

## **Bilingual memory: No language congruency effect in bilingual story retelling**

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This study contributes to the debate on whether the quality of bilinguals' recall of events is language dependent. Previous studies suggest that recall is better (e.g., more accurate, more detailed) in bilinguals if the same language is used at encoding and at recall (e.g., Marian & Neisser 2000, Marian & Kaushanskaya 2007). We tested the hypothesis that language congruent recall (i.e., same language at encoding and recall) is better than recall involving a language switch (from language A at encoding to language B at recall) in a study involving 24 highly proficient native Danish speakers of English. At encoding, the participants were recorded providing narratives from two wordless picture story books, "Carl goes shopping" and "Frog, where are you?" Twelve participants narrated in English, and 12 participants narrated in Danish. The participants returned one week later to retell the two stories from memory, with one story being retold in the language of encoding (congruent condition), and the other story in the language that was not used at encoding (incongruent condition). Language of encoding was tested between participants, and language of recall and order of stories was tested within participants. Thus, both the language of encoding and of recall was varied, which ruled out any effect of language dominance on language recall.

The transcribed recordings of the original narrative and the retold stories were analyzed for content and for language. Content Analysis 1 compared the number of events mentioned for each picture at encoding and at recall against a pre-established baseline of target events. As expected, less target events were mentioned at recall than at encoding. Contrary to expectation, we found no language effect: The stories were equally well encoded in English and in Danish, and recalling the stories was equally good no matter whether encoding had occurred in Danish or in English. Content Analysis 2 compared the number of events mentioned at encoding to the number of events mentioned at recall, and confirmed the results of Content Analysis 1 in that it revealed no language effect, i.e., no difference between the congruent and incongruent conditions, regardless of language spoken at encoding. Language Analysis 1 examined specificity of verbs used at recall, based on the assumption that difficulty at recall might lead to the use of more general and less informative verbs. This analysis revealed that, contrary to expectation, information-rich verbs were not used less often in the incongruent than the congruent condition. Language Analysis 2, which compared lexical diversity in language-congruent vs. language-incongruent recall, revealed that the participants were more lexically diverse when they used Danish (their L1) than English (their L2). Interestingly, lexical diversity, like all other dependent variables examined, was not affected by whether the language of recall was congruent or incongruent with the language of encoding. In conclusion, our results, which showed no facilitating effect of language congruency between encoding and recall for episodic memory, contrast with earlier findings which reported language dependent recall of events. The presentation concludes with a discussion of reasons for this discrepancy.

### **References**

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