

COURTNEY R. GERVER

The Pennsylvania State University
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University Park, PA 16802
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EDUCATION

- Ph.D., Cognitive Neuroscience** (anticipated 2022) 2019-
M.S., Cognitive Psychology 2019
The Pennsylvania State University
Master's Thesis: Examining the Effect of Encoding-Retrieval Congruency on
Associative Retrieval
Advisor: Nancy A. Dennis, Ph.D.
- B.S., Psychology; Minor, Criminal Justice** 2017
St. Thomas Aquinas College
Summa Cum Laude, Honors Program distinction
Honors Theses:
1. Connections Between Trait Narcissism & Social Media Use
Advisor: Benjamin C. Wagner, Ph.D.
2. Examining Conscientiousness as a Mediating Variable of Happiness
and Procrastination
Advisor: Susan K. Marell, Ph.D.
- Visiting Student, Oxford Berkeley Program** SU 2016
University of Oxford

RESEARCH EXPERIENCE

- Graduate Research Experience**
The Pennsylvania State University
Project: Empirically examine the effects of cognitive aging on associative and
false memories using fMRI. 2017-
Advisor: Nancy A. Dennis, Ph.D.
 - Collect, clean, analyze, and visualize neuroimaging and
behavioral data to examine the effects of aging on memory
 - Lead team of 15 research assistants across two universities
(Penn State University and Elon University) in data collection
and analysis of multiple studies and technologies, including
fMRI and eye-tracking
- Project: Examine the link between divergent thinking and false memories. 2019-
Lab Rotation Advisor: Roger E. Beaty, Ph.D.
 - Designed independent project using standardized computer
measures with intent of peer reviewed publication
 - Trained and led team of 6 undergraduates on data collection

Project: Validate ambulatory assessments of thoughts and cognitive abilities. 2018-2019

Lab Rotation Advisor: Jonathan G. Hakun, Ph.D.

- Created study protocol in E-Prime
- Analyzed data in R Studio
- Administered ambulatory assessments to college-aged subjects

NSF Research Experience for Undergraduates Research Assistant

Temple University

2015

Project: Developmental trajectory of spatial and mathematical abilities.

Advisor: Elizabeth A. Gunderson, Ph.D.

- Coded data using Adobe Photoshop
- Created poster for presentation at Cognitive Development Society Annual Meeting

Undergraduate Research Experience

Nathan S. Kline Institute for Psychiatric Research

Project: Investigate the longitudinal effects of aging using a cognitive battery, VO2 Max, and fMRI. 2015-2017

Advisor: Anna MacKay-Brandt, Ph.D.

- Assisted with administration of experimental protocol on participants aged 6-85 for several longitudinal studies
- Assisted with community outreach and recruitment

St. Thomas Aquinas College

Project: Examine the relationship between conscientiousness, happiness, and procrastination. 2016-2017

Advisor: Susan K. Marell, Ph.D.

- Collected survey data and analyzed results using SPSS
- Wrote original manuscript based on research results

Project: Statistically examine the relationship between trait narcissism and cross-platform social media use. 2015-2016

Advisor: Benjamin C. Wagner, Ph.D.

- Created and implemented original social media use measure
- Wrote IRB documentation for study approval

PUBLICATIONS

3. **Gerver, C. R.**, Overman, A. A., Babu, H. J., Hultman, C. E., & Dennis, N. A. (2020). Examining the neural basis of congruent and incongruent configural contexts during associative retrieval. *Journal of Cognitive Neuroscience*, 32(9). 1796–1812.
<https://doi.org/10.1162/jocn.a.01593>
2. **Gerver, C. R.**, Neely, K. A., Kurkela, K. A., Diaz, M. T., Goodman, J. T., Blouch, S. L., Samimy, S., & Dennis, N. A. (2019). Shared neural recruitment across working memory and motor control tasks as a function of task difficulty and age. *Aging, Neuropsychology, and Cognition*. <https://doi.org/10.1080/13825585.2019.1700898>

1. Dennis, N. A., & Overman, A. A., **Gerver, C. R.**, McGraw, K., Rowley, M. A., & Salerno, J. M. (2019). Different types of associative encoding evoke differential processing in both younger and older adults: evidence from univariate and multivariate analyses. *Neuropsychologia*, 135. <https://doi.org/10.1016/j.neuropsychologia.2019.107240>

IN PREP PUBLICATIONS

3. Dennis, N. A., **Gerver, C. R.**, Carpenter, C. M., Overman, A. A., Elbich, D. E., Cowan, J. & Jenkins, C. (In prep). Using multivariate methodologies to understand associative false memories in aging.
2. **Gerver, C. R.**, Griffin, J. W., Dennis, N. A., & Beaty, R. E. (In prep). A meta-analytic examination of the relationship between memory and creative cognition.
1. Hakun, J. G. & **Gerver, C. R.** (In prep). An ultra-brief ambulatory assessment of working memory capacity.

