

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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

Permalink

<https://escholarship.org/uc/item/6xs4b9zd>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 44(44)

Authors

Lu, Xinyi

Zhu, Mona

Risko, Evan

Publication Date

2022

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

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

Xinyi Lu

University of Waterloo, Waterloo, Ontario, Canada

Mona Zhu

University of Waterloo, Waterloo, Ontario, Canada

Evan Risko

University of Waterloo, Waterloo, Ontario, Canada

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.