



Department of Psychology
The University of Hong Kong

香港大學心理學系

Departmental Seminar

Revealing Sleep's Role in Supporting Human Memory and Mental Wellbeing

11:00a.m. – 12:00noon | September 12, 2025 (Friday)

Room 705, 7/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



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Abstract

Theoretical accounts of this consolidation process focus on the process through which memories are independently strengthened, but in natural settings, individual memories never exist in a vacuum. In this talk, I will present a series of studies exploring the extent of memory reactivation during sleep in humans, how interactions between memories impact the consolidation process, and the role of encoding context in memory processing during sleep. The main technique used to explore memory reactivation in these studies is targeted memory reactivation, a behavioral manipulation that can selectively bias consolidation during sleep. The results demonstrate that multiple semantically related memories can be simultaneously consolidated during sleep, but also demonstrate critical boundary conditions for this process. I will also show results demonstrating that, despite context's involvement in consolidation, reactivation during sleep may decontextualize memories and keep their neural representations separate. Finally, I will discuss ongoing work examining how neural activation during sleep supports mental wellbeing. Taken together, these results inform our current understanding of sleep's role in memory consolidation and promoting mental health in humans.

About the Speaker

Eitan completed a BA in Psychology and an MSc and PhD in Neural Computation, all at the Hebrew University of Jerusalem. He then completed his postdoc at Northwestern University. His lab works to reveal the neural infrastructure through which sleep transforms memories, and how these dynamics may be harnessed for improving wellbeing in healthy and clinical populations. The lab's work has been funded by grants from the NIH, NSF, and BSF, and has been published in journals such as PNAS, Cell Reports, Journal of Neuroscience, Annual Reviews of Psychology, Trends in Cognitive Sciences, and Communications Biology.

Zoom Meeting (For participants who couldn't attend the Seminar in person)

<https://hku.zoom.us/j/6985555998?pwd=V05yTGJWNTIzazd2OFZ0Q3FRHVkdz09>

Meeting ID: 698 555 5998 | Password: Psyc

~All are Welcome~

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