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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/284829dn>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 46(0)

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Publication Date

2024

Peer reviewed

Recognising the future utility of a solution: When do children choose to retain and share an object to solve a future problem?

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Abstract

Recognising the future utility of a solution is fundamental to our capacity for innovation. However, developmental research has thus far focused on children's capacity to create solutions, rather than recognise existing solutions with ongoing utility. We examined children's capacity to retain and share a solution that would be useful again in the future. Across two rooms, 4- to 9-year-olds (N=83) were given a series of time-based tasks which could be solved by building and using a tool. When given the opportunity to transport a tool between the first and second rooms, children from age 6 onwards retained the tool that would be useful again above chance levels. When subsequently asked to secure a solution for another child, only 8- to 9-year-olds chose this tool above chance. Positive age-partialled correlations between children's retaining and sharing behaviours suggest that these behaviours may reflect a common underlying capacity for recognising future utility.