# PHILOSOPHY OF MIND AND SOCIO-RELIGIOUS PHILOSOPHY

BA [ Philosophy ]
Fourth Semester
Paper IV

[ENGLISH EDITION]



# Directorate of Distance Education TRIPURA UNIVERSITY

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Unit - III Philosophy of Religion: Theories of the Origin of Religion (Anthropological & Psychological), Tribal, National and Universal Religion.	Unit 3: Philosophy of Religion (Pages 101-136)	
Unit - IV Social Philosophy: Basic Concepts: Society, Social Groups, Association, Institution, Community, Law and Custom, Relation between Society and Individual (Socialism and Individualism).	Unit 4: Basic Concepts of Social Philosophy (Pages 137-168)	

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#### **INTRODUCTION**

The subject of philosophy of mind is an area which undertakes the study of the human mind and its functioning in relation to the physical body. It studies the different fabrics of thought including metaphysics and psychology. It deals with the concepts of introspection, perception, dreams, memory, learning, the varied levels of mind etc.

Crucial to the learning of the philosophy of mind is the field of psychology and sociology. Psychology is the study of the mind, along with such aspects of mind as perception, cognition, emotion, and behaviour. Sociology on the other hand is a science based on the study of humans and their culture. It is a combination of the organized study of the growth, architecture, relationships and attitudes of systematic groups of human beings. The study of both the fields help in decoding the functioning of the human society and actions.

Socio-religious philosophy deals with two pillars: society and religion. Religion is crucial to philosophy because it represents the behaviour of humans as a part of a group, which adds to the understanding of the societal norms and human relationships with the supernatural. There have been varied theories related to the origin of religion including distinct anthropological and psychological perspectives. Social philosophy brings to the surface the associations which humans group themselves into and how the individual interacts with the society.

All these separate studies combine to give a nuanced understanding of the philosophy of mind and the socio-religious psychology.

This book is written in a self-instructional format and is divided into four units. Each unit begins with an Introduction to the topic followed by an outline of the Unit Objectives. The content is then presented in a simple and easy-to-understand manner, and is interspersed with Check Your Progress questions to test the reader's understanding of the topic. A list of Questions and Exercises is also provided at the end of each unit, and includes short-answer as well as long-answer questions. The Summary and Key Terms section are useful tools for students and are meant for effective recapitulation of the text.

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# UNIT 1 PSYCHOLOGY: PHILOSOPHY OF THE MIND

#### **NOTES**

#### **Structure**

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Nature and Scope of Psychology
- 1.3 Psychological Methods: Introspection, Extrospection and Perception 1.3.1 Perception
- 1.4 Summary
- 1.5 Key Terms
- 1.6 Answers to 'Check Your Progress'
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- 1.8 Further Reading

#### 1.0 INTRODUCTION

Philosophy of the mind requires an understanding of the subject of psychology. It is one such field which tries to use scientific methods and theories to deconstruct and understand the workings of the human mind. Such an analysis is very helpful as it not only helps the humans be a better version of themselves, through the improvements of their shortcomings and combatting of problems, but also helps in the examining of the external factors which affect the interaction of human beings among each other and the environment. The field of psychology is relevant to diverse fields as education, military, corporate organizations, sociology, aerospace science etc. There are various research methods that are available in the subject of psychology which can be applied to different situations are per the needs and requirements. In this unit, you will learn about the nature and scope of psychology and the psychological methods like introspection, extrospection and perception etc.

#### 1.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Discuss the nature and scope of psychology
- Explain the psychological methods of introspection, extrospection and perception

#### 1.2 NATURE AND SCOPE OF PSYCHOLOGY

Psychology is derived from two Greek words 'psyche' and 'logia' which collectively mean the study of the human mind. Like many other subjects, psychology too finds

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its roots in ancient philosophy. Its subject matter has evolved from the study of soul, to the study of mind, and finally it is now considered to be the scientific study of behaviour. Thus, the subject matter of psychology includes behaviour. This change from 'mind' to 'behaviour' was a major challenge for psychologists. There were many conflicts because of this fact. In addition to this, it was very difficult to define behaviour. Some people were of the view that those activities which can be observed should be considered as behaviour, such a view did not support activities like thinking, feeling, and remembering because they could not be observed. Thus this view was only in favour of including activities like the movements of the muscles, and the changes due to glandular activity and other organs of the human body as human behaviour. Watson was the major propounder of this view of behaviour.

Other psychologists believe that behaviour should include not only observable behaviour but also inner activities and processes which cannot be observed. This view includes activities like thinking, feeling and remembering.

The scope of psychology is considered to be quite wide and extensive because it covers the study of behaviour of all living organisms. Psychology also aims to study the process of perception that is how individuals give meaning to the world around them, it analyses emotional aspect of behaviour and also cognition. The goal of psychology is to analyse, predict, and control behaviour and mental processes.

Psychology is now identified as the scientific study of human and animal behaviour. Behaviour is the way one acts in a given situation. Behaviour includes the actual actions and responses of organisms, both animals and human beings.

According to Woodworth, 'any manifestation of life is activity' and behaviour is a collective name for all these activities. Total behaviour includes both covert and overt activities. Overt behaviour is that behaviour which can be observed and measured and covert behaviour is that behaviour which includes our inner experiences and those mental activities that are going on in the brain.

#### **Definition and Nature of Psychology**

For the behavioirist **John. B. Watson**, psychology is that division of natural science which has human behaviour—the doing and saying, both learned and unlearned—as its subject matter.

William James— 'Psychology is the science of mental life, both of its phenomenon and of their conditions... The phenomenon are such things as we call feelings desires, cognitions, reasonings, decision and the like.'

Kenneth Clark and George Miller— 'Psychology is usually defined as the scientific study of behaviour. Its subject matter includes behavioural processes that are observable such as gestures, speech and physiological changes and processes that can only be inferred, such as thoughts and dreams.'

**R.S Woodworth**— 'Psychology is the scientific study of the activities of the individual in relation to his environment.'

**R.H. Thouless**— 'Psychology is the positive science of experience and behaviour.'

**Jalota**— 'Psychology is defined as the study of mental processes as experienced in bodily behaviour or observed in direct behaviour.'

of the Mind

Psychology: Philosophy

**Gardener Murphy**— 'Psychology is the science that studies the responses which living individuals make to their environment.'

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#### **Nature of Psychology**

The major problems of our world relate to human behaviour. Psychologists are basically concerned with studying and attempting to understand human behaviour. Psychology is a relatively recent science and has evolved from philosophy and biology. In reality, modern psychology deals specifically with physiology (chemistry of brain, neurology, genetics) and the behaviour of the biological organism (stimulus-response) connection.

#### Is Psychology a Science?

Several attempts have been made to analyse and understand human mind and behaviour. The first theory that was put forward to explain human nature was an effort to understand man's concisiousness as an inner spirit. Later thinkers like Aristotle and Plato talked about psyche or soul as the centre of experience. Philosophers were interested in studying human experience and behaviour. John Locke believed that human knowledge is acquired during life and is not inherited or based on innate ideas. It is often believed by people that Psychology is nothing but the use of common sense.

It is a common belief that psychologists can read the minds of people but scientists do not accept this fact. The scientific definition of psychology states that it is the science of behaviour. The earlier definitions of psychology stated that it is a study of mind which is a very abstract word and cannot be scientifically studied. Behaviour is factual and concrete in nature and can be easily measured. The late 19th century marks the start of psychology as a scientific discipline.

In 1879, Wilhelm Wundt founded the first laboratory to conduct various psychological experiments in Leipzig Germany. His main motive was to show that for every physical activity there is a mental activity. He was of the opinion that psychologists should find about feelings, insight, and sentiments.

Wilhelm Wundt and William James are considered to be the fathers of psychology. Psychology is considered a scientific discipline because psychologists use scientific methods to describe behaviours and explain why these behaviours occur. They also strive to conduct research which can be used for predicting and even changing human behaviour.

Psychology has certain characteristics which makes it a science. These characteristics are:

**1. Psychology uses scientific methods:** Psychologists conduct experiments in strictly controlled conditions. Psychological laboratories are used to observe any phenomenon to establish cause and effect relationship.

