

IS SUSTAINED ATTENTION IMPORTANT FOR THE TESTING EFFECT?

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INTRODUCTION

The “Testing Effect” is known to enhance learning and long-term retention through repeated-testing (Roediger & Karpicke, 2006). Additionally, it has been shown to improve the long-term retention of a related but untested subset of learned material (Chan, McDermott, & Roediger, 2006). One variable that has yet to be considered is the role of sustained attention (e.g., students’ ability to focus on lecture content for long periods of time) on the efficacy of the testing effect.

GOAL

The aim of this study is to combine a measure of sustained attention (i.e., the Sustained Attention Response Test-SART; Robertson, Manly, Andrade, Baddeley, & Yiend, 1997) with repeated quizzing of video lecture content to determine if sustained attention is important for the testing effect.

METHOD

PARTICIPANTS

❖ Approx. 50 undergraduate students from MNSU will participate and will receive partial course credit in psychology classes for their participation.

MATERIALS

- ❖ Sustained Attention Response Task (SART)
- ❖ **Video:** Natalie Sokol’s Lecture on Stress in the Workplace (approx. 20 mins).
- ❖ Math distracter task
- ❖ 5 minute Mental Break—2 word finds

PROCEDURE

Participants will be given the SART assessment and based on their score, as determined to be either high or low sustained attention, will be assigned to one of the following conditions: repeated testing, restudy, or control. All participants will be shown a video lecture with the testing and restudy groups’ lecture being divided into four parts. After each lecture section, participants will answer basic mathematical questions as a distracter task. The study group will then be provided a study guide for the content covered in the lecture section, while participants in the testing condition will be quizzed on the content. The control group will watch the video in full with no tasks splitting up the content. All participants will be given a 5 minute mental break task (2 word finds). Finally, all participants will complete the same cumulative test.

Sustained Attention to Response Task

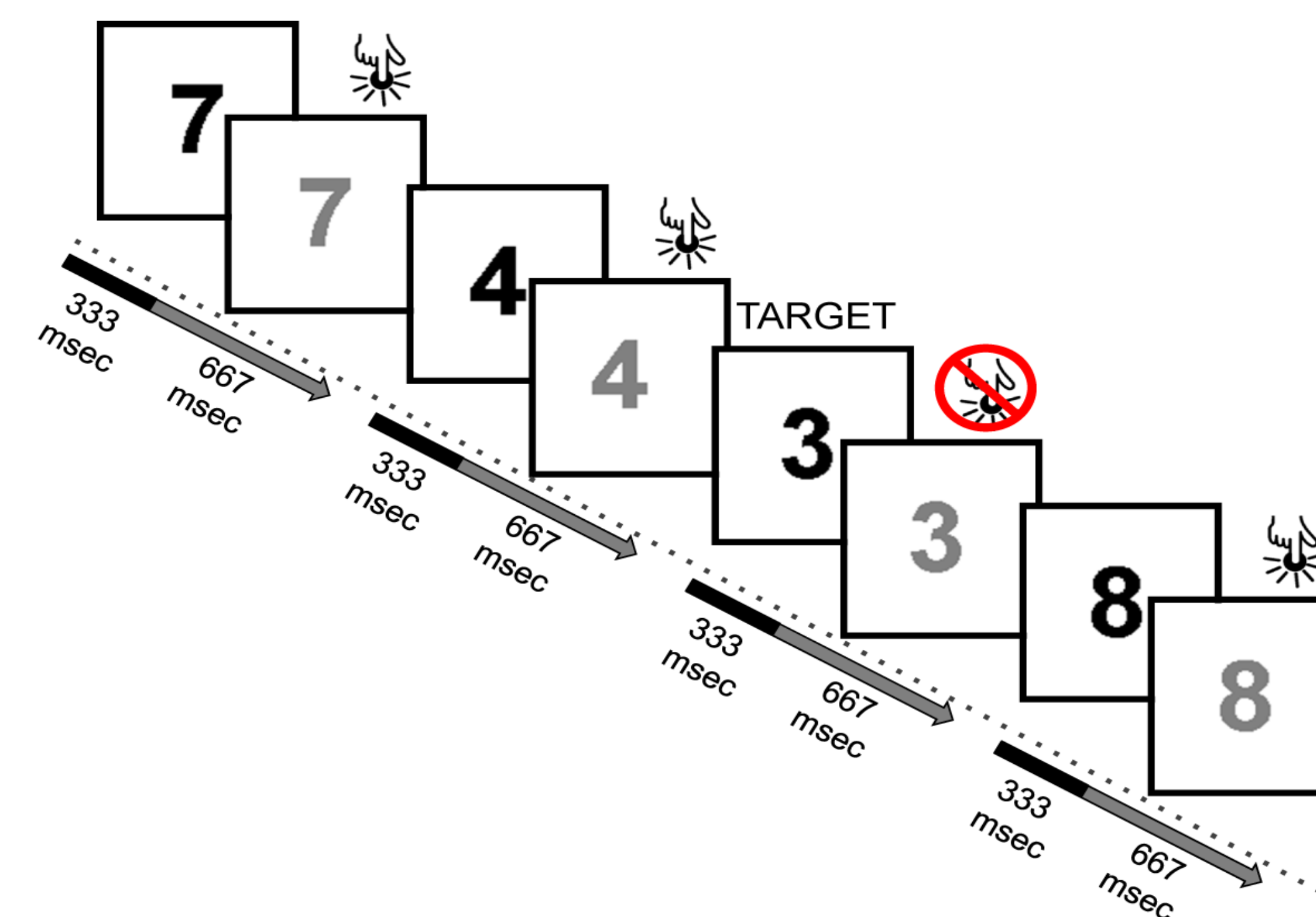


Figure A. (Credit: Grahn J.A. & Manly, T. (2012). Common Neural Recruitment across Diverse Sustained Attention Tasks. PLOS ONE, 7(11): e49556. doi:10.1371/journal.pone.0049556)

