

Cognitive Psychology

This essay will be looking at two theories of Memory and two theories of Forgetting. The Multi-store model and Levels of Processing (LOP), for memory. Trace Decay and Cue-dependency theory for forgetting.

The Multi-store model is one of the theories of memory; it is concerned with identifying the different memory stores. Atkinson and Shiffrin (1968) suggested that there are three types of information stores these are the sensory register, the short-term memory and the long-term memory. The sensory register only holds information for a fraction of a second this information is then passed to the short-term memory which holds a few items for a few seconds. Information that is rehearsed in the short-term memory will then go to the long-term memory where information can be hold for an unlimited amount of time.

There is clear evidence both from case studies and experiments of brain damaged patients that there are separate systems of short-term memory and long-term memory. However there is also strong evidence from cases of HM and FK, to suggest that there are several separate stores of long-term memory, like the holding of different information such as facts, events and skills. There is also evidence to suggest that material in short-term memory is analysed for meaning and not just for sound.

The Levels of Processing (LOP) theory is the second theory of memory, Craik and Lackart(1972) suggested that memory is a by product of information processing important events are better remembered than day to day events because of the extra work we put into processing these events. Deep processing produces more elaborate longer lasting memory traces. Craik and Lackart(1972) said that there were three levels at which information is processed these are Structural Processing, Phonetic Processing and Semantic Processing.

There is experimental support by Craik and Tulving(1972) to suggest that Semantic Processed information is bettered remembered that structurally or phonetically processed material. There is also evidence from brain-scanning studies to show that when material is semantic processed there is more brain activity. However other

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factors also affect how well material is remembered, Reber et al. (1994) showed that emotional content of words affected recall.

Cue-dependency is one of the most common reason why we forget things as said by Eysenck(1998). It shows that often with the right prompt we can remember information that is otherwise difficult to recall, and also the possibility that information is in storage but needs the right cues to access it is called cue-dependent forgetting. Cue-dependency only happens in the long-term memory; there are two types of recall, context-dependent and state-dependent.

There is a wealth of experimental evidence to support cue-dependency in forgetting, for example Aggleton and Waskett(1999) with the smelly museum study. Cue-dependency also explains the very common 'tip-of-the-tongue' experiment, it also explains why returning to old surroundings you suddenly start recalling events that took place there. However it does not explain why some emotionally charged memories remain vivid in the absence of cues as studied by Brown and Kulik(1977).

Trace decay is one of the theories of forgetting, it shows that processed memory creates memory traces and shows that memory trace spontaneously fades with time. Rehearsal maintains the memory in STM until a structural change in the brain occurs which is the creation of a new long-term memory; trace decay only happens in the short-term memory.

Experiments have shown that recall declines 24 per cent over a 15 second period, trace decay also explains why we forget more as time goes on. Neurological evidence supports the ideas that changes in nerve communication occurs with repeated nerve firing, Hebb (1949). However the theory is difficult to test as interference or displacement could occur anytime between learning and recall. Trace decay does not show why some memories never seem to decay e.g. bike riding.

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