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Semantically homogenous item displays improve memory for item recall but not item location

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Abstract

We often organize items in space according to their semantic and/or functional properties (e.g., cookware in the kitchen, clothing in the closet), yet little research has been conducted on the memorial effects of these types of spatial configurations. Across three experiments, we examined how a semantically homogenous display influenced memory for item locations compared to a heterogenous/scrambled display. Participants learned the locations of words in a semantically homogenous display (where all words belonged to a single category), as well as a scrambled display (where the words belonged to an assortment of different categories). While the semantic display improved recall memory for the words themselves (i.e., item memory), it resulted in a cost to item location memory. We hypothesize that semantic structuring can impair memory for item locations by increasing similarity and hence confusability between items from the same category.