#### **NOTES**

- **2. Psychology is factual:** It is not based on values but facts. Psychological information is based on observations and experiments.
- **3. Psychology is verifiable:** Most of the psychological principles can be verified by researchers by using scientific methods.
- 4. Cause-effect relationship: It is characteristic of science to establish cause-ffect relationship and derive universal principles for generalization. Psychology also tries to develop cause and effect relationship between different variables under study and then formulate theories based on the findings.
- **5. Laws of psychology are universal:** The laws of psychology are considered to be universal in their application. These laws are applicable to all organisms at all times under similar conditions.
- **6. Psychology can predict human behaviour:** By discovering the cause and effect relationship psychologists can predict human behaviour. Many psychological tests are conducted to predict the behaviour.

#### Approaches to Psychology

There are five approaches to study the subject matter of psychology:

- 1. Biological approach
- 2. Behavioural approach
- 3. Cognitive approach
- 4. Humanistic approach
- 5. Psychoanalytical approach

#### 1. Biological Approach

The biological approach to studying human behaviour tries to relate the actions of human beings with the events taking place within the brain and nervous system. All psychological events are represented in the nervous system in close association with other body parts. This approach emphasizes the relationship between the mind and the body and the influence of heredity on behaviour; these interactions act both ways, mind can affect body and body can affect mind.

Biological approaches emphasize the role of heredity in various psychological disorders. It assumes that if parents are suffering from some disorder then there are chances that the children also get affected by it. Psychologists do believe that these disorders may be because of a combination of a number of factors which can be social, psychological and biological.

#### 2. Behavioural Approach

The behavioural approach to psychology is based on the works of John B. Watson in the early 1900s, whose initial interest had been animal experimentation in which the traditional approaches of the early psychologists through consciousness, introspection and the unconscious were of no practical value. What the animal experimenters could observe was primarily behaviour. To the behaviourists this was the greatest virtue because it was objective and it eliminated the subjectivity of the studies of consciousness, introspective report and the free association from the unconscious.

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This technique of studying animal behaviour was transferred to human behaviour. The behavioural psychologists assume that you can understand human by observing their behaviour rather than by studying the internal working of their brain. According to this behavioural approach the cause of human behaviour is the reaction to some stimulus present in the environment.

It is the environmental factor rather than genetic or biological differences that makes us behave differently. According to the behaviourists, the stimulus – response theory is the basis of understanding the process of conditioning. An individual learns a particular response to a stimulus and becomes conditioned to it. This is how learning takes place in humans.

#### 3. Cognitive Approach

Cognition refers to those processes which transform the stimulus input in different ways, encode it, store it and then retrieve it later, when needed.

Cognitive approach stresses on the fact that the brain actively processes the information it receives and transforms it into different forms.

Cognitive psychologists explain the process of human behaviour on the basis of the assumption that behaviour is controlled by our own thought process, as opposed to genetic factors. Thus, each individual processes the information in a different manner and behaves differently.

Development of language, problem solving, reasoning, heuristics and algorithms (step by step solution to solve the problems) are all part of cognitive psychology.

Different moods also have great impact on individuals' reactions in different circumstances.

#### 4. Humanistic Approach

Carl Rogers was the founder of humanistic approach.

This approach answers that every individual has the freedom of creating his/her own future, a huge capacity for attaining growth at personal level, a huge amount of intrinsic worth, and a lot of potential for self-fulfillment. Every individual has a fundamental need to grow and attain the state of self actualization.

Maslow has also discussed the humanistic approach in which the holistic view of the individual is elaborated.

Humanistic view places importance on improving interpersonal relationships and providing conditions that promote the development of a man's potential for constructive and cooperative actions.

Humanistic psychologists emphasize the individual approach therapy. According to this school of thought, an individual can improve his mental state by his own efforts. They can recognize their own potential and abilities.

#### 5. Psychoanalytical Approach

The advances in medical psychology and the theories of hypnosis prompted the development of psychoanalysis.

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The founder of psychoanalytic theory was Sigmund Freud. Sigmund Freud is considered as the father of modern psychology. Freud was from the medical field, he was a psychiatrist and a neurologist who was only interested in understanding the mental disorders. Freud was not very keen to study issues like perception, sensation, thinking and intelligence. He developed psychoanalysis which is considered to be the first systematic approach to therapy. Freud beleived that mind had three sections - the conscious, the pre-conscious and the unconscious. Freud concentrated on problems of consciouness. He interpreted that the primary source of mental conflicts and disorders was the unconscious. In order to study the unconscious he founded the technique of psychoanalysis. This theory of psychoanalysis is based on stream of thoughts and dream analysis. He beleived that 90 per cent of human mind is the unconscious mind. He made three parts of personality – id, ego, superego. Among these, Id follows pleasure and so is thought to be governed by pleasure principle. Ego is the rational part of Id and is determined by the reality principle. Superego is related to morals and ethics.

Freud was of the view that every action of a man has a cause which is most often some unconscious motive. Unconscious processes are those thoughts and wishes about which the person is unaware but which influences his behaviour.

#### **Scope of Contemporary Psychology**

Psychology has mainly been interpreted as 'the study of behaviour' from last many centuries, but scholars are interested in knowing what are the various fields which psychologists like to explore. Some of these areas are as follows:

#### Physiological psychologists

Physiological psychology is that science which studies the biological bases of behaviour Physiological psychologists want to explore the relationship between body processes and behaviour for example, what is the effect of certain drugs on memory? This means that the physiological psychologists undertake the study of the biological factors (as opposed to economic, social, or cultural factors) which cause or constitute behaviour.

#### **Developmental psychologists**

Developmental psychologists can study human growth, they lay stress on factors that shape human behaviour from birth to old age. Psychologists try to study how development occurs when there is a gradual accumulation of knowledge. Language acquisition and emotional development are also topics which are covered by developmental psychologists.

The developmental psychologists are also interested in studying a particular stage of life like infancy or adolescence.

#### **Experimental psychologists**

Experimental psychologists use experimental method to study behaviour. Experimental psychology involves the collection of reliable and quantifiable behavioural data.

study a particular psychological phenomenon or to test hypotheses concerning that phenomenon.

Often empirical tests are conducted under controlled conditions in order to

The subjects for such experiments can be human beings, animals and birds.

#### Clinical and counselling psychologists

Clinical and counseling psychologists deal with diagnosis and treatment of mental and emotional problems like drug addiction, juvenile delinquency, criminal behaviour. Clinical psychologists work in mental hospitals and clinics in close association with psychiatrists to diagnose and treat mental problems.

A counselor generally addresses problems like giving advice on career matters to students and solving family conflicts.

#### Industrial psychologists

Industrial psychologists are broadly concerned with human factors in industry. They try to improve the quality of work life by addressing issues like justice at workplace, and balancing roles at work and at home.

Industrial psychologists generally assist employers in finding the best person for a job, evaluating job performance, and training employees.

#### Personality and social psychologists

Social psychologists are concerned with the behaviour of people in groups. Personality and social psychology emphasizes to concentrate on basic questions regarding people and their sensations, perceptions and attitude.

Social psychologists use scientific methods to analyse social interactions and how thoughts, feelings, and behaviours of individuals are influenced by other people. They work on topics like intergroup conflict, aggressive tendencies, and propoganda. They also conduct opinion polls, surveys and other types of market research.

#### School and educational psychologists

These days most of the schools offer students the facilities of a trained educational psychologist because the adolescents come across many types of emotional and career problems during this phase of their life.

Educational psychologists conduct various types of personality, aptitude and intelligence tests on school students which help them in solving the individual problems which students face.

#### Fields of Psychology

#### General psychology

This branch of psychology deals with theories and principles related to the behaviour of normal human beings. General psychology studies different aspects of mind such as perception, cognition, emotion, and behaviour.

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#### Abnormal psychology

The subject matter of this branch of psychology is the study of various forms of abnormal behaviour and its treatment through various psychological techniques. Abnormal psychology is the scientific study of many psychological disorders. These disorders affect people in the manner in which they feel, think, speak, and behave.

