Quadrant II – Notes

Programme : Bachelor of Science (First year)

Subject : Zoology

Paper Code : ZOG 102

Paper Title : Animal Behaviour

Unit : Patterns of Behaviour

Module Name : Associative Learning

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NOTES

ASSOCIATIVE LEARNING

Associative learning is when two unrelated stimuli get associated in the brain to initiate a particular reaction. Example if a person touches a flame or a hot surface, and feels the pain, he associates pain with the flame and gets conditioned not to touch it again.

Associative learning also helps the organism in understanding the two stimuli and associate them with one another.

Example: Goldfish coming towards the water surface of the aquarium when a human comes to feed them. This behaviour is also observed when a person goes close to the aquarium, as fish associate approaching human with the availability of food at the surface of the tank.

Two types of associative learning:

1. Classical conditioning

Classical conditioning is a type of learning where stimulus that brings out biological response is paired with a new stimulus that results in the same reaction. A Russian physiologist Ivan Pavlov in 1890's discovered the process of classical conditioning. When Pavlov was carrying out experiments on digestive processes of dogs, he observed that dogs begin salivating at the sight of the technician who feeds them. To find out whether the response was associated with the food Pavlov carried out the experiment with dog.

2. Operant conditioning

Organisms associate a behaviour and its consequences (whether it is negative or positive) for that behaviour. It involves learning through reward and punishment.

Example: In an experimental setup, if laboratory rats press a lever when a green light is on, they receive a food pellet as a reward. If they press the lever when a red light is on, they receive a mild electric shock. As a result, they learn to press the lever when the green light is on and avoid the red light.

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