

PSYCHOLOGY ASSIGNMENT

MEMORY

1. Outline findings and/or conclusions of research into the duration for short term memory.

This experiment was demonstrated by Peterson and Peterson (1959). Participants of the experiment were shown a trigram (BGM or VRW). Then the participants were asked to count backwards in threes to stop them thinking about the letters. After intervals of 3, 6, 9, 12 and 18 seconds, participants were asked to recall the trigram.

They found that participants were able to recall 80 per cent of the trigrams after 3 second intervals. Further on, fewer trigrams were recalled as the time interval lengthened. After 18 seconds, fewer than 10 per cent of the trigrams were recalled correctly. Peterson and Peterson concluded that items disappear from Short term memory (STM) only when rehearsal is prevented. Therefore Decay is the mechanism for forgetting in Short Term Memory.

2. Outline one explanation of Forgetting In LTM and give one criticism of this explanation.

Forgetting might be caused by the Interference Theory. It was assumed that one set of learning interferes with another and wipes out the memory. Interference Theory has been tested by means of Paired-associate learning. The participants are initially presented with several pairs of words (e.g. cat-tree). The first word in each pair (cat) is known as the stimulus term, and the second word is known as the response term (tree). Learning continues until the participants can recall each response term when presented with the stimulus. Then the participants learn a second list of paired associates. There are 2 types of interference, Proactive and Retroactive. Proactive is when past experiences interfere with current recall. Participants recall is tested for the second list of paired associates. Performance of the experimental group (who learned both lists) is compared with the control group (who learned only the second list). Proactive Interference should mean that the experimental group do less well than the control group. Retroactive is when later learning interferes with earlier learning. This would mean that the experimental group does less well. There is strong evidence for both proactive and retroactive interference when the same stimulus terms are used. However little pro and retroactive interference is found when the stimulus words in both the lists are different.

3. Outline and Evaluate one alternative Model to the Multi-Store Model of Memory.

Craik and Lockhart (1972) put forward an alternative model to the multi-store called Levels Of Processing Theory. They proposed that it is the level of processing that determines whether something is stored in long term memory. If you learn a piece of information a lot our 'deeply', then it is more likely to be stored. If you don't rehearse it very well then it is likely that it won't be stored in LTM. There are many forms of processing such as Rehearsal, Depth of Analysis, Elaboration, Organisation and Distinctiveness. Craik and Lockhart suggested that Depth is a crucial concept for this theory.

The depth of information has an affect on how well it can be remembered. Also deeper levels of analysis produce more elaborate, long lasting and stronger memory traces for recall. Craik and Tulvings looked at how the elaboration of processing can lead to greater recall. In a further experiment the participants were presented with a word and a sentence containing a blank and asked to decide whether the word fitted into the sentence. Elaboration was manipulated by varying the length and complexity of the sentence. Recall was twice as high for the words with complex sentences, suggesting that elaboration benefits long term memory.

Organisation is another form of deep processing. Mandler (1967) demonstrated this in an experiment. He gave participants a pack of 52 picture cards, each of which had a word printed on it. Participants were asked to sort the cards into piles, using 2 to 7 categories if they wished. They were asked to repeat the sorting until they achieved two identical sorts. If anyone was still trying to achieve this after 1hour 15 mins they were excluded. At this point the participants were given an unexpected recall test. Mandler found that recall was poorest for those who had decided to use only 2 categories, and best for those who used 7.

Distinctiveness is also another form of processing. Memory traces that are distinctive or unique in some way will be more memorable than memory traces closely resembling others. Eysenck (1979) suggested that if a memory trace is made distinct from other similar ones, it will not get confused with them.

The depth of processing theory offered a model that could be applied to improve memory, by elaborating or making it more distinct. This will help make it more memorable.

However, there are criticisms. Craik and Tulving (1975) assumed that semantic processing involved greater depth than Phonomic processing,

but there is no real evidence for this assumption only the fact that semantic processing resulted in more memorability. Another criticism is that it describes rather than explains. Craik and Lockhart argued that deep processing leads to better long term memory than shallow processing. But they fail to account on why deep processing is so effective.