#### Child psychology

This branch of psychology studies the growth and development of a child from birth to adolescence. It studies the behaviour of children with special needs. Child psychologists deal with knowledge on the development of child which includes physical, mental and emotional growth. Anxiety disorders, attention deficit disorder, that includes creativity, giftedness, temperament diversity, allergies and nutrition are some of the other areas of interest for a child psychologist.

#### **Animal psychology**

In this branch of psychology the animal behaviour is studied under controlled conditions. Some common examples of such behaviour is experiments conducted by Pavlov to test learning and experiments conducted by Skinner on rats. By conducting such experiments many types of inferences can be drawn and generalizations can be made.

#### **Environmental psychology**

This branch of psychology refers to the role of environment on behaviour. The psychologists lays emphasis on modifying and restructuring environment for social well being. Thus, an environmental psychologist tries to solve personal and social problems by working on environmental barriers.

#### Sports psychology

This branch of psychology studies the behaviour of players and sport persons. The sports psychologists also studies the activities, experiences, situations and the environment which is present in the world of sports. The main aim of sports psychologists is to improve the performance of players by minimizing the psychological effects of injury and poor performance and by managing their emotions. Training is given to improve the players' mental and physical health.

#### Aerospace psychology

Aerospace psychology deals with the behaviour of astronauts who go in space. They face problems related to the new environment because of which there are many physiological and psychological problems. Aerospace psychologists try to design training programs for the astronauts so that they can adapt to their behaviour according to the new environmental settings and are in sound mental health.

#### Military psychology

This branch of psychology is related to the behaviour of soldiers working in the armed forces. The main area of concern for the military psychologists is how the stress level of the soldiers can be reduced and their morale can be kept high. Psychologists also work for recruitment in the services.

Psychology: Philosophy of the Mind

#### Consumer psychology

This branch of psychology deals with the behaviour of consumers in their present economic situation and social status. The area of interest is to find out the needs of the customers and their expectations from the product. This information is required by shopkeepers and sales persons. This branch of psychology is designed to benefit the sales persons in the context of how the customers should be approached, influenced or motivated to buy a particular brand of the product.

#### **Psychometrics**

This branch of psychology is concerned with the construction of psychological tests for measuring and analyzing different aspects of behaviour. The psychometrics psychologists construct various psychological tests like adjustment scales, aptitude tests, personality inventories and intelligence tests for the assessment of various dimensions of behaviour. Various statistical tools are needed in construction and analysis so these statistical methods are also a part of this branch of psychology.

#### Folk psychology

It is the branch of psychology which aims to study the culture, art, religion, superstitions and other such aspects. This branch of psychology is gaining more prominence in the developed countries.

#### Organizational and managerial psychology

This branch of psychology studies the behaviour of human resources in the organization. By studying this branch psychologists can help the managers working in the organizations in maintaining their zeal and enthusiasm for exercising their duties properly and cooperatively by seeking proper satisfaction and adjustment in their work environment. Important areas in this branch are organizational culture, motivation, job satisfaction etc.

#### Relationship of Psychology with Other Sciences

#### Psychology and Economics

According to Marshal, 'Economics is a study of mankind in the ordinary business of life. It studies that part of the individual and social action which is most closely connected with the attainment and use of material requisites of well being.'

Economics is the study of man's activities devoted to obtaining the material means for satisfaction of his wants. Thus, it can easily be concluded from the above definitions that economics studies some activities of human beings on the other hand psychology also studies human activities. The difference is in the approach. Economics studies the economic functions of man but psychology is only concerned with the social interactions of man.

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There is a mutual relationship of economic conditions and social interactions. It is a fact that economic conditions do influence social interactions and social interactions also influence economic circumstances and conditions.

Many economic problems have a psychological aspect, for example problems of strikes, lockouts, advertisements and propaganda, working conditions can be solved by psychological interventions.

Principles of demand and supply and law of mariginal utility are also related to human interactions which form an important part of psychology.

#### **Psychology and Political Science**

Social psychology studies the behaviour of individuals in society. Political science studies political institutions, working of government laws etc. Political science studies the laws formed for the people living in the society. The laws cannot be made without understanding the psychology of people.

Political institutions exert pressure and influence social behaviour of the individuals. Thus psychology and political science are closely related.

#### Psychology and Sociology

Sociology is the scientific study of society. Sociology studies man in the context of society and as a part of it. According to MacIver, sociology gives aid to psychology. In order to understand group behaviour in sociology it is important to study individual behaviour.

#### Psychology and Biology

Behaviour is related to man's interaction with environment. Darwin's theory of evolution is based on biological theories. Behaviour is related to external as well as internal feelings. The human and animal behaviour cannot be explained without the help of biological principles. Watson who is considered the founder of behaviourism laid stress on animal psychology and he also tried to explain human behaviour in terms of stimulus response relationship.

#### Psychology and Philosophy

History of psychology reveals that psychology was considered the study of mind. Mind is a philosophical term. Mental concepts like deep sleep, dreams are all a part of philosophical discussions but its logical explanations are based on the psychological theories given by Freud.

#### Importance and Applications of Psychology

#### 1. Education

Psychology has a very important role to play in the field of education. Psychologists work in schools and universities to guide students in their educational and vocational problems. They also work to solve problems of adjustment. Conducting aptitude, intelligence and personality tests is a part of their counseling sessions.

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The psychologists working in schools also help teachers in developing skills in solving class room problems and developing and improving teaching methods to increase class effectiveness.

Some students are unique and require special teaching assistance. Psychologists also help in designing programs for such special children.

#### 2. Criminology

Forensic Psychologydeals with a lot of practices mostly including medical evaluations of defendants, statements given to judges and courtroom testimony. Rehabilitation of criminals also involve psychologists.

#### 3. Therapy

Psychology has been proved to be very useful in treatment of diseases. The cause of many diseases is psychological and hence requires psychological treatment. It has been found by many studies that 10 per cent of the American population at one time or another suffers from some mental problem.

It is commonly said that every human being at some point of time requires the guidance of a clinical psychologist.

Psychologists conduct many type of therapeutic sessions on the patients suffering from psychological problems like neurosis, anxiety, phobia. This branch of psychology is called as abnormal psychology.

#### 4. Trade

One important area related to industry is advertisement. Psychology has made selling an art. Psychologists understand the interest and perception of customers and help in creating the advertisements while keeping in mind the needs of buyers.

#### 5. Recruitment

Psychology has helped the organizations in finding out suitable men for different kinds of work. Psychologists are also a part of interview boards to judge the different aspects of the personality of the candidates appearing for the interview.

#### 6. Self-understanding

Psychology helps in understanding self – the more you know, and find out about yourself, your personality and your faults the more are the chances of self improvement. Self-understanding is the way to self control and thus a person becomes more self-confident. Understanding hidden self, unconscious part of personality, Freud's analysis of dreams is another important contribution of psychologists in this direction.

#### 7. Politics

Psychology has been widely used in political science. It has become very important for the politicians to understand the psychology of the public to remain in power. Leadership is also a very crucial discipline of psychology. Various theories and practices of leaders are discussed in psychology.

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#### 8. Communication

Psychology not only helps in improving communication skills but also improves relationship by understanding others. Psychology also emphasizes the importance of nonverbal communication by understanding gestures, posture and body language to communicate better.

#### 9. Military science

Psychology helps in the selection, training, promotion and classification of military personnel. Psychology also helps in knowing the current level of mental status. It also tries to bring modifications and corrections in the environmental situations and work conditions of the defence personnel after analyzing the needs.

Psychology also helps in the time of war by designing techniques to keep the morale of the soldiers high.

Psychologists also try to make the defence personnel capable of handling the stress.

#### 10. World peace and brotherhood

The reason for war, conflicts and fights is that people fail to understand the behaviour of other people. Psychology helps in understanding the different aspects of behaviour and analysing the causes of different types of peculiar behaviour and the situations that lead to this behaviour. Psychological techniques can also be helpful in building mutual trust and a feeling of brotherhood.

#### CHECK YOUR PROGRESS

- 1. Name the fathers of psychology.
- 2. On what basis is the process of human behaviour explained by the cognitive psychologists?
- 3. Mention the difference of approach in the study of humans in economics and psychology.

