Curriculum Vitae

Jonathon Whitlock, Ph.D.

Assistant Professor

Psychology Department | Mississippi State University

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RESEARCH INTERESTS

Visual attention

Eye-movement and pupillometric expressions of encoding & retrieval processes in memory

Associative/relational memory

Intention forgetting & memory control

ACADEMIC POSITIONS

2024 – Current	Assistant Professor, Tenure-Track Department of Psychology Mississippi State University Starkville, Mississippi

EDUCATION

2024	**Ph.D, Cognitive Psychology, Cognitive-Neuroscience (Minor)** University of Illinois at Urbana-Champaign, Urbana IL Dissertation: *Eye-Movement Investigation of Relational Binding in Recognition Memory* Advisor: Dr. Lili Sahakyan, Ph.D
2020	**M.S., Psychology** University of Illinois at Urbana-Champaign, Urbana IL Masters Thesis: *Can We Intentionally Forget Relational Memory?* Advisor: Dr. Lili Sahakyan, Ph.D
2012-2015	**B.A., Psychology, Philosophy (Minor)** University of Michigan-Dearborn, Dearborn, MI *High Distinction* Honors Thesis: *Representation of Emotional Intentions* Primary Adviser: Dr. Arlo Clark-Foos; Secondary Adviser: Dr. Dan Swift

2002-2009 **A.A., Liberal Arts**
Oakland Community College, Auburn Hills, MI

PUBLISHED AND SUBMITTED MANUSCRIPTS

Published Manuscripts

Ding, H., **Whitlock, J.,** Sahakyan, L. (In Print). Encoding and Retrieval Eye Movement Patterns Reveal Cross-Race Effect in Relational and Item Memory. *Visual Cognition*.

Ding, H., **Whitlock, J.,** Sahakyan, L. (In Print). Pupil fluctuations signal intentional forgetting of natural scenes. *Psychophysiology, 62*(8).

Whitlock, J., Ding, H., Hubbard, R., & Sahakyan, L. (2025). Delayed testing in directed forgetting dissociates active and passive forms of forgetting. *Journal of Experimental Psychology: Learning, Memory, and Cognition.*

Lo, Y., Ding, H., **Whitlock, J**., & Sahakyan, L. (2024). The dynamics of intentional forgetting: exploring the interplay of memory strength and meaningfulness for verbal and visual stimuli. *Memory*, 1-18.

Whitlock, J., Hubbard, R., Ding, H., & Sahakyan, L. (2023). Trial-level fluctuations in pupil dilation during encoding reflect strength of relational binding. *Journal of Experimental Psychology: Learning, Memory, and Cognition.*

Ding, H., **Whitlock, J., &** Sahakyan, L. (2022). Can intentional forgetting reduce the cross-race effect in memory? *Psychonomic Bulletin & Review, 29*(4), 1387-1396.

Whitlock, J., Chiu, Y., & Sahakyan, L., (2022). Directed forgetting in associative memory: Dissociating item and associative impairment. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 48*(1), 29-42.

Whitlock, J., Lo, Y., Chiu, Y., & Sahakyan, L., (2020). Eye movement analyses of strong and weak memories and goal-driven forgetting. *Cognition, 204*, 104391.

Manuscripts with Revision After Initial Submission

Whitlock, J., Ding, H., & Sahakyan, L. (revision in progress; no new data required). Memory Guides Attention: Evidence from Eye Movements and Encoding Strength. *Journal of Experimental Psychology: Learning, Memory, and Cognition***.**

Sahakyan, L., & **Whitlock, J.** (revision in progress; no new data required). What do people do to forget things intentionally? *Journal of Experimental Psychology: Learning, Memory, and Cognition*

Manuscripts Submitted for Publication

Whitlock, J., Hubbard, R., & Sahakyan, L. (under review). Pupil old-new effect reflects an automatic rapid match between perceptual input and memory representation. *Psychophysiology*.

Manuscripts with Drafts in Progress

Whitlock, J., & Sahakyan, L. Encoding fixations & transitions predict selection & viewing during retrieval.

Whitlock, J., & Sahakyan, L. First gaze measures of obligatory orienting response in eye movements.

Whitlock, J., Hubbard, R., & Sahakyan, L. Pupil old-new effect: Familiarity or recollection reflected in greater pupil-size to studied items.

Sahakyan, L., **Whitlock, J.,** & Kwapil, T. Eye movement investigation of memory in multi-dimensional Schizotypy

CONFERENCE PRESENTATIONS

Whitlock, J. (November 2025). *Relational memory guides visual attention through predictive mechanisms*. Poster to be presented at the 66th Annual Meeting of the Psychonomic Society, Denver, CO.

