

# **Plasticity of Categorization: Developmental Differences in Category Learning and Transfer between Children and Adults**

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**Abstract:** How do people learn categories and transfer learning? This study addressed this question by examining the role of attention in the development of category learning and transfer. Participants (adults and 4-year-olds) were trained with two categories including deterministic and probabilistic features and their attention was directed to either type of features. After training, participants learned two new categories and their categorization and memory for exemplars were tested. Results indicated that adults and 4-year-olds were able to be trained to use either a similarity-based or rule-based strategy. However, adults failed to transfer and went back to their default rule-based strategy in novel situations, whereas 4-year-olds transferred the learned strategy. Furthermore, in contrast to adults exhibiting better memory for features used in categorization, 4-year-olds remembered multiple features well regardless of categorization. These results have important implications for understanding the development of categorization and the role of attention in cognitive development.