#### 1.3 **PSYCHOLOGICAL METHODS:** INTROSPECTION, EXTROSPECTION AND PERCEPTION

Many types of research methods are used in psychology. Psychologists use the scientific methods to investigate research and solve questions pertaining to cause and effect relationship between different variables. These research methods are discussed as follows:

#### 1. Experimental Method

The experimental method is based on logic. In this method the researcher can keep precise control over variables, variables are those values which can be changed. There are two types of variables: independent variable and dependent variable. Independent variables are those which are independent of what the subject does and the variable affected by change in the antecedent conditions is called as a dependent variable. Some measure of subject's behaviour is generally the dependent variable in psychological researches. For example, if a researcher wants to see the effect of a certain drug on the learning ability, then in that case the dosage of the drug is the independent variable and the learning that takes place by the subject such as the amount of matter recalled is the dependent variable.

The experiments can be conducted inside the laboratory as well as in outside settings also. But, degree of control that is possible in the laboratory makes it a preferred choice.

#### **Steps in Experiment**

Researchers follow certain steps in a typical experiment:

**Identification of a problem:** The first step in an experiment is identifying the problem. Let's take an example, it is said that learning is better after sleep on the other hand, some say that after sleep it is difficult to concentrate. This discussion creates a problem which may lead to further experiments.

**Formation of a hypothesis:** Hypothesis is a specific, testable prediction about what is expected will happen in the study. It proposes a possible explanation to some phenomenon or event you want to find out about.

In the above example, hypothesis can be that sleep will have a positive effect on learning. The other hypothesis could be that sleep will have a negative effect on learning. These hypotheses can be tested by an experiment.

Finding the relation between independent and dependent variable. The variables which remain fixed in the experiment are called as independent variables. Those variables on which the effect is seen are called as dependent variables.

**Controlling of the situations:** Special arrangements are made to control the environmental conditions. The arrangements of control differ according to the nature of the experiment.

**Analysis of the result:** The subject on which the experiment is conducted is divided into two groups, one controlled and the other experimental. The experimental group is often called the independent variable. After collecting data from these experiments statistical tools are used to analyse the results.

**Verification of the hypothesis:** The results of the experiment show whether the hypothesis was approved or not.

#### 2. Observational Method

Observational method's key feature is a standardized, planned, and systematic approach to objectively observe and record behaviour.

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There are two different types of observation. In the first case, the researcher observes the subject in a laboratory setting.

Naturalistic observation allows researchers to observe participants in the natural environment. The advantage is that behaviour is naturally occurring and is not manipulated by a researcher and it can provide more qualitative data as opposed to merely quantitative information.

- 1. Observation starts with perception by the researcher. Perception means giving meaning to sensation.
- 2. Careful recording of observed behaviour and activities.
- 3. Interpretation and analysis of behaviour: State after collecting data the researcher tries to analyse and draw inferences and finally the behaviour is interpreted.
- 4. Generalization: After analysis and interpretation generalizations are made.

In participant style of observation, the observer tries to observe the activities and behaviour of an individual by being part of the group activities. The observer joins the group as an associate or participant. For example, the observer may join them on tour, or field activity and then make a close observation. The disadvantage of this style of observation is that the presence of an observer may obstruct the natural and spontaneous flow of the behavioral activities of those individuals.

In non-participant style of observation, the observer makes the observation in such a manner that the individuals do not have the idea and the information that their behaviour is being observed. For example, with the help of secret cameras the behaviour of the individuals can be observed by recordings.

#### Merits of observation method

- 1. It is easy to study the behaviour in its natural form by the observation method.
- 2. There can be proper verification of this method because it can be repeated to draw the final inferences.
- 3. It is an economical method in terms of time, money and labour.
- 4. The observation method is not only useful for quantitative data but good qualitative data also.
- 5. Many types of behaviour can be studied at one point of time by observation.

#### **Demerits of observation method**

- 1. There can be a subjective element in observation. The observer's values and prejudices can influence the results.
- 2. There can be a lack of reliability and validity because the observation is made only on the basis of external behaviour. There is overdependence on the external signs of behaviour.
- 3. Observation method is fully dependent on the observers. Lack of trained observers can lead to failure in making correct observations

- 4. The recording of the observations is very difficult task. The behaviour of the subject cannot remain natural and spontaneous, if he/she becomes overconscious that his behaviour is being noted down. The observer has to be careful in noting the behaviour side by side because there is a possibility that he may loose some important information and may not be able to recollect later which is a major limitation of this method.
- 5. Another serious limitation is that the behaviour that is being observed is actually dependent on a particular time and place and on a particular individual or groups of individual involved. It lacks repeatability.

#### 3. Survey Method

Survey is a method of scientific investigation in which a large sample of people answer questions about their attitudes or behaviour. A survey is also called a public opinion poll. Survey data is based solely on subject's responses.

There are two basic types of surveys

- Cross-sectional surveys
- Longitudinal surveys.

Cross-sectional surveys are used to collect information about a population at a single point of time. Longitudinal surveys gather data over a period of time. The researcher may then analyse changes in the population and attempt to describe and/ or explain them. The main types of longitudinal surveys are trend studies and panel studies.

The biggest disadvantage of survey method is that the sample taken for survey may be unrepresentative and also sometimes the participants may not give correct views which can affect the outcome. Some areas where survey methods are used to obtain information include political views, consumer buying habits etc.

Information from the survey method can be collected by two methods

- 1. Use of questionnaire technique
- 2. Use of interview technique

#### Types of surveys

#### Mail survey

In this type of survey, many respondents can be contacted at one point of time by mailing the questionnaire. It is inexpensive and the respondents can fill the questionnaire at their convenience. But there are some disadvantages also. The response rate of the mail survey is very low because people do not mail back their response forms and the written responses cannot be assessed.

#### **Group administered survey**

Many respondents are contacted in a group. The response rate is high in such type of surveys. The biggest advantage of this type of survey is that the researcher is able to clarify the meaning of all the questions which are not clear to the respondents.

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#### Door to door survey

In this type of survey, the researcher has to approach the respondents' house or place of work. The advantage of this type of survey is that the response rate is high. The other benefit of this type of survey is that the respondents can be contacted in future for follow up questions.

#### 4. Interview Method

In this survey method, the interview can be

- Structured and standardized
- Unstructured and unstandardised

#### Structured and standardized interview

The basic characteristics of this type of interview is that the questions are decided and there is a proper sequence of questions which is preplanned. This quality of structured interview makes it reliable and valid.

#### Unstructured and non standardised interview

In this type of interview, the interviewer does not pre-plan the questions as there is no systematic schedule to conduct the interview. It is less objective and less reliable than the structured interview. The interviewer can modify the questions and go into details according to the situational needs.

#### Merits and demerits of interview method

#### **Merits**

- There can be face to face contact with the subject from whom the information is required.
- The interview is a more flexible tool. It can be adjusted according to the situations.

#### **Demerits**

- It can have the bias of the interviewer
- It is costly, it requires lot of time and money
- The interviewee may become over conscious and may not reveal the original behaviour

#### 5. Test Method

Psychologists use standardized tests to help measure abilities, aptitudes, interests, and personality traits. A test is considered to be standardized after it has been used, revised, and used again until it shows consistent results and average levels of performance. A test involves correct item preparation scaling and establishing norms.

The quality of a test is judged by three major standards: (1) validity, (2) reliability, and (3) practicality.

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Validity reflects how well a test measures what it is intended to measure. Reliability refers to the consistency of results achieved by the test. To establish reliability, a test may be given to the same group several times. If very similar results are obtained each time, the test may be considered highly reliable.

Practicality involves the cost and convenience of the test. If a test requires too much expense or effort, it may be impractical. It may also be impractical if the results are too difficult to interpret.

#### 6. Case Histories

Psychologists often refer to biographies for solving individual problems. The case histories are prepared by reconstructing the biography of a person according to remembered events and records.

Case histories also involve following a single case, typically over an extended period of time. This includes naturalistic observations, and psychological testing, interviews, and the application of a treatment or observation.

The advantage of this method is that it can gather extensive information, both qualitative and quantitative and can be helpful in better understanding rare cases or very specific interventions.

