



Cue-independent forgetting by intentional suppression – Evidence for inhibition as the mechanism of intentional forgetting



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indicates that the target memory itself is inhibited, providing evidence that the underlying mechanism of word pairs are presented, subjects either recall the associated target item or inhibit it from entering their conscious. Finally, memory for all of the target words is tested (e.g., *ordeal-r*). Results have shown that recall for the suppressed targets is worse

than recall for the baseline targets (on which neither Think nor No-think training has been given), providing the first evidence that intentional suppression is able to cause memory impairment (e.g., Benoit & Anderson, 2012; Bergstrom, de Fockert, & Richardson-Klavehn, 2009; Depue, Curran, & Banich, 2007; Joormann, Hertel, LeMoult, & Gotlib, 2009; Kim & Yi, 2013; Lambert, Good, & Kirk, 2010; Levy & Anderson, 2008; Racsmány, Conway, Keresztes, & Krajcsi, 2012; van Schie, Geraerts, & Anderson, 2013; Waldhauser, Lindgren, & Johansson, 2012).

Anderson and Green (2001) suggested that the underlying mechanism of voluntary suppression was different from that of the traditional interference approach. While interference uses new associations to disrupt the original cue-target association (e.g., in Fig. 1, alternative associations (1) interrupt the original association (2)), suppression requires inhibitory control of the target memory (e.g., in Fig. 1, suppressing target memory (3) directly). Therefore, forgetting by suppression should be independent of retrieval cues, which is not the case for interference. In order to test this hypothesis, they used a critical independent-cue technique, in which new cues that were semantically (not experimentally) associated with the target were used for retrieval in the test phase (e.g., *insect-r*) (Anderson & Spellman, 1995). Subsequent research using this independent-cue technique showed that memory was

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the target word. Then, they pressed the space key to get the correct answer and reported whether their answer was correct. The self-test phase lasted until subjects reached 91.67% (22 out of 24) accuracy for both A-T and B-T pairs so as to ensure that memory strength was strong for both series and for all of the subjects.

2.3.2.1 *Interference condition*

Sixteen A-T word pairs were used for two divergent tasks: eight for interference and eight for inhibition training. Each cue word was first presented on the left side of the computer screen for 1 s. Then, the word turned red. In the interference condition, a substitute word appeared on the right side of the computer screen, and subjects were asked to memorize the new word pair (A-D,

substitutes. In contrast to the present findings, they found cue-independent forgetting effects in the thought substitution condition. However, this finding may be because of the difference

