

Laura Saad

(856) 520-6848 • laura.saad14@gmail.com • Philadelphia, PA

EDUCATION

Expected August 2023	Ph.D. Cognitive Psychology, Rutgers University – New Brunswick Certificate in Cognitive Science, Rutgers Center for Cognitive Science
2021	M.S. Cognitive Psychology, Rutgers University – New Brunswick <u>Thesis:</u> <i>Rethinking Intentional Binding</i>
2015	B.S. Psychology, University of the Sciences

HONORS AND AWARDS

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

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

TALKS

1. **Saad, L.**, Hough, A.R., Blaha, L., & Lebiere, C.A. (2023, July) *A cognitive model of a temporal binding task*. Talk accepted for presentation at the 21st annual meeting of the International Conference on Cognitive Modeling (ICCM), Amsterdam, Netherlands.
2. **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.
3. **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.
4. **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.
5. **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.

RESEARCH EXPERIENCE

Human Computational Cognition Laboratory

Rutgers University, Department of Psychology, New Brunswick, NJ

Doctoral student, 2018-present

Advisors: Drs. Pernille Hemmer and Julien Musolino

- Collected, analyzed and visualized data using R, MATLAB, and Python.
- Developed mixed methods perceptual and behavioral tasks in MATLAB.
- 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.
- Presented research nationally and internationally at conferences.
- Fostered interdisciplinary collaboration with clinicians and cognitive scientists.
- Coordinated research goals and progress within team environment.

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.
- Presented a summary of accomplishments to the AFRL (including non-scientists and non-experts) at conclusion of internship.

University of Pennsylvania Memory Center

Department of Neurology, Perelman School of Medicine, Philadelphia, PA

Clinical Research Coordinator, 2015 – 2018

Supervisor: Dr. Dawn Mechanic-Hamilton

- Coordinated clinical research projects resulting in 2 peer-reviewed journal articles and 3 poster presentations at local and international conferences.
- Conducted psychometric and neuropsychological assessments on patients with dementia.

Health Behavior Research Lab

University of the Sciences, Department of Behavioral and Social Sciences, Philadelphia, PA

Research Assistant, 2014 – 2018

Supervisor: Dr. E. Amy Janke

- Principal investigator on a project assessing the influence of pain and pain sensitivity on decision-making which resulted in 2 poster presentation and a first-place presentation award.
- Experience in designing and implementing surveys in Qualtrics.

Cognitive Neuropsychology Lab

University of the Sciences, Department of Behavioral and Social Sciences, Philadelphia, PA

Research Assistant, 2012 – 2015

Supervisor: Dr. Stephen Moelter

- Conducted senior thesis incorporating cognitive electroencephalograph (EEG-ERP) data and behavioral experiments which resulted in 4 poster presentations at national and international conferences.

TEACHING EXPERIENCE

RUTGERS UNIVERSITY

Teaching Assistant, August 2018-August 2019

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

Lead Teaching Assistant, Cognition Lab, August 2021-December 2022

Average Student Rating (4.67/5 – Fall 2021; 5/5 – Spring 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

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

TECHNICAL SKILLS

- *Languages:* R, Python, MATLAB, Lisp
- *Statistics and graphics packages:* Origin Pro, JASP, SPSS
- *Other skills:*
 - Bayesian models of cognition
 - Cognitive Modeling (ACT-R)
 - Parametric and non-parametric analyses

AD HOC REVIEWING

Acta Psychologica; Consciousness and Cognition

AFFILIATIONS

2019–	Member, Society for Mathematical Society
2019–	Member, Psychonomic Society
2019–	Member, Women in Cognitive Science
2019–	Member, Women of Math Psych
2013–	Member, Psi Chi, The International Honor Society in Psychology
2013-2017	Member, Society for Psychophysiological Research
2013-2014	Vice President, Psi Chi, University of the Sciences Chapter