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Phenomenological Experiences Associated with the False Recall of Target Words for Semantically-Related Lists

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Introduction

The memory of a target word associated with a theme list (a critical lure) is phenomenologically different from the memory of a presented word (Roediger and McDermott, 1995). Numerous studies have used remember/know and other qualitative evaluations to determine the nature and quality of memory associated with a falsely remembered word (Hyman et al, 1998).

Assigning qualitative dimensions such as colors and shades could add experiential elements to false memory creation that may reveal more about the phenomenological experience of false memories. Presenting study words in graduated shades, and with different associations to order of presentation may elucidate factors which are associated with remembering a critical lure.

Methods

Semantically-related word lists (Roediger & McDermott, 1995) were used to construct the study and test materials. Ten words from each list were presented at study, and each list was presented in a different color. The shades of words presented at study were associated with both a particular direction of color gradient (Ascending or Descending in saturation), as well as with either the associative strength of the word (how closely was it related to the target word) or the serial order in which it was presented at study. During each test period, six words were presented consisting of one critical lure, one weakly associated word not presented at study, one completely unrelated word, and three words that were presented at study.

72 undergraduates viewed lists on a computer screen. Each study list was followed by a one-minute interval of math problem practice by the participant. After the math task, participants were presented words and asked to make an “old/new” judgment about each one. A word judged “old”, led to a screen on which participants were asked to pick the color which the word was presented in, and then to use a sliding control button to choose which shade the word

was presented in. Participants were presented with six study-math-test series.

Results

A 2x2 ANOVA of direction of gradient (Ascending vs. Descending) by type of shade association (Associative Strength vs. Serial Order) indicated a significant interaction, $F(1,68)=6.009$, $p<.05$. There was a significant difference for Ascending versus Descending, $F(1, 68) = 6.402$, $p<.05$, but not for Associative Strength versus Serial Order, $F(1, 68) = .210$, $p<.05$. Participants seem to place the critical lure early in the study list when asked at test to associate it with a shade and order of presentation.

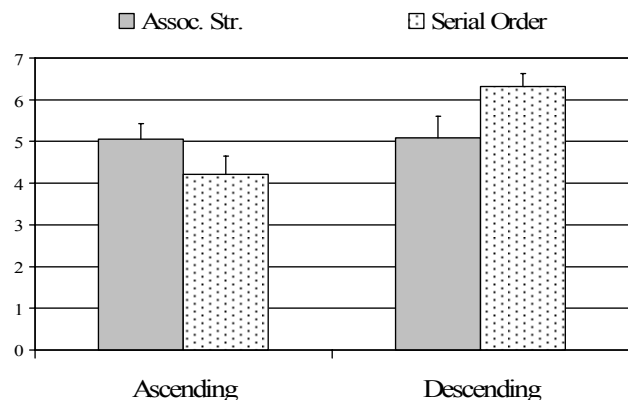


Figure 1. Mean proportions of shade judgments for critical lures associated with themed lists, presented by serial or associative strength order in a descending or ascending gradient.

References

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