DISCUSSION

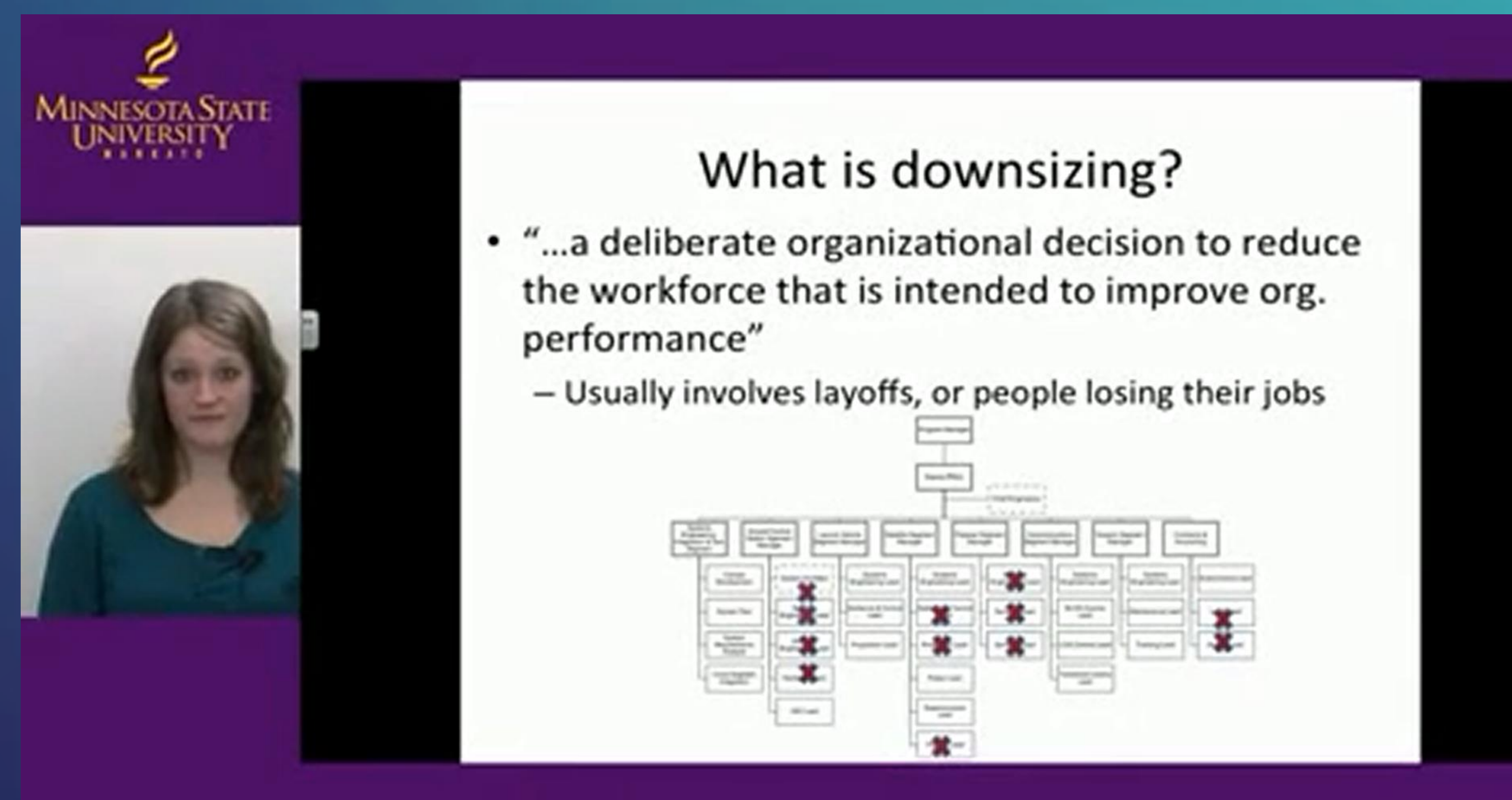
We are most interested in the relation between participant’s SART score and cumulative final test performance. Specifically, we wonder whether or not high SART scores will influence the testing effect; that is, could participants with high attention do as well on the cumulative test as low sustainers who are in the repeated testing condition? As the role of repeated testing on long-term memory is quite robust, we find the role of sustained attention on mitigating this effect intriguing. Understanding the importance of sustained attention on testing has wide implications for teaching and learning.

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What is downsizing?

- “...a deliberate organizational decision to reduce the workforce that is intended to improve org. performance”
- Usually involves layoffs, or people losing their jobs

CONDITIONS

	SEG. 1	SEG. 2	SEG. 3	SEG. 4	BREAK	FINAL
1) CONTROL	FULL					
2) STUDY	V-M-S	V-M-S	V-M-S	V-M-S	Mental Break (5 minute)	Final Test (Cumulative)
3) TESTING	V-M-T	V-M-T	V-M-T	V-M-T		

Key Legend: *V (video), * M (math), S (study), & T (test)