D. R., Wisse, L. E. M., Yushkevich, P. A., Wolk, D. A., & Bastin, C. (2018) Associative memory for conceptually unitized word pairs in mild cognitive impairment is related to the volume of the perirhinal cortex. *Hippocampus.*1:1-9

Manuscripts in Preparation

1. **Saad, L.,** Hemmer, P., & Musolino, J. (under review). Evidence for individual differences in the temporal binding effect.

2. **Saad, L.,** Hemmer, P., & Musolino, J. (in preparation). Temporal binding as a measure of agency: critical review and suggestions for the road ahead.

Presentations (* indicates presenter)

TALKS

1. **Saad, L.,** Hough, A.R., ***Blaha, L.**, & Lebiere, C.A. (2023, July) *A cognitive model of a temporal binding task.* Talk presented at the 21st annual meeting of the International Conference on Cognitive Modeling (ICCM), Amsterdam, Netherlands.

2. ***Saad, L.,** Hough, A.R., Blaha, L., & Lebiere, C.A. (2023, June) *A cognitive model of a temporal binding task.* Talk presented at the 21st annual meeting of the International Conference on Cognitive Modeling (ICCM), Virtual.

3. ***Saad, L.,** Musolino, J., and Hemmer, P. (2022, November) *Evaluating sources of error in temporal binding tasks.* Talk presented at the 63rd annual meeting of the Psychonomic Society, Boston, Massachusetts.

4. ***Saad, L.,** Musolino, J., and Hemmer, P. (2022, May) *Bayesian Rational Memory Model Simulates Temporal Binding.* Data Blitz presented at 18th annual Context and Episodic Memory Symposium, Philadelphia, PA.

5. ***Saad, L.,** Musolino, J., and Hemmer, P. (2021, November). *What is Intentional Binding Measuring?* Talk presented at the 62nd annual meeting of the Psychonomic Society, Virtual.

6. ***Saad, L.,** Musolino, J., and Hemmer, P. (2021, July). *What is Intentional Binding Measuring?* Talk presented at the 54th annual meeting of the Society for Mathematical Psychology, Virtual.

POSTERS

1. ***Saad, L.,** Musolino, J., and Hemmer, P. (2022, July) *Bayesian Rational Memory Model Simulates Temporal Binding.* Poster accepted for presentation at the 44th Annual Conference of the Cognitive Science Society. Toronto, Canada.

2. ***Saad, L.,** Musolino, J., and Hemmer, P. (2022, July) *Bayesian Rational Memory Model Simulates Temporal Binding.* Poster presented at the 54th annual meeting of the Society for Mathematical Psychology. Toronto, Canada.

3. ***Saad, L.,** Musolino, J., and Hemmer, P. (2022, June) *Bayesian Rational Memory Model Simulates Temporal Binding.* Poster presented at the 7th annual TRACE workshop, Wurzburg, Germany.

4. *Jomy, A., Devlin, K. N., **Saad, L.,** and Mechanic-Hamilton, D. (2022, February). Comparing normative adjustments to optimize MCI diagnosis in diverse older adults. Poster presented at the American Association for the Advancement of Science 2022 Annual Meeting, Philadelphia, PA.

5. ***Saad, L.,** Blaha, L., Musolino, J., and Hemmer, P. (2021, September). *An ACT-R Model of Intentional Binding.* Poster presented at the Annual SOCRATES Socially Cognizant Robotics Workshop in Piscataway, NJ.

6. ***Saad, L.,** Musolino, J., and Hemmer, P. (2020, November). *Intentional Binding: an unintentional artifact?* Poster presented at the 61st annual meeting of the Psychonomic Society, Virtual.

7. ***Saad, L.,** Musolino, J., and Hemmer, P. (2020, July). *Intentional Binding: an unintentional artifact?* Poster presented at the 53rd annual meeting of the Society for Mathematical Psychology, Virtual.

8. ***Saad, L.,** DeLuna, J., Hemmer, P., and Musolino, J. (2019, November). *Evaluating the Role of Congruence and Contiguity on the Sense of Agency.* Poster presented at the 60th annual meeting of the Psychonomic Society, Montreal, Canada.

9. ***Saad, L.,** DeLuna, J., Rothrock, J., Musolino, J., and Hemmer, P. (2019, July). *Evaluating the Role of Congruence and Contiguity on the Sense of Agency.* Poster presented at the 52nd annual meeting of the Society for Mathematical Psychology, Montreal, Canada.

