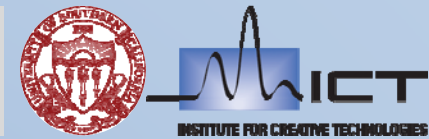


# Is Measuring Short-Term Memory as Easy as Reducing Test-Expectancy?

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## Question

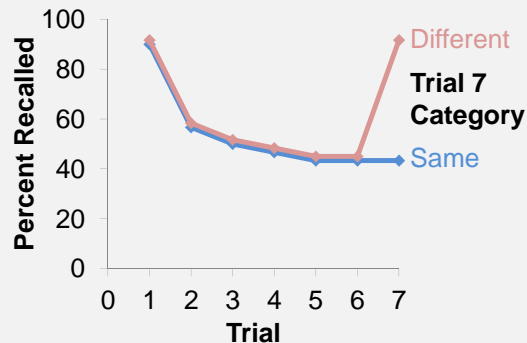
Can one measure forgetting from short-term memory (STM) simply by convincing learners that there will be no test at the end of a Brown-Peterson trial?

## 1 Background

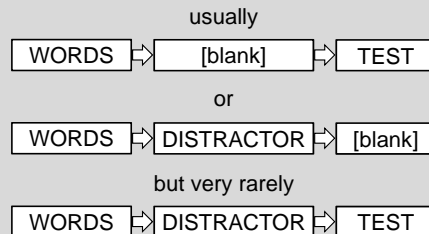
Brown-Peterson trial:



Results, including release from proactive interference (PI) upon word-category switch:



Muter (1980): reduced test-expectancy.



Results:

- "Very rapid forgetting"
- Concluded that STM = 2-4 seconds
- But was the distractor a cue to forget?

Remaining questions:

- Did reducing test-expectancy reduce long-term memory (LTM) involvement?
- Is that a reasonable approach to measuring forgetting from STM?

## 2 Goal

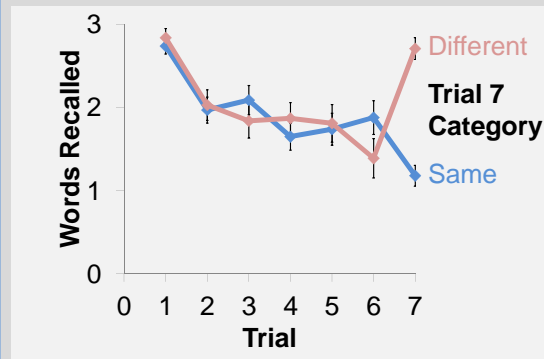
Use release from PI paradigm to determine whether reduced test-expectancy—without a directed-forgetting cue—prevents learners from recruiting LTM.

## 3 Experiment 1 Procedure and Results

Will buildup and release from PI occur with our materials?



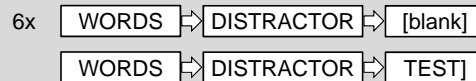
- Three words per trial.
- Nine-second backwards counting by 3s.



Yes.

## 4 Experiment 2 Procedure

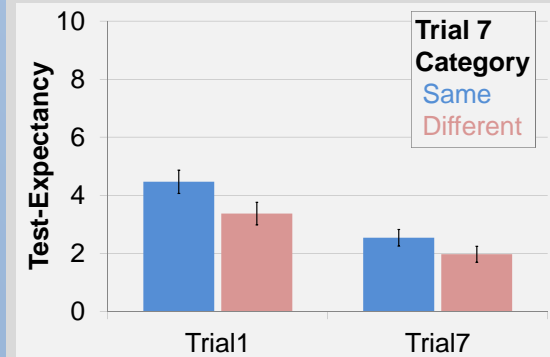
Will PI (i.e., evidence of LTM involvement) persist despite low test-expectancy?



- Three words per trial.
- Nine-second backwards counting by 3s.
- Deceptive instructions: *We are interested in the effects of memory load on counting rate and errors. Please count as accurately and consistently as possible. Although we will not test you on the words, it is important that you do your best to keep them in mind until the counting period ends.*

## 5 Experiment 2 Manipulation Check

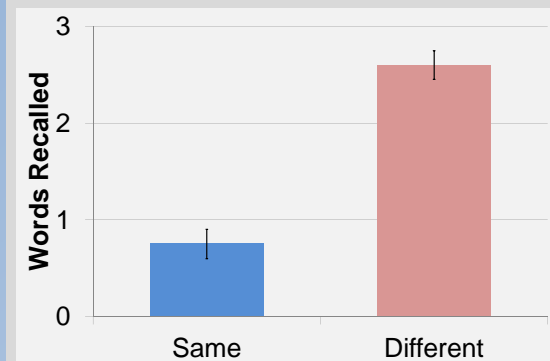
Was test-expectancy effectively reduced? *While you were counting, did you think that you would be tested on the words? (1 = absolutely no, 10 = absolutely yes)*



Yes.

## 6 Experiment 2 Results: Trial 7 Recall

Did reducing test-expectancy reduce LTM involvement?



No.

- Despite low test-expectancy, PI built up, and switching categories released it.
- Thus, LTM is still involved.
- STM is not isolated.

**Answer**

No.