But there are some disadvantages too, it can be very time consuming and can involve other problems specific to the techniques used, including researcher bias.

#### Merits of case study

- 1. The case study method provides a detailed study of the present and past behaviour. There can be detailed analysis of the situational factors, developmental problems and adjustment difficulties.
- 2. The detailed study of the subject helps in identifying the problem areas and also measures to suggest remedial therapy. It is specially useful for problem children like delinquents, criminals, antisocial personalities.

#### Demerits of case study

- 1. The case study method has a technical approach. Collecting detailed information requires expertise.
- 2. There is need of collecting extensive data based on personal interviews and from various other sources.
- 3. The data collected from the detailed study may not be valid or reliable.
- 4. Interpretation of the detailed data also require lot of time and effort. Drawing conclusions and then generalizations is quite technical. There are chances of errors in proper analysis and interpretation.

#### 7. Introspection Method

Introspection was considered to be one of the most important methods of psychology. The psychoanalytical school widely used this method, but the behaviourists strictly opposed it. Introspection means examining closely your mind. It refers to looking

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within. Thus introspection is an internal perception. The person himself observes his internal activities and processes. In introspection, the individual himself systematically observes inner mental processes and feelings. For this purpose, the observer does not take the help of any instruments.

It used to be the primary method of the early psychologists for studying human nature. However, it was realized that from a scientific point of view it has many drawbacks.

#### Limitations

- 1. The findings from this method of introspection cannot be generalized. The data obtained from observing one's mental processes may not be identical with the others and so no generalizations can be made.
- 2. The method of introspection may alter the quality of inner experience.
- 3. It is also true that its results cannot be verified by other persons.
- 4. The knowledge of introspection is very personal and subjective.
- 5. This method of introspection is useless with animals, children, the feebleminded and the abnormal people.

Extrospection method of research in psychology is the exact opposite to the introspection method. It essentially refers to the reception and perception of the external factors and stimuluses which affects the mind. While in the introspection method, the focus is on the mind and how it perceives the internal workings of the mind, in extrospection the outside things and factors are assessed. The object of study here is the observation itself.

There are various opinions on the validity of both the research methods. There is always the question of whether the sense organs which perceive the outside surrounding are faulty which makes extrospection rather doubtful, on the other hand, the difficulty or accuracy of the analysis of the working of the mind questions the reliability of the introspection method.

#### 1.3.1 Perception

Perception is a process by which organisms select, organize and interpret the stimulus (People, places, objects and situations) in order to give meaning to the world around them. When you see a flower, the sensation of colour, smell, touch are aroused and meaning is given to this and the object is perceived as a flower.

Perception is a complex process because it is a combination of a number of sub-processes.

Receptor process is the first process involved in the process of reception. For example, the rose stimulates three receptor cells and three different receptor processes of eye, nose and touch.

Unification process – for perceiving rose, unification of all the three sensations are required.

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Symbolic process- every object reminds of something, and so a symbol is attatched to it. Every time the rose is perceived the symbol gets associated with it.

Affective process- every object also represents some emotions, pleasant or unpleasant. Thus, it is concluded that perception is a complex process and involves sensations and past experience.

It is important to understand that how the selection of stimulus takes place. The principles by which people organize isolated parts of a visual stimulus into groups or whole objects are governed by laws of grouping.

#### **Characteristics of Perception**

The main characteristics of perception are as follows:

- 1. Unity and continuity
- 2. Attention
- 3. Persistency with varied efforts
- 4. Adapting to varying circumstances
- 5. Learning by experience
- 6. Reproduction in perception

**Unity and continuity:** If the sensations are scattered then perception is not possible because in that case it will lack meaning. Take the example of an apple as an object which includes the sensation of color, taste, smell which are not separated, there is unity and continuity in the sensations which helps us to perceive an apple.

**Attention:** Perception means giving meaning to the sensations. Closeness of the sense organs and the objects may not result in perception because no attention was given to it.

**Persistency with varied efforts:** For understanding complex things, the perceiver has to constantly change his efforts. If for example some new or unfamiliar thing is perceived by the subject, then he would like to know more about that. He would like to touch it, smell it and sometimes taste it in order to understand it better. These changing perceptions have a unity and persistency.

**Adapting to varying circumstances:** In some cases of perception the sensations keep on changing. For example, a football player has to keep track of his opponent and also adapt himself according to the strategies of his opponent.

**Learning by experience:** A person learns to perceive unfamiliar or new things by learning. A person who has never seen a plane in the sky cannot perceive it. If he once sees it, then he will be able to recognize the sensation and identify it as a plane.

**Recollection:** Recollection of past experience and connecting with present sensations result in perception.

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#### Laws of organization

Gestalt psychology was founded by german psychologists Max Wertheimer, Wolfgang Kohler, and Kurt Koffka. The word 'Gestalton' in german means organized structure. It focuses on how people interpret the world. Gestalt psychologists formed a set of principles to explain perceptual organization. These principles are often referred to as the 'laws of perceptual organization.'

#### Law of Wholes

Gestalt psychology attempts to understand psychological phenomena by viewing them as organised and structured wholes rather than the sum of their constituent parts. The law of wholes means that the whole is noticed first in perception, The essential point of Gestalt is that in perception the whole is different from the sum of its parts as shown in Figure 1.1.

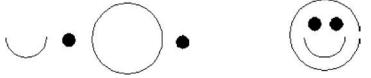


Fig. 1.1 Law of Wholes

#### Figure and ground

Gestalt theorists stated the importance of figure-ground relations meaning humans tend to organize stimuli into a central or foreground figure and a background. In vision this central figure is usually on top or in front of what our perception perceives as the background. It has a distinct shape than the background.

The characteristic organization of perception into a figure that 'stands out' against an undifferentiated background, can be seen in Figure 1.2. You can either see the figure as a black vase standing in front of a white ground, or you can see two white faces, looking at each other, in front of a background.



Fig. 1.2 Characteristics Organization of Perception in Figure

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Fig. 1.3 Reversible Figure Ground Effect

In Figure 1.3 reversible figure ground effect can be seen, either a young attractive woman can be perceived or a old woman can be visualized.

#### Law of Similarity

Two things or parts similar to one another in color, lightness, texture, shape, or any other quality have a tendency to become organized. Similar parts are organized together and are perceived as wholes. In Figure 1.4 it is a tendency to perceive columns than rows. Columns of stars which are similar are perceived as whole and columns of circles which are similar are perceived as whole.

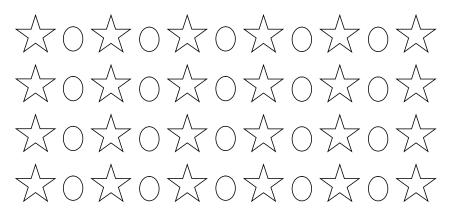
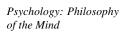


Fig. 1.4 Law of Similarity

#### Law of proximity

Law of proximity states that there is a tendency to perceive objects which are near to each other in a group. In the Figure 1.5 the squares on the left are grouped together as vertical columns. and on the right appears to be grouped together as horizontal rows.



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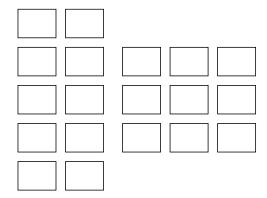


Fig. 1.5 Law of Proximity

#### Law of continuity

According to the law of continuity, points that are connected by straight or curving lines are seen in a way that follows the smoothest path. Rather than seeing separate lines and angles, lines are seen as belonging together in Figure 1.6.

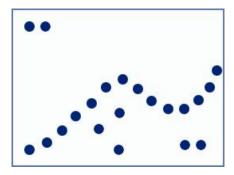


Fig. 1.6 Law of Continuity

#### Law of closure

According to the law of closure, humans prefer complete forms to incomplete forms. Thus, in Figure 1.7, the perception is to close the gaps and view the picture as complete triangle and circle. So it can be concluded that there is a tendency to view complete objects than the incomplete forms.

