

## Discussant

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### Summary Abstract:

Most clinical and research investigations of memory focus on consolidation of information over relatively brief intervals of time (i.e., minutes, hours). However, in everyday life we are most interested in retaining experiences for much longer periods of time (days, weeks, years). Studies in cognitive psychology demonstrate that the survival of an engram is influenced by a variety of factors including contextual aspects at time of initial learning, the age of an event, frequency and distribution of exposure to the memory over time and, of course, the amnesic capacity of the learner. In the current symposium we examine the durability of new memories as well those from the past. Presentations focus on medical factors, such as epilepsy and stroke, that result in acceleration of memory loss. The longevity of old memories is examined in relation to age-related decline and the onset of dementia. Findings from these studies enhance our understanding of the cognitive and neural underpinnings of consolidation and, hence, they inform our ability to remember our past.

**Keyword 1:** amnesia

**Keyword 2:** memory disorders

**Keyword 3:** cognitive neuroscience

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## 1 Forgetting and its Measurement: Do Patient Groups differ?

Michael D Kopelman  
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**Objective:** The intricacies and difficulties in measuring forgetting rates, both in healthy participants and in clinical patients, have been intensively investigated since the 1970s. In recent years, there has been a revival of interest in 'long-term' forgetting rates, particularly in transient epileptic amnesia (TEA) and temporal lobe epilepsy (TLE), and some 'old' lessons have had to be re-learned.

**Participants and Methods:** Studies of long-term forgetting in patient groups will be reviewed, together with variables that influence different patterns of forgetting. In particular, I will report findings from two recent studies of TLE, as well as other related investigations.

**Results:** Studies indicate that an impairment in memory 'acquisition', rather than differences in 'long-term' forgetting, appear critical in amnesic disorders, sometimes associated with differences in 'early' forgetting on recall memory measures only. An exception may be the effect of seizures, whether in consequence of epilepsy or ECT, which sometimes, but not always, appears to accelerate forgetting rates. Another important finding has been the pronounced variability in forgetting rates, both between individuals within a patient group and within individuals tested on separate occasions, making inferences from single-case studies problematical.

**Conclusions:** Findings will be interpreted in the light of these observations.

**Categories:** Memory Functions/Amnesia

**Keyword 1:** amnesia

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## 2 Long Term Forgetting for News Events: Does Event Frequency Matter?

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**Objective:** Health providers frequently probe patients' recall of current and/or remote news items to determine the extent of memory loss. Impaired memory for transient events (i.e., in the news for a circumscribed time) may provide information regarding the onset of cognitive impairment. We utilized the Transient News Events Test (TNET) to explore how memory changes over time in older adults with cognitive impairment (CI) and non-cognitively impaired (NCI) individuals. We hypothesized that CI individuals would demonstrate reduced memory for transient events. We investigated the role of semantic and episodic memory on TNET performance.

**Participants and Methods:** Participants completed the TNET as part a comprehensive neuropsychological evaluation. Analyses included t tests to evaluate group differences for TNET performance, and correlations between