Whitlock, J., Ding, H., & Sahakyan, L. (April 2024). *Eye movement patterns predict accuracy and false memory*. Paper presented at the 97th Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

Whitlock, J., Hubbard, R., Sahakyan, L. (November 2024). *Temporal dynamics of the pupillary old-new effect: Disentangling true and false recognition*. Paper to be presented at the 65th Annual Meeting of the Psychonomic Society, New York City, NY.

Hannula, D. E., Slabbekoorn, D., **Whitlock, J.** (November 2024*). A Losing Battle: Novel Objects Do Not Always Compete Effectively for Attention*. Poster presented at the 65th Annual Meeting of the Psychonomic Society, New York City, NY.

Yang, R., **Whitlock, J.**, Benjamin, A. (November 2024). *Modeling eye movements during forced-choice recognition*. Poster presented at the 65th Annual Meeting of the Psychonomic Society, New York City, NY.

Whitlock, J., & Sahakyan, L. (April 2024). *Eye movement evidence of memory inhibition*. Invited paper presented at the 96th Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

Whitlock, J., & Sahakyan, L**.** (November 2023). *Role of initial viewing during memory retrieval*. Poster presented at the 64th Annual Meeting of the Psychonomic Society, San Francisco, CA.

Whitlock, J., Sahakyan, L. (April 2023). *First-gaze differentiation of item and relational memory strength.* Paper presented at the 95th Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

Whitlock, J., Sahakyan, L. (March 2023). *First-gaze differentiation of item and relational memory strength*. Poster presented at the 30th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Whitlock, J., Lo, Y., Ding, H., Hubbard, R., Sahakyan, L. (November 2022). *First-gaze assessment of the selective rehearsal account of item-method DF.* Poster presented at the 63rd Annual Meeting of the Psychonomic Society, Virtual.

Whitlock, J., Sahakyan, L. (April 2022). *Pupil-size fluctuations during learning predict relational binding.* Paper presented at the 94th Annual Meeting of the Midwestern Psychological Association**,** Chicago, IL.

Whitlock, J., Sahakyan, L. (April 2022). *First gaze viewing measures reflect previous experience and memory strength*. Poster presented at the 94th Annual Meeting of the Midwestern Psychological Association**,** Chicago, IL.

Whitlock, J., Sahakyan, L., Hubbard, R. (November 2021). *Pupil-size fluctuations at encoding predict item-to-context binding.* Poster presented at the 62nd Annual Meeting of the Psychonomic Society, Virtual.

Whitlock, J., Sahakyan, L. (April 2021). *Directed Forgetting of Associative Memory Evident in Eye-Movements*. Paper presented at the 93rd Annual Meeting of the Midwestern Psychological Association, Virtual.

Whitlock, J., Sahakyan, L. (November 2020). *Eye Movements Differentiate Forgetting from Strength-Based Memory Differences*. Paper presented at the 61st Annual Meeting of the Psychonomic Society, Virtual.

Ding, H., **Whitlock, J.,** Lo, Y., Sahakyan, L. (November 2020*). Eye-Tracking Investigation of Cross-Race effect in Relational and Item Recognition*. Poster presented at the 61st Annual Meeting of the Psychonomic Society, Virtual.

Whitlock, J., Lo, Y., Chiu, Y., Sahakyan, L., (May 2020) *Eye movements differentiate intentional forgetting from strength-based memory differences.* Paper presented at the 16th Annual Meeting of the Context and Episodic Memory Symposium, Virtual.

Whitlock, J., Lo, Y., Chiu, J., Sahakyan, L. (April, 2020). *How is Intentional Forgetting Reflected in Eye Movements?* Poster presented at the 27th Annual Meeting of the Cognitive Neuroscience Society, Virtual.

Whitlock, J., Chiu, Y., Sahakyan, L., (November 2019). *Can We Intentionally Forget Relational Information?* Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, QC.

Sahakyan, L., Huiyu, D., **Whitlock, J.,** (November 2019). *Directed Forgetting of Same-Race and Cross-Race Faces*. Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, QC.

Whitlock, J., Chiu, Y., Sahakyan, L. (November, 2018). *What Can Eye Movements Reveal About Intentional Forgetting?* Poster presented at the 59th Annual Meeting of the Psychonomic Society, New Orleans, LA.

Clark-Foos, A., Urbanik, C., **Whitlock, J.** (November, 2016*). Intentional Superiority Effects for Participant-Generated Prospective Memories.* Poster presented at the 57th Annual Meeting of the Psychonomic Society, Boston, MA.

Letang, S., **Whitlock, J**., Pfannes, K., Yousif, M., Clark-Foos, A. (May, 2015). *What is the Fate of Naturally Occurring Prospective Memories?* Poster presented at the 88th Annual Meeting of the Midwestern Psychological Association, Chicago, IL.