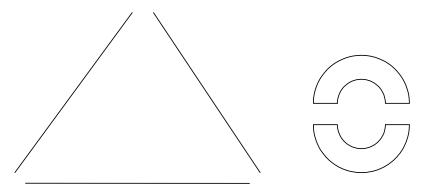


Fig. 1.7 Law of Closure

Law of simplicity

of the Mind The law of simplicity states that people prefer the simplest, most stable of possible organizations. For example, Figure 1.8 depicts three circles, they can be perceived as three overlapping disks; as one whole disk and two partial disks. The law of

simplicity states that you will see the illustration as three overlapping disks, because that Law of Common Fate—Elements with the same moving direction are perceived as a collective or unit is the simplest interpretation.

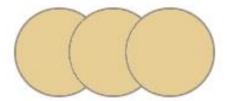


Fig. 1.8 Law of Simplicity

#### Attention and its determinants

One cannot react in a similar manner to all the things that are present around one. One focusses on only a few things, this selective focus is called as attention.

It is a fact that some stimuli affect more than other. Everyone selects certain stimuli present in the environment based on his/her interests, needs and attitudes. There are two types of determinants of attention: External determinants and internal determinants of achieving attention.

#### **External Determinants**

- 1. Nature of stimulus: By nature of stimulus, one means the type as to whether the stimulus is visual, auditory, tactual or olfactory. Various experiments on perception have confirmed that coloured things like pictures attract more attention than the colourless ones. Beautiful things attract more attention.
- 2. Intensity of the stimulus: Intense stimulus attract more attention of the subject than the weak stimulus. High sounds, bright colours are more attention seeking.
- **3. Size of the stimulus:** Though big things attract more, but sometimes very small things also gain attention because of their background. Thus, attraction not only depends upon the size but the background as well.
- **4. Location of the stimulus:** The location of the stimulus also affects attention. In the visual stimuli the most effective location is just in front of the eyes. Many experimental studies have reflected the fact that upper half page of the advertisement in newspapers attract the attention most.
- **5. Contrast of the stimulus:** Contrast of the stimulus is also an important determinant of attention. For example, presence of one white skinned man in a group of blacks.
- **6. Change of the stimulus:** No one can concentrate our attention for a long time on a particular thing. Attention can be gained by the change in the stimulus.

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- **7. Isolation of stimulus:** Isolation is an important determinant of attention. This assumption is based on the fact that isolated individuals or things do not mix with others and so they are seen in own background.
- **8. Duration of stimulus:** The stimulus shown for a long period of time will seek more attention from the subject.
- **9. Repetition of the stimulus:** Another important determinant of attention is the repetition of the stimulus. It is a common knowledge that if the teacher is trying to draw the attention of the students towards a particular topic, then she is likely to repeat it quite a number of times.
- 10. Movement of stimulus: Moving stimuli attracts more attention than the static ones. That is why moving signboards are used to attract the customers.

#### **Internal Determinants**

Besides the external determinants some internal determinants present within the subject are also helpful in attracting attention.

- 1. Interest: Every individual has different set of interests. People are more attracted to things which are of their interest and would like to perceive only those things which interest them.
- 2. Basic drives: The perception of an organism also depends upon his basic drives of hunger, thirst and fear etc. Hungry people will always be looking for food in every situation but a person who has a full belly will not like to even look to good food. Gardner, Murphy and Chein presented eighty different objects one at a time, behind a ground-glass screen to a group of college students who had been deprived of food for varying periods of time. Through the ground glass screen the students were able to see shadowy outlines of the objects. The study showed that as hunger increased the students tended more and more to interpret the indistinct forms as items of food.
- **3. Mental set:** Mental set means the attitude of the subject. Only the stimulus which are there in the mind set will be perceived by the subject. For example, during examinations even small things related to examination attracts the attention of the students.
- **4. Personal values:** Person perception also depends upon the values of the perceiver. For example it was studied by Bruner and Goodman, (947) in a experiment conducted on poor children and children from rich families that poor children over estimated the size of coins because both had different set of values.
- **5. Meaning:** Meaningful objects attract more attention than the meaningless ones. For example, if two people are talking in some other language which is not known to you, then you are not likely to pay attention to it because it has no meaning for you.
- **6. Habit:** Habit is also an important determinant of attention. The attention is diverted towards things which are habitual

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- **7. Past experience:** Past experiences also guide us in our perception. Most of the times people attend to those things with which they associate positive memories and would like to avoid situations which are associated with negative experiences.
- **8. Emotion:** Emotions also have a impact on our attention process. a person who is very happy will find everything singing and dancing around him. Feeling and emotions influences one's capacity for accurate or objective perceptions. People who are emotionally excited will never be able to perceive the events and objects correctly. In courtroom murder trials where emotions run high, two or more witnesses with no reason to lie have been known to give completely contradictory testimony to same events.
- **9. Suggestion:** Suggestion given by others causes errors in perception. For example it was found that in rope trick, under the influence of the performer's vivid and persuasive description, the members of the audience see a rope uncurl and stand upright unsupported in space.

In hypnotism, our senses are deceived by what the mind is directed to see, feel or hear in a extreme state of suggestibility. It's generally believed that hypnotic suggestibility can distort our perception.

# Perception of Space, Distance, Size, Depth, Movement, Apprehension and Illusion

Human beings view the world as tri-dimensional. Objects which are viewed are not only localized up and down, or to the right and left but also localized as near or far. The solid objects present around us are seen as solid that is in depth. The three dimensional property is focused in two directions that is horizontal and vertical. These two directions provide great stability and provide a framework for the localization of objects.

The object held upright for example a pen casts a vertical line on the retina of the eye and is seen as upright. Then, if the person who is observing moves his head the retinal image of the object in this case a pen will be oblique in relation to its previous position, yet it will appear as vertical. Thus, it can be concluded that the direction of the retinal line does not in itself determine the perceived direction.

The vertical and horizontal perception depends upon the relations among the parts of the visual field. In a given visual field there are main lines of organization. These main lines of organization take on the vertical and horizontal directions. The directions of other lines in the visual field depend upon their relation to the main lines of organization.

In the spatial framework by the horizontal and vertical directions, the human beings learn to move about and manipulate objects in the environment.

#### **Perception of Distance**

The images formed on the retina of the eye are two-dimensional and these images store the correct spatial relations among parts of the visual field. An individual can identify right and left and up-down on the basis of relative judgment, made possible

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by the correct preservation of spatial relationships. One important question is how do two-dimensional images formed on the retina actually lead to perception of space in depth? It is concluded that the individual who is perceiving uses certain clues and indications of the two-dimensional images to make or infer a three-dimensional space.

It is a fact that if the view of one object is obstructed because of the other object, then the individual will see the obstructed object as far. For example if a hoarding covers part of your view of a building, the hoarding appears nearer than the building. Similarly if the building obstructs the view of the hoarding, then you will see the building nearer than the hoarding.

The colour of the object also changes if the distance increases. The object seems to be less bright if viewed from a distance.

#### Perception of size

According to the law of the visual angle, an object must become smaller and smaller as it recedes from the eye and that these decreases in size must be proportional to the distance. Though the object remains constant in physical size the the retinal image of it must continually decrease with distance. It is observed that the perceived size decreases much less rapidly than would be predicted by the law of visual angle. The failure of the perceived size to decrease in proportion to the distance is known as size constancy.

#### **Perception of Depth**

Humans have two eyes, and each eye receives different images. Humans perceive depth by coordinating the images of our left and right eyes to perceive stereoscopic depth, which is important for the visual perception of the three-dimensional space. Thus depth perception is actually considered to be the visual ability to perceive the world in three dimensions.

It is believed that all animals who are moving have a sensation of depth. This depth perception helps all the moving animals including human beings to move accurately and to make a response based on the distances of objects in the environment.

Depth perception occurs because of depth cues. These cues are either binocular which means the input from the environment is from both the eyes and monocular cues that require the input from just one eye. Monocular cues helps in judging the relative distance and depth of the objects.

Some of the monocular cues are relative size, interposition, linear perspective, aerial perspective, light and shade.

Relative size: Retinal image size allow us to judge distance based on our past and present experience and familiarity with similar objects.

**Interposition:** Interposition cues means when there is superposition of objects, the overlapped object is considered further away as in Figure 1.9.



