UNIT 3: UNDERSTANDING HUMAN BEHAVIOUR

UNIT STRUCTURE

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3.1 LEARNING OBJECTIVES

- To understand how psychologists analyze human behaviour.
- To identify the factors affecting human behaviour.
- To learn about the biological bases of behaviour.
- To follow the process of information processing in brain.
- To find out how learning takes place.
- To learn about how perception affects human behaviour.

3.2 INTRODUCTION

The previous unit focused on a fundamental cause of human behaviour i.e. motivation. The degree of variation in an individual's motivation level can be explained through his or her personality. The concept of personality has already been discussed in the previous unit. In this unit the concept of human behaviour is described in detail along with the biological and social bases behind it. Human memory, a fundamental function of the

human brain, is also discussed in brief as part of the biological base of human behaviour. Learning and perception as part of social bases of human behaviour are also discussed here. This unit will thus help us to understand the evolutionary nature of human behaviour, enumerate the role of genetic factors and culture in shaping human behaviour and identify the biological and socio-cultural factors in understanding human behaviour.

3.3 CONCEPT OF HUMAN BEHAVIOUR

Human behaviour is complex and very hard to determine. An individual can behave differently when faced with the same situation at different points of time, and many individuals can react similarly to different things in different situations. Human behaviour refers to the full range of physical and emotional behaviours that humans engage in; biologically, socially, intellectually, etc. and are influenced by culture, attitudes, emotions, values, ethics, authority and other such factors.



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Psychologists have tried to analyze human behaviour from different perspectives, such as:

- Behavioural perspective: This approach tries to analyze any overt (observable) action performed by an individual as a result of some stimulus. For example, John ran towards the door as soon as the door bell rang.
- Cognitive perspective: This approach deals with the thinking and feeling or the covert (hidden) part of an individual which may prompt the person to perform the overt behaviour. For example, what might John have thought or felt that made him run towards the door to open it? May be he did not want anyone to answer the door bell before him.
- Biological perspective: It focuses on the biological processes and events that underlie behaviour. For example, John is lean and agile and that may have prompted him to run towards the door so fast.
- Evolutionary perspective: This relates behaviour to the effects of human evolution. There are some inherited tendencies or psychological mechanisms we received from our ancient ancestors

(apes) that have evolved over time to manifest in the behaviour observed. For example, as John is male, and as male apes were hunters and usually indulged in running or chasing for the purpose of hunting, he prefers running towards the door .

- Developmental perspective: This focuses on the changes in behaviour and cognitive processes over the human life span. For example, John probably ran towards the door as he is in his adolescence. If he were an adult, he would not have performed the act of running.
- Psychodynamic perspective: This focuses on the role of hidden, often unconscious motives that drive a person to perform a certain act. For example, perhaps John would have wanted to portray to the other person present that his injured legs were fine and there was nothing to worry.
- Social or cultural factors: These factors can influence human behaviour to a large extent. For example, Indians touch the feet of elders as a welcome gesture while in the Western world people generally shake hands.

3.4 FACTORS AFFECTING HUMAN BEHAVIOUR

The factors that affect Human Behaviours are

- Heredity: Biological factors like genetic similarity may determine human behaviour to a large extent. For example, some common behavioural traits can be observed in identical twins.
- Personality: The overall psychological as well as sociable characteristics of a person constitute his or her personality. For example, Radha is an extrovert.
- Attitude: The tendency (due to specific evaluation) to behave in a certain way by a person towards a particular object, thing or someone else reflects the attitude of that person. For example, Meeta hates liars and perceive Rohan as a liar. She has started avoiding Rohan.
- Social Norms: Societal rules and regulations make an individual perform certain acts or show desired behaviours while avoiding other

undesired acts or behaviours. For example, committing any public nuisance may land a person in jail. This rule will instil fear and people will refrain from any misbehaviour in public.

CHECK YOUR PROGRESS - 1

1. What are the main aspects of human Behaviours ?
2. State the factors that affect human behavior.

3.5 BIOLOGICAL BASES OF HUMAN BEHAVIOUR

Most psychological processes have biological underpinnings i.e. they can be explained through biological processes or chemical activities happening inside our body. For example, research has proved that people with high levels of testosterone, a male sex hormone, are more likely to engage in fighting than people with low levels of the hormone.

Our nervous system regulates our bodily functions. The nervous system is built of neurons and other cells in our body which regulate our bodily functions and allow us to react in various ways. Neuron is the basic unit of our nervous system. Neurons are specialized cells that act as basic building blocks for receiving, moving and processing information, and possess the unique property of converting various forms of stimuli into electrical impulses. These neurons communicate or pass signals to each other through synaptic vesicles. When there is a difference between electrical charges between two neurons, a signal is transmitted through them. This neurotransmission is achieved through neurotransmitters which are chemical substances responsible for making the potential difference.

The nervous system has 2 major components: a) the Central Nervous System (CNS) b) the Peripheral Nervous System (PNS). The Central Nervous System consists of the brain and the spinal cord. The PNS connects the CNS to other vital organs of the body through nerves and neurons.

