

# Predicting the memory performance of others

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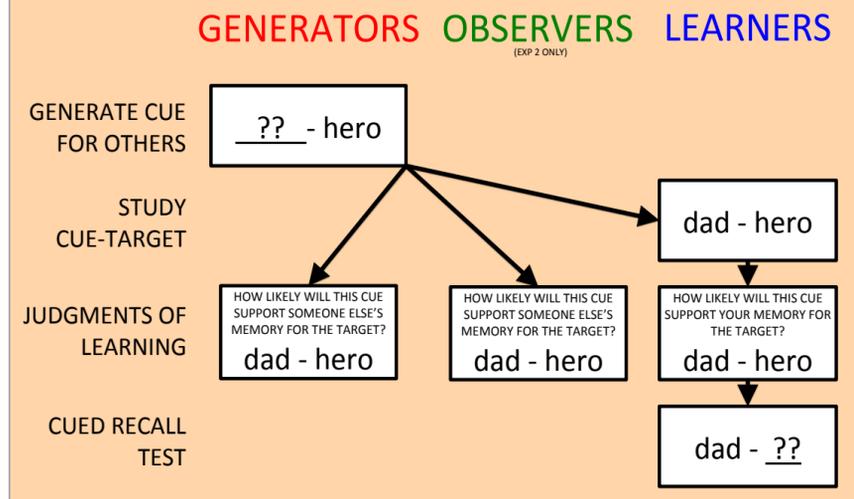
## QUESTIONS

1. How accurate are predictions of others' memories?
2. On what basis do learners make these judgments?

## BACKGROUND

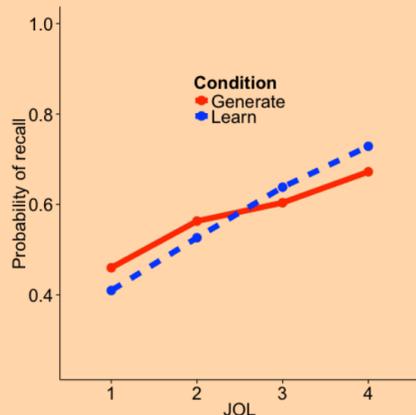
- Teachers, politicians, and advertisers need to predict how well cues support others' memories
- A variety of intrinsic, extrinsic, and mnemonic cues influence learners' judgments about their own memory (Koriat, 1997)
- Different cue characteristics are beneficial for own-generated memory cues than other-generated memory cues (Tullis & Benjamin, 2015)
- Learners struggle to disregard idiosyncratic personal experiences in taking the perspective of others (Keysar, Lin, & Barr, 2003)

## METHOD



## EXPERIMENT 1: JOLS & RECALL

- **Both cue generators and learners above chance** at predicting learners' memory
- But, **predictions about others' memory** are less accurate than **predictions about your own memory**
- However, judging others' memories confounded with generating the cue



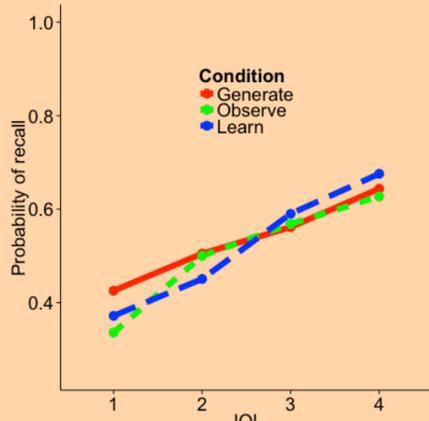
## EXPERIMENT 1: BASIS FOR JOLS

- **Actual** recall predicted by 3 cue characteristics
- Both groups' **JOLs** are correctly sensitive to these
- But, **cue generators** also influenced by cue generation time—*irrelevant* to actual recall
- Does this explain comparatively poor **generator JOLs**?

|                                    | ACTUAL RECALL | GENERATOR JOLS | LEARNER JOLS |
|------------------------------------|---------------|----------------|--------------|
| <b>PREDICTOR</b>                   |               |                |              |
| Cue-to-target associative strength | ✓             | ✓              | ✓            |
| Cue distinctiveness                | ✓             | ✓              | ✓            |
| Cue commonality                    | ✓             | ✓              | ✓            |
| Cue generation time                | ✗             | ✓              | ✗            |

## EXPERIMENT 2: JOLS & RECALL

- New **Observe** group: Rate existing cues for another learner without generating them
- Predictions about others' memory are still less accurate
- But, no difference between **cue generators** and **passive observers**
- Difficulty observed in Experiment 1 was truly about predicting others' memory, not the cue generation process



## EXPERIMENT 2: BASIS FOR JOLS

- **Observers'** JOLs are (correctly) insensitive to cue generation time
- Yet, **observer JOLs** are as poor as **generators'**
- Difficulty in predicting others' memory is not about undue influence of cue generation time

|                                    | ACTUAL RECALL | GENERATOR JOLS | OBSERVE JOLS | LEARNER JOLS |
|------------------------------------|---------------|----------------|--------------|--------------|
| <b>PREDICTOR</b>                   |               |                |              |              |
| Cue-to-target associative strength | ✓             | ✓              | ✓            | ✓            |
| Cue distinctiveness                | ✓             | ✓              | ✓            | ✓            |
| Cue commonality                    | ✓             | ✓              | ✓            | ✓            |
| Cue generation time                | ✗             | ✓              | ✗            | ✗            |

## CONCLUSION

- Learners can predict others' future memory, but not as well as they can predict their own
- Difficulty in predicting others' memory may be lack of access to *relevant* information about the learner, not misleading effects of *irrelevant* personal experiences such as cue generation

## REFERENCES

- Keysar, B., Lin, S., & Barr, D. J. (2003). *Cognition*, 89, 25-21.
- Koriat, A. (1997). *Journal of Experimental Psychology: General*, 126, 349-370.
- Tullis, J.G., & Benjamin, A.S. (2015). *Memory & Cognition*, 43, 634-646.

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