

Semantic relatedness of the memoranda prevents older adults from benefitting from unitization

Emma Delhaye^a, Roni Tibon^b, Nurit Gronau^c, Daniel Levy^d & Christine Bastin^a

^a Cyclotron Research Center, University of Liege, Belgium; ^b MRC Cognition and Brain Sciences Unit, Cambridge, UK; ^c Open University of Israel, Israel; ^d School of Psychology and Sagol Unit for Applied Neuroscience, The Interdisciplinary Center, Herzliya, Israel



INTRODUCTION

Aging is characterized by an associative memory deficit due to impaired recollection (retrieval of the information and qualitative contextual details). However, unitization (encoding an association as a whole) would allow associations to be recognized on the basis of familiarity (recognition without retrieval of contextual information), preserved in aging. Moreover, semantic relatedness between stimuli is thought to lead to unitization processes, thereby promoting associative familiarity at retrieval [1]. This study tested whether older adults' associative memory could benefit from the semantic unitizability of the memoranda through the use of associative familiarity.

METHOD : Participants

	Young (N = 24)	Older (N = 24)
Age (SD)	22,8 (2,43)	68,5 (6,9)
Education	14 (1,59)	14,04 (2,97)
Mill-Hill (/33)	18,67 (4,22)	22,33 (3,66)
Mattis	-	139,58 (3,93)
Pictures naming (/64)	55,5 (2,55)	57,71 (4,3)

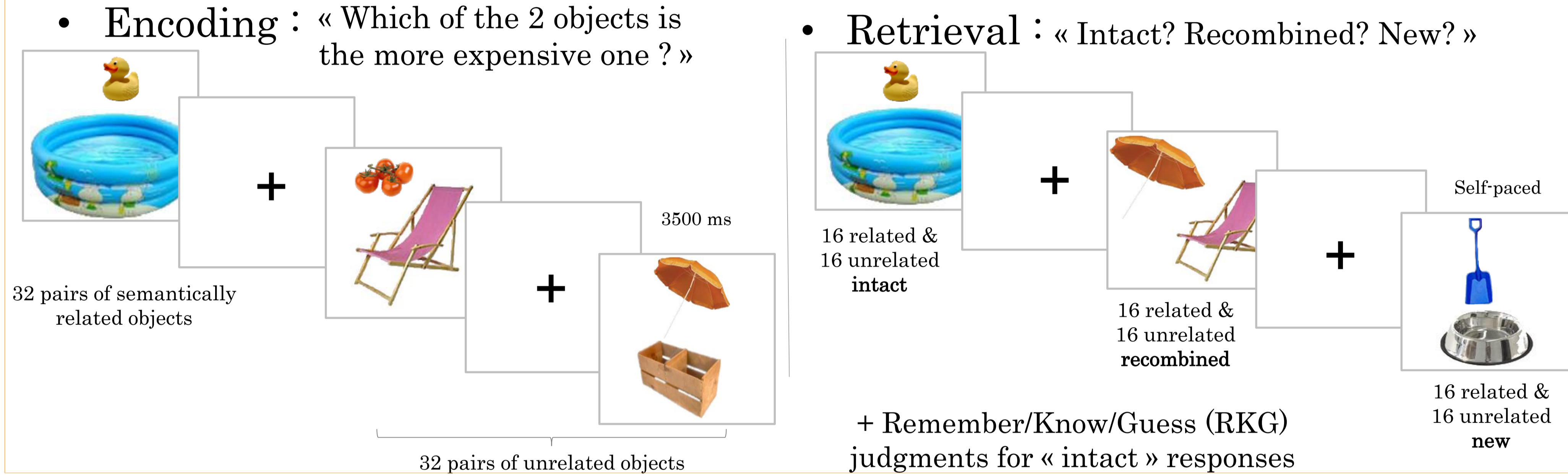
REFERENCES

[1] Tibon, R., Gronau, N., Scheuplein, A.-L., Mecklinger, A., & Levy, D. A. (2014). Associative recognition processes are modulated by the semantic unitizability of memoranda. *Brain and Cognition*, 92, 19–31.

