

## Timothy J. Ricker, Ph.D.

Department of Psychology  
University of South Dakota  
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### Academic Appointments

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University of South Dakota, Department of Psychology Assistant Professor	2020 – Present
City University of New York, College of Staten Island Assistant Professor	2015 – 2020
University of Missouri, Department of Psychological Sciences Post-Doctoral Fellow	2013 – 2015

### Education

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Ph.D., Psychology, University of Missouri Dissertation: The Nature of Time-Based Forgetting in Immediate Memory Faculty Mentor: Dr. Nelson Cowan	2013
M.A., Psychology, University of Missouri Thesis: Cognitive Load and Time-Based Forgetting Faculty Mentor: Dr. Nelson Cowan	2009
B.A., Psychology, Michigan State University	2006

### Grants & Funding

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#### **Funded Research Grants**

CBBRe Collaborative Grant: *Physiological, Mathematical, & Behavioral Approaches to Understanding Multitasking*

Funding Source: Center for Brain and Behavior Research, University of South Dakota  
Role: Primary Investigator  
Award Period: July 2021 – June 2022  
Total Budget: \$19,970

PSC-CUNY Research Award (Traditional B): *Causes of Forgetting During Multitasking*

Funding Source: Professional Staff Council & The City University of New York  
Role: Primary Investigator  
Award Date: July 1, 2020 – June 30, 2021  
Total Budget: \$5,653.33

PSC-CUNY Research Award (Traditional B): *Short-Term Consolidation and Long-Term Memory*

Funding Source: Professional Staff Council & The City University of New York  
Role: Primary Investigator  
Award Date: July 2019 – June 2020  
Total Budget: \$ 5,698.83

PSC-CUNY Research Award (Traditional B): *Visual and Temporal Factors Influencing Working Memory Creation*

Funding Source: Professional Staff Council & The City University of New York  
Role: Primary Investigator  
Award Date: July 2018 – June 2019  
Total Budget: \$4,480

Pilot Research Grant: *Mathematical Models of Motor and Mental Speed*

Funding Source: Consortium of Multiple Sclerosis Centers  
Primary Investigator: Joshua Sandry, Montclair State University  
Role: Consultant  
Award Date: January 2018 – December 2019  
Total Budget: \$39,083

PSC-CUNY Research Award (Traditional B): *Working Memory Involvement in Impulsive Behavior and Emotional Control*

Funding Source: Professional Staff Council & The City University of New York  
Role: Primary Investigator  
Award Date: July 2017 – June 2018  
Total Budget: \$4,410

National Research Service Award (F31): *Behavioral and Electrophysiological Measures of Forgetting in Working Memory*

Funding Source: National Institute of Mental Health  
Role: Primary Investigator  
Award Date: July 2011 – May 2013  
Total Budget: \$61,641

### **Other Funding**

Funding Support Services Program

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Funding Amount: \$1,000  
July 2018 – December 2018

Invited Workshop Participant: *The Crossroads of Attention in Working Memory: Consolidation, Refreshing, & Removal*

Swiss National Science Foundation (Grant to Alessandra Souza)  
Funding Amount (Estimate): \$2,500  
June 2017 – July 2017

Scholarship to attend the ERP boot camp

Center for Mind and Brain, University of California, Davis  
Funding Amount (Estimate): \$2,000  
July 2011

Summer Grant Writing Fellowship

Department of Psychological Sciences, University of Missouri  
Funding Amount: \$3,088.22  
June 2010 - July 2010

### **In Progress Research Grants (External)**

Testing Memory Enrichment Theory: A novel approach to understanding working memory performance during multitasking

Funding Source: National Science Foundation  
Role: Primary Investigator  
Date Submitted: July 18, 2022  
Total Budget: \$500,010  
Score: C – Revise and Resubmit Requested

Computational Model of Neurocognitive Impairment in Multiple Sclerosis

Funding Source: National Institute of Health  
PI: Dr. Joshua Sandry, Montclair State University  
Role: Coinvestigator  
Date Submitted: Pending  
Total Budget: ~\$1,300,000

### **Recent Unfunded Research Grant Submissions (External)**

COBRE Phase 1 Research Project: Does PTSD accelerate cognitive decline in older adulthood?

Capturing the interaction between PTSD, cognitive aging, and their neural indices.

Funding Source: National Institute of General Medical Sciences, NIH

Primary Investigator: Dr. Jong-Sung Yoon, University of South Dakota

Role: Senior Personnel

Date Submitted: January 28, 2022

Total Budget: \$968,152

Exploring the Impact of an Online Environment on Working Memory Function

Funding Source: National Science Foundation

Role: Primary Investigator

Date Submitted: July 27, 2020

Total Budget: \$348,727

## **Publications**

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**Citations:** 1296, **h-index:** 16, **i10-index:** 18, metrics compiled by Google Scholar