Whitlock, J., Forrest, S., Clark-Foos, A. (May, 2015). *Representation of Emotional Intentions.* Paper presented at the 23rd Annual Meeting of Minds at University of Michigan - Dearborn, Dearborn, MI.

Whitlock, J., Clark-Foos, A. (May, 2015). *Metacognition in the Human Biocomputer.* Poster presented at the Annual Meeting of Minds at University of Michigan - Dearborn, Dearborn, MI.

Hanosh, M., Bartnicki, J., & **Whitlock, J**. (May, 2015). *What is the Fate of Naturally Occurring Prospective Memories?* Poster presented at the 22nd Annual Meeting of the Minds, Dearborn, MI.

Whitlock, J., Forrest, S., Clark-Foos, A. (March, 2015). *Emotional Representation of Intentions.* Paper presented at the Undergraduate Research Showcase of the College of Arts, Sciences, and Letters at University of Michigan - Dearborn, Dearborn, MI.

Whitlock, J., Clark-Foos, A. (March, 2015). *Metacognition in the Human Biocomputer.* Poster presented at the Undergraduate Research Showcase of the College of Arts, Sciences, and Letters at University of Michigan - Dearborn, Dearborn, MI.

Whitlock, J. & Clark-Foos, A. (May, 2014). *Interpersonal Reality Monitoring: The Devil is in the Details.* Paper presented at the 22nd Annual Meeting of Minds at Oakland University, Rochester, MI.

Whitlock, J., Las, D., Tout, W., & Clark-Foos, A. (March, 2014). *Source Monitoring in a Prospective Memory Task.* Paper presented at the Undergraduate Research Showcase of the College of Arts, Sciences, and Letters at University of Michigan - Dearborn, Dearborn MI.

Las, D., **Whitlock, J.**, Morris, R., Holley, M., Pfannes, K., Cook, G., & Clark-Foos, A. (March, 2014). *Remembering may affect remembering to do something else*. Poster presented at the 60th Annual Meeting of the Southeastern Psychological Association, Nashville, TN.

TEACHING & COURSE DEVELOPMENT

I have consistently been in the "*List of Teachers Ranked as Excellent by their Students"* (at the university level)

- **Primary Instructor** for *Psychology of Learning & Memory* course (PSYC 248)
    - This is a lecture-based course, with a class size of 200+ students (in Fall and Spring semesters), and 40+ students (in Summer semesters)
    - As the primary instructor, I was responsible for developing all the course material, assignments, exams, and grading

- I have taught this course many times either as the Primary Instructor or as the TA for other professors during Summer 2019; Fall 2019; Spring 2020; Fall 2020; Summer terms 2021; Summer terms, 2022
- Teaching Evaluation Scores: > 4.0 (on a scale from 1-5, where 5=excellent)

- **Developed an Online Version** of *Psychology of Learning & Memory* course (PSYC 248) and taught it as the **Primary Instructor** (Fall 2019 – Summer II 2020)

  - Developed lesson plans, including audio & video recordings
  - Developed assignments, exam questions/format
  - Coordinated lesson plans and recordings with online teaching platform

- **Primary Instructor** for *Cognitive Psychology* course (PSYC 224)

  - This is a lecture-based course, with the class size over 250+ students (in Fall and Spring semesters)
  - As the primary instructor for the online version of this course, I coordinated lesson plans, assignment deadlines, exams, and lecture videos (Summer I & Summer II 2023)
  - I was also the TA for other professors, where I graded assignments, organized review sessions and materials (Fall 2021; Spring 2022; Summer terms 2023)
  - Teaching Evaluation Scores: > 4.0 (on a scale from 1-5, where 5=excellent)

- **Teaching Assistant Lecturer** for *Introduction to Psychology* course (PSYC 100)

  - This is a large size course, overseen by a faculty member in Psychology Department; the course is taught by Teaching Assistant Lecturers that are assigned smaller sections of the course
  - Class sizes were typically 40+ students (per section)
  - As the TA, I planned lectures and assignments, and also led Team Exercise Days that involved coordinating group activities
  - Semesters: Fall 2018; Spring 2019; Spring 2021; Winter 2021-2022; Fall 2022; Winter 2022-2023; Spring 2023; Fall 2023
  - Teaching Evaluation Scores: > 4.0 (on a scale from 1-5, where 5=excellent)

- **Teaching Assistant Lecturer** for Honors Section of *Introduction to Psychology course* (PSYC 100)
  - This is a special section offered to students in the James Scholar Honors Program, the purpose of which is to provide challenging material and advanced lessons in addition to the regular course material
  - As the coordinator of this section, I assigned specific readings on advanced topics relating to course material for specific days set aside for group presentations and developed assignments relating to these topics
  - I assisted groups in presenting the assigned material and facilitated class discussions that focused on critically thinking about controversial topics

