Introduction to Psychology
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Lecture – 15
Learning: Observational Learning

We will now try to establish the difference between classical and operant conditioning.

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Classical vs Operant Conditioning

Classical Conditioning	Operant Conditioning
Involuntary behaviour/ reflexes	Voluntary behaviour
Mechanistic process of formation & strengthening of association between S-R	Non-mechanistic & voluntary process of formation & strengthening of association between S-R
Stimuli act upon the individual & the individual responds automatically	Response is controlled by the individual to achieve the goal
Passive process	Active process
Reward precedes response because of temporary association	Reward follows the response as it is contingent upon its occurrence
CS & UCS association depends on contiguity of stimulus	Response-reinforcing stimulus association depends on consequences of responding
Readily seen in animal learning	Readily seen in human learning

Number one; you realized in the case of classical conditioning (Refer Time: 00:27) dog that the dog was involuntarily behaving in a particular way that was purely a biological reflects and that we have got condition, (Refer Time: 00:37) was a biological response it got conditioned. Whereas in the case of a pigeons, the pigeons was deliberately pecking in order to receive a particular type of a response. So, in the case of (Refer Time: 00:55) dog it was the biological reflects that got conditioned, whereas in the case of Skinner's pigeon it was the choice of pigeon to peck at a particular point in order to get food. So, operant conditioning basically engages your voluntary behavior, whereas classical conditioning it engages your voluntary behavior reflects.

Two; in classical conditioning it is a mechanistic process of formation and strengthening of the S-R association the stimulus responses association. Whereas, in the case of operant conditioning you realize that the S-R association the formation as well as strengthening is non mechanistic and it is basically a voluntary process. You want something to be done you want say the aversive stimulus to be removed or you want the reward to be given and therefore you give a desired type of a response. Therefore, it is voluntary it is non mechanistic.

Third difference between classical and instrumental conditioning is that; in case of classical conditioning the stimuli act upon the individual and then the individual response automatically. So, there is no goal that has been set by the individual the organism the participant. And the participant does not know give a response in order to achieve that very goal, whereas in case of operant conditioning there is a goal that you set for yourself. You receive a positive feedback or you realized at the aversive stimulus is being removed and therefore the response is actually controlled by the individual so that the goal can be attained.

Say for instance, you know that if you perform well in your exam your achievement score will be appreciated by your school and you will then receives precedence medal or say scholar batch. Now, receiving the medal, getting this scholar batch this is the goal that you have set for yourself. And you know that in order to attain this vary goal you have to respond in a particular way that means you are scholastic achievement should reach a level which would be finally fetching you reward. In this case what happens, you voluntarily in the non mechanistic way you participate in the process, you have understood the meaning of the reward; you have to understand what recognition the reward the prize means. You give a response which basically helps you achieve that vary goal, in the case of classical conditioning that does not happen. The individual works automatically it is a biological reflects. It is a natural response which gets somehow anchored to a particular type of stimulate.

Just think of the other example you have a seen pickles in your kitchen or on your dining table and whenever you look at the pickle of your choice say for example the lemon pickles you have watering in the mouth. Now watering on the mouth is the secretion of

saliva in your oral cavity, but then this is a biological response. This biological response how got associated with the pickles which are present on your dining table. You did not set a goal for yourself, it has happened. So, the response is a automatic in the case of classical conditioning, whereas in the case of operant conditioning you set a goal and then you try to achieve it.

Therefore what happens? Classical conditioning becomes a passive process, whereas operant conditioning becomes an active process. In terms of rewards in case of classical conditioning the reward precedes response because of the temporary association. You remember (Refer Time: 05:03) dog, the food was presented and that lead to salivation. Now will have collected that saliva and then it right to now pair the tone of the bell with the presentation of the meat powder. This means the reward was given to the dog beforehand. In case of classical conditioning the reward precedes the response, whereas in the case of operant conditioning reward always follows the response. So therefore, it is contingent upon the reoccurrence of the response.

