

## Theory of relational learning (trial and error), and educational applications

Thorndike was born in the state of Almes Berg Masachostesfa 8/31/1874, and began to influence his research on the topic of learning to emerge since the beginning of the twentieth century. Thorndike Research and appeared in the theory of learning in 1913-1914 when he published his book "Educational Psychology", which consists of three parts and select the Training Act and the law impact the principles developed in the light of empirical and statistical research. The way the search was based on observation, problem solving, as follows:

- 1 - membership status in a position to solve the problem.
- 2 - Order orientations human or animal.
- 3 - Choose the correct response from among several options.
- 4 - Monitoring the behavior of humans or animals.
- 5 - registration of this behavior in the form of quantity.

Thorndike was one of the first psychologists who tried to explain the occurrence of learning links between stimuli and responses, and finds that the most prestigious learning in humans and animals alike is the attempt-and-error learning, (Nchoati, 1985, 319)

Learning at the Thorndike is the automatic change in behavior tends to gradually move away from any misguided attempts at the highest repetition rate of successful attempts that lead to the removal of tension, and access to the state of saturation. Self, but he knows when Thorndike is the study of scientific study of behavior and learning is a change in behavior (high n et al, 1987.68).

Thorndike's theory has been defined, which has been dominant for several decades of last century on educational practices in the USA as relational, because I think that learning the process of forming links between stimuli and responses. Thorndike has developed, through his theory of long research, carried out by the impact of reward in the behavior of different animals.

One of the most experience on the cat was placed in a cage, a door can be opened if the cat pulled the thread cast inside the cage. The task of the cat out of the cage to get food (reward) located outside the cage. Thorndike has repeated this experiment several times, and found that the time it takes for the cat gradually decreases but the thread became withdrawn immediately after entering the cage. Thorndike interpreted the learning process as follows:

After the cat was able to open the door rewarded with a plate thickness Vqoat association between the stimulus and response and the most important principles of learning is reached by the law of effect.

Thorndike as not only learning, but tried to explain direct links between stimuli and responses, control the strength or weakness of key laws and other minor, but the laws are explanatory (Nchoati 1985). These links are called laws of learning.

- 1 - key laws

- 1 - the law of effect: When the association between the stimulus and response

combined with the status of satisfaction, it strengthens, but if the situation was accompanied by distress or discomfort, they weaken (Thorndike, 1913.71). According to Thorndike's major work in the interpretation of the learning process is the reward, and believes that the punishment does not weaken the links (Cherkaoui, 1983.80).

#### 2 - Training Act (redundancy):

The frequency of association between the stimulus and response lead to the installation and strengthen the Association and thus learning becomes more established. Thorndike believes that this law was twofold:

A - Act to use: which indicates that stronger links by repetition and practice

B - the law of negligence: the link weakened by Turk and not practice.

3 - Preparedness Act: describes the physiological basis for the law of effect, it defines a mile to the learner a sense of satisfaction or distress (Karajeh 1997.273) and formulates Thorndike three cases for the interpretation of readiness are:

1 - The unit of neural ready to work, working, Its work relaxes the organism.

2 - the unit is ready neurons do not work, the work not disturb the organism.

3 - Unit shall be nerve is ready to work, and forced to work, the work disturbs the organism. (Peregrine, 1993.30). The secondary legislation are:

#### 1 - Law of belonging:

In this Law, Association of piety between the stimulus and response as the correct response was more affiliation to the situation, you will find that the individual tends to salute the head angle more than what is its tendency to respond verbally. For this to be rewarding the most powerful of the water-thirsty Athabth money. The law of association of the most important laws that added to the Thorndike model and this law makes the model closer to the form of knowledge.

#### 2 - Law of polarization:

The links are going in the direction that had been formed in a manner easier than walking in the opposite direction, if an individual's learning English vocabulary list, the Arab response to the corresponding Arabic word in English is easier than the inverse response (Karajeh, 1997.275).

#### 3 - Law of the spread of Impact:

Thorndike put this law after 1933, arguing that the impact of reward is not limited to linking only, but extends to the neighboring links, which is made up by rewarding the Association and after Athabtha. For example, if enhanced teacher education during a speech in between words, the buildup moves to the previous word and the subsequent chain of any reward that also affects the links next to it. And so strengthens the view that the reward is valid until the links next to the link Almathab.

#### 4 - Recognition Act:

Easier for the learner to link the development of certain troublemakers specific response if the learner was able to identify and distinguish the situation as a result of his experiences the previous passage. Thorndike believes that if the elements of the new position is known, this facilitates the adjustment of the position than if the items are not known, for example, makes it easier for the learner a math problem if you know the learner numbers and symbols used in it.

#### Similar response law: -5

Be educated about the disposal of a new situation similar to his behavior with the old situation, and this means that he has learned from past experience.

## 6 - the law of force elements and sovereignty:

Directed learner response elements in the prevailing situation than go to the emergency elements of non-mainstream (Alian et al, 1987.77).

## 3 - learning characteristics and attempt the error:

- Used in young children who did not sleep with them the ability to inductive reasoning and may be used by adults in cases of emotion.
- Using the attempt-and-error learning for lack of work experience and skill in solving complex problems.
- This can be the basis for learning some of the habits and the acquisition of motor skills and composition, such as swimming and bike riding.

## 4 - educational applications of the theory of Thorndike:

Thorndike served as the first professorship of psychology in the history of educational psychology, Thorndike was interested in three fundamental issues, affecting the teacher to take advantage of them in his work in the classroom, and these things are:

- Identify the links between stimuli and responses that require configuration or strengthening or weakening.
- Identify the circumstances that lead to traumatic or distress for students.
- The use of satisfaction or distress to control the behavior of students.
- Thorndike sees the teacher and the learner determine the characteristics of good performance so as to determine the diagnosis of errors, so as not to be repeated and difficult to modify later, because the practice is wrong and strengthen ties strengthen the links are correct.

And see Thorndike that the law of the most significant impact in the learning process, so that was critical of many of the educational practices prevalent, especially with impunity, and called for the classroom source of happiness and the creation of the concerns of school, also identified the positive role of the learner emitted from a position of learning where the needs and desires are determined by the responses.

- The task of the teacher, are raising the student's desire to respond, rushing into the trial and error and by adhering to the following advice:

- Taking into account the educational situation where the student.
- To give the student the opportunity to make the effort to learn and this attempt.
- Avoid the formation and strengthening of weak links between the response and the link position.
- Linking learning the positions of the positions similar to the student's daily life.
- Focus on performance and practice and not on the dumping.
- Interest in the gradual process of learning from easy to difficult from simple units to complex units.
- Do not overlook the impact of the penalty to achieve speed and efficiency in learning and maintaining at motivation.

See Edward Tolman in the importance of the theory of trial and error, "The psychology of learning, was still essentially a matter for agreement with what was brought by Thorndike or differences and try to introduce improvements in the parts of

the secondary, and it seems that all of us in America, whether we are psychologists  
Aljhtalt or reflex conditional or Aljhtaltyon new, have taken the phenomenon of  
Thorndike in a subtle or a starting point for us, but the world that has gone to great  
lengths to develop the ideas presented by Thorndike and take advantage of them in the  
practical application is the world famous American Skinner.