

# Paul W. Savoca

3612 Keystone Ave., Apt 10, Los Angeles, CA 90034  
ps365@g.ucla.edu | 862-432-1256

## Education

---

- 2027      PhD Psychology  
University of California, Los Angeles (UCLA)  
Los Angeles, CA
- 2019      BS Psychology (Minor: Political Science)  
Northeastern University  
Boston, MA  
GPA: 3.92

## Honors/Funding

---

- 2024-2027      NSF Graduate Research Fellowship
- 2024      UCLA Graduate Summer Research Mentorship Award
- 2023      UCLA Psychology Summer Graduate Student Mentorship Award
- 2022      UCLA Graduate Dean's Scholar Award
- 2019      Northeastern University Department of Psychology Faculty Scholar Award
- 2019      Northeastern University Department of Psychology Travel Award
- 2015-2019      Northeastern University Dean's List

## Publications

---

- Savoca, P. W.**, Glynn, L. M., Fox, M. M., Richards, M. C., & Callaghan, B. L. (2024). Exploring the impact of maternal early life adversity on interoceptive sensibility in pregnancy: Implications for prenatal depression. *Archives of Women's Mental Health*, 1–10. <https://doi.org/10.1007/s00737-024-01504-7>
- Savoca, P. W.**, Glynn, L. M., Fox, M. M., Richards, M. C., & Callaghan, B. L. (2024). Interoception in Pregnancy: Implications for Peripartum Depression. *Neuroscience & Biobehavioral Reviews*, 105874. <https://doi.org/10.1016/j.neubiorev.2024.105874>
- Esfand, S.M., Querdasi, F.R., Gancz, N.N., **Savoca, P.W.**, Nussabaum, S., Somers, J.A., Ditzer, J., Figueroa, Chu, K., Towner, E., & Callaghan, B.L. (in prep). *Protocol overview for the Mind, Brain, and Body Study: Examining how the gut-brain-immune axis is linked to internalizing symptoms in youth exposed to caregiving-related early adversity.*
- Savoca, P.W.**, Quigley, K.S., & Callaghan, B.L. (in prep). *Early Life Adversity and the Use of Concepts in Memory.*

**Savoca, P.W.,** Fabian, A., & Callaghan, B.L. (*in prep*). *Alexithymia Mediates the Relationship between Discrimination and Anxiety in Women.*

**Savoca, P.W.,** Quigley, K.S., Barrett, L.F., & Atzil, S. (*in prep*). *Using Allostasis to Understand the Impact of Early Life Adversity on Fronto-Limbic Circuitry.*

Chen D., Kragel, P.A., Satpute, A.B., **Savoca, P.W.,** Wald, L.L., Bianciardi, M., Wager, T.D., Quigley, K.S., Barrett, L.F., & Theriault, J. (2022). *The role of superior colliculus in affective experiences during visual and somatosensory stimulation.* bioRxiv.

## **Presentations**

---

**Savoca, P.W.,** Ditzer, J., Gancz, N.N., Delgadillo, D., Callaghan, B.L. (April 2024). *Planned Analyses: Linking Gut-Microbiome Features to Insula Laminar Structure.* Poster presented at Goodman-Luskin Microbiome Center Annual Symposium, Los Angeles, CA.

**Savoca, P.W.,** Callaghan, B.L. (January 2024). *Interoception During Pregnancy: Integrating a Microbiome Perspective.* Presentation given at Goodman-Luskin Microbiome Center Seminar Series, Los Angeles, CA.

**Savoca, P.W.,** Callaghan, B.L. (November 2023). *Alteration of maternal perinatal interoception after early childhood trauma exposure: links with depression.* Nano-symposium presented at annual meeting of Society for Neuroscience, Washington, D.C.

**Savoca, P.W.,** Quigley, K.S., Callaghan, B.L. (September 2023). *Differences in Concept Uses Associated with Early Life Adversity.* Poster presented at Flux annual meeting, Santa Rosa, CA.

Nussbaum, S.G., **Savoca, P.W.,** Simpson, R.C., Chan, E.M., Callaghan, B.L. (September 2023). *The Impact of Early Life Adversity on Physiological Response to Acoustic Cues.* Poster presented at Flux annual meeting, Santa Rosa, CA.

**Savoca, P.W.,** Chan, E.M., Simpson, R.C., Nussbaum, S.G., Callaghan, B.L. (June 2023). *The Role of Interoceptive Efficiency in the Experience of Arousal and Mental Health.* Poster presented at annual meeting of the Association for the Scientific Study of Consciousness, New York, NY.