So, the scrolling baby lifts the body and then the (Refer Time: 05:43) oh great, great, great, yes, yes, yes, the child realize this is a doable act the child human children. The fall in several times when they attempt to walk, but then they do make this attempt, they actively engage in the process, their every attempt is you know rewarded by the parents the reward is contingent on the reoccurrence of the situation. So every time the baby tries to lift the body and stand a right and try to walk parents appreciate, this appreciation works as a reward. And this finally makes the human being walk. So, reward is always contingent upon the occurrence of the response. That is the big difference, big difference in terms of classical and operant conditioning.

Now come to the CS, UCS pairing; the conditioned stimulus in the conditioned stimulus. The association between the conditioned stimulus in the unconditioned stimulus in the case of classical conditioning depends on contiguity of the estimates. How contiguity is there. You remember contiguity we said that how closure the two situations are. If the sound of the bell and the presentation of the meat powder simultaneously if that happens then you consider the respondent considers this was basically these two things cannot be

delineated, they cannot be separated you consider them to be one ensuring the presence of other.

In the case of human beings the best example could be when you use words which are not to be use in civilized society and immediately you know your teacher or your parents they punish you for that. What happens? The word that you speak and the consequences that you get, you consider these two associated and this helps you learn certain things. In the case operant conditioning the response enforcing a stimulus that gets associated and this association depends on the consequence of the response. So, whether it is what you call contiguity or it is the consequence. These two things again differentiate between classical and operant conditioning.

Mostly if you look at the examples of classical conditioning you would realize that it is animal learning where you where readily find a classical conditioning taking place. And mostly in the case of human beings you would realize that it is the operant conditioning now that takes place. You might have seen people around you who would look at a particular bird in the sky, you have the blue color bird and there are mythological stories suggesting that these bird basically somewhere associated with the a god. And you have always seen your parents they do like this whenever they see this very bird. Now what happens? You are neither appreciated for this behavior you are neither given negative feedback for this varying behavior, but you somehow develop affinity for that very bird and driven by that mythological concept you will also start repeating that very clearly.

But there are very few thing say watering of mouth when you look at pickles or behavior like this. Which you realize can be suitable examples in case of human beings for classical conditioning, but by enlarge classical conditioning examples are very readily easily available in the animal kingdom, whereas human beings will find mostly they use operant conditioning.

