

PROMOTION RECOMMENDATION

The University of Michigan-Dearborn
College of Arts, Sciences, and Letters

Zhong Xu Liu, assistant professor of psychology, Department of Behavioral Sciences, College of Arts, Sciences, and Letters, is recommended for promotion to associate professor of psychology with tenure, Department of Behavioral Sciences, College of Arts, Sciences, and Letters.

Academic Degrees:

Ph.D.	2015	Developmental Psychology and Education, Collaborative Program in Neuroscience, University of Toronto, Toronto, Canada
M.A.	2009	Developmental Psychology and Education, Collaborative Program in Neuroscience, University of Toronto, Toronto, Canada
B.A.	2007	Psychology, Concordia University, Montreal, Canada
B.Eng.	1994	Civil Engineering, Harbin University of Civil Engineering and Architecture, Harbin, China

Professional Record:

2018-present	Assistant Professor, Psychology, University of Michigan-Dearborn
2017-2018	Post-Doctoral Research Fellow, The Rotman Research Institute, Psychology Department, York University, Toronto, Canada
2015-2018	Post-Doctoral Research Fellow, The Rotman Research Institute, Psychology Department, York University, Toronto, Canada

Summary of Evaluation:

Teaching: Professor Liu is an excellent teacher and mentor of graduate and undergraduate students. He regularly teaches three courses, including Experimental Psychology, Biological Foundations of Health Psychology, and Cognitive Neuroscience. Since his arrival at UM- Dearborn, Professor Liu has contributed significantly to course development in the psychology discipline. He developed two new courses: PSYC 400 (Cognitive Neuroscience) and PSYC 260 (Introduction to Brain and Behavior). He also created a new lab course for the biological and behavioral sciences program, BBS400 (Cognitive Neuroscience Lab) and redesigned the PSYC 465 (Experimental Psychology) class to be taught in hybrid modality. Professor Liu consistently works on improving and bringing innovation to his teaching; for example, in 2020, he participated in the campus's Hub for Teaching and Learning's Structured Course Design program. He has supervised two master's level graduate students, one honors thesis student, 12 Independent Study sessions/students, and 20 undergraduate researchers. His performance in the classroom has steadily improved during his time at UM- Dearborn, with his Q1 scores ranging from 4.50 to 5.00 and Q2 scores from 2020 and beyond ranging from 4.00 to 5.00. He is a dedicated and enthusiastic educator who thinks carefully about how to maintain a high level of rigor in the classroom while making complex subject matter accessible to students.

Research: Professor Liu's scholarship on human memory processing is highly-regarded nationally and internationally. His research, which he began during his post-doctoral fellowship at the Rotman Research Institute in Toronto, focuses on the processing of memory in healthy young and older adults. A more recent research trajectory also examines how individual difference factors, such as health and diet or Attention Deficit Hyperactivity Disorder (ADHD), impact memory function. Professor Liu is an esteemed and prolific scholar whose work has been published in highly-regarded

journals, such as the *Journal of Neuroscience*, *Journal of Cognitive Neuroscience*, and *Annals of the New York Academy of Sciences*. He takes a rigorous, original, and creative approach to the study of episodic memory, applying a wide range of behavioral and neuroimaging techniques, engaging novel analyses, and creatively addressing new and important research questions.

Professor Liu's research also is notable for its collaborative approach. Because UM-Dearborn does not have an fMRI scanner, Professor Liu regularly engages with colleagues at other institutions in planning and conducting research studies and in analyzing and disseminating results. He makes a strong effort to include students in these research projects, collaborating with student researchers on working memory and memory training in adults with ADHD.

