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Far Analogical Transfer Is Associated with Aha Moments

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Abstract

Research suggests the processes involved in analogical transfer are not unlike those of insightful problem solving. This study tests whether encoding cross-domain analogies leads to more feelings of insight and higher rates of far transfer. On each trial in the present study, subjects induced a conceptual relationship from a set of three verbal analogy pairs (30 trials). Half of the trials had a semantically distant (i.e. expansive) final pair, and half of the trials had a semantically close (i.e. consistent) final pair. Subsequently, subjects attempted to complete a novel far analogy for each of the previously learned relations. Far transfer performance on new analogies was predicted by the semantic vector distance of the originally encoded relation. Subjects also reported significantly stronger aha moments at the moment of transfer for accurate transfer responses compared to inaccurate responses, which suggests that the aha response may provide metacognitive information about solution accuracy.