THEORIES OF LEARNING

LEARNING

- **Meaning of Learning:**
- In a Layman's view, "Learning is something we did when we went to school." In reality, each of us is continuously going to school. Learning is occurring all the time. With every new experience, new event or new situation we learn something. But this concept of learning is purely theoretical. We cannot observe learning as we can observe the personality of a person or his attitude. We can see changes taking place but not the learning itself. Learning is used in many contexts. Simply speaking, learning refers to this modification of behaviour through practice, training and experience.

DEFINITIONS

- According to E.R. Hilgard, "Learning is a relatively permanent change in behaviour that occurs as a result of a prior experience."
- According to W.Mc Gehee, "Learning has taken place if an individual behaves, reacts, responds as a result of experience in a manner different from the way he formerly behaved."

NATURE OF LEARNING

- **1. Change in Behaviour:**
- Learning involves change in behaviour, although the change may be good or bad from an organization's point of view. The change in behaviour need not be an improvement over the previous behaviour, although learning usually connotes improved behaviour. For example, bad habits like smoking, prejudice and stereotype are often learned by individuals.
- **2. Change in Behaviour must be Relatively Permanent:**
- ADVERTISEMENTS:
- All the changes do not reflect learning. To constitute learning, change should be relatively permanent. Temporary changes may be only reflective and fail to represent any learning. Any temporary change in behaviour caused due to fatigue or drugs or temporary adaptations are not covered in learning.

- **Change Must Be Based on Some Experience, Practice or Training:**
- The behavioural change must be based on some form of practice, experience or training. Any change in behaviour due to physical maturation, any disease or physical damages do not constitute learning. This change may not be evident until a situation arises in which the new behaviour can occur.
- **4. Reinforcement:**
- The practice or experience must be reinforced in order for learning to occur. If reinforcement does not accompany the practice or experience the behaviour will eventually disappear

- **Learning is Reflected in Behaviour:**
- A change in an individual's thought process or attitudes not accompanied by behaviour is not learning. Further learning needs to result in behaviour potentiality and not necessarily in the behaviour itself. For example, if a person is thinking of using drugs, but has not actually used them and he finds out that a friend of his has died because of drugs, he will never get involved with drugs. This experience has changed his behaviour potential.

CLASSICAL CONDITIONING THEORY

- The **Classical Conditioning Theory** was proposed by a Russian Physiologist Ivan Pavlov. According to this theory, behavior is learnt by a repetitive association between the response and the stimulus.
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CLASSICAL THEORY

- The classical conditioning theory is based on the assumption that learning is developed through the interactions with the environment. Also, the environment shapes the behavior and internal mental state such as thoughts, feelings, emotions do not explain the human behavior.
- Here, an organism learns to transfer response from one stimulus to a previously neutral stimulus. Classical conditioning is comprised of four elements:
- Unconditioned Stimulus **(US)**: Which invariably causes to react in a way.
- Unconditioned Response **(UR):** Takes place when the US is presented.
- Conditioned Stimulus **(CS):** The object that does not bring about the desired response
- Conditioned Response **(CR):** a particular behavior that an organism learns to produce, when the CS is presented.

