

Publications

JOURNAL ARTICLES

1. Chiarello, M., Lee, J., Salinas, M. M., Hilsabeck, R. C., Lewis-Peacock, J., & Sulzer, J. (2023). The effect of biomechanical features on classification of dual-task gait. *IEEE Sensors Journal*, 23(3), 3079–3089. <https://doi.org/10.1109/jsen.2022.3227475>
2. Bruning, A. L., Mallya, M. M., & Lewis-Peacock, J. A. (2023). Rumination burdens the updating of working memory. *Attention, Perception, & Psychophysics*. <https://doi.org/10.3758/s13414-022-02649-2>
3. Zhang, Z., & Lewis-Peacock, J. A. (2022). Prioritization sharpens working memories but does not protect them from distraction. *Journal of Experimental Psychology: General*. <https://doi.org/10.1037/xge0001309>
4. Bretton-Granatoor, Z., Stealey, H., Santacruz, S. R., & Lewis-Peacock, J. A. (2022, October). Estimating intrinsic manifold dimensionality to classify task-related information in human and non-human primate data. *2022 IEEE Biomedical Circuits and Systems Conference (BioCAS)*. <https://doi.org/10.1109/biocas54905.2022.9948604>
5. Hennings, A. C., Cooper, S. E., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2022). Pattern analysis of neuroimaging data reveals novel insights on threat learning and extinction in humans. *Neuroscience & Biobehavioral Reviews*, 142, 104918. <https://doi.org/10.1016/j.neubiorev.2022.104918>
6. Keller, N. E., Hennings, A. C., Leiker, E. K., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2022). Rewarded extinction increases amygdalar connectivity and stabilizes long-term memory traces in the vmPFC. *The Journal of Neuroscience*, 42(29), 5717–5729. <https://doi.org/10.1523/jneurosci.0075-22.2022>
7. Koslov, S. R., Bulls, L. S., & Lewis-Peacock, J. A. (2022). Distinct monitoring strategies underlie costs and performance in prospective memory. *Memory & Cognition*, 50(8), 1772–1788. <https://doi.org/10.3758/s13421-022-01275-5>
8. Mallett, R., Lorenc, E. S., & Lewis-Peacock, J. A. (2022). Working memory swap errors have identifiable neural representations. *Journal of Cognitive Neuroscience*, 34(5), 776–786. https://doi.org/10.1162/jocn_a_01831
9. Hennings, A. C., McClay, M., Drew, M. R., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2021). Neural reinstatement reveals divided organization of fear and extinction memories in the human brain. *Current Biology*, 32(2), 304–314.e5. <https://doi.org/10.1016/j.cub.2021.11.004>
10. Lu, H.-Y., Lorenc, E. S., Zhu, H., Kilmarx, J., Sulzer, J., Xie, C., Tobler, P. N., Watrous, A. J., Orsborn, A. L., Lewis-Peacock, J., & Santacruz, S. R. (2021). Multi-scale neural decoding and analysis. *Journal of Neural Engineering*, 18(4), 045013. <https://doi.org/10.1088/1741-2552/ac160f>
11. Hennings, A. C., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2021). Emotional learning retroactively enhances item memory but distorts source attribution. *Learning & Memory*, 28(6), 178–186. <https://doi.org/10.1101/lm.053371.120>
12. Oblak, E., Lewis-Peacock, J., & Sulzer, J. (2021). Differential neural plasticity of individual fingers revealed by fMRI neurofeedback. *Journal of Neurophysiology*, 125(5), 1720–1734. <https://doi.org/10.1152/jn.00509.2020>
13. Chiu, Y.-C., Wang, T. H., Beck, D. M., Lewis-Peacock, J. A., & Sahakyan, L. (2021). Separation of item and context in item-method directed forgetting. *NeuroImage*, 235, 117983. <https://doi.org/10.1016/j.neuroimage.2021.117983>
14. Lorenc, E. S., Mallett, R., & Lewis-Peacock, J. A. (2021). Distraction in visual working memory: Resistance is not futile. *Trends in Cognitive Sciences*, 25(3), 228–239. <https://doi.org/10.1016/j.tics.2020.12.004>
15. Kilmarx, J., Oblak, E., Sulzer, J., & Lewis-Peacock, J. (2021). Towards a common template for neural reinforcement of finger individuation. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-020-80166-8>
16. Kim, H., Smolker, H. R., Smith, L. L., Banich, M. T., & Lewis-Peacock, J. A. (2020). Changes to information in working memory depend on distinct removal operations. *Nature Communications*, 11(1). <https://doi.org/10.1038/s41467-020-20085-4>
17. Bruning, A. L., & Lewis-Peacock, J. A. (2020). Long-term memory guides resource allocation in working memory. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-79108-1>
18. Momennejad, I., Lewis-Peacock, J., Norman, K. A., Cohen, J. D., Singh, S., & Lewis, R. L. (2020). Rational use of episodic and working memory: A normative account of prospective memory. *Neuropsychologia*, 158, 107657. <https://doi.org/10.1016/j.neuropsychologia.2020.107657>

