

A PSYCHOPHYSIOLOGICAL INVESTIGATION OF DECLARATIVE
MEMORY IN CHILDREN

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Ten 5th-grade children were asked to memorize series of words. In some of the series, a word was isolated by presenting it in larger font. Event-related brain potentials, elicited by each word were recorded from Fz, Cz, Pz referred to linked mastoids.

The subjects showed an enhanced recall of the isolated words in comparison to non-isolated words matched for serial position (the Von Restorff effect). The isolated words also elicited P300's of larger amplitude than the non-isolated words. Furthermore, isolated words which were subsequently recalled elicited larger P300's than did isolated words that were not recalled. Finally, the subjects showed an above-chance performance in a following 'size-recall' test.

The results are discussed in terms of a model of the von Restorff effect that emphasizes the special encoding of isolated items.

Children show a large von Restorff effect because they do not make extensive use of elaborative rehearsal strategies that may override the effects of the special encoding processes.