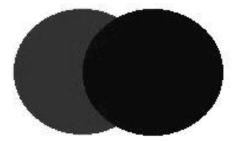


Fig. 1.9 Interposition

Aerial perspective: Relative colour of objects give us some clues to their distance. Due to the scattering of blue light in the atmosphere, creating a 'wall' of blue light, distant-objects appear more blue. Thus distant mountains appear blue. Contrast of objects also provide clues to their distance. When the scattering of light blurs the outlines of objects, the object is perceived as distant. Mountains are perceived to be closer when the atmosphere is clear.

**Light and shade:** Sometimes the highlights and shadows can also provide information about an object's dimensions and depth (see Figure 1.10).

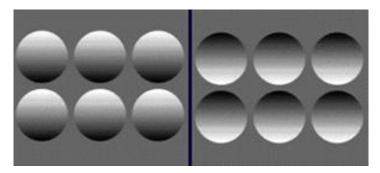


Fig. 1.10 Light and Shade

**Binocular cues:** Stereopsis is an important binocular cue to depth perception. In Stereoscopic vision the two eyes cooperate to yield the experience of solidity and distance. The experience depend upon the cooperation of the two eyes.

**Stereopsis** occurs because of the perception of depth which happens because of binocular retinal disparity. The head separates both the eyes and the left eye gives a different view than the right eye. The stereoscopic effect is because of the combination of these slightly different pictures in one view.

**Fusion** is a process which explains as to how the neural process of the brain brings the retinal images in the two eyes to form one single image. Fusion helps in forming single binocular vision. Fusion generally occurs when the objects are the same, but when the objects are different, the process of suppression, superimposition or binocular rivalary may occur. Suppression means one image is eliminated so that there is no confusion in the images.

**Superimposition** means one image is presented on top of the other image. Binocular rivalry describes alternating suppression of the two eyes resulting in alternating perception of the two images. This usually occurs when lines are presented

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to the two eyes differ in orientation, length or thickness. An example of binocular rivalry occurs when one eye is presented with a horizontal line and the other eye is presented with a vertical line. Binocular rivalry occurs at the intersection of the lines and some suppression also exists. This can be explained with Figure 1.11.

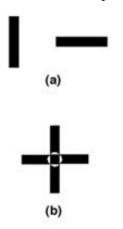


Fig. 1.11 Binocular Rivalry

#### **Perception of Movement**

People perceive motion, when an image moves across their line of vision and it produces a pattern of successive stimulation of the rods and cones. When you turn our heady to have a look around the room in which you are standing, images move across the retina, but still the objects which are there in the room appear stationery. You infer from this that it is your head which is actually moving and not the room. Similarly it is observed that when you hold your head steady and only move your eyes, you find that the objects which are kept in the room do not move.

#### **Apparent motion**

Real movement means physical stimulus is actually moving and you perceive it as moving. Though it is also possible to perceive motion when the stimulus is not moving. This is called as apparent motion. Some examples of apparent motion are autokinetic effect, stroboscopic motion or phi phenomena.

Stroboscopic motion is actually an illusion. In this type of illusion, when two separate stimuli are presented in succession they appear moving to us.

The most common demonstration of the phi phenomenon is seen when two illuminated spots of lights alternately go on and off and you see a single spot of light moving. This can observed during diwali lighting when in many lighting bulbs are attached together if the alternate light goes on and off we perceive that the light is moving.

This principle is also used in many movies. In reality, there is no physical motion, only a series of lights going on and off. Movies are a series of single frames presented in rapid succession. In the movies there is a series of frames each with a slightly different image. When they are rapidly projected on to the viewing screen, motion is seen.

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Cartoon movies are also based on this principle. A series of pictures is drawn, and when they are presented very quickly then the motion of the cartoon characters are seen. Thus, in reality, there is no motion but when the cartoon pictures are shown in succession then it gives a perception of movement.

There are many other instances when movement is perceived. Many times it happens that when you are sitting in a train or bus, you suddenly realize that without any jerk you have suddenly started moving but to your surprise you realize that it is not you but the vehicle (train or bus) right next to you that is moving and it just felt as if you were moving. This is called induced motion.

We often observe that if we view a small very dim light in a completely dark room at a single spot the light will appear to move about randomly. This apparent movement of a stationery light is known as auto-kinetic movement.

Sometimes there is also motion after effects. For example, If we see a waterfall, and keep on looking at the falling water for some time and then see any stationary object which is obviously not moving, like a building, the windows will appear to be moving.

The explanation of motion after effects has been given by many scientists. Our visual system has got many type of motion detectors which undergo spontaneous activity. We generally do not see motion when there is no motion because the spontaneous activity is in balance. When the real motion stopped, the spontaneous activity was no longer in balance. The adjustment and adaptation effect lasts for some time. The motion detection system again regains balance again and there is perception of no apparent movement .

## **Span of Apprehension**

Span of apprehension is limited like the span of attention. It becomes difficult for an individual to observe and perceive more than four to five objects in a single span of attention. Grouping helps in increasing the span of attention because of the law of combination. For example, if a card of dots is shown with an exposure apparatus for a very short period of time, it is clearly observed that the number of dots can be correctly made without any errors if they are three to four in number but if the number increases there are errors. It is found by experiments that if the dots on the cards form the groups so as to make units many of them can be observed at once. The conclusion can be that the law of combination increases the span of apprehension by grouping.

#### Illusions

An illusion may be defined as a subjective perversion of the objective content of sense perception. We know that the subjective or inner factor is always highly important in perceiving and very often becomes predominant. It can give rise to no surprise, therefore, we take things for other than they are. Such erroneous perceiving is called illusion.

Some illusions are more or less constant and practically universal. Others vary with our emotions and our moods, our interests and our attention. As a rule we

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cannot help seeing a vertical line as longer than a really equal horizontal line, and thus a mathematically perfect squre always seems too high for its breadth.

Under certain conditions really straight lines will appear curved, really parallel lines inclined to one another and in spite of the fact that we know the true state o matters we cannot help seeing the false. In the same way we cannot help feeling a small object heavier than a similar but larger object of equal weight, even when we know the weights to be equal.

Thus, we can say that when there is a discrepancy between what we perceive and the actual facts then the experience is simply termed as illusion. For example, if a straight rod is immersed in a glass of water then it appears bent. This false perception is called as illusion. Thus an illusion is a misinterpretation of the correct meaning of perception. The personal illusions are those which differ from individual to individual. General illusions are of a universal kind and are similar in the case of every person, like geometrical illusions are common to all individuals. The common example of such a illusion is called as Muller Lyer Illusion. This illusion is an optical illusion. In this illusion in Figure 1.12 a straight line is divided into equal parts at the middle angle but the left part appears longer. The lengths of the two lines are equal but it seems that outward pointing arrows is longer.

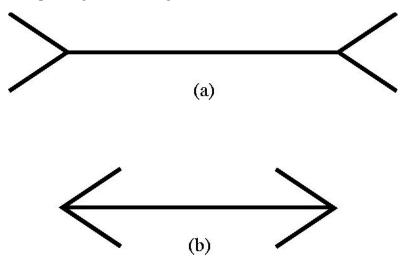


Fig. 1.12 Optical Illusion

According to Woodworth, if vertical movements of the eye are more strenuous than horizontal, a given vertical distance calls for more effort than the same horizontal distance and therefore seems longer. Again if the outward lines in one part of the Muller lyer figure cause the eye movement to exceed the length of the included line, whereas in the other part of the figure the inward pointing lines cause the eye to move a smaller distance the first line will seem longer than the second. A less direct form of the eye movement theory admits that actual eye movement do not occur in all cases, but assumes that a tendency to such movement is sufficient to give the impression of length.

There are many causes of illusion.

- 1. Inaccuracy of perception because of confusion: The individual sometimes becomes so much engrossed in the object he perceives that he gets confused and is not able to perceive correctly.
- **2. Defective sense organ:** Some problem with the sense organs creates incorrect perception for example if a person has some problem in the eye then he will have incorrect visual perception or a defect in the ear may cause incorrect hearing perception.
- **3. Eye movement:** The best example because of incorrect perception due to eye movement is Muller Lyer illusion. The line A appears longer than line B because of eye movement.
- **4. Emotion:** When a person is emotionally aroused then the perception is not correct which causes illusion. Under intense emotions the rope looks like a snake.
- **5. Contrast of stimuli:** Contrasting stimuli also causes illusion. For example a bright object appears more appealing and bright if it is viewed next to a dark and dull object due to the sharp contrast.
- **6. Perceive the object as a whole:** This theory to perceive the objects as whole was given by Gestalt psychologists. The individuals have a tendency to perceive as a whole good figure.

