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Why Would 'Same' Go With 'Same'? Exploring New Factors Required For Relational Reasoning

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Abstract: Relational Match to Sample (RMTS) is a common test of relational reasoning involving matching cards based on the relations “same” and “different”. Children below the age of five fail RMTS, even with corrective feedback. Given that success on RMTS depends on the ability to represent and compare “same” and “different”, such failure has been interpreted as indicative of the absence of these abilities (Penn, Holyoak & Povinelli, 2008; Hochmann, Mody & Carey, 2016).

In the current studies three, four and five-year-old children were provided explicit instructions on RMTS. Results show success in all groups, including three-year-olds - two years earlier than previous work. This suggests the ability to represent and compare “same” and “different” emerges significantly earlier than spontaneous success on RMTS, undermining previous interpretations. More generally, this work begins to explore the nature of the development which allows existing relational reasoning capacities to be spontaneously deployed in RMTS.