Let us now make a comparison of our day to day experience and try to fit it with these two theories that we have talked about.
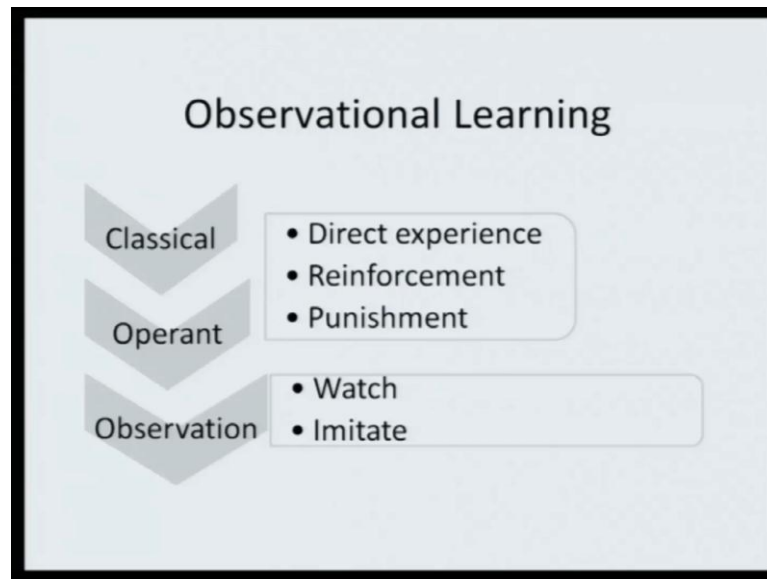
Classical and operant conditioning both of them they talk about certain direct experience that we have. Both of them have an element of reinforcement or punishment. But is it that you know are entire learning is dependent on direct experience? Is it that are entire learning is based on punishment in reinforcement? The answer is no. And this leads to the fact that there is a possibility of learning where you basically watch somebody you try to imitate him or her and therefore you learned that everything. So, this type of learning they are called Observational Learning.
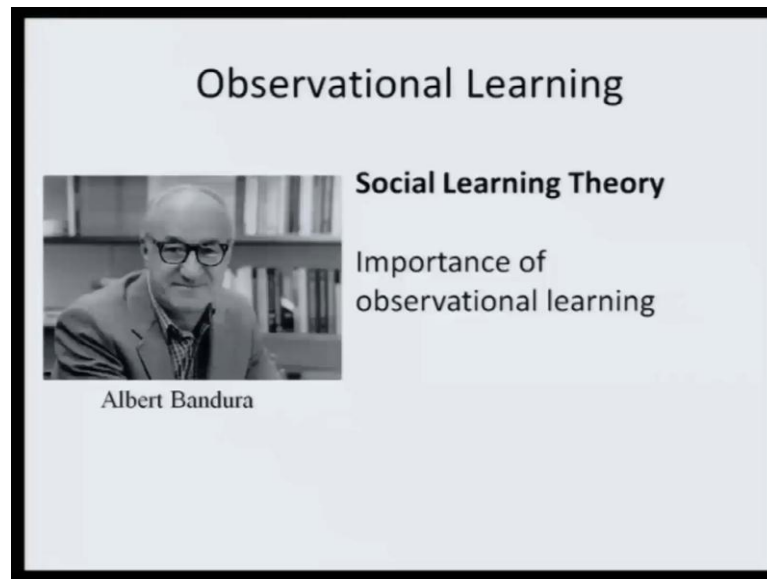
Now, Albert Bandura was the man who proposes the social learning theory and social learning theory has given at most importance to observational learning.
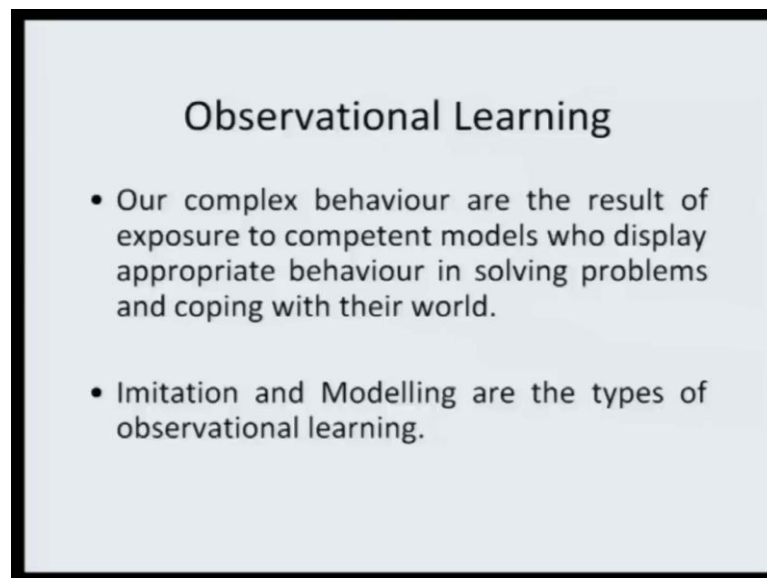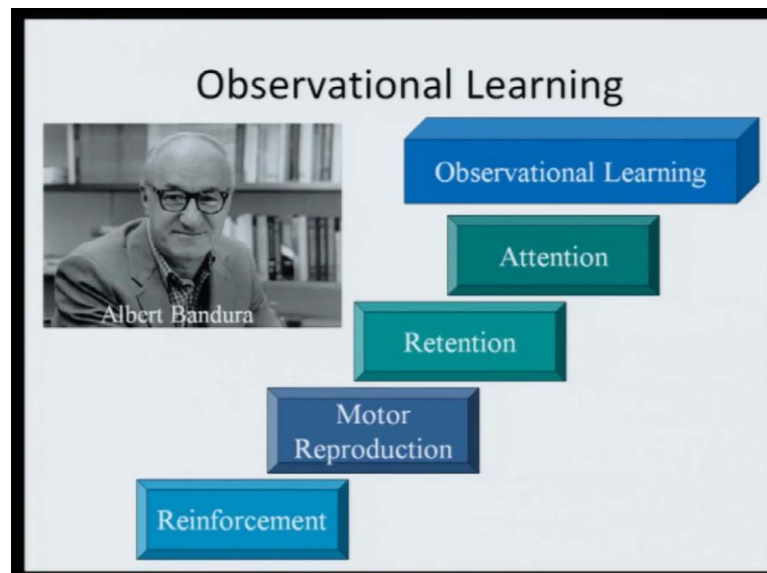
What does observational learning say? Observational learning basically says that you pay attention, whom do you pay attention to of course you will know search for an ideal for