19. Weng, H. Y., Ikeda, M. P., Lewis-Peacock, J. A., Chao, M. T., Fullwiley, D., Goldman, V., Skinner, S., Duncan, L. G., Gazzaley, A., & Hecht, F. M. (2020). Toward a compassionate intersectional neuroscience: Increasing diversity and equity in contemplative neuroscience. *Frontiers in Psychology, 11*. <https://doi.org/10.3389/fpsyg.2020.573134>
20. Hennings, A. C., Bibb, S. A., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2020). Thought suppression inhibits the generalization of fear extinction. *Behavioural Brain Research, 398*, 112931. <https://doi.org/10.1016/j.bbr.2020.112931>
21. Weng, H. Y., Lewis-Peacock, J. A., Hecht, F. M., Uncapher, M. R., Ziegler, D. A., Farb, N. A. S., Goldman, V., Skinner, S., Duncan, L. G., Chao, M. T., & Gazzaley, A. (2020). Focus on the breath: Brain decoding reveals internal states of attention during meditation. *Frontiers in Human Neuroscience, 14*. <https://doi.org/10.3389/fnhum.2020.00336>
22. Hennings, A. C., McClay, M., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2020). Contextual reinstatement promotes extinction generalization in healthy adults but not PTSD. *Neuropsychologia, 147*, 107573. <https://doi.org/10.1016/j.neuropsychologia.2020.107573>
23. Ros, T., Enriquez-Geppert, S., Zotev, V., Young, K. D., Wood, G., Whitfield-Gabrieli, S., Wan, F., Vuilleumier, P., Vialatte, F., Ville, D. V. D., Todder, D., Surmeli, T., Sulzer, J. S., Strehl, U., Sterman, M. B., Steiner, N. J., Sorger, B., Soekadar, S. R., Sitaram, R., ... Thibault, R. T. (2020). Consensus on the reporting and experimental design of clinical and cognitive-behavioural neurofeedback studies (CRED-nf checklist). *Brain, 143*(6), 1674–1685. <https://doi.org/10.1093/brain/awaa009>
24. Mallett, R., Mummaneni, A., & Lewis-Peacock, J. A. (2020). Distraction biases working memory for faces. *Psychonomic Bulletin & Review, 27*(2), 350–356. <https://doi.org/10.3758/s13423-019-01707-5>
25. Weng, H. Y., Ikeda, M. P., Lewis-Peacock, J. A., Chao, M. T., Fullwiley, D., Goldman, V., Skinner, S., Duncan, L. G., Gazzaley, A., & Hecht, F. M. (2020). Corrigendum: Toward a compassionate intersectional neuroscience: Increasing diversity and equity in contemplative neuroscience. *Frontiers in Psychology, 11*. <https://doi.org/10.3389/fpsyg.2020.631816>

PREPRINTS

1. DeRosa, J., Kim, H., Lewis-Peacock, J., & Banich, M. T. (2023). *Neural systems underlying the implementation of working memory removal operations*. <https://doi.org/10.1101/2023.02.14.519204>
2. Keller, N. E., Hennings, A. C., Leiker, E. K., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2021). *Rewarded extinction increases amygdalar connectivity and stabilizes long-term memory traces in the vmPFC*. <https://doi.org/10.1101/2021.12.08.471649>

BOOKS

1. Lewis-Peacock, J. (2022). *Visual memory*. Routledge.

BOOK CHAPTERS

1. Lewis-Peacock, J. (2023). Forgetting. In *Encyclopedia of the human brain, 2nd edition*.
2. Lewis-Peacock, J. (2020). Prospective memory forgetting. In *Memory failure*.

Professional Presentations

Protection and Removal of Information in Working Memory

UNIVERSITY OF OXFORD, OXFORD, ENGLAND

2023

Protection and Removal of Information in Working Memory

UNIVERSITY OF YORK, YORK, ENGLAND

2023

Protection and Removal of Information in Working Memory

UNIVERSITY COLLEGE LONDON, LONDON, ENGLAND

2023

Disruption of Information in Working Memory

UNIVERSITY OF CAMBRIDGE, CAMBRIDGE, ENGLAND

2022

Protection of Information in Working Memory

UNIVERSITY OF CAMBRIDGE, CAMBRIDGE, ENGLAND

2022

Remembering to Forget

UNIVERSITY OF CAMBRIDGE, CAMBRIDGE, ENGLAND

2022

Protection of Information in Working Memory

UNIVERSITY OF GENEVA, GENEVA, SWITZERLAND

2022

Protection of Information in Working Memory

UNIVERSITY OF ZURICH, ZURICH, SWITZERLAND

2022

Tidying up Working Memory

UNIVERSITY OF CAMBRIDGE, CAMBRIDGE, ENGLAND

2022

Tidying up working memory

UNIVERSITY OF TORONTO, EBBINGHAUS EMPIRE SPEAKER SERIES

2022

Neural impacts of working memory removal operations on the long-term retention of information

