

RACHEL NICOLE SMITH-PEIRCE

EDUCATION

Washington University in St. Louis

Ph.D., Education

Expected 2027

University of California, Irvine

B.S., Cognitive Sciences with Honors

2019

Specialization in Experimental Psychology

GPA: 3.816

Honors Thesis: Older Adults Improve Average Calibration but Not Item

By-Item Predictive Accuracy on a Metamemory Task: Lack of an Underconfidence Effect

Advisor: Dr. Susanne Jaeggi

High School Diploma

2015

West Ranch High School, Valencia, CA

HONORS AND AWARDS

National Science Foundation Graduate Research Fellow

2021 – Present

STEM Education and Learning

Recipient of the Order of Merit Award,

2019

University of California, Irvine

The Order of Merit is awarded annually to approximately 2% of the Social Sciences graduating class.

A nomination by faculty is required.

Phi Beta Kappa Honor Society Membership,

2019

University of California, Irvine

Each year no more than 5% of graduating seniors are invited to join the UCI chapter. A nomination by faculty is required.

Latin Honors – Cum Laude,

2019

University of California, Irvine

Recipient of the 2019 Western Psychological Foundation Student Scholarship Award (\$500)

2019

Undergraduate Research Opportunities Program (UROP) Fellow,

2018 – 2019

University of California, Irvine

Summer Undergraduate Research Program (SURP) Fellow,

2018 – 2019

University of California, Irvine

Psi Chi Membership – International Honor Society in Psychology,

2017 – 2019

University of California, Irvine

Undergraduate Research Opportunities Program (UROP) Fellow,

2017 – 2018

University of California, Irvine

Dean's Honor List: 8 quarters out of a total of 12 quarters,

2015 – 2019

University of California, Irvine

National Society of Collegiate Scholars Membership

2016 – 2019

MANUSCRIPTS

- Pahor, A., Collins, C., **Smith-Peirce, R. N.**, Moon, A., Stavropolous T., Ilse, S., Jaeggi, S. M. & Seitz, A. R. (2021). Multisensory Facilitation of Working Memory Training. *Journal of Cognitive Enhancement*.
<https://doi.org/10.1007/s41465-020-00196-y>
- Lin, G. C., **Smith, R. N.**, Parlett-Pelleriti, C., Jones, M. R., & Jaeggi, S. M. (2019). I Bet I'll Remember 'Biochemistry' – Meta-Memory as a Function of Lexical Features and Language Background. *Proceedings from the 11th International Conference on the Mental Lexicon*.
<https://doi.org/10.7939/r3-95m7-9p48>
- Au, J., **Smith-Peirce, R. N.**, Carbone, E., Jonides, J. & Jaeggi, S. M. (Under Review, Invited Revision). Effects of Prefrontal Transcranial Direct Current Stimulation on Long-Term Memory and Working Memory in Older Adults.
- Truong, J., Buschkuehl, M., **Smith-Peirce, R. N.**, Carrillo, A. A., Seitz, A. R. & Jaeggi, S. M. (Under Review). Change-Detection Training and Its Effects on Visual Processing Skills.
- Collins, C., Pina, A., Carrillo, A., Ghil, E., **Smith-Peirce, R. N.**, Gomez, M., Okolo, P., Chen, Y., Pahor, A., Jaeggi, S. M. & Seitz, A. R. (Under Review). Video-Based Remote Administration of Cognitive Research.
- Smith-Peirce, R. N.**, Lin, G. C., & Jaeggi, S. M. (In Preparation). Task Manipulations Demonstrate no Underconfidence-With-Practice Effect: Using a Free Recall Metamemory Paradigm.
- Smith-Peirce, R. N.**, Do, Q. T. H., Parlett-Pelleriti, C., & Jaeggi, S. M. (In Preparation). Predicting Working Memory Training Gain in Younger and Older Adults: An Individual Differences Approach.

CONFERENCE PRESENTATIONS

- Au, J., Carbone, E., **Smith-Peirce, R. N.**, Moon, A., Evans, M., Jonides, J. & Jaeggi, S. M. (2022, January) Effects of Prefrontal Transcranial Direct Current Stimulation on Long-Term Memory and Working Memory in Older Adults. To be presented virtually at the 7th Biennial Dallas Aging and Cognition Conference.
- Smith-Peirce, R. N.**, Lin, G. C. & Jaeggi, S. M. (2021, November). Task Manipulations Demonstrate no Underconfidence-With-Practice Effect: Using a Free Recall Metamemory Paradigm. Presented virtually at the 62nd annual Psychonomics Society conference.
- Smith-Peirce, R. N.**, Lin, G. C. & Jaeggi, S. M. (2021, April). "Task Manipulations Demonstrate no Underconfidence-With-Practice Effect: Using a Free Recall Metamemory Paradigm" Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Smith-Peirce, R. N.**, Do, Q. T. D., Parlett-Pelleriti, C. & Jaeggi, S. M. (2021, April). "Predicting Working Memory Training Gain in Younger and Older Adults: An Individual Differences Approach" Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Au, J., Katz, B., Carbone, E., **Smith, R. N.**, Moon, A., Evans, M., Jonides, J. & Jaeggi, S. M. (2020, May). "Prefrontal Transcranial Direct Current Stimulation Preferentially Improves Declarative Memory, but not Working Memory in Older Adults" Poster presented virtually at the Cognitive Neuroscience Society Conference.
- Smith, R. N.**, Au, J., Carbone, E., Jonides, J. & Jaeggi, S. M. (2020, April). "Investigating Memory Consolidation Through Transcranial Direct Current Stimulation and Distribution of Training in