HONORS and AWARDS

2023 List of Teachers Ranked as Excellent by their Students at UIUC (at university level)

2021	List of Teachers Ranked as Excellent by their Students at UIUC (at university level)
2021	UIUC Campus Research Board Grant ($30,000) awarded to PI: L. Sahakyan to cover my graduate tuition + stipend for 1 year, and to conduct an eye-tracking investigation of memory in a population vulnerable for mental illness (Sahakyan and I co-wrote the proposal)
2015	The International Honor Society in Psychology (PSI CHI)
2014-2015	Top Student in Psychology Award (University of Michigan-Dearborn)
Fall 2014	The National Society of Leadership and Success (NSLS) (Sigma Alpha Pi)
Fall 2014	Presidential Status in NSLS
Fall 2014	National Engaged Leader Award in NSLS
2012-2015	Dean's List, College of Arts, Sciences and Letters, University of Michigan - Dearborn

QUANTITATIVE SKILLS

I consistently utilize cutting edge quantitative approaches to data analyses, such as multi-level modeling, fitting of power functions to individual data, Bayesian analyses, and quantitative modeling

- **Use of MATLAB and R to handle large complex data**: A large portion of my research involves the use of eye-tracking equipment, which is notorious for producing large complex data sets that require a lot of processing/organizing in order to run analyses
    - I have extensive experience using scripts in MATLAB in order to pull and process raw eye-tracking data
    - I regularly develop new ways of processing eye-tracking data using R in order to arrive at novel findings and conclusions regarding eye-movements and their relation to underlying memory processes
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- **Multi-leveling modeling**: I have extensive knowledge and background in publishing research that utilizes multi-level modeling, using the lme4 and lmerTest packages in R
    - Random effects structures are used to consider nesting of data on a subject or item level
    - Allows for separately analyzing the strength of a fixed effect or interaction for individual subjects, to ensure the reliability of an effect across varying levels of heterogeneity
    - Use of multi-leveling models allows me to arrive at a more nuanced understanding of the data on a trial-by-trial level (i.e., logistic regression) rather than solely on the subject level as is often the case with ANOVAs and standard regression approaches

- **Power functions**: I have experience with fitting forgetting functions in order to assess differences in forgetting rates over time
    - This includes using a jackknife approach to fitting power functions in an N-1 leave out procedure that significantly reduces variance in estimating parameters of initial learning and forgetting rates, as power functions are notoriously noisy

- **Bayesian statistics**: I have used Bayesian statistical approaches to providing additional evidence for either the null or alternative model in my statistical analyses

- Providing evidence for the null or alternative model is an emerging approach to model testing which affords additional support for or against fixed effects and interactions

- **Quantitative modeling**: I have recently begun to develop novel ways of applying drift diffusion models to my eye-tracking data, in order to better understand the processes by which participants make decisions regarding the test display in my 3-alternative forced-choice procedures
  - This allows me to account for the ways in which decision making processes impact viewing behavior and memory outcomes in my research

RESEARCH EXPERIENCE & ACADEMIC SUPPORT

2017-Current **Graduate Research Assistant,** Context Memory and Forgetting Laboratory, PI: Dr. Lili Sahakyan, Ph.D.

University of Illinois at Urbana-Champaign

My responsibilities include:

- Designing studies, data collection and analyzing
- Collect and analyze eye-tracking data in healthy college-aged adults
- Presentation of study design, data analyzing, results, and conclusions
- Preparing for conference presentations
- Overseeing honors student projects: design, data analyzing, and write-up
- Organizing lab schedules for undergraduate research assistants and lab meetings to discuss ongoing research
- Training of undergraduates on research projects for data collection

2013-2017 **Undergraduate Research Assistant**, Human Learning and Creativity Lab (HuLC), PI: Dr. Arlo Clark-Foos, Ph.D

- Study design (Honors Thesis, under Dr. Clark-Foos' mentorship)
- Understanding research methodology for and theory behind research studies
- Data collection with human subjects
- Training research assistants in lab procedures, including how to interact with and collect data from participants
- Preparing research posters for conference presentations

2013-2017 **Supplemental Instruction Leader,** Department of Behavioral Sciences, University of Michigan - Dearborn

Courses I assisted with include:

- Principles of Statistics and Experimental Design
- Cognitive Psychology
- Learning & Memory

My responsibilities included:

- Creating study materials and activities to complement professor's course lectures
- Holding instructional study sessions and implementing activities

- Working individually with students to reinforce class material
- Working to foster a thorough understanding of difficult topics
- Attending every lecture for the courses I support.

Examples of topics I cover that students find particularly difficult include: Measures of Central Tendency, Central Limit Theorem, Sampling Distribution of the Mean, Hypothesis Testing, t-tests, One-Way and Two-Way ANOVA, and Chi Square