The NAP Effect: Distractor Inhibition or Episodic Retrieval?
Sylvie Couture-Nowak, Regard Booy, and Mario Liotti

The Negative Affective Priming effect (NAP) occurs when a prime word is incongruent with the word valence of the subsequent target (Wentura, 1999). This results in a longer reaction time (RT) in response to the target. The NAP effect is thought to be caused by the inhibition of the distractor carrying over to the current target (Joorman, 2004). However, some evidence suggests that negative priming relies on episodic retrieval rather than inhibition (Neill, Valdes, Terry, & Gorfein, 1992). The present study aimed to determine if episodic retrieval or distractor inhibition accounts for the NAP effect.

METHODS

PARTICIPANTS
63 female undergraduate students (M_{age}=19.35 SD=2.09 Min=17 Max=30) were recruited from the online Research Participation System at Simon Fraser University.

DESIGN
Participants were instructed to respond to one word (yellow or pink) and ignore the other word (yellow or pink).

IgnRep - Control = NAP Effect
Negative Positive Neutral + Neutral + Prime: 2000ms max Pos/Neu Fixation: 250 or 2500ms Pos/Neu Probe: 2000ms max Pos/Neu

RESULTS

INTRODUCTION
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• The NAP effect is thought to be caused by the inhibition of the distractor carrying over to the current target (Joorman, 2004).
• However, some evidence suggests that negative priming relies on episodic retrieval rather than inhibition (Neill, Valdes, Terry, & Gorfein, 1992).
• The present study aimed to determine if episodic retrieval or distractor inhibition accounts for the NAP effect.

This pattern of Word Valence is congruent with previous studies. However, this effect was not significant (p = .060).

Overall, the NAP effect was largest for the short RSI, which is in alignment with the episodic retrieval hypothesis. However, this effect was not statistically significant (p = .204).

CONCLUSIONS

• An episodic retrieval account predicts that, due to the deterioration of memory trace over time, the strength of the NAP effect should be smaller at the longer RSI than at the shorter RSI. In contrast, the distractor inhibition hypothesis suggests that the strength of the NAP effect would remain constant at the longer RSI.

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• Therefore, the pattern observed in the main effect for RSI is most congruent with an episodic-retrieval account.

• However, because the effect of RSI differed significantly for each word valence, it is possible that the semantic processing required by the task changes the cognitive mechanisms required.

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REFERENCES