*Journal of Experimental Psychology*
1973, Vol. 99, No. 2, 174–179

# EFFECTS OF EXPERIMENTAL AND PREEXPERIMENTAL ORGANIZATION ON RECOGNITION: EVIDENCE FOR TWO STORAGE SYSTEMS IN LONG-TERM MEMORY [1]

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It was shown previously that when *S*s memorized a list organized into category groups, recognition latency (RL) to double-word displays (DWDs) was faster when a DWD represented the same category (SC), e.g., LION-BEAR, than when a DWD represented different categories (DC), e.g., HORSE-RUSSIA. It was not clear, however, whether this finding was due to a preexperimental, semantic organization of categories or to the word organization during learning, an episodic organization. In Experiment I, *S*s memorized pairs of words that had two examples from the SC or DC. In recognition, DWDs contained two words studied as a pair, i.e., same study pair (SP DWDs), or as members of different pairs (DP DWDs) and represented the SC or DC. The RL was faster to SP DWDs than to DP DWDs and was equivalent for SC and DC DWDs. Using the stimuli of Experiment I, the second experiment replicated the earlier finding. The results of both experiments were viewed as consistent with the hypothesis that episodic information (e.g., word pairs, word grouping) is stored separately from semantic information (categories) in long-term memory.

One conception of memory assumes that learning a list of words involves tagging the internal representation of words with a list tag or occurrence information. At the time of recognition testing, each test item accesses its internal representation, which is then checked for a list tag (e.g., Anderson & Bower, 1972; Kintsch, 1970a, 1970b). In its simplest form, this model predicts that the time to recognize test items is independent of the organization of items during learning. Decision latencies are independent of organization of items because each item is checked for a tag independently of the check for any other item.

The prediction that recognition latency is unaffected by the organization of items during study has been challenged, however, by a recent finding. McLaughlin and Herrmann (1972) found that the latency of correct recognition was affected by categorical organization. Their *S*s learned a 60-word list grouped into four categories: *animals*, *countries*, *body parts*, and *clothing*. In recognition, *S* made an *old* response if both words in a double-word display (DWD) were from the list, a *new* response if both words were not from the list, and a *mixed* response to DWDs containing one *old* word and one *new* word. *Old* and *new* recognition latencies were greater for DWDs when the words in a DWD originated from different categories, e.g., LION-RUSSIA, than when the words were from the same category, e.g., HORSE-BEAR. Latency was not measured on *mixed* responses. McLaughlin and Herrmann concluded that the category groupings used in acquisition affected recognition processes, but, as they pointed out, it was not clear whether their results were due to the effects of organization learned in the laboratory (i.e., learning

[1] Part of this research was conducted by the first author in partial fulfillment of the requirements for a PhD degree at the University of Delaware. The authors are indebted to Billie C. Nelson for collecting the data in Experiment II and to the associate editor, consulting editor, and Richard C. Atkinson for valuable advice on an earlier draft of the article. Gratitude is also expressed to the members of the first author's dissertation committee, John B. Carroll, George A. Cicala, Fred A. Masterson, Ludwig Mosberg, and to a fellow student, Roger J. S. Chaffin, for wise counsel during the course of the investigation.

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