The impact of categorization rule on categorical visual search

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Abstract

The results of research by Hélie, Turner, and Cousineau (Hélie et al., 2018) show that category representation (rule-based and information integration categories) may influence performance in the visual search categorization task. In the present experiment, we replicated their results using other types of categories that contained discrete features: categories based on verbal rules and prototypes. We found that after learning the verbal rule as well as after learning rule-based categories target-present and target-absent trials are not much affected by display size. The effect of display size is bigger for prototypes, but unlike the results of Hélie et al, it does not collapse for target absent trials. We explain these results by the fact that the categories with discrete features have a stronger and more conscious representation, which is easier to transfer to the visual search task. The reported study was funded by RFBR, project number 20-013-00698.

In J. Culbertson, A. Perfors, H. Rabagliati & V. Ramenzoni (Eds.), *Proceedings of the 44th Annual Conference of the Cognitive Science Society.*