### **Journal Articles**

- Ricker, T.J., Souza, A., & Vergauwe, E. (2023). Feature identity determines representation structure in working memory. *Journal of Experimental Psychology: General*. Advance online publication. <https://doi.org/10.1037/xge0001427>
- Hebert, K.R. & Ricker, T.J. (2023). Reliability of the emotional experiences in activities of daily living scale (EEADLs). *Occupational Therapy Journal of Research: Occupation, Participation and Health*, 43, 271-279. <https://doi.org/10.1177/15394492221085288>
- Cotton, K. & Ricker, T.J. (2022). Is there a role of creativity in the relationship between working memory consolidation and long-term memory? *Attention, Perception, & Psychophysics*. <https://doi.org/10.3758/s13414-022-02598-w>
- Sandry, J., & Ricker, T.J. (2022). Motor speed does not impact the drift rate: A computational hierarchical Drift Diffusion approach to differentiate cognitive and motor speed. *Cognitive Research: Principles and Implications*, 7, 66. <https://doi.org/10.1186/s41235-022-00412-7>
- Mui, M., Ruben, R.M., Ricker, T.J., Dobryankova, E., & Sandry, J. (2022). Ex-Gaussian analysis of simple response time and the relationship with brain morphometry in multiple sclerosis. *Multiple Sclerosis and Related Disorders*, 63, 103890. <https://doi.org/10.1016/j.msard.2022.103890>
- Ricker, T.J., & Vergauwe, E. (2022). Boundary conditions for observing cognitive load effects in visual working memory. *Memory & Cognition*, 50, 1169-1185. <https://doi.org/10.3758/s13421-022-01320-3>
- Cotton, K. & Ricker, T.J. (2022). Examining the relationship between working memory consolidation and long-term memory consolidation. *Psychonomic Bulletin & Review*, 19, 1625-1648. <https://doi.org/10.3758/s13423-022-02084-2>
- Cotton, K. & Ricker, T.J. (2021). Working memory consolidation improves long-term memory recognition. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 47, 208–219. <https://doi.org/10.1037/xlm0000954>
- Sandry, J., Zuppichini, M.D., & Ricker, T.J. (2020). Attentional flexibility and prioritization improve long-term memory. *Acta Psychologica*, 208, 103104. <https://doi.org/10.1016/j.actpsy.2020.103104>
- Sandry, J. & Ricker, T.J. (2020). Prioritization within visual working memory reflects a flexible focus of attention. *Attention, Perception, & Psychophysics*, 82, 2985–3004. <https://doi.org/10.3758/s13414-020-02049-4>
- Ricker, T.J. & Vergauwe, E. (2020). Consistent failure to produce a cognitive load effect in visual working memory using a standard dual-task procedure. *Journal of Cognition*, 3, 1–10. <https://doi.org/10.5334/joc.108>
- Ricker, T.J., Sandry, J. Vergauwe, E., & Cowan, N. (2020). Do familiar memory items decay? *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 46, 60–76. <https://doi.org/10.1037/xlm0000719>
- Vergauwe, E., Ricker, T.J., Langerock, N., & Cowan, N. (2019). What do people typically do between list items? The nature of attention-based mnemonic activities depends on task context. *Journal of*

- Experimental Psychology: Learning, Memory, and Cognition*, 45, 779-794.  
<https://doi.org/10.1037/xlm0000625>
- Ricker, T.J. & Sandry, J. (2018) The relationship between masking and short-term consolidation during recall from visual working memory. *Annals of the New York Academy of Sciences*, 1424, 91-101.  
<https://doi.org/10.1111/nyas.13641>
- Ricker, T.J., Nieuwenstein, M., Bayliss, D.M. & Barrouillet, P. (2018). Working memory consolidation: Insights from studies on attention and working memory. *Annals of the New York Academy of Sciences*, 1424, 8-18. <https://doi.org/10.1111/nyas.13633>
- Ricker, T.J. & Hardman, K.O. (2017). The nature of short-term consolidation in visual working memory. *Journal of Experimental Psychology: General*, 146, 1551-1573.  
<https://doi.org/10.1037/xge0000346>
- Ricker, T.J., Thiele, J., Swagman, A.R., & Rouder, J. (2017). Recognition decisions from visual working memory are mediated by continuous latent strengths. *Cognitive Science*, 41, 1510–1532.  
<https://doi.org/10.1111/cogs.12436>
- Hardman, K.O., Vergauwe, E., & Ricker, T.J. (2017). Categorical working memory representations are used in delayed estimation of continuous colors. *Journal of Experimental Psychology: Human Perception and Performance*, 43, 30-54. <https://doi.org/10.1037/xhp0000290>
- Ricker, T.J., Vergauwe, E., & Cowan, N. (2016). Decay theory of immediate memory: From Brown (1958) to today (2014). *Quarterly Journal of Experimental Psychology*, 69, 1969-1995.  
<https://doi.org/10.1080/17470218.2014.914546>
- Ricker, T.J. (2015). The role of short-term consolidation in memory persistence. *AIMS Neuroscience*, 2, 259–279. <https://doi.org/10.3934/Neuroscience.2015.4.259>
- Ricker, T.J., Vergauwe, E., Hinrichs, G.A., Blume, C.L., & Cowan, N. (2015). No recovery of memory when cognitive load is decreased. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 41, 872-880. <https://doi.org/10.1037/xlm0000084>
- Cowan, N., Ricker, T.J., Clark, K.M., Hinrichs, G.A., & Glass, B.A. (2015). Knowledge cannot explain the developmental growth of working memory capacity. *Developmental Science*, 18, 132–145.  
<https://doi.org/10.1111/desc.12197>
- Ricker, T.J., Spiegel, L.R., & Cowan, N. (2014). Time-based loss in visual short-term memory is from trace decay, not temporal distinctiveness. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 40, 1510-1523. <https://doi.org/10.1037/xlm0000018>
- Ricker, T.J. & Cowan, N. (2014). Differences in presentation methods in working memory procedures: A matter of working memory consolidation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 40, 417-428. <https://doi.org/10.1037/a0034301>
- Cowan, N., AuBuchon, A.M., Gilchrist, A.L., Ricker, T.J., & Sauls, J.S. (2011). Age differences in visual working memory capacity: Not based on encoding limitations. *Developmental Science*, 14, 1066-1074. <https://doi.org/10.1111/j.1467-7687.2011.01060.x>
- Ricker, T.J. & Cowan, N. (2010). Loss of visual working memory within seconds: The combined use of refreshable and non-refreshable features. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 1355-1368. <https://doi.org/10.1037/a0020356>
- Ricker, T.J., Cowan, N., & Morey, C.C. (2010). Visual working memory is disrupted by covert verbal retrieval. *Psychonomic Bulletin & Review*, 17, 516-521. <https://doi.org/10.3758/PBR.17.4.516>
- Ricker, T.J., AuBuchon, A., & Cowan, N. (2010). Working memory. In L. Nadel (Ed.), *Wiley Interdisciplinary Reviews: Cognitive Science*, 1, 573-585. <https://doi.org/10.1002/wcs.50>