Older Adults” Poster scheduled to have been presented virtually at the Cognitive Aging Conference in Atlanta, GA. ~

- Smith, R. N.,** Lin, G. C. & Jaeggi, S. M. (2019, May). *“The Underconfidence-With-Practice Effect as a Function of Imageability in a Metamemory Task”* Oral presentation presented at the UCI Undergraduate Research Opportunities Program Symposium.
- Smith, R. N.,** Moon, A., Au, J. & Jaeggi, S. M. (2019, May). *“Investigating Memory Consolidation Through Transcranial Direct Current Stimulation and Distribution of Training in Older Adults”* Oral presentation presented at the UCI Undergraduate Research Opportunities Program Symposium.
- Smith, R. N.,** Christhilf, K., Lin, G. C., Moon, A. & Jaeggi, S. M. (2019, May). *“Exploring the Relationship Between Working Memory, Metamemory, and Fluid Intelligence”* Poster presented at the UCI Undergraduate Research Opportunities Program Symposium.
- Smith, R. N.,** Christhilf, K., Lin, G. C., Moon, A. & Jaeggi, S. M. (2019, May). *“Exploring the Relationship Between Working Memory, Metamemory, and Fluid Intelligence”* Poster presented at the UCLA Psychology Undergraduate Research Conference.
- Smith, R. N.,** Lin, G. C., Parlett-Pelleriti, C., Jones, M. R., & Jaeggi, S. M. (2019, April). *“Investigating the Underconfidence-With-Practice Effect in a Novel Metamemory Task”* Poster presented at the 99th Annual Western Psychological Association Convention in Pasadena, CA. *
- Smith, R. N.,** Moon, A., Au, J., Carbone, E., Jonides, J. & Jaeggi, S. M. (2019, January). *“Investigating Memory Consolidation Through Transcranial Direct Current Stimulation and Distribution of Training in Older Adults”* Poster session presented at the 6th Biennial Dallas Aging & Cognition Conference in Dallas, TX.
- Lin, G. C., **Smith, R. N.,** Parlett-Pelleriti, C., Jones, M. R., & Jaeggi, S. M. (2018, September). *“I Bet I’ll Remember ‘Biochemistry’ – Meta-Memory as a Function of Lexical Features and Language Background”* Poster session presented at the 11th International Conference on the Mental Lexicon in Edmonton, Alberta, Canada.
- Smith, R. N.,** Lin, G. C., Moon, A. & Jaeggi, S.M. (2018, May) *“A Language Acquisition Component to the Meta-Memory of Emotional Words”* Poster session presented at the UCLA Psychology Undergraduate Research Conference.
- Smith, R. N.,** Lin, G. C., Moon, A. & Jaeggi, S.M. (2018, May) *“A Language Acquisition Component to the Meta-Memory of Emotional Words”* Poster session presented at the UCI Undergraduate Research Opportunities Program Symposium. *

Presentations by Undergraduate Students Mentored

- Christhilf, K., Sumner E., Lin, G. C., **Smith-Peirce, R. N.** & Jaeggi, S. M. (2021, April) *“Examining the Validity of Existing Measures of Risk Propensity with Respect to Individual Actions During COVID-19”* Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Truong, J., Buschkuhl M., **Smith-Peirce, R. N.,** & Jaeggi, S. M. (2021, April). *“Training Change Detection and Its Effect on Visual Processing Skills”* Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Donaire, M. S., Nguyen, R. M., **Smith-Peirce, R. N.,** Pahor, A., Seitz, A. & Jaeggi, S. M. (2021, April) *“College Student N-Back Strategies: Effects of Strategy-Use at Different Stages of Working*

