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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 39(0)

Authors

Zeller, Christina

Schmid, Ute

Publication Date

2017

Peer reviewed

The Impact of Presentation Order on Category Learning Strategies: Behavioral Data and Self-Reports

Christina Zeller

University of Bamberg, Germany

Ute Schmid

University of Bamberg, Germany

Abstract: The presentation order in supervised categorization learning can influence the category representation. For example, the order can bias a rule-based approach focusing the identification of relevant features or an exemplar-based approach focusing the similarity of category members. In a blocked design stimuli can either be presented in a way that relevant features over stimuli become obvious or that two succeeding stimuli share as many common features as possible (cf. Mathy & Feldman, 2016). In an empirical study with 21 participants we investigated both orders for the 5-4 category structure (Medin & Schaffer, 1978) and assessed categorization behavior and self-reports in the first trials. Results suggest that the answer behavior and self-reports during the first trials can be influenced by the presentation order. However, in both groups feature-based and similarity-based explanations were reported. Additionally, the similarity-based group named more feature-based rules including irrelevant features.