### **Book Chapters**

- Ricker, T.J. & Cowan, N. (2018). Cognitive load as a measure of capture of the focus of attention. In R. Zheng (Ed.), *Cognitive Load Measurement and Application: A Theoretical Framework for Meaningful Research and Practice*. New York, NY: Routledge. (pp. 129-146)

### **Conference Proceedings (Peer-Reviewed)**

- Parshina, O., Obied, R. Che, E.S., Ricker, T.J., & Brooks, P.J. (2018). SRT and ASRT: Similar tasks tapping distinct learning mechanisms? *Proceedings of the Annual Meeting of the Cognitive Science Society*, 36, 2202-2207.

### ***Manuscripts in Progress***

- Cotton, K., Sandry, J., & Ricker, T.J. (submitted). The effects of mind-wandering, cognitive load, and task engagement on working memory performance in remote online experiments.
- Cotton, K., Sandry, J., & Ricker, T.J. (submitted). Secondary task engagement drives the McCabe effect in long-term memory.
- Sandry, J., & Ricker, T.J. (in preparation). Prioritization provides access to the limited resources of the focus of attention: A hierarchical Drift Diffusion approach.

## **Presentations**

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### ***Invited Lectures***

- Ricker, T.J. (2021, November). Computational models of fine-detail and categorical information in visual working memory: Unified or separable representations? Distributed Working Memory Series. Virtual meeting organized by the University of Zurich.
- Ricker, T.J. (2020, November). Cognitive load and multitask-impairment of working memory. Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J. (2018, November). The effects of distraction on precise and gist representations in working memory. Department of Psychology Lunch Talk Series, Seton Hall University, South Orange, New Jersey, USA.
- Ricker, T.J. (2017, July). Does masking influence short-term consolidation? The Crossroads of Attention in Working Memory: Consolidation, Refreshing, & Removal, Hotel Bains D'Ovronnaz, Valais, Switzerland.
- Ricker, T.J. (2017, June). A basic theoretical overview of short-term consolidation. The Crossroads of Attention in Working Memory: Consolidation, Refreshing, & Removal, Hotel Bains D'Ovronnaz, Valais, Switzerland.
- Ricker, T.J. (2017, June). Immunity to cognitive load in visual working memory recall. University of Geneva, Geneva, Switzerland.
- Ricker, T.J. (2017, June). Immunity to cognitive load in visual working memory recall. University of Zurich, Zurich, Switzerland.
- Ricker, T.J. (2016, December). Potential neural mechanisms underlying short-term consolidation. Neuroscience Collaborative Colloquium, Graduate Center of the City University of New York, Manhattan, New York, USA.
- Ricker, T.J. (2016, May). Consolidation of visual working memory representations. Vision Seminar, Johns Hopkins University, Baltimore, Maryland, USA.
- Ricker, T.J. (2016, March). A brief overview of short-term consolidation and potential neural mechanisms. Montclair Student Neuroscience Association Biannual Research Panel, Montclair, New Jersey, USA.

