

inter-mixed. To test this prediction, we conducted a random and a blocked version of a two-list exclusion task. High and low frequency words varied from trial to trial in one condition whereas word frequency was blocked in a second condition. At short response deadlines, hits and exclusion errors for low frequency words exceeded those for high frequency words when word frequency varied randomly (see Fig. 1). As exclusion errors cannot be based on recollection, this is evidence for the contribution of a relative familiarity mechanism to the word frequency mirror effect. In contrast, we found no differences in hits and exclusion errors when word frequency was blocked. Thus, these interactions indicate that relative familiarity is based on a context-driven attribution process.

References

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Study of early metacognition and its influence on memory performance

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Metacognition has long been considered a late-onset skill in children. Recently, however, several studies have suggested that even preverbal infants can access their internal states, albeit not explicitly (Hembacher & Ghetti, 2014). To date, the developmental trajectory of these early metacognitive abilities remains poorly understood (Geurten & Bastin, 2018). Furthermore, the influence of early metacognition on memory functioning has been postulated in many cognitive models but has never been demonstrated. The aim of the present study was to longitudinally document the development of metacognition between the ages of 2.5 and 4.5 years and to examine

the impact of these early metacognitive skills on later memory performance. Concretely, sixty-three children aged 29–33 months were recruited and tested at three time points (12-month interval between each assessment time). During each session, children were presented with a memory recognition task followed by a judgment phase assessing implicit (cue request) and explicit (retrospective confidence judgment) metacognitive abilities. Moreover, at T3, an episodic memory task (story-recall) was also administered. ANOVAs analyses on the metacognitive accuracy score (Mratio) revealed performance above chance only from T2 combined to an increase in both implicit and explicit metacognition across our three time points. Regarding the relations between early metacognition and children's memory performance, mixed models indicated that children's memory performance at T3 was predicted by explicit metacognitive accuracy at T1 and T3. Overall, these findings support an improvement in implicit and explicit metacognition between 2.5 and 4.5 with an above-chance explicit and implicit metacognition around age 3.5. Moreover, analyses suggest that explicit metacognitive performance at age 2.5 and 4.5 predicts children memory performance at age 4.5 (Fig. 1).

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Does that make sense? – The impact of semantic relationships between object pairs on the age-related associative memory deficit

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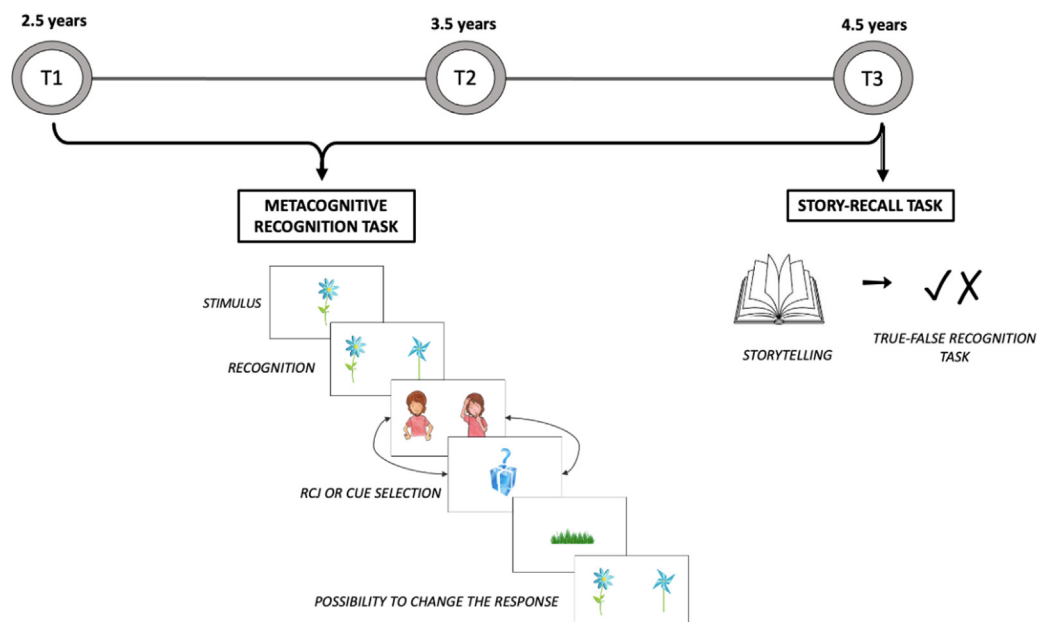


Fig. 1. Description of the experimental procedure and the longitudinal design.