PAVLOV'S EXPERIMENT

- Pavlov conducted an experiment on a dog and measured the amount of saliva secreted by a dog, with a use of a surgical procedure, when it is exposed to different stimulus or object. At first, when Pavlov presented a piece of meat (US) to the dog, he noticed a great amount of salivation (UR) whereas, in the second time, when he just rang the bell, he observed there was no effect of a bell on the dog's salivation.
- After this, Pavlov rang the bell accompanied with meat and noticed the salivation of a dog. He repeated this process several times, and finally, one day he just rang the bell without meat and observed that dog still salivated to the bell alone which was originally a neutral stimulus.
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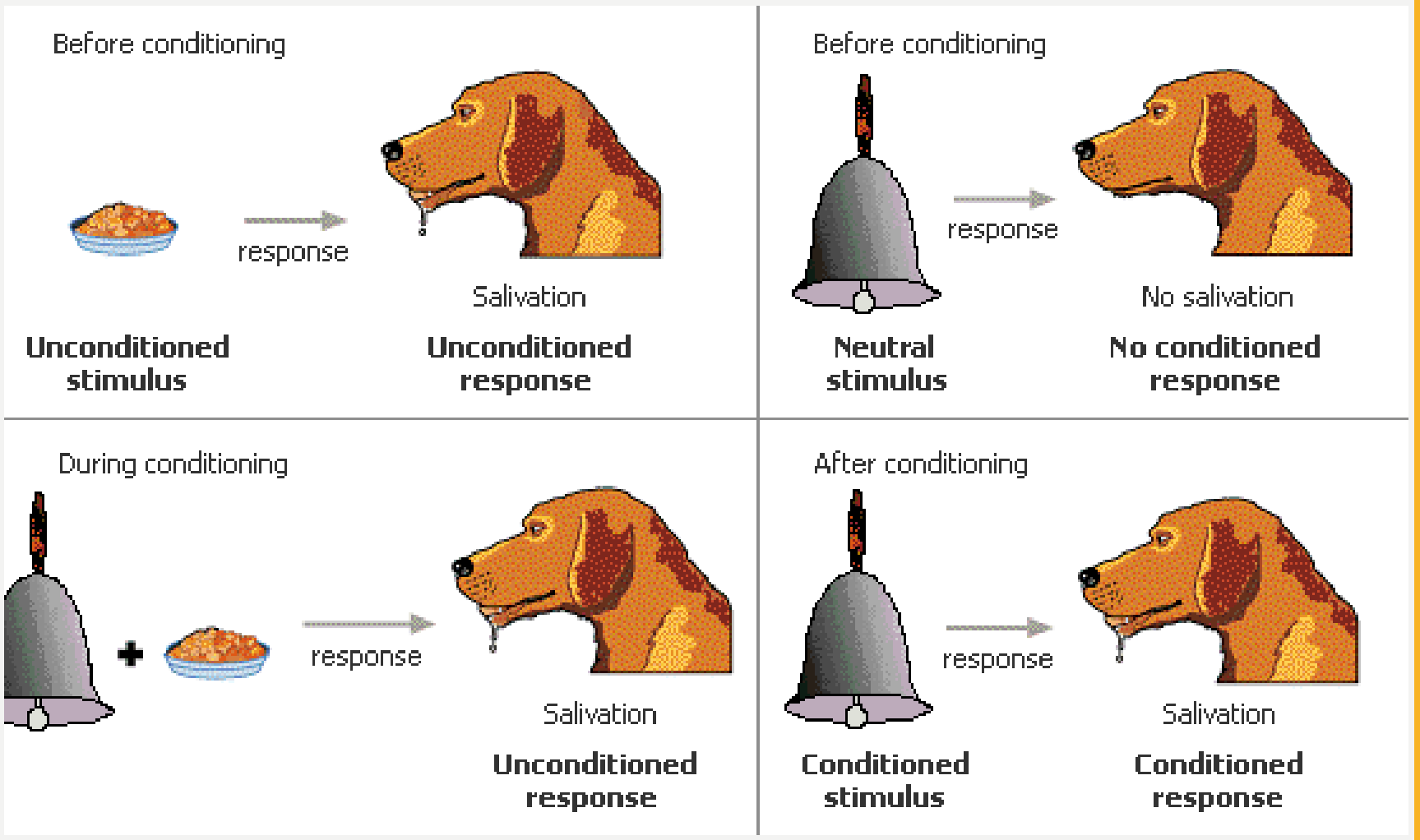
PAVLOV'S EXPERIMENT



- Thus, he found out, that the dog has become classically conditioned (CR) to the sound of the bell (CS). And every time he rings the bell the dog salivates.

OPERANT CONDITIONING

- Operant conditioning (sometimes referred to as instrumental conditioning) is a method of learning that occurs through rewards and punishments for behavior. Through operant conditioning, an association is made between a behavior and a consequence for that behavior. Operant conditioning was coined by behaviorist B.F. Skinner, which is why you may occasionally hear it referred to as Skinnerian conditioning.

- Operant conditioning relies on a fairly simple premise - actions that are followed by reinforcement will be strengthened and more likely to occur again in the future. If you tell a funny story in class and everybody laughs, you will probably be more likely to tell that story again in the future. If you raise your hand to ask a question and your teacher praises your polite behavior, you will be more likely to raise your hand the next time you have a question or comment. Because the behavior was followed by reinforcement, or a desirable outcome, the preceding actions are strengthened.

- Conversely, actions that result in punishment or undesirable consequences will be weakened and less likely to occur again in the future. If you tell the same story again in another class but nobody laughs this time, you will be less likely to repeat the story again in the future. If you shout out an answer in class and your teacher scolds you, then you might be less likely to interrupt the class again.

TYPES OF BEHAVIOURS

Skinner distinguished between two different types of behaviours

- **Respondent behaviours** are those that occur automatically and reflexively, such as pulling your hand back from a hot stove or jerking your leg when the doctor taps on your knee. You don't have to learn these behaviours, they simply occur automatically and involuntarily.
- **Operant behaviours**, on the other hand, are those under our conscious control. Some may occur spontaneously and others purposely, but it is the consequences of these actions that then influence whether or not they occur again in the future. Our actions on the environment and the consequences of that action make up an important part of the learning process.

Reinforcement in Operant Conditioning

Reinforcement is any event that strengthens or increases the behaviour it follows.