### ***International Conference Presentations***

- Ricker, T.J., Souza, A.S., & Vergauwe, E. (2022, November). Feature Identity Drives Representation Format within Visual Working Memory. Annual convention of the Psychonomic Society, Boston, Massachusetts, USA.
- Cotton, K. & Ricker, T.J. (2022, November). How does stress affect working memory consolidation? Poster presented at the annual convention of the Psychonomic Society, Boston, Massachusetts, USA.
- Cotton, K., Sandry, J., & Ricker, T.J. (2022, June). How does mind-wandering influence working memory performance across cognitive load and environmental conditions? Virtual Working Memory Symposium.
- Cotton, K. & Ricker, T.J. (2021, November). How do mind-wandering, cognitive load, and environment affect working memory? Poster presented at the Annual Harvard Women in Psychology: Trends in Psychology Summit, Virtual Meeting.
- McCray, M.M., Cotton, K., & Ricker, T.J. (2021, November). Predicting working memory performance: Is perceived workload a better predictor than cognitive load? Poster presented at the Annual Harvard Women in Psychology: Trends in Psychology Summit, Virtual Meeting.

- Ricker, T.J. & Vergauwe, E. (2021, November). Orientation and color are remembered using fundamentally different types of representation in working memory. Annual convention of the Psychonomic Society, Virtual Meeting.
- Cotton, K. & Ricker, T.J. (2021, November). The effect of mind-wandering and cognitive load on working memory performance in online and in-person experiments. Annual convention of the Psychonomic Society, Virtual Meeting.
- McCray, M.M., Cotton, K. & Ricker, T.J. (2021, November). Working memory performance: Is subjective measurement a better predictor than cognitive load? Poster presented at the annual convention of the Psychonomic Society, Virtual Meeting.
- Cotton, K. & Ricker, T.J. (2021, June). Consolidating a lasting memory: The role of creativity in the relationship between working memory and long-term memory. Virtual Working Memory Symposium.
- Ricker, T.J. & Vergauwe, E. (2020, November). Cognitive load effects are not driven by attentional availability. Annual convention of the Psychonomic Society, Virtual Meeting.
- Cotton, K. & Ricker, T.J. (2020, November). The role of creativity in the relationship between working memory consolidation and long-term memory. Annual convention of the Psychonomic Society, Virtual Meeting.
- Ricker, T.J. (2019, November). Exploring how visual masking disrupts working memory recall. Annual convention of the Psychonomic Society, Montreal, Quebec, Canada.
- Cotton, K. & Ricker, T.J. (2019, November). Working memory consolidation improves long-term recognition in words and non-words. Annual convention of the Psychonomic Society, Montreal, Quebec, Canada.
- Ricker, T.J. & Vergauwe, E. (2017, November). Can attention-based maintenance be used in visual working memory? Annual convention of the Psychonomic Society, Vancouver, British Columbia, Canada.
- Vergauwe, E. & Ricker, T.J. (2017, September). Forgetting and the mechanisms that counteract forgetting in working memory. 20<sup>th</sup> Conference of the European Society for Cognitive Psychology. Potsdam, Germany.
- Ricker, T.J. (2016, November). Short-term consolidation of continuous visual working memory. Annual convention of the Psychonomic Society, Boston, Massachusetts, USA.
- Zuppichini, M., Zlochevsky, N., Vilanova, N., Ricker, T.J., & Sandry, J. (2016, November). Adjusting working memory's focus of attention influences long-term memory retention. Poster presented at the annual convention of the Psychonomic Society, Boston, Massachusetts, USA.
- Parshina, O.A., Ricker, T.J., Che, E.S., Obeid, R., & Brooks, P.J. (2016, November). Relationships between statistical learning, sentence processing, and working memory. Poster presented at the annual convention of the Psychonomic Society, Boston, Massachusetts, USA.
- Langerock, N., Vergauwe, E., Hardman, K., Ricker, T.J., & Cowan, N. (2016, September). The nature of refreshing: mere reactivation or semantic elaboration as well? Poster presented at VIII<sup>th</sup> European Working Memory Symposium. Liège, Belgium.
- Vergauwe, E., Ricker, T.J., Langerock, N., & Cowan, N. (2016, June) What do people typically do between list items? Parcevall Hall Meeting, Skipton, North Yorkshire, United Kingdom.
- Ricker, T.J. (2015, November). Short-term consolidation: A process separable from encoding and refreshing. Annual convention of the Psychonomic Society, Chicago, Illinois, USA.
- Hardman, K., Vergauwe, E., & Ricker, T.J. (2015, November) Testing the absolute validity of mathematical models used in working memory. Poster presented at the annual convention of the Psychonomic Society, Chicago, Illinois, USA.
- Ricker, T.J., Vergauwe, E., & Rouder, J. (2014, November). Continuous information in short-term memory is not affected by attention-based maintenance or processing. Poster presented at the annual convention of the Psychonomic Society, Long Beach, California, USA.
- Ricker, T.J., & Cowan, N. (2013, November). Presentation method influences time-based forgetting through working memory consolidation. Poster presented at the annual convention of the Psychonomic Society, Toronto, Ontario, Canada.
- Valle-Inclan, F., Lee, E.-Y., Li, D., Cowan, N., Ricker, T.J., and Hackley, S.A. (2013, September). Cortical thickness correlates of working memory capacity in healthy younger and older adults and in Parkinson's disease. Poster presented at the annual meeting of the Society for Psychophysical Research, Florence, Italy.