Simpson, R.C., **Savoca, P.W.,** Chan, E.M., Nussbaum, S.G., Callaghan, B.L. (May 2023). *Examining Alexithymia and Interoceptive Prediction Errors.* Poster presented at the UCLA Psychology Undergraduate Research Conference, Los Angeles, CA. (*Student Mentor*)

Chan, E.M., **Savoca, P.W.**, Simpson, R.C., Siyan, S.G., Callaghan, B.L. (May 2023). *Allostasis Efficiency and Childhood Uncertainty in Young Adults*. Poster presented at the UCLA Psychology Undergraduate Research Conference, Los Angeles, CA. (*Student Mentor*)

**Savoca, P.W.**, Simpson, R.C., Chan, E.M., Nussbaum, S.G., Callaghan, B.L. (March 2023). *Temporal Concordance of Subjective and Objective Arousal*. Poster presented at annual meeting of the Society for Affective Science, Long Beach, CA.

Gancz, N., **Savoca, P.W.**, Callaghan, B.L. (March 2023). *A Gut Feeling: Examining Electrogastrography as a Biomarker of Affective Responses*. Poster presented at annual meeting of the Society for Affective Science, Long Beach, CA.

Loxton, C., **Savoca, P.W.**, Westlin, C., Shepherd, K., Katsumi, Y., Wong, B., Andreano, J., Touroutoglou, A., Dickerson, B.C., Quigley, K.S., Barrett, L.F., Isaacowitz, D.M. (March 2022). *Stability in Arousal Engagement Across Task and Age*. Poster presented at annual meeting of the Society for Affective Science (virtual).

Chen, D., Kragel, P.A., Satpute, A.B., **Savoca, P.**, Wald, L.L., Bianciardi, M., Wager, T.D., Quigley, K.S., Barrett, L.F., Theriault, J. (November 2021). *The role of superior colliculus in affective experiences during visual and somatosensory stimulation*. Poster presented at annual meeting of the Society for Neuroscience (virtual).

**Savoca, P.**, Andreano, J., Meydan, A., Touroutoglou, A., Quigley, K.S., Dickerson, B.C., Barrett, L.F. (March 2021). *Structural Preservation and Functional Connectivity of Interoceptive Circuitry Predicts Interoceptive Sensitivity*. Poster presented at annual meeting of Cognitive Neuroscience Society (virtual).

Dev, S., **Savoca, P.**, Katsumi, Y., Wong, B., Andreano, J., Barrett, L.F., Dickerson, B.C., Touroutoglou, A. (July 2020). *Alzheimer's disease related atrophy in Superagers: Resilience or Resistance?* Poster presented at annual meeting of Alzheimer's Association International Conference (virtual).

**Savoca, P.**, Lyons, S., Palermo, M., Dickerson, B.C., Barrett, L.F., Andreano, J. (May 2020). *Modulation of Internetwork Connectivity between Salience and Default Mode Networks over the Menstrual Cycle*. Poster presented at annual convention for the Association for Psychological Science (virtual).

**Savoca, P.**, Katsumi, Y., Westlin, C., Touroutoglou, A., Andreano, J., Quigley, K., Barrett, L.F. (March 2019). *Superagers and visual consciousness for affective information using a continuous flash suppression task*. Poster presented at the annual meeting of the Society for Affective Science, Boston, MA.

## **Research Experience**

---

### **PhD Student**

University of California, Los Angeles

September 2022 – Present

***Temporal Relationships of Arousal and Predictability***

*This study examines the temporal relationship between subjective and objective arousal using, and its association with interoception and well-being.*

***Sensations of Motherhood***

*This study follows first-time mothers during and following pregnancy to examine variation in interoceptive awareness and well-being that may be associated with pregnancy.*

***Early Life Adversity and the Use of Concepts in Memory***

*This study examines the relationship between early-life adversity and concept use in childhood, using novel measures of memory performance during an associative memory task.*

**Clinical Research Coordinator II**

Massachusetts General Hospital, Charlestown MA

May 2019 – June 2022

***Affect regulation and Beta Amyloid: Maturational Factors in Aging and Age-Related Pathology***

*This study examines if variation in affect regulation can be protective of cognitive function in aging, particularly in people with Alzheimer's Disease pathology.*