WORKING MEMORY SYMPOSIUM, VIRTUAL

2022

Prioritization allows working memory to bend but not break in the face of distraction

WORKING MEMORY SYMPOSIUM, VIRTUAL

2022

Removing information from working memory

DISTRIBUTED WORKING MEMORY SERIES

2021

Cognitive and affective influences on working memory updating

VIRTUAL WORKING MEMORY SYMPOSIUM

2021

Functional connectivity during the removal of information from working memory

VIRTUAL WORKING MEMORY SYMPOSIUM, VIRTUAL

2021

Removing information from working memory

DEPARTMENT OF PSYCHOLOGY, RICE UNIVERSITY. HOUSTON, TX

2020

How does removing a working memory alter its neural representation?

VIRTUAL WORKING MEMORY SYMPOSIUM, VIRTUAL

2020

Long-term memory guides resource allocation in working memory

VIRTUAL WORKING MEMORY SYMPOSIUM, VIRTUAL

2020

Conference Abstracts

Determining the neural representational similarity of multiple object categories during visual imagery

REAL-TIME FUNCTIONAL IMAGING AND NEUROFEEDBACK MEETING (RTFIN), NEW HAVEN, CT

2022

Estimating intrinsic manifold dimensionality to classify task-related information in human and non-human primate data

BIOMEDICAL CIRCUITS AND SYSTEMS CONFERENCE (BIOCAS), VIRTUAL

2022

Intrusive emotional thinking in working memory

UT AUSTIN LONGHORN RESEARCH POSTER SESSION, AUSTIN, TX

2022

Neural impacts of working memory removal operations on the long-term retention of information

SOCIETY FOR NEUROSCIENCE, SAN DIEGO, CA

2022

Signal intrusion explains divergent effects of visual distraction on working memory

SOCIETY FOR NEUROSCIENCE, SAN DIEGO, CA

2022

A common template for neural reinforcement of finger individuation

SOCIETY FOR NEUROSCIENCE

2021

Emotional learning retroactively enhances item memory but distorts source attribution

CONTEXT AND EPISODIC MEMORY SYMPOSIUM

2021

The neural correlates of rewarded extinction

EUROPEAN MEETING OF HUMAN FEAR CONDITIONING

2021

Valence and repetitive negative thoughts influence efficiency of replacing information in working memory	2021
UNDERGRADUATE RESEARCH SYMPOSIUM	
Interworm - Earworm Research	2021
TEXAS STUDENT RESEARCH SHOWDOWN	
A common template for neural reinforcement of finger individuation	2021
SOCIETY FOR NEUROSCIENCE, VIRTUAL	
Do earworms cause internal distraction and interfere with auditory working memory representations	2021
UT AUSTIN PSYCHOLOGY HONORS POSTER SESSION, VIRTUAL	
Emotional learning retroactively enhances item memory but distorts source attribution	2021
CONTEXT AND EPISODIC MEMORY SYMPOSIUM, PHILADELPHIA, PA	
Neural reinstatement reveals divided organization of fear and extinction memories in the human brain	2021
SOCIETY FOR NEUROSCIENCE, VIRTUAL	
The neural correlates of rewarded extinction	2021
EUROPEAN MEETING OF HUMAN FEAR CONDITIONING, VIRTUAL	
Valence and repetitive negative thoughts influence efficiency of replacing information in working memory	2021
UT AUSTIN UNDERGRADUATE RESEARCH SYMPOSIUM, VIRTUAL	
Eye tracking of attention allocation during prospective remembering	2020
VISION SCIENCES SOCIETY	
How does removing a working memory alter its neural representation?	2020
VIRTUAL WORKING MEMORY SYMPOSIUM	
Long-term memory guides resource allocation in working memory	2020
VIRTUAL WORKING MEMORY SYMPOSIUM	
Long-term memory guides resource allocation in working memory	2020
VISION SCIENCES SOCIETY	
Dissociable neural reinstatement of emotional memories in the human PFC	2020
COGNITIVE NEUROSCIENCE SOCIETY	
Eye tracking of attention allocation during prospective remembering	2020
COGNITIVE NEUROSCIENCE SOCIETY	
Long-term memory guides resource allocation in working memory	2020
COGNITIVE NEUROSCIENCE SOCIETY	
The neural correlates of aversive to appetitive counterconditioning	2020
COGNITIVE NEUROSCIENCE SOCIETY	
Dissociable neural reinstatement of emotional memories in the human PFC	2020
COGNITIVE NEUROSCIENCE SOCIETY, VIRTUAL	
Eye tracking of attention allocation during prospective remembering	2020
VISION SCIENCES SOCIETY, VIRTUAL	
Eye tracking of attention allocation during prospective remembering	2020
COGNITIVE NEUROSCIENCE SOCIETY, VIRTUAL	
Long-term memory guides resource allocation in working memory	2020
VISION SCIENCES SOCIETY, VIRTUAL	
Long-term memory guides resource allocation in working memory	2020
COGNITIVE NEUROSCIENCE SOCIETY, VIRTUAL	