- Ricker, T.J. & Cowan, N. (2012, November). Presentation style influences time-based forgetting in working memory. Poster presented at the annual convention of the Psychonomic Society, Minneapolis, Minnesota, USA.
- Ricker, T.J., Cowan, N., & Hebert, K.R. (2011, November). Time-based forgetting from working memory, feature-by-feature. Poster presented at the annual convention of the Psychonomic Society, Seattle, Washington, USA.
- Ricker, T.J., & Cowan, N. (2010, November). Forgetting from visual working memory: Time and attention both matter. Paper presented at the annual convention of the Psychonomic Society, St. Louis, Missouri, USA.

### ***Regional Conference & Colloquia Presentations***

- Ricker, T.J. (2022, November). Feature identity drives representation structure within visual working memory. Human Factors Colloquium, University of South Dakota, Vermillion, South Dakota, USA.
- Cotton, K., Sandry, J., & Ricker, T.J. (2022, March). Mind-wandering and cognitive load effects on working memory performance across experimental contexts. Poster presented at 93rd Annual Meeting of the Eastern Psychological Association, New York, New York.
- Ricker, T.J. (2021, November). Are gist and precise representations always separable in visual working memory? Human Factors Colloquium, University of South Dakota, Vermillion, South Dakota, USA.
- McCray, M.M., Cotton, K., & Ricker, T.J. (2021, September). Does perceived workload better predict working memory performance than cognitive load? South Dakota Psychological Association Annual Conference, Rapid City, South Dakota, USA.
- Ricker, T.J. (2021, September). Motor slowing and the Drift Diffusion model. Human Factors Colloquium, University of South Dakota, Vermillion, South Dakota, USA.
- Ricker, T.J. (2020, October). Multitasking and visual recall from working memory. Human Factors Colloquium, University of South Dakota, Vermillion, South Dakota, USA.
- Ricker, T.J. (2019, March). Does the cognitive load of multitasking cause forgetting? Developmental Neuroscience Colloquium, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Ricker, T.J. (2019, February). Multi-tasking and cognitive load effects in visual working memory. Cognitive and Comparative Psychology Colloquium, Graduate Center of the City University of New York, Manhattan, New York, USA.
- Vergauwe, E., Ricker, T.J., Langerock, N., & Cowan, N. (2018, June). Consolidation and/or refreshing: What do people typically do between list items? Poster at the 3rd Jean Piaget Conference, Geneva, Switzerland.
- Uittenhove, K., Ricker, T.J., Cowan, N., & Vergauwe, E. (2018, June). Sternberg memory scanning 50 years later: A new comparison between item and order retrieval rate. Poster at the 3rd Jean Piaget Conference, Geneva, Switzerland.
- Aguayo, S., Caminneci, A., DeMaio, E., Garcia, V., Zapata, P., Ricker, T.J., & Sandry, J. (2018, March). Distinctiveness of encoding does not explain flexibility within the focus of attention. Poster presented at the 2018 annual meeting of the Eastern Psychological Association, Philadelphia, PA, USA.
- Ricker, T.J. (2015, October). Short-term memory consolidation: A new component of memory formation. Department of Psychology Colloquium, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Ricker, T.J. (2015, October). Consolidating short-term memory to prevent forgetting. Cognition, Language, and Development Training Area Colloquium, Graduate Center of the City University of New York, Manhattan, New York, USA.
- Ricker, T.J., Cowan, N., Rouder, J., Vergauwe, E., & Thiele, J. (2014, September). Time and memory. Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J. (2013, April). The nature of time-based forgetting in immediate memory. Public Dissertation Defense, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J., Cowan, N., & Spiegel, L.R. (2012, September). Forgetting from immediate memory: Remembering the importance of methodological effects. Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.

- Ricker, T.J., Cowan, N., Hebert, K.R., & Hackley, S. (2012, March). Why do we forget? Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J., Cowan, N., & Morey, C.C. (2011, January). Disruption of visual working memory by covert verbal retrieval. Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J. (2010, June). Roles of time and attention in forgetting from working memory. Show Me Mental State Conference, Washington University, St. Louis, Missouri, USA.
- Ricker, T.J., Morey, C.C., & Cowan, N. (2010, March). Time-based forgetting and cognitive load. Research and Creative Activities Forum, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J., & Cowan, N. (2009, October). Cognitive load and time-based forgetting. Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.
- Ricker, T.J., & Cowan, N. (2009, March). Cognitive load and forgetting. Cognition and Neuroscience Colloquium, University of Missouri, Columbia, Missouri, USA.

