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A final refutation of a single-system model of category learning?

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Abstract: There is a still ongoing debate as to whether rule-based and similarity-based category learning are mediated by different extremes of one single system or mediated by two independent systems. Most recent attempts to demonstrate independence has focused on dissociations between performance in rule-based (RB) and information-integration (II) category-learning tasks. These studies can be criticised on two grounds. First, it is questionable whether RB- and II-tasks constitute process-pure measures. Second, not even double dissociations do exclude single-system explanations. We argue that both criticisms are evaded by demonstrating reversed associations between rule-based and similarity-based categorization of transfer items after successful learning of training items. The preliminary results of two experiments indicate that rule-based and similarity-based categorization of transfer items can be affected in both the same (experiment 1) and the different (experiment 2) direction by manipulating instructions. It is concluded that the results of these experiments are incompatible with a single-system model.