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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/3qx1f03c>

Journal

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

ISSN

1069-7977

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Publication Date

2010

Peer reviewed

Cross-Modality Strategy Transfer: A behavioral study of strategic discrimination skill acquisition and transfer across auditory and visual modalities

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Abstract: Discrimination is the ability to differentiate one object from another. Previous research suggests that with practice, individuals develop efficient discrimination strategies, and that strategies acquired in training transfer within a modality to novel stimuli (e.g., Haider & Frensch, 1999; Sohn, Doane, & Garrison, 2006). This study examines whether discrimination strategies transfer across presentation modalities. Subjects were trained to make difficult (similar) or easy (dissimilar) discriminations among visual or auditory objects during training. At transfer, subjects made difficult discriminations among stimuli presented in a different modality. Results suggest that the strategy acquired by subjects trained on difficult discriminations leads to superior performance at transfer compared to subjects trained on easy discriminations regardless of the modality of initial training and the modality switch at transfer. Cross-modality transfer was observed, and this suggests the role of a central mechanism in the acquisition and transfer of strategic skills.