## Teaching Experience

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### Undergraduate Courses Taught as Instructor

#### *University of South Dakota*

- General Psychology – Standard Format
- Statistics in Psychological Research – Standard Format
- Sensation and Perception – Standard, Lab, & Hybrid Formats

#### *College of Staten Island, City University of New York*

- Cognitive Psychology – Standard, Honors, & Online Formats
- Psychology of Memory – Standard Format

#### *University of Missouri*

- Perception and Thought – Standard Format

### Graduate Courses Taught as Instructor

#### *University of South Dakota*

- Research Design & Statistics II
- Sensation & Perception
- Eye Movement: Theory and Applications

#### *Graduate Center, City University of New York*

- Decision Making
- Cognition & Comparative Psychology Colloquium

## Research Mentorship

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### Doctoral Students

- Megan McCray (current, Technology Readiness Acceleration Center Fellowship recipient)  
Kelly Cotton (Ph.D. 2023, Postdoc at Albert Einstein School of Medicine)

### Undergraduate Thesis Advisor, Honors in Psychology

- Caryn Darmoni, “Mathematical Models of Masking Effects in Visual Working Memory”, College of Staten Island - CUNY, 2020.
- Hannah Bareket, “Is Mind Wandering the cause of Trace Decay in Working Memory?”, College of Staten Island - CUNY, 2020.
- Danielle Aylmer, “Modeling Working Memory Capacity for Orientation”, College of Staten Island - CUNY, 2019.
- Nicholas Cirrone, “Working Memory Load during Decision Making”, College of Staten Island - CUNY, 2019.
- Alani Harrison, “Cognitive Load with Continuous Representations”, College of Staten Island - CUNY, 2019.



## Research Mentorship of Undergraduate Students

Training in data collection, programming, writing, and presentation skills

Department of Psychology, University of South Dakota: *Kamila Haliru (2022 - Present), Nate Mungunkhet (2022 - Present), Katie Roberson (2021 - Present), Joseph Obineche (2022 - 2023), Garrett Clendening (2022 - 2023), Anika Gram (2021 - 2023), Grace Johnson (2021 - 2022), Kristen Quigley (2021 - 2022), Madisen Lavin (2021)*

Department of Psychology, College of Staten Island – CUNY: *Raquel Bartocci (2020 - 2020), Victoria Nicoletta (2020 - 2020), Hannah Bareket (2018 - 2020), Caryn Darmoni (2018 - 2020), Alani Harrison (2018 - 2019), Danielle Aylmer (2017 - 2019), William Frickenstein (2017 - 2019), Nicholas Cirrone (2017 - 2019), Hadeel Ayesh (2017 - 2018), Greg Major (2017 - 2018), Iryna Pylypchuk (2017 - 2018), Hamza Tariq (2017 - 2018), Khadega Imam (2016 - 2018), Priscilla Hutchinson (2017 - 2018), Sochima Ezeude (2016 - 2018), Tiffany Galbo (2016 - 2018), Cinthya Ramirez (2016 - 2017), Mabel Etuknwa (2016 - 2017), Anthony Wong (2016 - 2017), Johna Palladino (2015 – 2017), Liya Thomas (2015 – 2017), Aileen Sammartano (2015 – 2016), Jose Ramirez (2015 – 2016)*

Department of Psychological Sciences, University of Missouri: *Garrett Hinrichs (2012-2013), Katherine Clark (2012), Lauren Spiegel (2011-2012)*

## Research Mentorship for Masters of Occupational Therapy Students

Department of Occupational Therapy, University of Missouri: *Jenni Adkins (2013), Victor Richard (2013), Shannon Stecher (2013), Justin Campbell (2012), Tyler Eads (2012), Christina Fox (2012), Melissa Smith (2012), Sarah Benson (2011), Nancy Fronczak (2011), Katie Jones (2011)*

## Graduate Student Mentee Grants & Awards

*Megan McCray*

Best Poster Award, September 2021, *South Dakota Psychological Association*, \$60  
Governor's Giant Vision Finalist, April 2021, *South Dakota Governor's Office*, \$1000  
Grad Research & Creative Scholar Grant, Nov 2020 – June 2021, *USD Graduate School*, \$750

*Kelly Cotton*

Science Communication Internship, January 2023 – June 2023, *Psychonomic Society*, \$500  
Doctoral Student Research Grant, June 2022 – May 2023, *CUNY Graduate Center*, \$1350  
Doctoral Student Research Grant, June 2020 – May 2021, *CUNY Graduate Center*, \$1350  
Psychology Fellowship, January 2020 – May 2020, *CCP Training Program - CUNY*, \$500  
Conference Presentation Support, November 2019, *CUNY Graduate Center*, \$300

## Undergraduate Student Mentee Grants & Awards

*CUE Undergraduate Research Award (CSI/CUNY): \$200 - \$900 stipend*

*Awarded to: Iryna Pylypchuk, Nicholas Cirrone, Priscilla Hutchinson, Khadega Imam, Anthony Wong, Tiffany Galbo, Liya Thomas, Johna Palladino, & Aileen Sammartano*

*Mentored Summer Research Experience (CSI/CUNY): \$800 stipend*

*Awarded to: Hannah Bareket & Caryn Darmoni*

*Dean's Research Award (CSI/CUNY): \$2,000 stipend*

*Awarded to: Johna Palladino*

## Undergraduate & Masters Student Poster Presentations

Bareket, H. & Ricker, T.J. (2019, May). Is memory decay caused by mind wandering? Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.

