

# Semantic and phonetic interference in memory recall

[Experience](#), [Memories](#)



Additionally, a significant difference was visible between all three conditions, with the semantic and honesty conditions scoring a lower recall level in comparison to the controlled condition. Introduction The active difference between short-term memory and long-term memory is anything but exact. Although, there is an understanding that long-term memory is being examined when a list is displayed several occasions over an interval of time calculated in minutes and recalling is measured after minutes, hours and days, and short-term memory is being examined when a list is displayed once and at a rate of fewer than 30 seconds.

Within cognition a key question is whether information is forgotten due to a function of time. A strong amount of research proposes that information is not forgotten due to time, but as a result of interference (see, e. G. , Lavabo, Annoys, & Masters, 2002; Neat & Surprising, 2003; Bureau & Kiel, 2006). However, many academics have thought that unrehearsed information is forgotten over several seconds (e. G. , Biddable, 1986; Tows, Hitch, & Hutting, 2000), since supported theories (e. . , Biddable & Scott, 1971; Cowan, Nugent, Elliot, & Greer, 2000; Mueller, Seymour, Sierras, & Meyer, 2003). The matter continues to be uncertain. Our skill to selectively remember earlier information is a vital specs of our long-term memory system. Prior research proposed that in many circumstances individuals have the ability of selectively seeking information in memory, preceding to their subsequent remembrance.

Even with research for this skill to selectively seek information from our memory, we still do not have much information on how we actually achieve

this complex task. Able and Bump's (2013) research focuses on participants revising items from different categories and then continually recalling specific items from specific categories, recall rehearsal normally increases recall of the rehearsed information although it impairs retrieval of associated but unrehearsed information, relative to managing information from unrehearsed categories.

The results displayed the belief that memory impairment following extended intervals between practice and test and in the occurrence of retroactive interference. In opposition, both the rehearsed and the related unrehearsed information displayed barely any failure to remember under these conditions. Unshorn, Brewer and Spillers' (2013) conflicting study observed the impact of proactive and retroactive interference on memory Argentina, examining how individuals concentrate their search on a target list when accompanied by proactive or retroactive interference.

Results showed that long-term memory targeting is steered by noisy temporal-contextual cues (unless other salient cues are current) that trigger equally relevant and irrelevant memoranda that are then exposed to a post-recovery supervising process; these findings challenge the results from Able and Bump's (2013) study. This research among other findings (see, e. G. , Lavabo, Annoys, & Masters, 2002; Neat & Surprising, 2003; Bureau & Kiel, 2006; Unshorn, Brewer & Spillers', 2013) motivates the present study.

This research examines not only the question of whether there will be a difference between semantic and phonetic interference during memory

recall, but also if the results will show a significant difference between the retroactive interference conditions and the controlled condition. Additionally, this study has also been motivated due to there not being prior research comparing semantic interference and phonetic interference in memory recall. The hypothesis of this study is there will be a significant difference between semantic interference and phonetic interference in memory recall.

**Methods Design** In this experimental study, a between participant design was utilized to examine the difference between the effect of semantic and phonetic words on the memory recall of a list of words. The independent variable was the type of retroactive words used (semantic and phonetic). The dependent variable was the amount Of items correctly recalled from a list Of 15 words. **Participants** A sample of 30 student volunteers were employed from Nottingham Trent University, ASK. 15 male and 15 Female participants were used, in an age angel of 18-21 years old.

The mean age of the participants was 19.5. **Materials** The stimuli consisted of a list of fifteen words. All three conditions consisted of the same fifteen words, although condition two consisted of another fifteen semantic words (See Appendix Two) and condition three consisted of another fifteen phonetic words (See Appendix Three). One mark was awarded for each correct memorized word. **Procedure** All student partakers were separately put in a room where they were requested to complete a consent form prior to partaking in the current study (See Appendix Four).

The partakers were presented with presentation slides matching to their condition. Partakers in condition one were explained, The next slide will display fifteen words, they will appear for four seconds each, separately. Pleasememoriesas many words as you possibly can'. A one minute interval was given then partakers were asked to recall as many words as they could on paper. Partakers in condition two and three were explained, The next slide will display fifteen words, and you will then be shown another 15 words, they will appear for four seconds each, separately.

Please only memories words from the first slides shown'. A one minute interval was given then partakers were asked to recall as many words from slide one as they could on paper. Condition two's second set of words were semantic words and condition three's second set of words where phonetic. One mark was given for every correct word recalled. After the task was finished, partakers were asked if they had any questions before being debriefed about the study. Rest Its Table 1 shows the mean number of words correctly recalled, standard deviation and range for each condition.

The findings show that those in indention two (semantic) and condition three (phonetic) recalled less words than in the controlled condition. Additionally, there was a significant difference from those in condition two (semantic) and condition three (phonetic). Therefore, it is clear that retroactive interference had an impact on number of target items being correctly recalled. Table 1 : Descriptive Statistics for scores on the number of words correctly recalled in each condition. Mean SD Ra Eng Condition 1 10. 60 1 . 34 10 Condition 2 Condition 3 9. 20 7. 10 1 . 03 1 . 6 A one-way NOVA was carried out to

compare condition one; a list of 15 rods (mean = 10.60, standard deviation = 1.34), condition two; semantic words, (mean = 9.20, standard deviation = 1.03), and condition three; phonetic words, (mean = 7.10, standard deviation = 1.86) on the number of words that were correctly recalled. The results showed there was a significant difference between the groups,  $F(2, 27) = 21.54$ ,  $p = 0.001$ . Post hoc analysis, using Bonferroni corrected pairwise comparisons, found that all three conditions had a significant difference in comparison to each condition.

**Discussion** The results from the descriptive statistics (see table 1) were fairly straightforward, representing a distinct interference in relations of both semantic and phonetic interference. Particularly, in comparison to the controlled condition, condition two and three were associated with lower recall levels, suggesting that the presence of a non-target list presented after the target list interfered with the recall of target items. Additionally, as put forward by Shuffling (Bibb), retroactive interference effects were of a comparable scale across the measures of importance.

These findings are consistent with the previously stated hypothesis drawn upon in the introduction that there will be a difference between the semantic and phonetic interference on memory recall. Supporting research (Unshorn, Brewer and Spillers, 2013) suggests that participants can usually mentally recall the information from the target list, however due to a certain amount of doubt regarding which items were really shown in the target list in relation to the interference list, participants create a wider selection to make sure that the target items will be incorporated in the search set.

Therefore, likelihood of accurate recall is lowered when recollecting from the target list (controlled indentation) due to non-target list items are added in to search set. Also, this interpretation calculates that the search set will be placed on the target list, although items shown in close time-based proximity to the target list will likewise be added in the search set. Overall, this concept is very much consistent with our findings.

Future research is required to grasp an improved understanding with regards to the conditions wherein the search set can and cannot be focused on only target items, the procedures that are employed in order to recall context for events while trying to avoid only pending solely on the present context, and how partakers utilizes context to observe the results of retrieval and how this affects managing decisions during recall.