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Investigation of The Generation Effect on Memory and Metamemory Through Semantic and Perceptual Cues

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Abstract

The generation effect, demonstrating improved memory performance through self-generating information, was explored in this study. Participants engaged in semantic and perceptual generation tasks, where semantic tasks involved meaning-related associations, and perceptual tasks focused on surface characteristics. While previous studies separately examined these tasks, our project directly compared their impact. Experiment 1 revealed higher recognition performance for semantic generation over perceptual generation, with no significant difference in recognition across perceptual and semantic reading conditions. Experiment 2 incorporated judgments-of-learning (JOL) and no-JOL groups, demonstrating that participants accurately predicted and performed better on memory tasks involving generation and semantic manipulations. Additionally, JOL-group participants outperformed the no-JOL group, suggesting that predicting one's memory performance enhances actual memory performance. Experiment 3 aimed to see the effects of the match between encoding and retrieval. The results showed that the JOL group outperformed the no-JOL group, and this effect was observable through semantically meaningful testing.