

# MICHELLE M. RAMEY, PH.D.

## CURRICULUM VITAE

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### Contact Information

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### Research Interests

My work focuses on using eyetracking to understand episodic memory and its interactions with other cognitive processes (e.g., semantic knowledge and visual imagery) in general and in aging.

### Academic Positions

2024 – Present Assistant Professor of Cognitive Psychology at the Department of Psychological Science, University of Arkansas, Fayetteville

2023 – 2024 NSF SPRF Postdoctoral fellow at the Department of Psychological Science, University of Arkansas, Fayetteville

2021 – 2023 Postdoctoral researcher at the Department of Psychological Science, University of Arkansas, Fayetteville

### Education

<u>Degree</u>	<u>Year</u>	<u>Institution</u>
Ph.D. in Psychology	2021	University of California, Davis
M.A. in Psychology	2018	University of California, Davis
B.A. in Psychology	2016	University of California, Berkeley

### Extramural Grants

#### Awarded

National Science Foundation 9/01/23 – 9/01/25  
SPRF: *Taking a Computational Approach to Understanding Schema-Memory Interactions*  
Role: PI  
Amount awarded: \$160,000

National Institutes of Health – National Institute on Aging (NIA) 9/30/23 – 9/30/26  
F32: *How prior knowledge impacts episodic memory deficits in aging*

Role: PI  
Impact Score: 16  
Amount awarded: \$210,372

### Unfunded Grants Sought

National Institutes of Health – National Eye Institute (NEI) 2024 – 2029  
R01: *Determining the role of visual and oculomotor dynamics in working memory precision*  
Role: Co-I

National Science Foundation 9/01/22 – 8/31/24  
SPRF: *Determining the role of creative processes in familiarity-based associative memory*  
Role: PI  
Score: “Competitive”

Branco Weiss – Society in Science 9/01/22 – 8/31/24  
*Determining the effects of plant-based diets on cognition and stress reactivity across adulthood*  
Role: PI  
Score: Not provided

### Publications

#### Published Manuscripts

**Ramey, M. M.,** Henderson, J. M., & Yonelinas, A. P. (In press). Episodic memory and semantic knowledge interact to guide eye movements during visual search: Distinct effects of conscious and unconscious memory. *Psychonomic Bulletin & Review*  
Impact factor (2023): 3.2

**Ramey, M. M.,** Yonelinas, A. P., & Henderson, J. M. (2024). How schema knowledge influences memory in older adults: Filling in the gaps, or leading memory astray? *Cognition*, 250, 105826, <https://doi.org/10.1016/j.cognition.2024.105826>  
Impact factor (2022): 3.4

**Ramey, M. M.** & Zabelina, D. L. (2024). Divergent thinking modulates interactions between episodic memory and schema knowledge: Controlled and spontaneous episodic retrieval processes. *Memory & Cognition*, 1-17, <https://doi.org/10.3758/s13421-023-01493-5>  
Impact factor (2022): 2.4

**Ramey, M. M.,** Henderson, J. M., Yonelinas, A. P. (2022). Eye movements dissociate between perceiving, sensing and unconscious change detection in scenes. *Psychonomic Bulletin & Review*, 29, 2122-2132. <https://doi.org/10.3758/s13423-022-02122-z>  
Impact factor (2021): 5.4