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bodily processes. This system consists of glands known as endocrine glands which release chemicals called hormones into our blood stream. The pituitary gland, also known as the master gland, is an endocrine gland that releases chemicals which mainly control other glands and play a part in sexual development and basic bodily functions relating to metabolism and excretion.

The human brain is a very powerful and complex human organ and is divided into three major components-a) parts concerned with basic body functions, b) parts related to motivation and emotion c) parts dealing with higher mental processes such as verbal ability, planning, problem solving and reasoning. In the following section, the human brain's functionality as an information storage and retrieval device is explained.

3.6 MEMORY

Memory refers to the retaining and recalling of information over a period of time, depending on the nature of cognitive tasks one is required to perform. Sometimes we remember things that happened to us long ago, while at other times we forget or cannot recall events, names of people, phone numbers or other details that we heard just a few days or even a few hours ago. This is due to our brain's capability of storing specific things and their contexts, and retrieving them when recalled.



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Like a computer's memory, human memory also performs 3 basic functions.

- Encoding: Process of converting information into a form that can be stored in the memory. It is the first stage where incoming information is received and some meaning is derived. It is then encoded in such a fashion that associated brain parts can process it further.
- Storing: Process of retaining information over varying periods of time. It is the second stage of memory. Information which is encoded must also be stored so that it can be put to later use. Storing thus refers to a process through which information is retained and held over a period of time.
- Retrieval: Process of locating and accessing specific information when needed. It is the third stage of memory. Information can be

used only when one is able to recover it from his or her memory. Retrieval refers to the process of bringing the stored information to one's awareness so that it can be used for performing various cognitive tasks like problem solving, decision making etc.

3.6.1 Memory Systems

According to the stage model, there are three memory systems: sensory, short term and long term memory.

Sensory memory: The incoming information first enters the sensory memory, which has a large capacity, but is of a short duration. It registers information from each of the senses with reasonable accuracy.

Short Term Memory or Working Memory: This is the place in the brain for temporary storage of information. Generally, working memory stores the most recent information we process.

Long Term Memory: This is the place in the brain where information stays for a longer period of time.

For example, researchers have found that when people are asked to recall a long list of un-related words, they generally remember the words from the beginning of the list and end of the list. They fail to remember the words in the middle. It can be said that the words from the beginning (early read) may be stored in their long term memory while the words in the end (recent read) are stored in working memory or short term memory.

3.7 LEARNING

Learning may be defined as any relatively permanent change in behaviour or behavioural potential produced by experience or practice. The simplest kind of learning is called conditioning. Two types of conditioning have been identified by psychologists: classical conditioning and instrumental/ operant conditioning. According to some social behaviourists like Ivan Pavlov and John B. Watson, learning results from the association between a stimuli and response (S-R connection). Pavlov was primarily interested in the physiology of digestion. To demonstrate his Classical Conditioning Theory, Pavlov conducted his famous experiment, popularly known

as the "Pavlov Experiment".

In this experiment Pavlov gave a piece of meat to a dog and on seeing the meat the dog starts salivating (unconditioned response). Next, he rang a bell (neutral stimulus) and found that the dog did not salivate. In the next few trials, he gave the dog the piece of meat and simultaneously rang the bell. After he repeated this process several times, the dog learned to associate the meat and the sound of the bell. Pavlov found that the dog started salivating even when only the bell was rung and the meat was not given. This suggested that the ringing of the bell (previously neutral) had become a conditioned stimulus on association with meat (unconditioned stimulus). Salivating on mere hearing the bell had become a conditioned response. Food is thus an Unconditioned Stimulus (US), and salivation which follows it, an Unconditioned Response (UR). After conditioning, salivation started to occur in the presence of the sound of the bell. Thus the bell becomes a Conditioned Stimulus (CS), and saliva secretion a Conditioned Response (CR). This kind of conditioning is called classical conditioning.

The other popular theory of conditioning was propounded by B. F.Skinner, and is known as the Operant Conditioning Theory of learning. Here the consequences of the response (good or bad) determine the behaviour that results in learning (R-S connection). To demonstrate this, Skinner performed an experiment where he placed a hungry rat inside a box, called the Skinner Box. The box had a lever which on pressing would drop a bit of food. The rat once accidently pressed the lever and received the pellet of food. The rat soon learned to associate pressing of the lever with the reward of food and repeated the behaviour of pressing the lever to get the reward. Thus it is obvious that lever pressing is an operant response and getting food is its consequence. The response given by the rat was instrumental in getting the food and thus it is also called instrumental conditioning. Skinner concluded that human beings too repeat the behaviour which has a positive consequence and avoid the behaviour which has a negative consequence.

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Earlier this form of learning was called imitation. According to N.E Miller and J.C Dollard, learning can also occur through imitation of others. Through observation, a person constructs a mental picture of an act carried out by someone else. The person also imagines the probable consequences. After this, the person enacts the image in his or her mind. If the actual consequence of that behaviour is positive, the behaviour is repeated; otherwise it is discontinued.