yourself, model for yourself. So, you choose a model something which you consider worth replicating, you adopt your model you attempt to his or her behavior. Then the behavior of the model you retain with yourself, you then try to imitate that is moderate production.

So, you try to imitate that behavior and when you imitate it world around you appraise you. This appreciation becomes are enforcement for you. So, observational learning which basically helped you attend to a model, retain certain aspects of his or her behavior, reproduce it in your own behavior and when you repeat it in your own behavior you are doing reinforced. This is how observational learning works.

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Observational Learning

- Our complex behaviour are the result of exposure to competent models who display appropriate behaviour in solving problems and coping with their world.

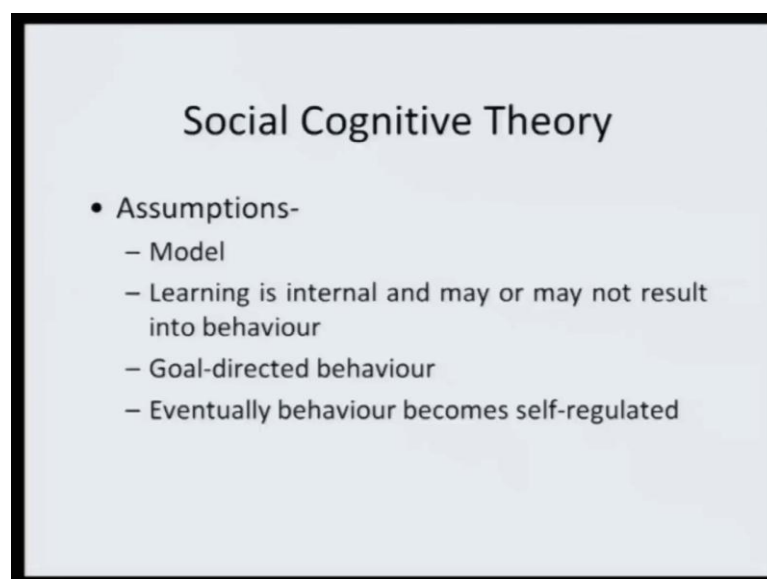- Imitation and Modelling are the types of observational learning.

Now, are complex behavior basically are the result of exposure to competent models who display appropriate behavior basically in terms of solving problems and coping with the world, the major world leaders. You remember when we started our first lecture and I showed you certain lines and told you that can you make sense what you see here although I was talking with reference to sensation and process of assigning meaning, but you took Mahatma Gandhi as an example there. Why did we take Mahatma Gandhi as an example, because you realize that there are certain type of scenarios in the socio political situation in the world which has its in built problems. Somebody who choose you the

path ahead the way ahead how to resolve this very problems, how to cope with the problems that you see in your world those are the people who would be considered as models.

But it is not, I am not suggesting that you have to have role model so equivalent the father of the nation Mahatma Gandhi and to select a model. You can have models that are readily available to you. Mostly inside the house you would realize that one of the parents they become the model. Mostly the psychoanalytic prospective will tell you and common (Refer Time: 13:37) experience will tell you that mostly the girl child would try to would love to imitate the mother, boy child would like to imitate the father. Then gradually with your increase in age and experience when you move out of the house you have multiple individuals to choose from. You will have particular actor or actress you start imitating him or her. Your style of walking the way you dress, the way you grow yourself is guided by is highly influenced by those models.