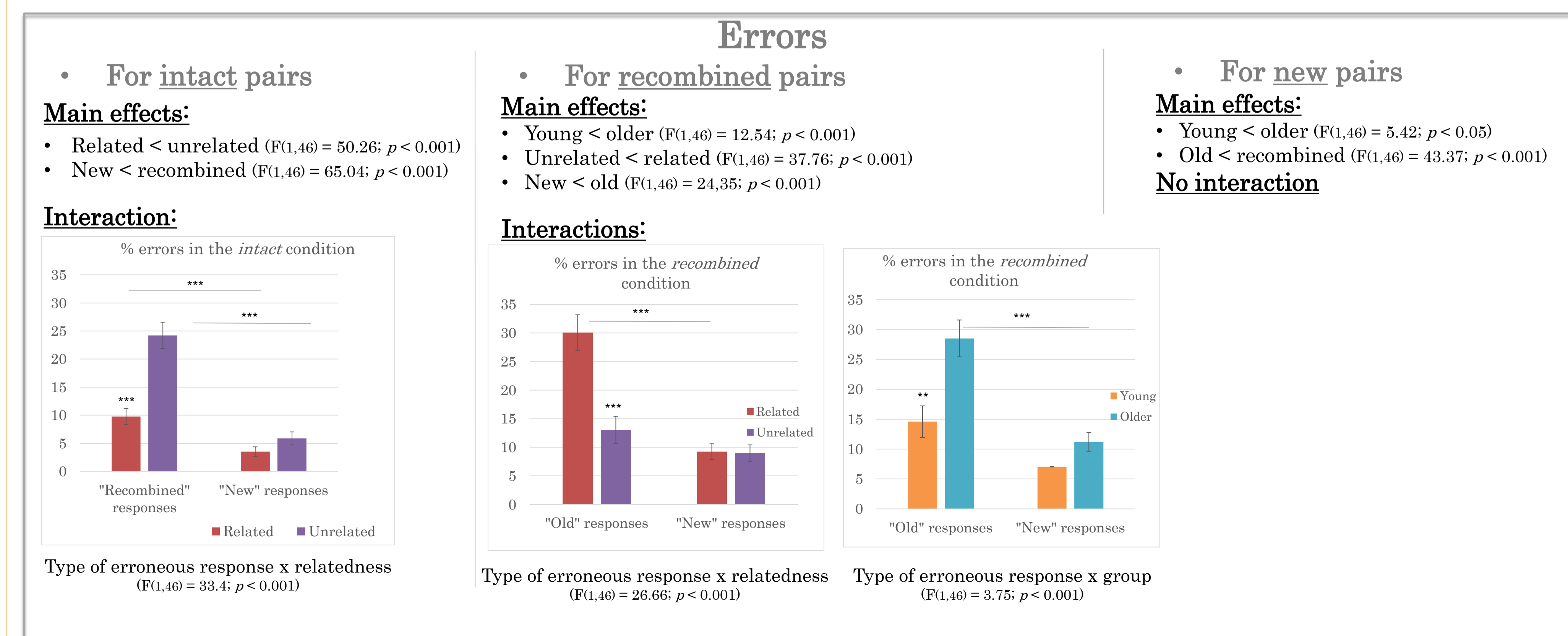
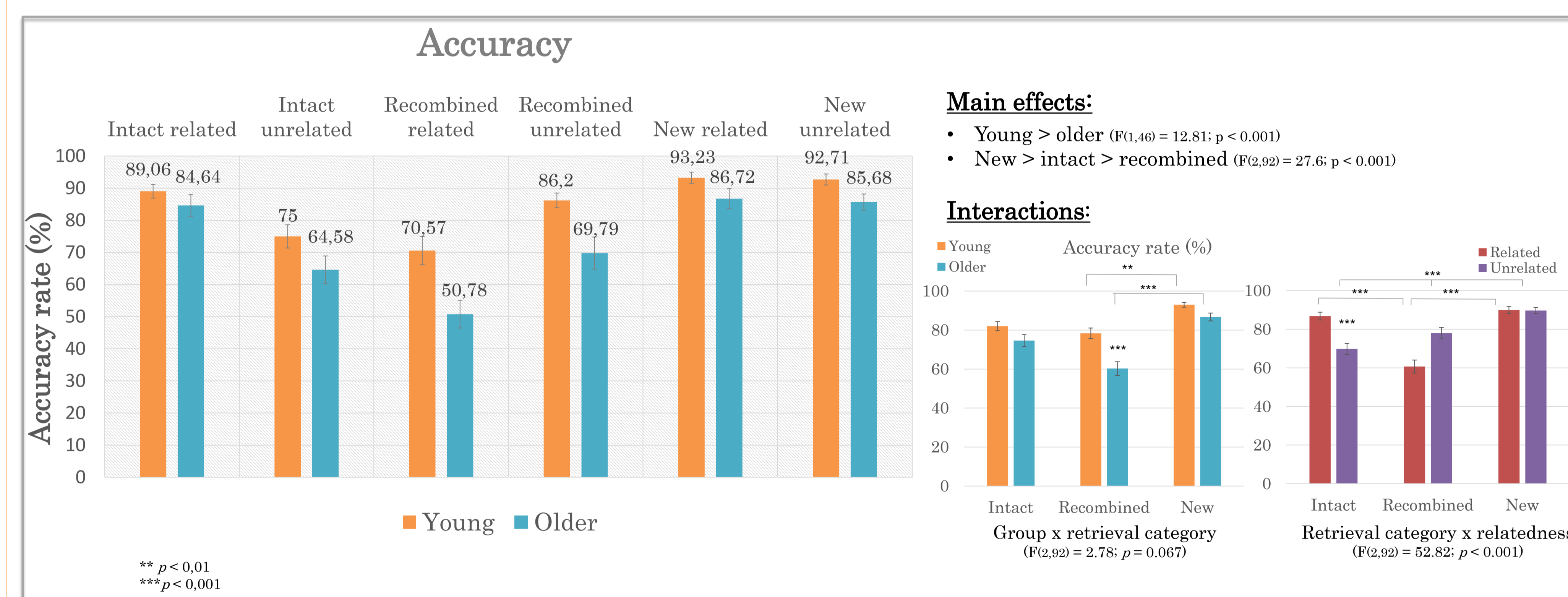
ACKNOWLEDGMENTS

