

# Attentional boost effect and pattern separation: A dissociation between visual and verbal material

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The Attentional Boost Effect (ABE) refers to the finding that images encoded with to-be-responded targets are later remembered more accurately than images encoded with to-be-ignored distractors. The Dual-Task Interaction Model suggests that the ABE produces a transient increase in the amount of perceptual resources available to process target-associated images. With visual materials, this assumption has been strongly supported by previous data showing that the ABE enhances pattern separation. In the present study we sought to determine whether this facilitation could be extended to verbal materials. Furthermore, the use of words allowed us to disentangle the impact of the ABE on perceptual and conceptual pattern separation. The results showed that the ABE enhanced pattern separation with visual materials (Experiment 1), but not with verbal materials (Experiments 2-5), irrespective of the nature of the processes involved. In addition, only with visual materials, the ABE-related enhancement of pattern separation was accompanied by an increase in the tendency to incorrectly judge similar lures as identical to studied images. Our data are consistent with the idea that, in the case of verbal materials, the ABE operates at the level of abstract, amodal representations.

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No

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