So basically what happens, you select a model and when you select a model from your contemporary environment then you try to imitate the behavior that you adore. And this is how observational learning works.

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Now the basic assumptions in social cognitive theory; basically says that you choose a model and learning is basically a internal in nature, internal in nature means unlike the two cases that we discussed the classical and operant conditioning where the behavior was very glaringly visible. Say like the pigeon would peck the dog would salivate; pickle would lead watering in the mouth. In the case of human beings it might not be at the behavior that you have learned will always result into very very glaringly visible behavior. It could be that you are not able to see any result you choose a model you observe the model but then learning is very very internal in nature. And this internal in nature of learning does not make others realize that this individual has already learned this very behavior. But at an appropriate time the individual reflects the very behavior and then you realize oh I did never realize that this person has learnt it, but he really did so.

The third assumption is social cognitive theory is that the behavior is goal directed in nature. You have selected a model and you are trying to imitate the model because you want yourself to be like him or her. So, you have a goal at hand and your behavior is directed towards that very goal. And finally, eventually behavior becomes self regulated. So, all you want to achieve as a human being is a self regulatory state.
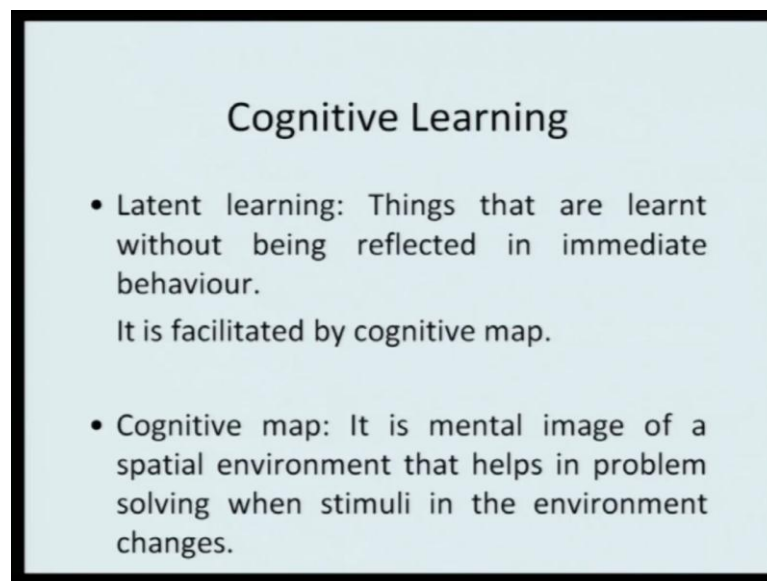
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Cognitive Learning

- Edward Tolman challenged the assumption of behaviourism.
- He explained living beings as active information processes.
- We construct cognitive maps of our experiences that guide our behaviour.
- Tolman interpreted conditioning in terms of expectations.

Interestingly, Edward Tolman he challenged the assumption of behaviorism. He explained that living beings are basically information processes they are active information processes and we contract cognitive map of the experience and it is this cognitive map which guides our behavior. And Tolman interpretation of conditioning was basically in terms of expectations.

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He talked about latent learning. And of course now with respect to formation of the little map he too gave the concept of cognitive map also. Now, latent learning basically is the learning of things that are learnt without being a reflected immediate behavior. Right now with respect to was assumption we talked about it. And Tolman's view was that you know cognitive maps it facilitates latent learning.

What is cognitive map? It is nothing it simple mental images of the spatial environment which helps us resolve the problem the challenges that the world pauses before us the environment pauses before us. Say for instance, the best example would be root memory for example. You have your house, you have your school or college and you know this is the root that can be taken to reach the destination. You know the alternate root also and you know at these two roots are blocked then what to do, you have the cognitive map.

The problem solving ability that you reflect in a given situation is depended on your cognitive map, it is latent learning, it is not at every day you repeat it your rewarded or some punishment is given to you or the situation is very obnoxious and it is withdrawn when you come forward with a desired behavior nothing but that is what happens here. So, this is the important of cognitive learning.