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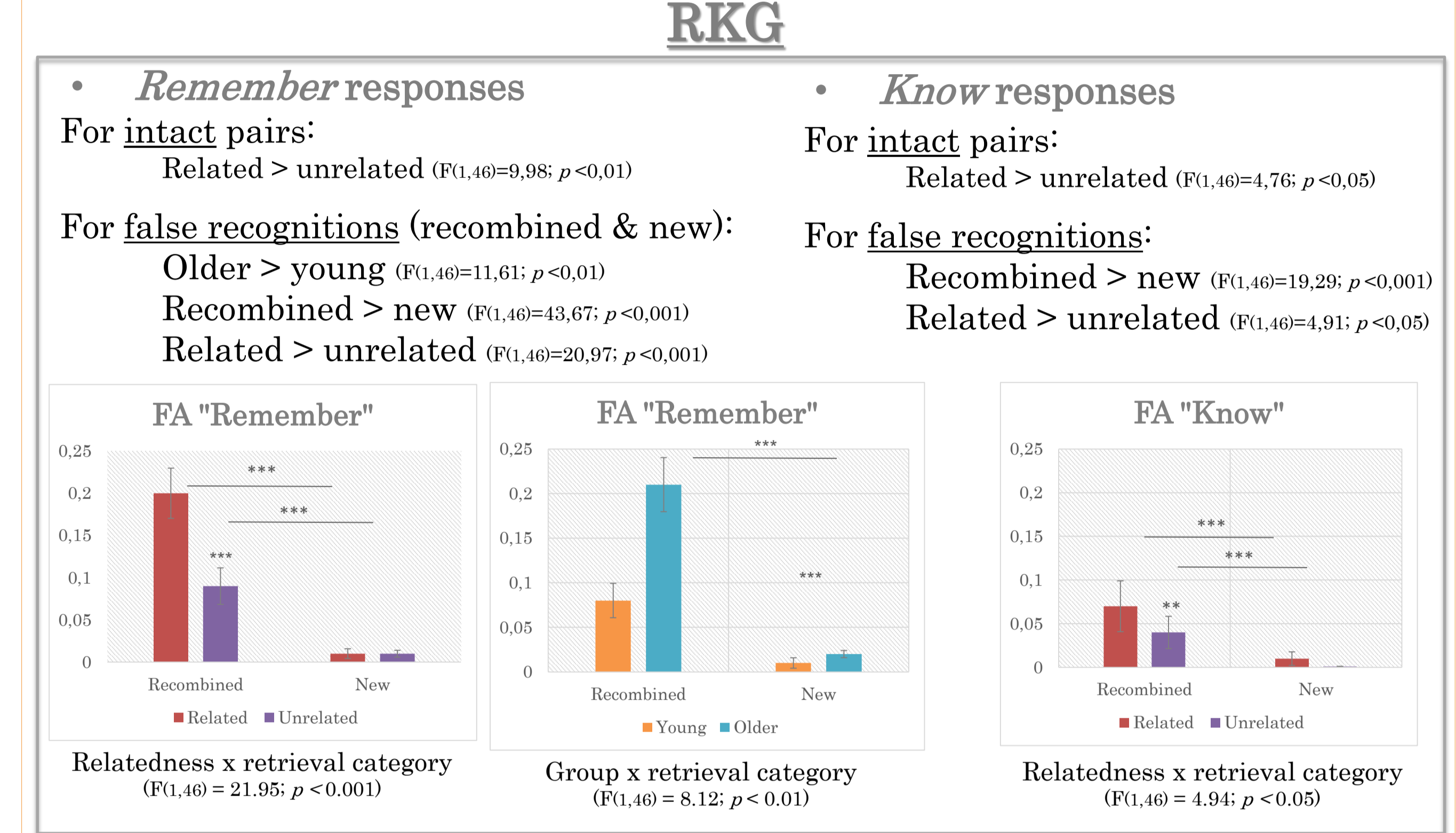
METHODS : Procedure



RESULTS



RESULTS



CONCLUSION

The relatedness manipulation improved overall recognition of intact pairs by enhancing the use of both recollection and familiarity. Yet, it hindered the identification of recombined pairs as such, with false recognitions also accompanied by more recollection and familiarity. This might be due to an enhancement of absolute (pre-experimental) familiarity for semantically related recombined pairs. Moreover, the experimental design in which the relatedness status of the recombined pairs was switched from encoding to retrieval may have facilitated correct rejections of unrelated recombined pairs (coming from related pairs at encoding). With regard to aging, older adults showed the typical age-related associative deficit, which was apparently not alleviated by semantic relatedness. However, their deficit was not obvious in their recognition of intact pairs, in which they performed as well as young adults across relatedness conditions. Rather, the associative deficit seems to stem from older adults' tendency to falsely recognize recombined pairs, mostly on the basis of recollection. We suggest that these results could be explained by an impairment in the recall-to-reject strategy in older adults.