PIs: Lisa Feldman Barrett, Bradford Dickerson, Derek Isaacowitz

- Managed administration, including IRB documents, for large multi-site study (funded by an R01 from the National Institute of Mental Health), conducted across five experimental sessions that span two different institutions
- Recruited, scheduled, and compensated research participants from community
- Administered neuropsychological assessments
- Operated a MR-PET scanner to collect structural, functional, and PET imaging data
- Preprocessed PET and structural MRI data
- Analyzed structural and resting-state functional connectivity data
- Collected, scored, and analyzed peripheral physiology data
- Trained, managed and mentored a team of undergraduate research assistants
- Obtained a deep understanding for the structural and functional anatomy of brain networks
- Collaborated with engineers on advanced modeling of behavioral, neuroimaging, and peripheral psychophysiological data

***Biopsychosocial Mechanisms of Successful Aging***

*This study examines a variety of potential mechanisms that may contribute to successful cognitive aging.*

PIs: Lisa Feldman Barrett, Bradford Dickerson

- Implemented and aided in the design a novel associative memory task

- Programed behavioral tasks, for both the lab and the neuroimaging environment
- Analyzed threat vs. challenge physiological data
- Deployed and collected data using an innovative video diary day reconstruction method
- Managed and mentored a team of undergraduate research assistants

***Ovarian Effects on Intrinsic Connectivity and the Affective Enhancement of Memory***

*This study explores the effects of ovarian hormones on brain functional connectivity and memory across the menstrual cycle.*

PIs: Lisa Feldman Barrett, Joseph Andreano

- Operated MRI scanner to collect structural and functional imaging data
- Aided in the scoring of behavioral data

***Noninvasive brain stimulation as a tool to study the role of motivation in age-related cognitive abilities***

*This clinical trial examines the potential efficacy of tDCS in improving memory and motivation.*

PIs: Alexandra Touroutoglou, Sumientra Rampersad

- Modified a memory paradigm for use in this clinical trial
- Collected neuropsychological data
- Trained a team of undergraduate research assistants in administering tasks and assessments

***TMS in Primary Progressive Aphasia: Modulation of Brain Networks and Language (K23)***

*This study examines the effects of transcranial magnetic stimulation (TMS) on participants with primary progressive aphasia.*

PI: Alexandra Touroutoglou

- Aided in the design and implementation of a language task to be administered with TMS

**Undergraduate Research Assistant**

Interdisciplinary Affective Science Lab

September 2016 - December 2016, January 2019 – May 2019

- Conducted neuropsychological assessments of participants, assisting with fMRI and PET scans, scored questionnaire data, and ran behavioral lab sessions which included peripheral physiology recordings.
- Worked on a research project regarding emotional granularity and the use of emotion words in multiple languages.
- Ran in-lab experiment sessions, conducted post-experiment interviews with participants and preliminary analysis of data.

**Full time Research Assistant, Co-op**

Life-Span Emotional Development Lab

July 2018 - December 2018

- Worked full-time on a research project that examined the roles of affect regulation, beta-amyloid, and aging on memory and cognitive abilities.
- Implemented peripheral physiology recording during simultaneous fMRI and PET acquisition.
- Created a pipeline for eye-tracking data analysis.
- Recruited and screened participants, assisted with behavioral and neuro-imaging sessions, and managed a group of undergraduate research assistants.

## **Relevant Work Experience**

### **Residential Counselor**

Italian Home for Children

July 2017 – January 2019

- Worked as a full-time residential counselor in an intensive group home for children aged 4-12.
- Oversaw the daily routines and activities of residents, documented client behavior in reports, and worked with clients to overcome maladaptive behaviors.

## **Memberships and Professional Associations**

2024-present	International Society for Developmental Psychobiology
2023-present	Society for Neuroscience
2023-2024	Flux Society
2022-2023	Association for the Scientific Study of Consciousness
2021-2022	Cognitive Neuroscience Society
2019-present	Society for Affective Science
2017-2019	Psi Chi (Northeastern University chapter)

## **Skills**

### Statistical:

- Hierarchical linear modeling (HLM), General Linear Modeling (GLM), Monte Carlo Simulation, ANOVA, t-testing, correlation analyses, mediation modeling

### Software:

- Proficient in R, Eprime, Psychtoolbox-3 (Matlab), and Python

### Neuroimaging:

- Structural MRI analysis in Freesurfer; Functional MRI analysis in CONN; Preprocessing of PET data; Tissue Iron Estimation

### Physiology:

- Acquisition and analysis of Electrocardiogram, Impedance Cardiography, Electrodermal, and Blood Pressure data

## **Open Access Software**

---

Electrocardiogram (ECG) Cleaning/Editing GUI: [https://github.com/bablab/Physiology\\_GUIs](https://github.com/bablab/Physiology_GUIs)