Laura Saad

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EDUCATION

Rutgers University
New Brunswick, NJ
Cognitive Psychology Doctoral Program
Advisors: Drs. Pernille Hemmer and Julien Musolino

University of the Sciences
Philadelphia, PA
B.S. in Psychology, 2015 – Cum laude
Advisor: Dr. Stephen Moelter

HONORS AND AWARDS

- NSF-GRFP Honorable Mention, 2020
- Society for Mathematical Psychology Student Travel Award, 2019
- First Place Student Poster at 10th annual Philadelphia area Psi Chi Research Day, 2015
- University of the Sciences Dean's List, 2013-2015

PEER-REVIEWED PUBLICATIONS

1. Devlin, K. N., Brennan, L., Saad, L., Giovannetti, T., Hamilton, R. H., Wolk, D. A., Xie, S. X., and 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.

2. Delhaye, E., Mechanic-Hamilton, D., **Saad, L.,** Sandhitsu, D. R., Wisse, L. E. M., Yushkevich, P. A., Wolk, D. A., and 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 PREP

1. Saad, L., Hemmer, P., and Musolino, J. (submitted) Rethinking Intentional Binding.
2. Saad, L., Musolino, J., and Hemmer, P. (in prep) Bayesian Rational Memory Model Simulates Temporal Binding Results.

ABSTRACTS

1. **Saad, L.,** Musolino, J., and Hemmer, P. (2021, November) *What is Intentional Binding Measuring?* Talk presented virtually (due to COVID-19) at the 62nd annual meeting of the Psychonomic Society.
2. **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.

3. **Saad, L.,** Musolino, J., and Hemmer, P. (2021, July) *What is Intentional Binding Measuring?* Virtual (due to COVID-19) talk presented at the 54th annual meeting of the Society for Mathematical Psychology.

4. **Saad, L.,** Musolino, J., and Hemmer, P. (2020, November) *Intentional Binding: an unintentional artifact?* Poster presented virtually (due to COVID-19) at the 61st annual meeting of the Psychonomic Society.

5. **Saad, L.,** Musolino, J., and Hemmer, P. (2020, July) *Intentional Binding: an unintentional artifact?* Poster presented virtually (due to COVID-19) at the 53rd annual meeting of the Society for Mathematical Psychology.

6. **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.

7. **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.

8. 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.

9. 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.

10. **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.

11. 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.

12. 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.

13. **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.

14. 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.

15. 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.

16. **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.

17. **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

- Principal investigator on several projects investigating the underlying mechanisms of temporal binding (TB) – a proposed implicit measure of the sense of agency. Responsibilities include:
  - Develop perceptual/behavioral tasks and program data organization and analysis in MATLAB; train and mentor undergraduate research assistants in maintenance of data integrity as well as data collection and analysis; assist with grant proposal development and writing; conduct comprehensive literature reviews in multiple domains, such as sense of agency, time perception and psychophysical techniques; submit manuscripts for publication in peer-reviewed journals; develop and improve theory in domain of research; present research nationally and internationally at conferences
- Foster collaboration with clinicians and researchers from the Rutgers Center for Computational Neuropsychiatry (CCNP) on a project investigating memory and time perception in schizophrenic patient population. Responsibilities include:
  - Development and submission of Institutional Review Board approved protocol; communication with CCNP researchers and research coordinators; develop and program behavioral tasks and data collection methods in MATLAB; conduct data analysis and visualization in MATLAB

Air Force Research Laboratory
Oak Ridge Institute for Science and Education
Carnegie Mellon University, Pittsburgh, PA (completed virtually due to COVID-19)
Repperger Research Summer Intern, June 2021 – August 2021
Scientist Mentor: Dr. Leslie Blaha

- Developed proficiency with visualization techniques in R using ggplot2
- Obtained new statistical analytical skillset in R including Recurrence Quantification Analysis and basic parametric and non-parametric statistics
- Developed a cognitive model of temporal binding task using a Python implementation of the Adaptive Control of Thought – Rational (ACT-R) cognitive architecture
  - Completed PyIBL (Python Instance Based Learning theory) tutorial
  - Completed ACT-R Python tutorial

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 a study assessing the impact of transcranial direct current stimulation (tDCS) and cognitive training on preservation of cognitive functioning in older adults
- Collected data and completed analysis for a project investigating the relationship between episodic memory recall and temporal discounting in older adults

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
    - Responsibilities included: ensure IRB compliance, recruitment, training of undergraduate and graduate research assistants, maintenance of data integrity

Cognitive Neuropsychology Lab
University of the Sciences, Department of Behavioral and Social Sciences, Philadelphia, PA
Research Assistant, 2012 – 2015
Supervisor: Dr. Stephen Moelter

- Acquisition and analysis of cognitive electroencephalograph (EEG-ERP) data
- Analysis of behavioral accuracy and reaction time data
- Ensure compliance with Institutional Review Board policy
- Designed and conducted a senior thesis using the attention blink paradigm

TEACHING EXPERIENCE

Rutgers University
Piscataway, NJ
Teaching Assistant, August 2018-August 2019

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

Lead Teaching Assistant, Cognition Lab, August 2021-present
Average Student Rating (4.67/5)

- Responsibilities include:
    - Development of weekly lectures, assessments, homework assignments, and video tutorials for a 15-week laboratory course
    - 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:* MATLAB, Python, R
- *Statistics and graphics packages:* Origin Pro, JASP, SPSS
- *Other skills:*
    - Bayesian models of cognition
    - Transcranial magnetic stimulation (TMS)
    - Transcranial direct-current stimulation (tDCS)
    - Electroencephalogram (EEG)

AD HOC REVIEWING

Acta Psychologica; Consciousness and Cognition

AFFILIATIONS

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