- Memory Training*” Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Delano, N., Shah, P., Khan, S., Trane, F., Barakat, L., **Smith-Peirce, R. N.**, Jones, M. & Jaeggi, S. M. (2021, April) *“The Effects of Sleep Quality and Mood on Working Memory Training Outcome in Children with ADHD”* Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Nguyen, R. M., Donaire, M. S., **Smith-Peirce, R. N.**, Pahor, A., Seitz, A. & Jaeggi, S. M. (2021, April) *“Effects of Media Multitasking and Media Usage on Inhibitory Control and Working Memory”* Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Quagletti, A., Christhlf, K., May, D., Hayashi, M., **Smith-Peirce, R. N.**, Pahor, A., Seitz, A. & Jaeggi, S. M. (2021, April) *“Validation of a Novel Matrix Reasoning Task for Mobile Devices”* Poster to be presented virtually at the 101st Annual Western Psychological Association Convention.
- Christhlf, K., Sumner E., Lin, G. C., **Smith, R. N.** & Jaeggi, S. M. (2020, October) *“Virtual Reality as a Measure of Risk Assessment”* Poster to be presented at the 100th Annual Western Psychological Association Convention in San Francisco, CA. °
- Do, Q. T. H., **Smith, R. N.**, & Jaeggi, S. M. (2020, October) *“Does Working Memory Training Improve Metamemory? Examining as a Function of Age”* Poster to be presented at the 100th Annual Western Psychological Association Convention in San Francisco, CA. °
- Bui, B., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Observing the Relationship of Spacing Effects and tDCS on Reaction Times”* Poster presented at the UCI Undergraduate Research Opportunities Program Symposium. ~
- Carlisle, E., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Assault on Memory: Assessing the Effect of Memory Denial on Long Term Memory Recall”* Poster presented at the UCI Undergraduate Research Opportunities Program Symposium. ~
- Quagletti, A., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Yes, I Can: How Self-Assessments of Problem-Solving Abilities Inform Academic and General Problem-Solving Performance”* Poster presented at the UCI Undergraduate Research Opportunities Program Symposium. ~
- Salem, J., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Examining students' understanding of the nature of science and their function-based beliefs”* Poster presented at the UCI Undergraduate Research Opportunities Program Symposium. ~
- Do, Q. T. H., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Does Working Memory Training Improve Metamemory? Examining as a Function of Age”* Poster presented at the UCLA Psychology Undergraduate Research Conference.
- Nguyen, J., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Examining the Effects Of Spacing on Working Memory Training & Transfer”* Poster presented at the UCLA Psychology Undergraduate Research Conference.
- Truong, J., Buschkuehl M., **Smith, R. N.**, & Jaeggi, S. M. (2020, May). *“Training Change Detection and Its Effect on Visual Processing Skills”* Poster presented at the UCLA Psychology Undergraduate Research Conference.

* Award winning poster, ° Postponed due to COVID-19, ~ Cancelled due to COVID-19

REVIEWING EXPERIENCE

Proceedings from the 11th International Conference on the Mental Lexicon[†]

[†]Co-reviewed with Grace Lin, Ph.D

RESEARCH EXPERIENCE

Lab Manager

UCI Working Memory and Plasticity Lab

July 2019 – July 2021

I oversee various projects relating to working memory training and transfer in younger and older adults. Other studies include risk propensity and virtual reality, metamemory, training visual processing skills, and long-term memory retention. Daily business includes managing four IRB applications, data collection for three federal grants, train and supervise over 15 undergraduate students, and contribute to data analysis.

Research Assistant

UCI Working Memory and Plasticity Lab

January 2017 – June 2019

As a SURP and UROP recipient, I received funding for two projects. One research project examined how metamemory differed in various language acquisition backgrounds. The other main project investigated the effects of transcranial direct current stimulation (tDCS) on improving working memory in older adults. For both projects, I recruited and scheduled participants, trained research assistants, and cleaned and organized data.

Research Assistant

UCI Chubb-Wright Lab

January 2018 – June 2019

I participated in a seminar with a few students and the lead researcher, Dr. Ted Wright, to give input on the next steps in the centroid research. I was interested in how participants selectively attend to certain stimuli characteristics in a centroid task.

TEACHING EXPERIENCE

Assistant Director of the Summer Research Program for Children Grades 6th through 12th

Ardent Academy for Gifted Youth

May 2020 – March 2021

I currently mentor over 40 middle and high school students' science projects in various STEM fields. I taught lessons on conducting background research, forming research questions and hypotheses, design experiments, and analyzing data. Along with the guidance of the executive director, Dr. James Li, we prepare students for their regional science fair in the summer.

Science Instructor for Children Grades 3rd through 8th

Ardent Academy for Gifted Youth

October 2015 – August 2018

I taught three year-round science classes as well as five summer camps for children from 3rd to 8th grade. For all of the classes I taught, I individually developed all of the curriculum. In addition, I managed three teaching assistants as well as designed and coordinated open houses, seminars, and free events to promote my science classes.

PROFESSIONAL SKILLS

Statistical Software

R, MATLAB, SPSS, STATA, JASP, Jamovi

Neuroimaging Software

SPM

Stimulus Presentation
Programming Languages
Survey Software
Certification

E-Prime
Python
Qualtrics
MRI safety and operator certified