Recent and Significant Publications:

- N. Ladyka-Wojcik*, Z.-X. Liu*, J. D. Ryan, "Unrestricted Eye Movements Strengthen Effective Connectivity from Hippocampal to Oculomotor Regions During Scene Construction," *NeuroImage*, Vol. 260, October 2022, pg. 119497.
- C. Gu, Z.-X. Liu, S. Woltering, "Electroencephalography Complexity in Resting and Task States in Adults with Attention-Deficit/Hyperactivity Disorder," *Brain Communications*, Vol. 4, No. 2, March 2022.
- J. D. Ryan, J. S. Wynn, K. Shen, Z.-X. Liu, "Aging Changes the Interactions Between the Oculomotor and Memory Systems," *Aging, Neuropsychology, and Cognition*, Vol. 0, No. 0, Dec. 2021, pg. 1-25.
- J. S. Wynn*, Z.-X. Liu*, J. D. Ryan, "Neural Correlates of Subsequent Memory-Related Gaze Reinstatement," *Journal of Cognitive Neuroscience*, Jul. 2021, pg. 1-15.
- Z.-X. Liu, R. S. Rosenbaum, J. D. Ryan, "Restricting Visual Exploration Directly Impedes Neural Activity, Functional Connectivity, and Memory," *Cereb Cortex Comm*, Vol. 1, No. 1, Aug. 2020, tga054.

* Co-first/corresponding authors with equal contributions

Service: Professor Liu makes an enthusiastic and engaged contribution to service at the discipline and department, college, university levels, as well as to the psychology profession. He serves on several committees within the psychology discipline, including the Psychology Curriculum Restructure Committee, Master of Science Graduate Student Admission Committee, and the committee centered on restructuring the master of science in health psychology. He has provided significant service to the behavioral sciences department by creating a new program for processing course evaluation data. He serves on the program and governing faculty committee for the biological and behavioral sciences program, as well as on the College of Arts, Sciences, and Letters Academic Standards and Dean's Medallion Selection committees. In addition, Professor Liu is a member of university-wide committees, including the UM-Dearborn Difference Makers Selection Committee and the Summer Undergraduate Research Experience (SURE) Planning Committee. His service to the profession includes reviewing manuscripts for several highly regarded journals.

External Reviewers:

Reviewer A: "In sum, it is my assessment that Dr. Liu is a skilled researcher, collaborator, and instructor. His work has a significant influence over how we view episodic memory and continues to shape the field of memory processing. It is my assessment that the above record, particularly his excellent record of publications, exceeds that which is undertaken by his peers at similar sized universities."

Reviewer B: "Dr. Liu has numerous international collaborators, through which he continues his

work using fMRI imaging, making him a player on the world stage. His papers contain both very clever experimental manipulations, and deep and incisive thinking about theoretical questions relating to cognition, that help to guide work in the area in productive new directions. Dr. Liu is creative, adept, and is weaving together multiple literatures (memory, visual processing, aging, and neural contributions) and cutting[-]edge technologies (eye tracking and fMRI).”

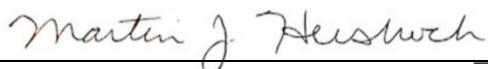
Reviewer C: “I would place Professor Liu near the very top of the field relative to his peers. He continues to produce cutting-edge publications that provide unique insights into how visual memories are formed and retrieved and has played an instrumental role in the development of new theoretical perspectives that promise to provide novel insights into brain-behavior associations.”

Reviewer D: “Dr. Liu’s research productivity is impressive in terms of quantity, quality, and impact.”

Reviewer E: “He is an emerging scholar with an impressive range of contributions in the field of cognitive neuroscience of memory with a uniquely integrated focus on applied research. His research papers and funding provide strong evidence of his contributions to the field and prospects for future growth.”

Reviewer F: “Dr. Liu has demonstrated a strong research record and active engagement in student supervision and teaching, with a promising trajectory for excellence.”

Summary of Recommendation: Professor Liu is a very productive scholar whose research is making a significant impact on advancing understanding of the relationship between memory and aging. He is a dedicated and engaged teacher, who takes a thoughtful and growth-minded approach to his classes, and who actively mentors students and engages them in research outside of the classroom. In regard to service, he is an enthusiastic team-player who has made a strong contribution to the university and to the profession. It is with the support of the College of Arts, Sciences, and Letters Executive Committee that I recommend Zhong Xu Liu for promotion to associate professor of psychology, with tenure, Department of Behavioral Sciences, College of Arts, Sciences, and Letters.



Martin J. Hershock, Dean
College of Arts, Sciences, and Letters



Domenico Grasso, Chancellor
University of Michigan-Dearborn

May 2023