Recollective Experience in Recognition:
A Replication of Gardiner and Java (1990)

T. Sun, J. M. Haaf, S. Rhodes, H. Snyder, M. Naveh-Benjamin
University of Missouri

J. N. Rouder
University of California, Irvine

Revisiting the remember-know task

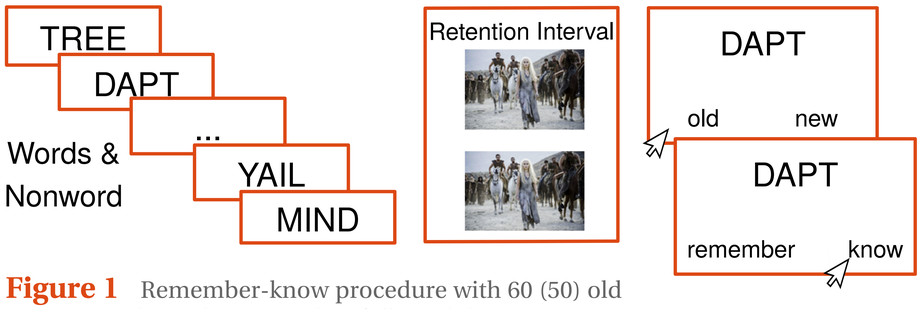


Figure 1 Remember-know procedure with 60 (50) old items (words and nonwords), followed by a 10 min. retention interval.

Dual- and Single-process predictions

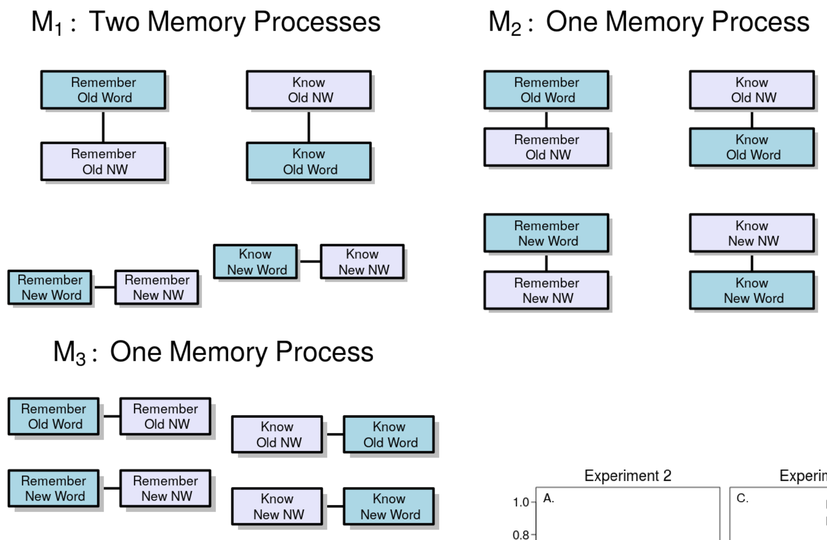
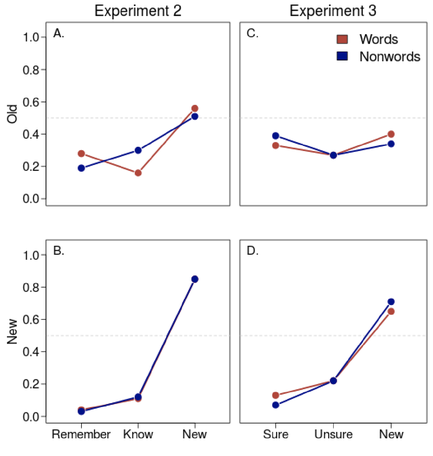


Figure 2: Best behavioral data for dual-process theory. Gardiner & Java's (1990) Experiment 2 utilized an RK procedure with 20 participants. The critical pattern is in panel A: Participants responded remember more often to old words than old nonwords, and know more often to old nonwords than old words. There was no effect of response preferences for new items (panel B). We wanted to replicate this pattern.



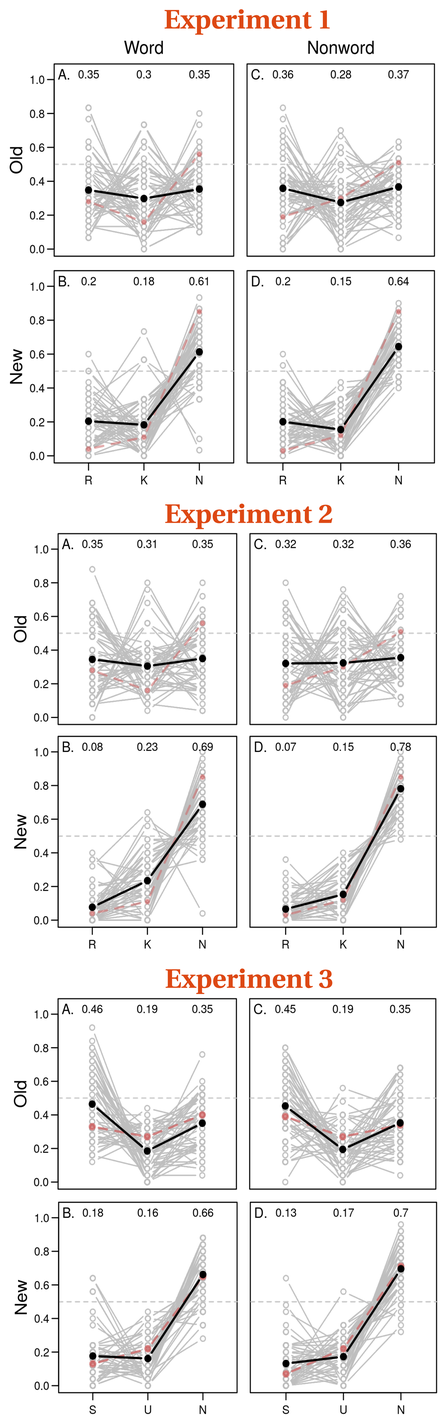


Table 1 Model comparison with Bayes factors for the three models

	Experiment 1	Experiment 2	Experiment 3
M_1 * (2-process)	1-to-5.65	1-to-2.17	1-to-4.70
M_2 (shift)	1-to-22.30	1-to-18.22	1-to-10.86
M_3 (no effect)	*	*	*

Conclusion

- Gardiner & Java's (1990) results support dual-process theories. Because alternative explanations have struggled in light of their data, the original results are highlighted as support for two distinct memory processes.
- We did not replicate the critical crossover pattern as there was no effect of lexicality. Without the crossover interaction of the original study, re-evaluation of the remember-know paradigm and other classic recognition memory studies seems appropriate.

Table 2 Procedural differences of the experiments

	GJ	Exp1	Exp 2&3
Items	30	60	50
Retention interval	24h	10 min	10 min
Procedure	Paper/ pencil	Compu-terized	Compu-terized
Memory item presentation	All at once	One-by-one	One-by-one

References

Gardiner, J. M., & Java, R. I. (1990). Recollective experience in word and nonword recognition. Memory & Cognition, 18, 23–30.

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Contact: tonyksun@gmail.com
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