10. Rothrock, J., ***Saad, L.,** DeLuna, J., Hemmer, P., and Musolino, J. (2019, May). *Investigating the Sense of Agency: Pilot Data on a Standard IB Paradigm.* Poster presented at the 31st annual meeting of the Association for Psychological Science, Washington, D.C.

11. Mechanic-Hamilton, D., ***Saad, L.,** Sacchetti D., and Hamilton R. (2018, February). *Pilot M.I.N.D.S. study: modulating intellect with noninvasive DC stimulation.* Poster presented at the 46th annual meeting of the International Neuropsychological Society, Washington D.C.

12. ***Saad, L.**, Wolk, D. A., and Mechanic-Hamilton, D. (2017, February). *An update on normative data for neuropsychological performance on memory and language measures in a racially diverse older adult longitudinal cohort.* Poster presented at the 45th annual meeting of the International Neuropsychological Society, New Orleans, LA.

13. *Devlin, K. N., **Saad, L.,** Giovannetti, T., Wolk, D. A., and Mechanic-Hamilton, D. (2017, February). *Diagnosing mild cognitive impairment: comparison of conventional, actuarial, and statistical methods*. Poster presented at the 45th annual meeting of the International Neuropsychological Society, New Orleans, LA.

14. *Hruska, A., **Saad, L.,** and Janke, E. A. (2016, April). *The influence of pain and pain sensitivity on decision making.* Poster presented at the 11th annual Philadelphia area Psi Chi Research Day, University of the Sciences, Philadelphia, PA.

15. ***Saad, L.** and Janke, E. A. (2015, April). *The influence of pain and pain sensitivity on decision making in healthy adults.* Poster presented at the 10th annual Philadelphia area Psi Chi Research Day, Drexel University, Philadelphia, PA.

16. *Jacob, S. S., **Saad, L**., DeLoretta, L. C., McHugh-Grant, S., and Moelter, S. T. (2015, March). *Multimedia use and impulsivity in healthy undergraduate students.* Poster presented at the annual meeting of the Eastern Psychological Association, Philadelphia, PA.

17. *DeLoretta, L. C., Benau, E. M., **Saad, L.**, and Moelter, S. T. (2014, September). *Right hemisphere activity associated with time perception revealed by contingent negative variation.*

Poster presented at the 54th annual meeting of the Society for Psychophysiological Research, Atlanta, GA.

18. ***Saad, L.,** Benau, E. M., DeLoretta, L. C., and Moelter, S. T. (2014, September). *Allocation of attention resources increases magnitude of attentional blink.* Poster presented at the 54th annual meeting of the Society for Psychophysiological Research, Atlanta, GA.

19. ***Saad, L.,** Benau, E. M., DeLoretta, L C., and Moelter, S. T. (2014, April). *Allocation of attention resources increases magnitude of attentional blink.* Poster presented at the 9th annual Philadelphia area Psi Chi Research Day, Temple University, Philadelphia, PA

Teaching Experience

Teaching Assistant, Rutgers University
August 2018-August 2019

- Cognition
- The Religious Mind
- Forensic Psychology
- Systems Psychotherapy

Lead Instructor, Cognition Laboratory, Rutgers University
August 2021-December 2022

- Responsibilities include:
  - Development of weekly lectures, assessments, homework assignments, and video tutorials for a 15-week laboratory course in cognition
  - Grading assessments
- Skills taught:
  - Basic data cleaning habits and fundamentals of experimental design
  - Exploratory data and statistical analysis skills using Excel and JASP
  - Fundamentals of science communication and scientific writing

Relevant Coursework

- MATLAB programming
- Computational Cognition
- Mathematical Models of Learning and Cognition
- Bayesian Modeling
- Deeper Data Analysis for Neuroscience and Psychology
- Digital Biomarkers for Brain Sciences
- Perception
- Decision Making

Technical Skills

- *Languages:* R, Python, MATLAB, Lisp
- *Statistics and graphics packages:* Origin Pro, JASP, SPSS

Ad Hoc Reviewing

Acta Psychologica
Consciousness and Cognition

Affiliations

2019-present Society for Mathematical Psychology

2019-present Psychonomic Society

2019-present Women in Cognitive Science

2019-present Women of Mathematical Psychology

2013-2017 Psi Chi, The International Honor Society in Psychology

2013-2017 Society for Psychophysiological Research

2013-2014 Vice President, Psi Chi, University of the Sciences Chapter