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Proceedings of the Annual Meeting of the Cognitive Science Society

Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 47(0)

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Publication Date

2025

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Narrative Communication as a Learning Tool for Resolving Exploration-Exploitation Dilemmas

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Abstract

Narratives and storytelling are proposed to be essential means through which humans acquire, preserve and transmit information about their environment. The current project investigated narrative transmission in the context of a multi-armed bandit task; an experimental paradigm that simulates an uncertain exploration-exploitation environment. Following the task, participants taught the next generation of players how to find rewards in the task by writing the ending to a folktale about two foragers, one explorer and one exploiter, living in the same environment. Preliminary analyses indicate that whether participants chose to transmit a story that encouraged exploration, exploitation, both strategies, or neither, was best predicted by individual differences. Reported strategy or actual behaviour and performance in the task were not key predictors. Future study plans include investigating how performance, behaviour and narrative transmission preferences are affected by receiving a narrative as learning material before the task compared to individual trial-and-error or factual descriptions.