- Ramey, M. M.,** Henderson, J. M., Yonelinas, A. P. (2022). Episodic memory processes modulate how schema knowledge is used in spatial memory decisions. *Cognition*, 225, 105111. <https://doi.org/10.1016/j.cognition.2022.105111>  
Impact factor (2021): 4.0
- Yonelinas, A. P., **Ramey, M. M.,** Riddell, C. (2022). The role of recollection and familiarity in recognition memory: A selective review. In M. J. Kahana & A. D. Wagner (Eds.), *The handbook of human memory: Foundations and applications*. Oxford University Press.
- Ramey, M. M.,** Yonelinas, A. P., Henderson, J. M. (2020). Why do we retrace our visual steps? Semantic and episodic memory in gaze reinstatement. *Learning & Memory*, 27(7), 275-283. <https://doi.org/10.1101/lm.051227.119>  
Impact factor (2020): 2.5
- Ramey, M. M.,** Shields, G. S., Yonelinas, A. P. (2020). Markers of a plant-based diet relate to memory and executive function in older adults. *Nutritional Neuroscience*, 25(2), 276-285. <https://doi.org/10.1080/1028415X.2020.1751506>  
Impact factor (2020): 5.0
- Ramey, M. M.,** Henderson, J. M., Yonelinas, A. P. (2020). The spatial distribution of attention predicts familiarity strength during encoding and retrieval. *Journal of Experimental Psychology: General*, 149(11), 2046-2062. <https://doi.org/10.1037/xge0000758>  
Impact factor (2020): 4.9
- Ramey, M. M.,** Yonelinas, A. P., & Henderson, J. M. (2019). Conscious and unconscious memory differentially impact attention: Eye movements, visual search, and recognition processes. *Cognition*, 185, 71-82. <https://doi.org/10.1016/j.cognition.2019.01.007>  
Impact factor (2019): 3.3
- Shields, G. S., Rivers, A. M., **Ramey, M. M.,** Trainor, B. C., & Yonelinas, A. P. (2019). Mild acute stress improves response speed without impairing accuracy or interference control in two selective attention tasks: Implications for theories of stress and cognition. *Psychoneuroendocrinology*, 108, 78-86. <https://doi.org/10.1016/j.psyneuen.2019.06.001>  
Impact factor (2019): 4.7
- Shields, G. S., **Ramey, M. M.,** Slavich, G. M., & Yonelinas, A. P. (2019). Determining the mechanisms through which recent life stress predicts working memory impairments: Precision or capacity? *Stress*, 22, 280-285. <https://doi.org/10.1080/10253890.2018.1556635>  
Impact factor (2019): 3.1

## Awards and Honors

2025	Fulbright Summer Research Stipend (\$5000)
2021	Psychonomic Society Graduate Conference Award (\$1000)
2021	Dissertation Fellowship award (\$13,755)

2016            Graduated *summa cum laude*  
2012 – 2016   Regents' and Chancellor's scholarship  
2012 – 2016   Dean's list

## Selected Presentations

### Invited Talks

**Ramey, M.M.** (2025, April). *The making of a memory: How your brain reconstructs the past.* Butterfield Trails Village, Fayetteville, Arkansas.

**Ramey, M.M.** (2025, February). *How schemas and episodic memory interact during retrieval: Bayesian interactions in memory decisions and attentional guidance.* Tomparry Lab, Drexel University.

**Ramey, M. M.** (2023, February). *How schemas and memory interact to influence memory decisions in older adults.* Psychology department, University of Missouri. (Coauthors on presented work: John Henderson, Andrew Yonelinas, Grant Shields)

**Ramey, M.M.** (2023, January). *How schemas influence our memories.* Student Neuroscience Organization, University of Arkansas. (Coauthors on presented work: Andrew Yonelinas, John Henderson, Grant Shields)

### Conference Presentations

**Ramey, M. M.,** Shields, G. S., & Lampinen, J. L. (2024, November). *The role of schema precision in schema-relevant episodic memory: Do more precise schemas lead to more biased memories?* Talk at the annual meeting of the Psychonomic Society, New York, New York.

**Ramey, M. M. &** Shields, G. S. (2023, October). *Do schemas and episodic memory cooperate or compete to influence memory decisions? A leaky competing accumulator modeling approach.* Poster presented at the annual meeting of ARMADILLO (Southern conference for cognitive psychology).

**Ramey, M. M. &** Shields, G. S. (2022, November). *Understanding the underlying dynamics of schema-memory interactions using computational modeling.* Poster presented at the annual meeting of the Psychonomic Society.

**Ramey, M. M. &** Zabelina, D. L. (2022, May). *Creative people use memory differently: Divergent thinking modulates how episodic memory is combined with semantic knowledge.* Poster presented at the annual meeting of the Society for the Neuroscience of Creativity.