There are two kinds of reinforces:

- **Positive reinforces** are favourable events or outcomes that are presented after the behaviour. In situations that reflect positive reinforcement, a response or behaviour is strengthened by the addition of something, such as praise or a direct reward. For example, if you do a good job at work and your manager gives you a bonus.
- **Negative reinforces** involve the removal of an unfavourable events or outcomes after the display of a behaviour. In these situations, a response is strengthened by the removal of something considered unpleasant. For example, if your child starts to scream in the middle of the grocery store, but stops once you hand him a treat, you will be more likely to hand him a treat the next time he starts to scream. Your action led to the removal of the unpleasant condition (the child screaming), negatively reinforcing your behaviour.

Punishment in Operant Conditioning

Punishment is the presentation of an adverse event or outcome that causes a decrease in the behaviour it follows. There are two kinds of punishment:

- **Positive punishment**, sometimes referred to as punishment by application, presents an unfavourable event or outcome in order to weaken the response it follows. Spanking for misbehaviour is an example of punishment by application.
- **Negative punishment**, also known as punishment by removal, occurs when a favorable event or outcome is removed after a behaviour occurs. Taking away a child's video game following misbehaviour is an example of negative punishment.
- In both of these cases of punishment, the behaviour decreases.

Examples of Operant Conditioning

We can find examples of operant conditioning at work all around us. Consider the case of children completing homework to earn a reward from a parent or teacher, or employees finishing projects to receive praise or promotions.

Some more examples of operant conditioning in action:

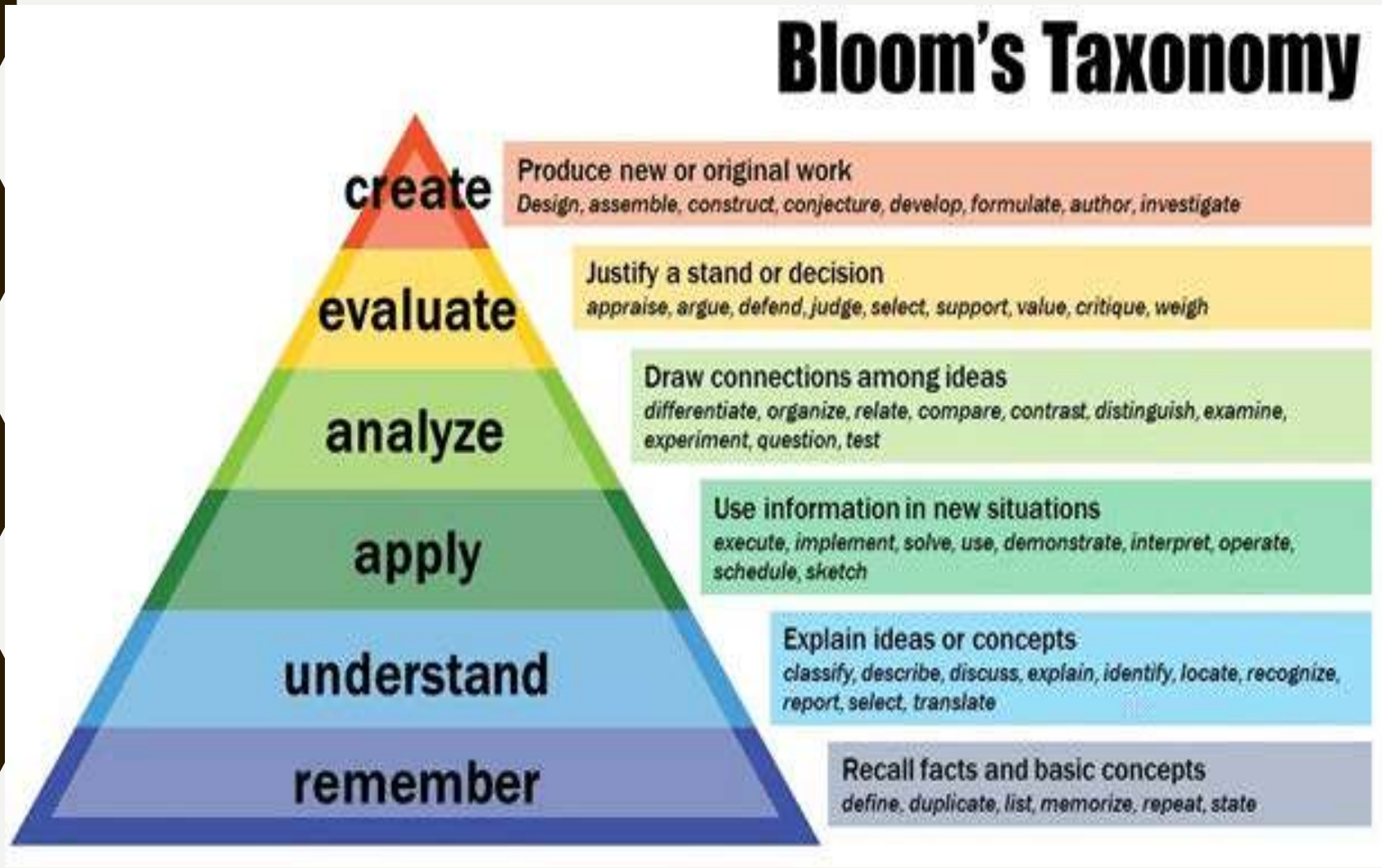
- If your child acts out during a shopping trip, you might give him a treat to get him to be quiet. Because you have positively reinforced the misbehaviour, he will probably be more likely to act out again in the future in order to receive another treat.
- After performing in a community theatre play, you receive applause from the audience. This acts as a positive reinforce inspiring you to try out for more performance roles.