Darmoni, C. & Ricker, T.J. (2019, May). Mathematical process modeling of visual masking. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.

Harrison, A. & Ricker, T.J. (2019, May). Cognitive load with continuous stimuli in visual working memory. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.

Galbo, T., Ayesh, H. & Ricker, T.J. (2018, April). Masking and the speed of consolidation into visual working. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.

- Pylypchuk, I. & Ricker, T.J. (2018, April). Precueing and the Attentional Blink in Working Memory. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Cirrone, N., Hutchinson, P., & Ricker, T.J. (2018, April). Memory Load and Probabilistic Reward. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Aylmer, D., Frickenstein, W. & Ricker, T.J. (2018, April). Modeling Categorical Representations in Memory for Object Orientations. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Major, G., Tariq, H. & Ricker, T.J. (2018, April). Cognitive Load Effects in Visual Working Memory Recall. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Palladino, J., Ramirez, C. & Ricker, T.J. (2017, May). Cognitive Load in Visual Reproduction Tasks. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Galbo, T., Khadega, I. & Ricker, T.J. (2017, May). Masking Effects in Visual Working Memory. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Thomas, L., Etuknwa, M. & Ricker, T.J. (2017, May). Modeling Capacity for Orientation in Visual Working Memory. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Wong, A., Ezeude, S. & Ricker, T.J. (2017, May). Testing Theories of Short-Term Consolidation. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Palladino, J., & Ricker, T.J. (2016, April). The Time Course of Short-Term Consolidation. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Ramirez, J., & Ricker, T.J. (2016, April). The Effect of Working Memory Load on Impulsive Decision-Making. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Sammartano, A., & Ricker, T.J. (2016, April). Cognitive Load with Continuous Working Memory Representations. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Thomas, L., & Ricker, T.J. (2016, April). Sensory Memory Persistence and Working Memory Estimation. Poster presented at the Undergraduate Conference on Research, Scholarship, and Performance, College of Staten Island - City University of New York, Staten Island, New York, USA.
- Adkins, J., Stecher, S., Richard, V., Ricker, T.J., & Hebert, K.R. (2013, November). Task demands and consolidation in visual working memory. Poster presented at the University of Missouri Health Science Day, University of Missouri, Columbia, Missouri, USA.
- Campbell, J., Eads, T., Fox, C., Smith, M., Ricker, T.J., & Hebert, K.R. (2012, November). Time-dependent decay of information in working memory can be mitigated by presentation style. Poster presented at the University of Missouri Health Science Day, University of Missouri, Columbia, Missouri, USA.
- Clark, K.M., Sunday, M., Ricker, T.J., & Cowan, N. (2012, July). Short-term forgetting as a function of time and temporal distinctiveness. Summer Undergraduate Research Forum, University of Missouri, Columbia, Missouri, USA.
- Benson, S., Fronczak, N., Jones, K., Ricker, T.J., Cowan, N., & Hebert K. (2011, November). The role of decay in visual working memory performance: Implications for cognitive training therapies. Health Sciences Day, University of Missouri, Columbia, Missouri, USA.

## Professional Service & Activities

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### Consulting Editor

*Journal of Experimental Psychology: General*

January 2017 - Present

*Journal of Experimental Psychology: Human Perception and Performance*

January 2015 - Present

### **Ad-Hoc Reviewer: Professional Journals**

Acta Psychologica, Annals of the New York Academy of Sciences, Attention Perception & Psychophysics, Behavior Research Methods, British Journal of Psychology, Cognition, Cognitive Psychology, Consciousness and Cognition, Journal of Cognitive Neuroscience, Journal of Cognitive Psychology, Journal of Experimental Psychology: General, Journal of Experimental Psychology: Human Perception and Performance, Journal of Experimental Psychology: Learning Memory & Cognition, Journal of Memory & Language, Memory, Memory & Cognition, Nature Communications, Nature Human Behaviour, Perception, PLOS ONE, Psychological Science, Psychonomic Bulletin & Review, Quarterly Journal of Experimental Psychology, Vision Research

### **Ad-Hoc Reviewer: Granting Agencies**

Israel Science Foundation  
Swiss National Science Foundation  
U.S.-Israel Binational Science Foundation

### **Professional Membership**

*Psychonomic Society*  
Fellow, April 2015 – Present  
Member, May 2013 – April 2015

### **Institutional Service**

#### *Current*

Chair, *Human Factors Recruitment Committee*, February 2021 – Present  
Member, *Faculty Search Committee – Assistant Professor of Psychology*, November 2022 – Present  
Member, *Psychology Department Operations Committee*, September 2022 – Present  
Member, *Human Factors Training Committee*, September 2020 – Present