3.8 PERCEPTION

The same event witnessed by many can be perceived differently by each of them. Therefore, perception can be defined as a process by which an individual selects, organizes and interprets stimuli into a meaningful picture of the environment where he or she lives. Perception is basically giving meaning to sensations. The motivation level, personality and the learning of the individual play a major role in the interpretation of the stimuli. Perception of an individual can be related to objects, things, places, people and environment. Here we will discuss a little about social perception which mainly deals with how an individual perceives other individuals.

There are a few factors which influence one's perception of others. The factors are as follows:

1) If an individual is well aware of his or her own personality, he or she can predict another's personality accurately and can modify their own behaviour to interact with that person accordingly.
2) Certain specific traits of an individual affect the person's perception of others. For example, if a person is manipulative, he or she tends to perceive others as manipulative.
3) The status of the person in society influences how he or she is perceived by others.

3.8.1 Attribution

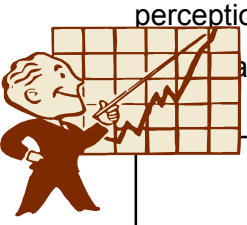
The way in which people explain the cause of their own or others' behaviour is called attribution. Through this attribution process, people make sense of their own and others' behaviour and draw conclusions of the

possible factors influencing that behaviour.

There are mainly two types of attribution viz., dispositional and situational.

In dispositional attribution, a person's behaviour is attributed to his or her own personality or internal characteristics. In situational disposition, external factors are attributed or held responsible for a person's behaviour. The above two dispositions are explained in the following example:

A student of average intelligence has secured high marks in the Board exams. His parents perceive that his good performance in the exams is due to the hard effort he invested in his studies. They attribute the boy's internal motivation as the factor responsible for the performance. They demonstrate dispositional attribution. On the other hand his relatives perceive that the boy has managed to secure high marks because of the easy question papers. They attribute an external factor (i.e. easy questions) as responsible for his good performance. Due to the difference in the perceptions, the boy's parents and relatives may behave differently with ...arding his good results in the exam.



CHECK YOUR PROGRESS - 2

1. What are the different components of our nervous systems ?
2. How is information processed in the human brain? What are the different types of memory ?
3. What are the different ways of learning ?
4. What are the different types of attribution ?

ACTIVITY



1. Which perspective of analyzing human behaviour do you find most relevant and important? List the reasons.
2. List the specific behaviour(s) you have which you think are hereditary, those that are personal and those that are socially learned.

3. If you find your best friend is lying to you about some matter or event, how do you attribute for his or her behaviour and why? Will you do the same for any other friend of yours?



3.9 LET US SUM UP

- Behaviour is generally the overt or observable response of an individual to some stimulus. Psychologists try to analyze human behaviour through seven perspectives viz., behavioural, cognitive, biological, evolutionary, developmental, psychoanalytical and social.
- Heredity, personality, attitude, cultural and social norms are the factors which mainly influence human behaviour.
- The central nervous system consists of the brain and the spinal cord. PNS connects the CNS with other vital organs of the body through nerves and neurons.The Endocrine System acts as a chemical regulator of our bodily processes. This system consists of glands known as endocrine glands which release chemicals called hormones into our blood stream
- The human brain is divided into three major components - a) parts concerned with basic body functions, b) parts concerned with motivation and emotion, and c) parts dealing with higher mental processes such as verbal ability, planning, problem solving and reasoning.
- Human memory also performs three basic functions - encoding, storage and retrieval. Short term memory acts as a temporary storage of information. Information stays for a longer period in long term memory.
- Classical Conditional learning, Operant Conditional learning and Social learning are three major types or ways of learning.
- Perception can be defined as a process by which an individual selects, organizes and interprets stimuli into a meaningful picture of

the environment where he or she lives.

- The way in which people explain the cause for their own or others' behaviour is called attribution. Dispositional and Situational attributions are the two main types of attribution.



3.10 FURTHER READING

- Anderson, J. R. (1990). Cognitive psychology and its implications. WH Freeman/Times Books/Henry Holt & Co.
- Baron, R. A. (2001). Psychology (5th Edition). Allyn & Bacon.
- Luthans, F. (2011). Organizational Behaviour: An evidence-based approach (12th Edition). New York, NY: McGraw-Hill/Irwin.
- Robbins, S. P. (2003). Essentials of organizational behaviour (7th Edition). Upper Saddle River: Prentice Hall.



3.11 ANSWERS TO CHECK YOUR PROGRESS

Answers to Check Your Progress 1

1. Behavioural, Cognitive, Biological, Evolutionary, Developmental, Psychoanalytic and Social.
2. Heredity, personality, attitude, social and cultural norms.

Answers to Check Your Progress 2

1. Central Nervous System, Peripheral Nervous System and Endocrine Systems.
2. Through encoding, storing and retrieval process information in the brain is stored and retrieved.
   Short-term and Long-term are the two major types of memory.

3. Classical Conditional Learning, Operant learning and Observational or Social Learning.
4. Dispositional and Situational attributions are the two main types of attribution.



3.12 MODEL QUESTIONS

1. Analyze the significance of memory systems in understanding behaviour.
2. Describe the biological bases of human behaviour.
3. How does the brain function as a memory device?
4. How do learning and perception influence an individual's behaviour?
5. How is the concept of attribution related to human behaviour?

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