

interaction for the difference between AM and PM performance and drug condition. Specifically, we found memory maintenance for both emotional picture types in ZOL but negative picture memory decline in PBO. Across the night, ZOL showed greater memory performance than PBO if subjects had greater N2 SWA and N2 sigma activity (12-15Hz).

Conclusion: Zolpidem benefits sleep-dependent emotional memory consolidation by decreasing overnight forgetting. Further, it appears that spindle activity may play a key role in ZOL's memory effect.

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0116

OPPOSING EFFECTS OF SLEEP ON THE MISINFORMATION EFFECT: SLEEP PROMOTES AND PREVENTS MEMORY DISTORTION

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Introduction: The effect of sleep on false memory is equivocal. In the Deese-Roediger-McDermott illusory memory paradigm, some work shows that sleep increases false recall whereas other work shows that sleep decreases false recognition. Given these ambiguous findings, we sought to investigate the effect of sleep on false memory using the misinformation paradigm.

Methods: Participants watched a short film depicting a home burglary, received misinformation about the film, and were tested on their memory for the film. The recognition test was given after a 12-hour retention interval that included either sleep or wake. We manipulated the time at which participants received misinformation. Half were given misinformation after encoding (before sleep or wake) and the other half were given misinformation after the retention interval (after sleep or wake).

Results: There was a main effect of condition on correct recognition; participants in the sleep group showed higher correct recognition than those in the wake group. On false memory, there was a main effect of timing of misinformation and an interaction between condition and timing of misinformation. That is, the effect of sleep on false memory depended on when misinformation was administered. If misinformation was given after the retention interval, false memory tended to be lower after sleep than wake whereas if misinformation was given before the retention interval, false memory tended to be higher after sleep than wake.

Conclusion: Sleep can both protect against and facilitate memory distortion depending on when misinformation is encountered. These results inform our understanding of consolidation processes. When consolidation acts on true memory alone, it strengthens that memory making it resistant to distortion. Conversely, when misinformation is presented before consolidation, sleep may integrate misinformation into memory for the true event, increasing distortion. This work has important theoretical implications for memory consolidation and important applied implications for interrogation practices.

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0117

CIRCADIAN- AND WAKE-DEPENDENT EFFECTS ON RECALL FOR FACE-NAME PAIRS

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Introduction: The ability to remember the face and name of a person we have recently met is a critical skill often impacted by cognitive impairment and Alzheimer's disease. We used a forced desynchrony protocol to explore whether recall of recently-learned face-name pairs is affected by time awake and/or circadian phase in healthy adults.

Methods: 13 healthy, cognitively normal adults (20-70yrs; 7F) participated in a 39-day inpatient protocol with 3 baseline days (10h time-in-bed/24h) and a 3-week forced desynchrony (FD) segment, where they lived on a 28-h day with sleep restriction (6.5h time-in-bed/28h, equivalent to 5.6h/24h). Core body temperature was collected throughout to estimate circadian period and phase. The face-name test was administered every 4h, beginning 3h after wake. Each test included a learning session with 6 novel face-name pairs. Recall was tested 2h later, when each face was presented twice in random order, once with a correct and once with an incorrect name. Participants were asked to respond whether each face-name pair was correct. Data were averaged across 4-h circadian phase or time awake bins and normalized as a percentage of each participant's baseline performance.

Results: Face-name recall varied by time awake ($p < 0.05$), with performance deteriorating ~12% over the course of 12h of wakefulness. Face-name recall also varied by circadian phase ($p < 0.05$), with a ~10% difference in recall performance from the peak at circadian phase 240° (corresponding to the early biological evening) to the nadir at circadian phase 60° (corresponding to the early biological morning).

Conclusion: Both duration of prior wake and biological time of day impact the ability to correctly recall face-name pairs. Under normal entrained conditions, opposing circadian- and wake-dependent effects on memory for face-name associations may interact to produce stable performance across the day.

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0118

IMPROVED WORKING MEMORY IS RELATED TO NON-REM DELTA ACTIVITY IN CONTROL BUT NOT PTSD PARTICIPANTS

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Introduction: Individuals with post-traumatic stress disorder (PTSD) experience altered sleep and daytime function, including deficits in working memory (WM), the ability to store and manipulate information over short timeframes. As sleep contributes to WM, understanding how sleep parameters influence changes in WM may provide insight into potential intervention targets to improve or restore daytime function. Here, we investigated the