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Sem II Cognitive Psychology

Forgetting

Theories of Forgetting

Decay or Disuse Theory :-

The oldest theory of forgetting is decay or disuse theory. Essentially, the decay theory postulates that memory traces in the STM weaken over time when the info is not used. Memory traces are physiological residuals of experiences left in the nervous system of the learner. Once the strength of a memory trace fades below a certain level, that memory trace is simply not available for activation by the learner. Decay theory is not today an empl. theory of forget. not necessarily bec of its failure to explain forget. but mainly due to its failure to lead to many testable hypotheses about the forgetting process.

3 criticisms :-

- 1) Some learning is forgotten instantly while some learn. is retained for a very long time even though it may not be used for decades. E.g. ^{one} verbal skills may be retained for many yrs, such as a poem one had learnt in primary classes though not having practised it. Also motor skills as riding, swimming.
- 2) If forget. is due to decay or disuse of memory trace it sh. affect equally the retention of diff. material learnt at the same time. But it is a fact that if one learns 2 things at the same time, one may be more quickly forgotten than the other.
- 3) Another argument against the decay theory is that memories may become unavailable but not necessarily decayed. Acc to this view, STM is fairly permanent & info is not lost from it. Difficulty arises in getting access to the info & in pulling it out of storage. Researches conducted on STM suggest that forget. is due more to the failure in retrieval.

Interference theory of forgetting :-

It has been the predominant theory of forg. for the past decade while the passage of time is the major determinant of forg. in decay theory, it is what takes place during the passage of time that is of interest in the interference theory. One of the first tests of the int. theory was reported by Jenkins & Dallenbach.

Interference effects are of 2 types depending on whether the interfering material was learned before or after the to be recalled material. Retro. Int. occurs when new learn. activity interferes with the recall of previously acquired info. The basic exp. design :-

Exp. group	Learn. task A	Learn. task B	Recall. task A
Control	"	Rest or other unrelated activity	"

If the control gr. recalls task A better than the exp. gr., we attribute the diff. to RI.

Proactive Int. occurs when previously acquired info. interferes with the recall of newly acquired info.

Exp. group	Learn. task A	Learn. task B	Recall. task B
Control	Rest or other unrelated activity	"	"

If PI has occurred, exp. gr. will retain less of task B than those of control gr.

Research on interference effects has generally examined 3 major variables: similarity betⁿ the two tasks, practice & the no. of lists. (a) the similarity betⁿ the 2 lists, the more interference the int. effect produced by the amt. of practice depends upon whether it is practice on the task to be recalled or practice on the interfering task. Generally, the more a person practices on the recall list, the > will be the amt. of recall. Conversely, int. will be less

Greater number of practices on the interfering task will produce higher int. effect. Underwood demonstrated that the no. of tests a person learns before the recall of a given test affects the int. recall of that test. This led Underwood to conclude that in our daily lives Pinter is a more impl. source of interf. than is R. Int. With Pinter, w/ the possible effect of previous learning from a lifetime, etc. is conceivably much > than, say, the possible interfering activities in a given 24 hr. timespan.

Motivated Forgetting :- :- :-

The preceding explanations of forget. emphasize that it is a matter either of physiological processes affecting the memory trace or of interf. bet. new & old material. Neither theory gives much attention to a person's motives in remembering & forgetting.

Freud was the 1st person who emphasized the influence of motives upon retention. He used the term 'repression' to describe the tendency to avoid remembering anything associated with fear or unpleasant exp. Expts have shown that indiv. tend to forget exp. unpleasant exp. faster than pleasant ones. The theory of repression holds that the memories are not recalled bec. their retrieval wd. in some way be unacceptable to the person - possibly bec. of the anxiety they wd. produce or the guilt they might activate. Thus some emotionally toned info. becomes unavailable for cons. thought; it is said to be in the unconscious. To dredge up mem., repressed memories, psychoanalysts use the mt. of free associations.

An expt. conducted by Zeigarnik (1927) explains how motiv. can influence retention. He compared the recall of completed & incomplete task. The result showed that the 's' recalled incomplete task better than the completed tasks. This was so bec. in the case of comp. tasks, their motiv. was satisfied.

While repression helps to explain why pleasant exp. are generally remembered better than unpleasant ones, it fails to account for the forgetting of emotionally neutral material such as multiplication tables.