Effects of Content on Selective Directed Forgetting

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Method

Participants that are given the thematically related sentences should have the tendency to remember the thematic or related part of the information. The thematically related information was remembered more than the unrelated information.

Hypotheses

Hypothesis 1: Participants that are given the thematically related sentences should have the greatest overall recall.

Hypothesis 2: Selective Directed Forgetting will depend on sentence type.

Results and Discussion

There was no main effect of list type. Namely, there were more sentences recalled in the thematic condition than the unrelated condition, but the difference was not statistically significant (see Table 1). Hypothesis 1 was not strongly supported. Perhaps changing the governor of some of the items reduced the likelihood participants would encode them thematically thereby decreasing the recall advantage.

A(2, Instruction; forget or remember) x List Type (Thematic or Unrelated). A(2, Character; Tom or Alex) ANOVA was run and revealed a significant Instruction by Character Interaction, F(2, 8) = 4.560, p = .013. Follow-up tests revealed a marginally significant difference of recall within the Forget Alex condition, 335 = .1975, p = .057. Participants remembered Tom (M = 1.844, SE = .291) better than Alex (M = 1.922, SE = .252). There was a significant difference of recall within the Forget Tom condition, (2, 8) = 2.088, p = .048. Participants recalled significantly more Alex sentences (M = 2.681, SE = .265) than Tom sentences (M = 1.975, SE = .305). Selective recall was seen within the Forget Both condition, there was no significant difference in recall between Tom (M = 2.681, SE = .265) and Alex (M = 2.341, SE = .241). List Type did not affect recall. While the inability to selectively forget thematic lists was seen in Delaney et al. (2009), the effect may have been due to the use of “being” verbs within the thematic lists. Those sentences may have created a stronger framework to which all the sentences for that character could be better associated.

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Figure 1. Graph of Instruction by Character Interaction

Table 1. Means for the hypothesized main effect of List Type and Instruction for recall for the thematic sentences regardless of condition.

References


Method

According to Wessel and Merckelbach (2006), forgetting is of interest because it “serves an adaptive goal”. It allows for updating of the memory and for more resources for pertinent information that is to be remembered.

When information is presented, cues to be forgotten, and is unable to be recalled because of the forget cue, the directed forgetting effect is said to have occurred (MacLeod & Daniels, 2000). Directed forgetting tasks have two different approaches; item-method and list-method directed forgetting. In item-method directed forgetting, a specific cue after each word instructs the participants to either remember or forget that word. In list-method forgetting, the cue is presented after that entire list is shown (Wessel & Merckelbach, 2006).

Golding, Long, and MacLeod (1994) showed how directed forgetting could be greatly reduced when words were related or had similar sound spellings. When words were related (by meaning, sound or spelling), both the to-be-remembered and the to-be-forgotten words were remembered with nearly the same frequency. When words were unrelated, participants remembered the to-be-remembered words more often than the to-be-forgotten words.

Through the list-method procedure, Delaney, Nghiam, and Waldum (2009) showed how presenting thematically related information could eliminate selective directed forgetting. With related information, participants were unable to selectively forget part of that information. However, when the participants were given thematically unrelated information, they were able to forget part of the information. The thematically related information was remembered better than the unrelated information.


Hypothesis 1: Participants that are given the thematically related sentences should have the greatest overall recall.

Hypothesis 2: Selective Directed Forgetting will depend on sentence type.

Hypothesis 3: Selective Directed Forgetting is expected for the unrelated sentence group.

Experiment was separated by List Type: Related & Unrelated.

• All groups viewed a version of List 1, which had 16 sentences about 2 characters, Tom and Alex (8 sentences each).

• Sentences were modified from Delaney et al. (2009) appendix. All sentences were changed to past tense or had the same verb usage. For example, “Tom has two kids” versus “Tom did his laundry” and also, “Alex is creative” versus “Alex writes in a study”. All sentences were

