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How shared interactive experiences reshape the semantic representations of abstract concepts

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Abstract

How do people's understandings of abstract concepts evolve through interacting with others? While prior research has focused on individual cognitive processes, how people reflect on and adapt knowledge in social contexts remains underexplored. This study examines how shared interactive experiences during a word-guessing game influence semantic representations of abstract words. Participants completed a spatial arrangement task (SpAM) before, immediately after, and two weeks after the game. Abstract words used as game targets underwent significant positional changes, indicating semantic reorganization. Semantic alignment between game partners was stronger than between non-partners, as measured by a property listing task (PLT), highlighting the role of shared interaction in driving semantic changes. Additionally, in-game semantic alignment measures predicted post-game performance in SpAM and PLT, suggesting that dyadic interaction quality influenced the magnitude of semantic change. These findings provide empirical evidence for the socially driven and dynamic nature of abstract concept representations in collaborative contexts.