

# REPETITION FACILITATION, BUT NOT SUPPRESSION OF IGNORED STIMULUS DURING SELECTIVE ATTENTION: EVIDENCE FROM NEGATIVE PRIMING TASK IN OLD ADULTS

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It has been argued that during selection of target objects, both irrelevant distractor identities and their locations are inhibited. While checking into previous studies, we found there was a confounding of item repetition and location repetition, most studies repeated the distractor item on the same location as at the probe display. Such operations might underestimate the possibility that irrelevant distractor items are facilitated, but not inhibited due to merging the effects of the location inhibition and the identity facilitation. Two Experiments examined whether the priming effects of distractor identities are positive or negative by using unrepeated stimulus and putting the distractor on a different location, instead of the same location, from the prime display to the probe display. Results of experiment 1 showed the positive priming of identity and the negative priming of location for both young and old subjects, but only young subjects showed significant negative priming effect when both location and identity were repeated. In the experiment 2, the distance between target and distractor were manipulated for the purpose of getting different amount of identity facilitation and location inhibition. When the target and the distractor were at a shorter distance on double repetition condition (repeated both location and identity of distractors), even young subjects did not show significant negative priming effect. These two studies suggested the positive priming of distractor identity, and the negative priming of distractor location. The results of these two experiments were discussed in terms of the recent theoretical hypothesis of negative priming.

**Keywords:** Selective attention, Negative priming, Distractor, Location inhibition, Identity Suppression, Identity facilitation