Dr. Yasmeen Kausar
Deptt. of Psychology
H.D. Jain College, Ara.

Study Material

B.A. Part-I

General Psychology

Dr. Yasmeen Kausar
Deptt. of Psychology
H. D. Jain College, Ara.

For B. A. Part-I
Paper: Gen Psy

Classical Conditioning

This type of learning was first investigated by Ivan P. Pavlov. He was primarily interested in the physiology of digestion. Pavlov designed an experiment to understand this process in detail. He again used dogs. In the first phase, a dog was placed in a box and harnessed. The dog was left in the box for some time. This was repeated a number of times on different days. In the meantime, a simple surgery was conducted, and one end of a tube was ~~con~~ inserted in the dog's jaw and the other end of the tube was put in a measuring glass.

In the second phase of the experiment, the dog was kept hungry and placed in harness with one end of the tube ending in the jaw & the other end in the glass jar.

A bell was sounded and immediately thereafter food (meat powder) was shown to the dog. The dog was allowed to eat it. For the next few days, every time the meal-powder was presented, it was preceded by the sound of a bell. After a number of such trails, a test-trail was introduced in which everything was the same as the previous trails except that no food followed sounding of the bell. The dog still salivated to the sound of the bell, expecting presentation of the meal-powder as the bell had come to be connected with it. This association between the bell and food resulted in acquisition of a new response by the dog, i.e. salivation to the sound of the bell. This has been termed conditioning. Food is thus an Unconditioned Stimulus

(US) and salination which follows it, an Unconditioned Response (UR). After conditioning, salination started to occur in the presence of the sound of the bell. The bell becomes a Conditioned Stimulus (CS) and saliva secretion a conditioned Response (CR). This kind of conditioning is called Classical Conditioning.

Stages of Conditioning	Nature of Stimulus	Nature of Response
Before	Food (US)	Salivation (UR)
	Sound of the Bell	Alertness (No Specific Response)
During	Sound of the Bell (CS) + Food (US)	Salivation (UR)
After	Sound of the Bell (CS)	Salivation (CR)

It is obvious that the learning situation in classical conditioning is one of S-B learning in which one stimulus (e.g. sound

of bell) becomes a signal of another stimulus (e.g. food). Here one stimulus signifies the possible occurance of another stimulus.

Factor Affecting Classical Conditioning

① Time Relations between Stimuli: The classical conditioning procedures, are basically of four types based on the time relations between the onset of conditioned stimulus (CS) and unconditioned stimulus (US). The first three are called forward conditioning procedures, and the fourth one is called backward conditioning procedure. The basic experimental arrangements of these procedures are as follows:

(a) When the CS and US are presented together, it is called simultaneous conditioning.

(b) In delayed conditioning, the onset

of CS precedes the onset of US. The CS ends before the end of the US.

(c) In trace conditioning, the onset and end of the CS precedes the onset of US with some time gap between the two.

(d) In backward conditioning, the US precedes the onset of CS.

(2) Type of Unconditioned Stimuli:

The unconditioned stimuli used in studies of classical conditioning are basically of two types i.e. appetitive and aversive. Appetitive unconditiond stimuli automatically elicits approach responses, such as eating, drinking, caressing, etc. These responses give satisfaction and pleasure. On the other hand, aversive US, such as noise, bitter taste, electric shock, painful injections etc. are painful, harmful, and elicit avoidance and escape responses. It has been found that appetitive classical conditioning is slower

and requires greater number of acquisition trails, but aversive classical conditioning is established in one, two or three trails depending on the intensity of the aversive US.

(3) Intensity of Conditioned Stimuli:
This influences the course of both appetitive and aversive classical conditioning. More intense conditioned stimuli are more effective in accelerating the acquisition of conditioned response. It means that the more intense the conditioned stimulus, the fewer are the number of acquisition trails needed for conditioning.