#### *Past*

##### University of South Dakota

Interim Administrator, *SONA Participant Management System*, August 2022 – September 2022  
Member, *Faculty Search Committee – Instructor/Lecturer in Psychology*, February 2022 – March 2022  
Member, *Research Methods Committee*, October 2020 – July 2021  
Member, *Psychology Dept. Faculty Evaluation Standards Committee*, January 2021 – April 2021

##### The Graduate Center, CUNY

Organizer, *Cognition, Language, & Development Colloquium*, June 2017 – May 2018  
Member, *Cognition, Language, & Development Admissions Committee*, October 2016 – Dec 2018  
Member, *Cognition & Comparative Psych Admission Committee*, December 2018 – August 2020  
Member, *Cognition & Comparative Psychology Executive Committee*, August 2018 – August 2020

##### College of Staten Island, CUNY

Member, *Psychology Department Assessment Committee*, September 2019 – August 2020  
Member, *College Academic Facilities Committee*, September 2018 – August 2020  
Alternate Member, *College Research Committee*, September 2018 – August 2020  
Member, *Course and Standing Committee*, September 2016 – August 2018  
Member, *Search Committee - High Performance Computing Center Director*, Feb 2017 – Aug 2017  
Member, *Honors Committee*, College of Staten Island, September 2015 – August 2016

### **Reader: Doctoral Exams, Dissertations, & Theses**

#### **Dissertations**

- Nicole Amada*, "A Novel Measure of Narrative Self-Functioning and its Role in the Transformative Potential of Psychedelic Experience Across Clinical and Non-Clinical Participants", The Graduate Center - CUNY, 2023.
- Haggar Cohen-Dallal*, "Which Factors Influence the Rate of Forgetting in Visual Working Memory?", Hebrew University of Jerusalem, 2022.
- Elizabeth Sterling*, "Anti-Counterfeiting Warnings: Do They Influence Consumer Behavior and Perception of Overt Indicators?", University of South Dakota, 2022.
- Philippe Schneider*, "Investigating the Impact of Semantic Long-Term Memory on Attention-Based Processes During Working Memory Maintenance", Université de Fribourg, 2022.
- Chelsea Reichert-Plaska*, "Examining the transient neural dynamics underlying working memory maintenance for complex visual stimuli", The Graduate Center - CUNY, 2021.

*Nicholas Brosowsky*, "Memory-guided selective attention: An instance theory of automatic attentional control", The Graduate Center - CUNY, 2019.

### **Preliminary/Comprehensive Examination – Grant Proposal/Paper Format**

*Nicole Amada*, "(Mal)adaptive Narrative Self Functioning: An Integrated Framework and Evaluation of Psychedelic Use and Meditative Practice", The Graduate Center - CUNY, 2020.

*Casey Williamson*, "The role of the DLPFC in metamemory monitoring and control via non-invasive brain stimulation", The Graduate Center - CUNY, 2019.

*Nicholas Brosowsky*, "Current approaches to auditory change detection and change deafness", The Graduate Center - CUNY, 2018.

*Chelsea Reichert-Plaska*, "The behavioral and neural effects of rehearsal on working and long-term memory for novel naturalistic stimuli", The Graduate Center - CUNY, 2018.

### **Masters Theses**

*Nicole Amada*, "Narrative Self and the Psychedelic Experience: An exploratory qualitative study investigating psychedelic-induced changes to self-representation", The Graduate Center - CUNY, 2019.

*Victoria Winters*, "The Effect of Future Oriented Tasks vs Incidental Orienting Task on Item-to-Item Associations", Montclair State University, 2017.

*Olga Parshina*, "Relationships between Statistical Learning, Sentence Processing, and Working Memory", The Graduate Center - CUNY, 2016.

### **Undergraduate Honors Theses**

*Joseph Rysdon*, "A Systematic Review Comparing the Mental Effects of COVID-19 Quarantine and Social Isolation", University of South Dakota, 2022.

*Tristiana Adragna*, "The Relationship Between Gender and Body Image Satisfaction and Self-Esteem in Relation to Exercising", College of Staten Island – CUNY, 2020.

*Gianna Cirrone*, "Arduino-Based Monitoring of the Naked Mole-Rat Nest Environment", College of Staten Island – CUNY, 2019.

*Maxim Yeremenko*, "Comprehension and Reading Speed Before and After Commercial Speedreading Training", College of Staten Island - CUNY, 2018.

*Dana Friedman*, "Individual Differences in Night-Time Sleep and Motor Learning in Infants", College of Staten Island - CUNY, 2018.

*Cynthia Dunne-Jaffe*, "Hippocampal Neuropeptide-Y in Relation to Social Behavior", College of Staten Island - CUNY, 2017.

*Miriam Sedrak*, "Dying to Vote: Mortality Salience Affects Support for Donald Trump", College of Staten Island - CUNY, 2017.

*Spogmay Khan*, "Assessment of Stigma Towards Autism and Other Disabilities", College of Staten Island - CUNY, 2017.

*Bianca Hernandez*, "The Effects of Terror Management Theory on Political Standing", College of Staten Island - CUNY, 2016.