The neural correlates of aversive to appetitive counterconditioning

COGNITIVE NEUROSCIENCE SOCIETY, VIRTUAL

2020

Honors

Faculty Research Award

THE UNIVERSITY OF TEXAS AT AUSTIN

Austin, US

2020

Funding

Neural and Cognitive Mechanisms for Removing Emotional Information from Working Memory

FUNDING: \$782,097

NIMH, R01MH129042

2022 - 2026

Localizing and modulating competing memories of fear and safety in the human brain

FUNDING: \$1,623,500

NIMH, R01MH122387

2021 - 2025

Biasing the Forgetting of Visual Memories

FUNDING: \$1,488,148

National Eye Institute, R01EY028746

2018 - 2023

Removing and Manipulating Emotional Information in Working Memory: Cognitive and Neural Representations

FUNDING: \$770,369

NIMH, R56MH125642

2021 - 2022

Service

The University of Texas at Austin

STEERING COMMITTEE MEMBER

Austin, US

2022 - present

The University of Texas at Austin

REVIEWER, JOHNSON & JOHNSON WISTEM2D INTERNAL COMPETITION

Austin, US

2021 - present

The University of Texas at Austin

GRADUATE ADVISOR

Austin, US

2021 - present

The University of Texas at Austin

REVIEWER, OUTSTANDING DISSERTATION COMMITTEE, COLLEGE OF LIBERAL ARTS,

Austin, US

2021 - present

National Institutes of Health

F01B FELLOWSHIP PANEL

Bethesda, US

2021 - present

The University of Texas at Austin

REVIEWER, RESEARCH REBOOT COMMITTEE, COLLEGE OF LIBERAL ARTS

Austin, US

2021 - present

The University of Texas at Austin

DEI FACULTY LIAISONS

Austin, US

2021 - present

The University of Texas at Austin

AREA HEAD - COGNITION, BRAIN, & BEHAVIOR

Austin, US

2020 - present

The University of Texas at Austin

AREA HEAD: COGNITION, BRAIN, & BEHAVIOR

Austin, US

2020 - present

Working Memory Symposium

CO-FOUNDER AND ORGANIZER

virtual, global, US

2020 - present

National Science Foundation

COGNITIVE NEUROSCIENCE PANEL

Alexandria, US

2020 - present

Journal of Cognitive Neuroscience

CONSULTING EDITOR

NA, US

2020 - present

Mentoring and Teaching

MENTORING

Caleb Jerinic-Brodeur

DISSERTATION SUPERVISOR

2022 - present

Diane Whitmer

POSTDOCTORAL SUPERVISOR

2022 - present

Laura Werner

POSTDOCTORAL SUPERVISOR

2022 - present

Ziyao Zhang

DISSERTATION SUPERVISOR

2021 - present

Zachary Bretton-Granatoor

DISSERTATION SUPERVISOR

2020 - present

Justin Kilmarx

DISSERTATION CO-SUPERVISOR

2018 - present

Elizabeth Lorenc

POSTDOCTORAL SUPERVISOR

2018 - 2022

Augustin Hennings

DISSERTATION CO-SUPERVISOR

2017 - 2022

Remington Mallett

DISSERTATION SUPERVISOR

2016 - 2021

Seth Koslov

DISSERTATION SUPERVISOR

2016 - 2020

Hyojeong Kim

DISSERTATION SUPERVISOR

2014 - 2020

TEACHING

PSY 420M Research Design & Statistics (2 sections)

INSTRUCTOR

2022 - 2022

PSY 387S Principles of Cognitive Neuroscience

INSTRUCTOR

2021 - 2021

PSY 394P Digital Neuroanatomy

INSTRUCTOR (WITH FRANCO PESTILLI)

2021 - 2021

PSY 420M Research Design & Statistics

INSTRUCTOR

2020 - 2020

PSY 383E Cognitive Neuroscience Area Seminar

INSTRUCTOR

2020 - 2020

PSY 386D Multivariate Pattern Analysis of Neuroimaging Data

INSTRUCTOR

2020 - 2020