- Ramey, M. M.** & Zabelina, D. L. (2022, April). *Divergent thinking modulates how episodic memory is combined with semantic knowledge*. Poster presented at the annual meeting of the Cognitive Neuroscience Society.
- Ramey, M. M.**, Henderson, J. M., & Yonelinas, A. P. (2021, November). *Schema knowledge and episodic memory trade off to influence spatial memory*. Poster presented at the annual meeting of the Psychonomic Society.
- Ramey, M. M.**, Henderson, J. M., & Yonelinas, A. P. (2020, November). *Distinct patterns of visual sampling in perceiving and sensing-based change detection*. Talk at the annual Bay Area Memory Meeting, Palo Alto, CA.
- Ramey, M. M.**, Shields, G. S., & Yonelinas, A. P. (2018, May). *Dietary Patterns in the Wild: Fiber and Fat Consumption Relates to Memory and Executive Function in Older Adults*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco, CA.
- Ramey, M. M.**, Shields, G. S., & Yonelinas, A. P. (2018, May). *Don't forget your vegetables: Markers of plant-based diets predict memory and executive function in older adults*. Poster presented at the Annual Psychology Conference at the University of California, Davis, Davis, CA. Won 2<sup>nd</sup> place in the presentation competition.
- Ramey, M. M.**, Yonelinas, A. P., & Henderson, J. M. (2017, November). *Contextual cueing and memory for scenes: Eye movements dissociate conscious from unconscious memory*. Poster presented at the annual meeting of the Psychonomic Society, Vancouver, British Columbia.
- Ramey, M. M.**, Yonelinas, A. P., & Henderson, J. M. (2017, November). *Conscious and unconscious memory differentially alter eye movements: Contextual cueing with real world scenes*. Poster presented at the annual meeting of the Object Perception, Attention, & Memory conference, Vancouver, British Columbia.
- Ramey, M. M.**, Yonelinas, A. P., & Henderson, J. M. (2017, August). *Contextual cueing and memory for scenes: Eye movements dissociate conscious from unconscious memory*. Talk at the annual meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.
- Ramey, M. M.**, Sazma, M. A., & Yonelinas, A. P. (2017, June). *The relationship between caloric intake and stress response*. Poster presented at the Mind and Brain Poster Day at the Center for Mind and Brain, Davis, CA.
- Ramey, M. M.**, Sazma, M. A., & Yonelinas, A. P. (2017, May). *The relationship between caloric intake and stress response*. Poster presented at the psychology departmental conference at the University of California, Davis, Davis, CA.
- Ramey, M. M.** & Jacobs, L. F. (2016, May). *Personality in coevolved species: Olfactory tracking by search dogs and their human handlers*. Poster presented at the psychology departmental poster session at the University of California, Berkeley, Berkeley, CA.

## Teaching Experience

Perception (Fall 2024)

Cognitive Psychology (Spring 2025)

Research Practicum Guest Lecture: "How to write competitive grants" (Spring 2025)

## Professional Service

*Ad hoc* reviewer for journal articles:

*Trends in Cognitive Sciences*

*Cognition*

*Journal of Experimental Psychology: General*

*Journal of Experimental Psychology: Learning, Memory, & Cognition*

*Behavior Research Methods*

*Psychiatry Research*

*Memory & Cognition*

*Memory*

*Nutrients*

*PeerJ*

*Psychology, Crime, & Law*

*Cognitive Processing*

*Scientific Reports*

*Behavioral Brain Research*

*Developmental Psychology*

*Ad hoc* reviewer for grant submissions:

NSF (PAC)

Israel Science Foundation

## Skills

Programming: R, MATLAB, Python, Julia, jsPsych (JavaScript), HTML & CSS

GUI Software: SR Research ExperimentBuilder, Adobe Photoshop, Qualtrics (and embedding JavaScript within Qualtrics), LimeSurvey

Analytic Expertise: Eyetracking analysis, computational cognitive modeling, cluster analysis, multilevel models, receiver operating characteristics, dimensionality reduction, classification using neural networks and random forest models

Misc. Skills: Eyetracking, EEG, scene stimuli creation (using MATLAB and Photoshop) and norming, ELISA assays