

Trial & Error Theory

[Edward. L. Thorndike
American Psychologist]

The method in which different responses are tried for a problem of which some are rejected until a solution is obtained

Thorndike says that learning is the process of building connections b/w a particular stimulus and response. This connection can be strengthened through trial and error method.

Other names of the theory.

- Theory of connectionism
- Bond theory
- S-R theory.

Experiment was done on cats

A Hungry cat was put in a puzzled cage, and food was kept outside. The cage could be opened by pulling a string hanging inside the cage. The cat tries it level best to get out of the cage and finally succeeds, then eat food

reward for
its hard work.

This process was continued several times. On the subsequent trials, cat took less time to open the door and committed less number of mistakes. Finally it learnt to come out of the cage easily by pulling the loop of string.

Thorndike's Laws of Learning

On the basis of his experiments, Thorndike postulated three basic laws that are to be followed to strengthen the S-R connections.

1. Law of readiness

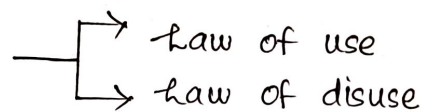
Learning become effective only when the learner is ready to learn.

2. Law of exercise

{ Remember ; 'Practice makes ~~man~~ man perfect' }

S-R connections strengthen with practice and weakens when practice is not continued.

This law is further divided into two



3. Law of effect

Learning takes place properly when it results in satisfaction and the learner derives pleasure from it.

Subordinate Laws.

Subordinate laws explains the learning process ;

1. Law of multiple response.

When learner faces a problem, he/she responds in different ways. Some of the responses leads to success, while others lead to failure. Learner learns from his own mistakes.

2. Law of attitude

Similar to that of mental readiness, proper attitude for the task is also required for the learner to perform the task well.

3. Law of pre-potency of elements

Learner responds more to the significant aspects of a problem rather than the irrelevant factors.

4. Law of response by analogy

Learner responds to a new learning situation on the basis of responses made in similar situations in the past.

5. Law of associative shifting

It is the process in which response of the learner can be shifted from one stimulus to other, by providing appropriate conditions.

Educational Implications

- Theory gives more importance to mental readiness of the learner.
- Motivation can be used to make learning purposeful.
- Promotes the importance of meaningful practices.
- stresses the benefits of providing reinforcements (rewards, incentives etc)
- for better learning to take place, the learner should be linked to past experiences as well as future learning.

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