

# Long-term Memory for Verbal Material as a Result of Accompanying Non-literal Action Events

**Helga Noice**

Department of Psychology  
Augustana College  
Rock Island, IL 61202  
psnoice@augustana.edu

**Tony Noice**

Department of Theatre  
Indiana State University  
Terre Haute, IN 47809  
thnoice@stserv.indstate.edu

Retention of material over long periods of time has been studied extensively by Bahrick and his associates (e.g., Bahrick, 1984). These studies have generally involved discrete items, such as foreign language vocabulary, but have not investigated verbatim retention of complex material. However, professional actors routinely retain complex material verbatim along with movement patterns which must be executed with a high degree of precision due to constraints imposed by stage lighting. Anecdotal evidence (e.g., Noice, 1992) suggests that actors' verbal retention is usually aided by these movement patterns. The contribution of physical enactment to verbal memory has been the subject of considerable recent inquiry (e.g., Engelkamp, Zimmer, Mohr & Sellen, 1994), but almost all such inquiry has involved literal duplications of the to-be-remembered verbal material.

The presently reported study investigated the interdependence of these two research areas by studying long-term verbatim retention by professional actors and the contribution of non-literal, enacted movement to that retention.

Three months after actors had ceased performing certain roles (and had learned new ones in the interim), the actors were tested on accuracy of recall, both while seated and moving about the set as they did during performance. Results showed that retention on the first recall trial exceeded 85% (word-for-word or within narrowly defined limits such as substituting contractions for whole verbs)

Furthermore, in those cases where actors failed to recall material on the first trial, they remembered 84% of the previously unrecalled idea units when asked to perform the second trial moving about the set, compared to remembering only 15% of the unrecalled idea units when both trials were performed sitting. This, and other manipulations, ruled out the possibility that the facilitation was due to repeated testing, as in the well-known hypermnesia phenomenon.

Follow-up experiments are currently being designed to determine the mechanisms underlying enhanced long-term recall prompted by accompanying movement that is not an enactment of the remembered material.

## References

- Bahrick, H. P. (1984). Semantic memory content in permastore: Fifty years of memory for Spanish learned in school. Journal of Experimental Psychology: General, *113* (1), 1-29.
- Engelkamp, J., Zimmer, H. D., Mohr, G., & Sellen, O. (1994). Memory of self-performed tasks: Self-performing during recognition. Memory & Cognition, *22* (1), 34-39.
- Noice, H. (1992). Elaborative memory strategies of professional actors. Applied Cognitive Psychology, *6*, 417-427.