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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Permalink

<https://escholarship.org/uc/item/63x85982>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 32(32)

ISSN

1069-7977

Authors

Gane, Brian D.
Catrambone, Richard

Publication Date

2010

Peer reviewed

Order Effects in Categorization: Identifying "the Nuts" in Poker

Brian D. Gane

Georgia Institute of Technology

Richard Catrambone

Georgia Institute of Technology

Abstract: Research in concept learning indicates that the order of example instances affects acquisition of conceptual structures. There is less research, however, regarding how example order affects categorization skill. Might the order of training examples affect categorization even after the concepts have been learned? Participants were trained to categorize sets of playing cards into the best possible poker hand. Training followed either a blocked (the best hand remained the same for contiguous trials) or a mixed order (the best hand did not repeat more than twice in a row). Preliminary results suggest that example order affects categorization reaction time (RT) during acquisition training: the blocked order reduced RT. This trend reversed, however, during transfer trials: the mixed group had lower RT. These findings suggest that example order plays a role in developing categorization skill. We offer a preliminary explanation regarding how participants' strategy develops based on the order of training examples.