- You train your dog to fetch by offering him praise and a pat on the head whenever he performs the behavior correctly.
- A professor tells students that if they have perfect attendance all semester, then they do not have to take the final comprehensive exam. By removing an unpleasant stimulus (the final test) students are negatively reinforced to attend class regularly.
- If you fail to hand in a project on time, your boss becomes angry and berates your performance in front of your co-workers. This acts as a positive punisher making it less likely that you will finish projects late in the future.
- A teen girl does not clean up her room as she was asked, so her parents take away her phone for the rest of the day. This is an example of a negative punishment in which a positive stimulus is taken away.

COGNITIVE LEARNING

- The pioneer of cognitive learning theory is Edward Tolman. He developed and tested this theory through controlled experiments. Using rats in his laboratory, he showed that they learnt to run through a complicated maze towards their goal of food. It was observed that rats developed expectations at every choice point in the maze. Thus, they learnt to expect that certain cognitive cues related to the choice point could ultimately lead to food. The learning took place when the relationship between the cues and expectancy was strengthened because the cues led to expected goals.
- The cognitive theory recognizes the role of an organism in receiving, memorizing, retrieving and interpreting the stimulus and reacting to it. The cognitive explanation of learning differs from classical conditioning (stimulus response learning) and operant conditioning (response stimulus learning). According to Tolman, cognitive approach could be termed as stimulus approach i.e. one stimulus leads to another.

- Cognitive learning is achieved by thinking about the perceived relationship between events and individual goals and expectations. Cognitive theory of learning assumes that the organism learns the meaning of various objects and events and learned responses depend upon the meaning assigned to stimuli.
- Cognitive theorists argue that the learner forms a cognitive structure in memory, which preserves and organizes information about the various events which occur in a learning situation. When a test is conducted to determine how much has been learned, the subject must encode the test stimulus and scan it against his memory to determine an appropriate action. What is done will depend upon the cognitive structure retrieved from memory.
- Today, the cognitive theory is very much alive and relevant. In organisational behaviour the cognitive approach has been applied mainly to motivation theories. Expectations, attributions and locus of control and goal setting are all cognitive concepts and represent the purposefulness of organisational behaviour. Many researchers are currently concerned about the relationship or connection between cognitions and organisational behaviour.


Bloom's Taxonomy
create
Produce new or original work
Design, assemble, construct, conjecture, develop, formulate, author, investigate
evaluate
Justify a stand or decision
appraise, argue, defend, judge, select, support, value, critique, weigh
analyze
Draw connections among ideas
differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test
apply
Use information in new situations
execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch
understand
Explain ideas or concepts
classify, describe, discuss, explain, identify, locate, recognize, report, select, translate
remember
Recall facts and basic concepts
define, duplicate, list, memorize, repeat, state

SOCIAL LEARNING

Social Learning:

- Individuals can also learn by observing what happens to other people and just by being told about something, as well as by direct experiences. Much of what we have learned comes from observing and imitating models-parents, teachers, peers, superiors, film stars etc. This view that we can learn through both observation and direct experience has called social learning theory.
- This theory assumes that learning is not a case of environmental determinism (classical and operant views) or of individual determinism (The cognitive view). Rather it is a blending of both. Thus, social learning theory emphasizes the interactive nature of cognitive, behavioural and environmental determinants. The influence of model is central to the social learning view point. Four processes have been found to determine the influence that a model will have on an individual.

SOCIAL LEARNING

Attention Process:

- People learn from a model only when they recognize and pay attention to its critical features. We tend to be most influenced by models that are attractive, repeatedly available, important to us or similar to use in our estimations

Retention Processes:

- A model's influence will depend upon how well the individual remembers the model's action after the model is not longer readily available.

Motor Reproduction Processes:

- After a person has seen a new behaviour by observing the model, the watching must be converted to doing. This process then demonstrates that the individual can perform the modelled activities.

Reinforcement Processes:

- Individuals will be motivated to exhibit the modelled behaviour if positive incentives or rewards are provided. Behaviours that are positively reinforced will be given more attention, learned better and performed more often.