PREREGISTERED ONGOING STUDIES

2. **Gerver, C. R.**, Dennis, N. A., & Beaty, R. E. (In prep). Examining the relationship between false memory susceptibility and divergent creative thinking abilities. [Preregistration](#).
1. **Gerver, C. R.** & Dennis, N. A. (In prep). Examining the effect of scene complexity on associative memory: An eye-tracking study. [Preregistration](#).

INVITED TALKS

1. **Gerver, C. R.**, Memory, aging, & all about graduate school. Invited to speak at Psi Chi Undergraduate Meeting on March 17, 2020. Event cancelled due to COVID-19.

POSTER PRESENTATIONS

13. **Gerver, C. R.**, Overman, A. A., Cowan, J., Jenkins, C., Kautz, B., Long, M., Seo, M. S., & Dennis, N. A. (2020). Manipulating associative encoding strategy impacts neural discriminability at encoding and retrieval. Presented virtually at the 2020 Cognitive Neuroscience Society Annual Meeting, Boston, MA.
12. **Gerver, C. R.**, Overman, A. A., Cowan, J., Jenkins, C., & Dennis, N. A. (2020). Encoding-retrieval congruency affects the neural processing of associative recollection in older adults. Poster accepted for presentation at the 2020 Cognitive Aging Conference, Atlanta, GA. Event cancelled due to COVID-19.

Note: Gray = maiden name

11. **Gray, C. R.**, Chamberlain, J. D., McGraw, K. E., Babu, H., Overman, A. A., & Dennis, N. A. (2019). The influence of memory performance on neural representations supporting associative retrieval. Presented at: Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.
10. **Gray, C. R.**, Overman, A. A., McGraw, K. E., Rowley, M. A., Salerno, J. M., Hultman, C. E., & Dennis, N. A. (2019). Neural encoding differences between younger and older adults in associative memory. Presented at: Dallas Aging and Cognition Conference, Dallas, TX.
9. McCormick-Huhn, J. M., **Gray, C. R.**, Iriondo, H., Babu, H. J., Richardson, H., & Dennis, N. A. (2018). Using perceptual manipulations as a new approach for promoting unitization in older adults. Presented at: Cognitive Aging Conference, Atlanta, GA.
8. McGraw, K. E., Rowley, M. A., Salerno, J. M., Giglio, A. P., **Gray, C. R.**, Overman, A. A., & Dennis, N. A. (2018). Neural Encoding Differences in Older Adults' Associative Memory. Presented at: Cognitive Aging Conference, Atlanta, GA.
7. **Gray, C. R.**, Rowley, M. A., McGraw, K. E., Salerno, J. M., Giglio, A. P., Overman, A. A., & Dennis, N. A. (2018). Effect of Congruency Between Encoding and Retrieval on Associative Retrieval. Presented at: Cognitive Neuroscience Society Annual Meeting, Boston, MA.
6. **Gray, C. R.**, & Marell, S. K. (2017). Conscientiousness as a mediating variable of happiness and procrastination. Presented at Ignite: Second Annual St. Thomas Aquinas College Art, Design, & Scholarship Exhibition, Sparkill, NY.
5. **Gray, C. R.**, & Wagner, B. (2017). My news is important to share: Connections between narcissism and social media usage. Presented at: Society for Personality and Social Psychology Annual Convention, San Antonio, TX.
4. **Gray, C. R.**, & Wagner, B. (2016). My news is important to share: Connections between narcissism and social media usage. Presented at: New England Psychological Association Annual Meeting, Worcester, MA.
3. Femovich, M. R., **Gray, C. R.**, Hamdan, N., D'Esterre, A., & Gunderson, E. A. (2015). The role of gender in verbal versus spatial mental rotation strategies. Presented at: 9th Biennial Meeting of the Cognitive Development Society, Columbus, OH.
2. Hamdan, N., D'Esterre, A., Femovich, M. R., **Gray, C. R.**, Hildebrand, L., Black, C., & Gunderson, E. A. (2015). Fraction number line training leads to learning and transfer in early elementary students' fraction magnitude concepts. Presented at: 9th Biennial Meeting of the Cognitive Development Society, Columbus, OH.
1. **Gray, C. R.**, Femovich, M. R., Hamdan, N., D'Esterre, A., & Gunderson, E. A. (2015). Developmental trajectory of fraction area model strategy use in second and third graders. Presented at: 9th Biennial Meeting of the Cognitive Development Society, Columbus, OH.

GRANTS & AWARDS

Grants

- NSF Graduate Research Fellowship Program Honorable Mention 2019

Graduate Awards

- Psychology Department Travel Award 2018, 2019

Undergraduate Awards

- Gold Key Service Award 2017
- St. Thomas Aquinas College Travel Award (\$1,000) 2017
- Dean's List Recipient (all semesters) 2013-2017
- LEAD Level 2 STAC Student Leadership Series: Silver Award 2016
- St. Thomas Aquinas College Student Leadership Award
Honorable Mention 2016
- NSF Research Experience for Undergraduates Scholar 2015
- Phoenix Award 2014
- Harry Golde and Terry McCoy Scholarship Award (\$150) 2013

TEACHING EXPERIENCE

Instructor

The Pennsylvania State University, World Campus

- Elementary Statistics in Psychology (PSYCH200) SP 2021

Lab Instructor

The Pennsylvania State University, University Park

Basic Research Methods in Psychology (PSYCH301W)

- Basic Research Methods in Psychology (PSYCH301W) SP 2020
- Basic Research Methods in Psychology (PSYCH301W) FA 2019

Invited Lecturer

The Pennsylvania State University, University Park

- Introduction to Psychology for Honors Students (PSYCH100) FA 2020
Topic: Associative and false memories FA 2019
- Introduction to Psychology for Honors Students (PSYCH100) SP 2019
Topic: Associative and false memories
- Neurobiology of Human Behavior (PSYCH260) FA 2017
Topic: Biological basis of episodic memory impairments
- False Memory & Eyewitness Testimony (PSYCH490) FA 2017
Topics: Weapon focus effect, false memories, and their application to eyewitness testimony
- Cognitive Development (PSYCH413)
Topic: Environmental influences on cognitive development

Elon University

- fMRI Workshop SU 2020
Topics: 3-day workshop on memory, aging, & fMRI basics

St. Thomas Aquinas College

- Introduction to Psychology (PSY100) SP 2017
Topic: Research Foundations

Teaching Assistant

The Pennsylvania State University, University Park, PA

- Neurobiology of Human Behavior (PSYCH260) FA 2020
- Basic Research Methods in Psychology (PSYCH301W) SP 2020
- Basic Research Methods in Psychology (PSYCH301W) FA 2019
- Neurobiology of Human Behavior (PSYCH260) SP 2019
- Senior Seminar in Cognitive Neuroscience (PSYCH490) SP 2019
- Introduction to Psychology (PSYCH 101) FA 2018
- Cognitive Development (PSYCH413) SP 2018
- Psychology of Adjustments and Social Relationships (PSYCH471) SP 2018
- False Memory and Eyewitness Testimony (PSYCH490) FA 2017
- Cognitive Development (PSYCH413) FA 2017

Tutoring

- St Thomas Aquinas College Center for Academic Excellence 2015-2017
- Chegg Online Tutor 2016-2017

LEADERSHIP & INVOLVEMENT

The Pennsylvania State University

- Graduate Women in Science Panelist (anticipated Oct. 2020) 2020
- Penn State Undergraduate Research Exhibition Judge 2020
- Social Life, Engineering, and Imaging Center Student Advisory Committee Member 2019-
- Junior mentor, Penn State Psychology Graduate Mentoring Program 2018-
- Academic and Experimental Organization for Neuroscience Student Member 2017-
- Participants Across the Lifespan (PALs) Database Graduate Coordinator 2017-

Harvard Medical School

- National Student Leadership Conference Psychology and Neuroscience Team Advisor 2016

St. Thomas Aquinas College

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| • Researching Research Chair | 2016-2017 |
| • Psychology Club Vice President | 2014-2017 |
| • Yearbook Editor-In-Chief | 2014-2017 |
| • Random Acts of Kindness Vice President | 2014-2017 |
| • St. Thomas Aquinas College Ambassador | 2014-2017 |
| • History Club Treasurer | 2014-2016 |

PROFESSIONAL MEMBERSHIPS

Golden Key Honor Society	2019-
Cognitive Neuroscience Society	2017-
Alpha Phi Sigma National Honor Society	2017-
Psi Chi International Honor Society	2016-
Pi Gamma Mu International Honor Society	2016-
Alpha Chi National College Honor Society	2015-
Cognitive Development Society	2015

AD HOC REVIEWER

Neuropsychologia; Creativity Research Journal; Neurobiology of Aging; Aging, Neuropsychology, and Cognition; Basic and Applied Social Psychology.

POPULAR PRESS

Ward, P. & Hughes, E. (2 March, 2020). TidyX Review of the San Francisco Tree data set from TidyTuesday. [Article](#).

RELEVANT SKILLS

[Github](#), R Studio, MATLAB, Psychopy, E-Prime, SPM, FSL, SPSS, Microsoft Office Suite

Last updated: October 16, 2020