#### CHECK YOUR PROGRESS

- 4. What are independent and dependent variables?
- 5. Name three types of surveys.
- 6. State the law of proximity.
- 7. Give some examples of apparent motion.

#### 1.4 **SUMMARY**

- Psychology is derived from a Greek word psyche and logia which means the study of the human mind. Like many other subjects, psychology find to roots in ancient philosophy. Its subject matter has evolved from the study of soul, to the study of mind, and finally it is now considered to be the scientific study of behaviour.
- The scope of psychology is considered to be quite wide and extensive because it covers the study of behaviour of all living organisms. Psychology also aims to study the process of perception that is how individuals give meaning to the world around them, it analyses emotional aspect of behaviour and also cognition. The goal of psychology is to analyse, predict, and control behaviour and mental processes.

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- Different characteristics of psychology which makes it a science are: it uses scientific methods, it is factual, it is verifiable, it tries to establish cause and effect relationship, its laws are universal and it can predict human behaviour.
- There are five approaches to study the subject matter of psychology: Biological approach, behavioural approach, cognitive approach, humanistic approach and psychoanalytical approach.
- Psychology has mainly been interpreted as 'the study of behaviour' from last many centuries, but scholars are interested in knowing what are the various fields which psychologists like to explore. Some of these areas are as follows: physiological, development, experimental, clinical and counselling, industrial, personality and social and school and educational psychologists.
- There are various different fields of psychology including general, abnormal, child, animal, environmental, sports, aerospace, military, consumer, psychometric, folk, organizational and managerial psychology.
- Economics studies some activities of human beings on the other hand psychology also studies human activities. The difference is in the approach. Economics studies the economic functions of man but psychology is only concerned with the social interactions of man.
- Political science studies political institutions, working of government laws etc. Social psychology studies the behaviour of individuals in society. Political science studies the laws formed for the people living in the society. The laws cannot be made without understanding the psychology of people.
- Sociology is scientific study of society. Sociology studies man in the context of society and as a part of it. According to Maciver sociology gives aid to psychology.
- Behaviour is related to man's interaction with environment. Darwin's theory of evolution is based on biological theories. Behaviour is related to external as well as internal feelings. The human and animal behaviour cannot be explained without the help of biological principles.
- History of psychology reveals that psychology was considered the study of mind. Mind is a philosophical term. Mental concepts like deep sleep, dreams are all a part of philosophical discussions but its logical explanations are based on the psychological theories given by Freud.
- Psychology is important as it is applied in varied fields like education, criminology, therapy, trade, recruitment, self-understanding, politics, communication, military science and world peace and brotherhood.
- The experimental method is based on logic. In this method the researcher can keep precise control over variables, variables are those values which can be changed. There are two types of variables, independent variable and dependent variable.
- Observational method's key feature is a standardized, planned, and systematic approach to objectively observe and record behaviour.

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- Survey is a method of scientific investigation in which a large sample of people answer questions about their attitudes or behaviour. A survey is also called as a public opinion poll. Survey data is based solely on subject's responses.
- The interview method can be structured and standardized or unstructured and unstandardized.
- Psychologists use standardized tests to help measure abilities, aptitudes, interests, and personality traits. A test is considered to be standardized after it has been used, revised, and used again until it shows consistent results and average levels of performance.
- Psychologists often refer to biographies for solving individual problems. The case histories are prepared by reconstructing the biography of a person according to remembered events and records.
- Introspection was considered to be one of the most important methods of psychology. The psychoanalytical school widely used this method, but the behaviourists strictly opposed it. Introspection means examining closely your mind. It refers to looking within. Thus introspection is an internal perception. The person himself observes his internal activities and processes.
- Perception is a process by which organisms select, organize and interpret the stimulus (People, places, objects and situations) in order to give meaning to the world around them. When you see a flower sensation of colour, smell, touch is aroused and meaning is given to this and the object is perceived as a flower.
- The main characteristics of perception are: Unity and continuity, attention, persistency with varied efforts, adapting to varying circumstances, learning by experience and reproduction in perception.
- Gestalt psychologists formed a set of principles to explain perceptual organization. These principles are often referred to as the 'laws of perceptual organization.'
- Law of organization includes different laws like the law of wholes, figure and ground, law of similarity, law of proximity, law of continuity, law of closure atc.
- One cannot react in a similar manner to all the things that are present around one. One focusses on only few things, this selective focus is called as attention. Everyone selects certain stimuli present in the environment based on his/her interests, needs and attitudes. There are two types of determinants of attention. External determinants and internal determinants of achieving attention.
- According to the law of the visual angle an object must become smaller and smaller as it recedes from the eye and that these decreases in size must be proportional to the distance.
- Humans perceive depth by coordinating the images of our left and right eyes to perceive stereoscopic depth, which is important for the visual perception

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of three-dimensional space. Thus depth perception is actually considered to be the visual ability to perceive the world in three dimensions. Some of the monocular cues are Relative size, Interposition, Linear perspective, Aerial perspective, Light and shade. Some important binocular cues are stereopsis, fusion and superimposition.

- People perceive motion, when an image moves across their line of vision and it produces a pattern of successive stimulation of the rods and cones. When you turn our heads to have a look around the room in which you are standing images move across the retina, but still the objects which are there in the room appear stationery to us.
- An illusion may be defined as a subjective perversion of the objective content of sense perception. We know that the subjective or inner factor is always highly important in perceiving and very often becomes predominant. It can give rise to no surprise, therefore, that we take things for other than they are. Such erroneous perceiving is called illusion.

#### 1.5 **KEY TERMS**

- **Psychology:** It is a term used to denote the study of human mind.
- Sociology: It is the scientific study of society. It studies man in the context of society and as a part of it.
- Survey: It is a method of scientific investigation in which a large sample of people answer questions about their attitudes or behaviour.
- Introspection: It means examining closely your mind. It refers to looking within.
- **Perception:** It is a process by which organisms select, organize and interpret the stimulus in order to give meaning to the world around them.
- Fusion: It is a process which explains as to how the neural process of the brain brings the retinal images in the two eyes to form one single image.

#### 1.6 ANSWERS TO 'CHECK YOUR PROGRESS'

- 1. Wilhelm Wundt and William James are considered to be the fathers of psychology.
- 2. Cognitive pyshoclogists explain the process of human behaviour on the basis of the assumption that behaviour is controlled by our own thought process, as opposed to genetic factors.
- 3. The difference of approach in the study of humans can be seen through the fact that economics studies the economic functions of man but psychology is only concerned with the social interactions of man.

- 4. Independent variables are those which are independent of what the subject does and the variable affected by change in the antecedent conditions is called as a dependent variable.
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- 5. Mail survey, group administered survey and door to door survey are the three types of survey.

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- 6. Law of proximity states that there is a tendency to perceive objects which are near to each other in a group.
- 7. Some examples of apparent motion are autokinetic effect, stroboscopic motion or phi phenomena.

# 1.7 QUESTIONS AND EXERCISES

## **Short-Answer Questions**

- 1. List the characteristics of psychology which makes it a science.
- 2. Write a short note on the scope of contemporary psychology.
- 3. Which are the different fields of psychology?
- 4. What are the limitations of the introspection method?
- 5. List the types of research method in psychology.
- 6. Mention the different monocular cues of perception.

## **Long-Answer Questions**

- 1. Explain the different approaches to study the subject matter of psychology.
- 2. Discuss the importance and applications of psychology.
- 3. Describe the observational method of research in psychology.
- 4. What are the external and internal determinants of achieving attention?
- 5. Write an essay on the perception of space, distance, size, depth, movement, apprehension and illusion.
- 6. Discuss the concept of illusion and its various causes.

#### 1.8 FURTHER READING

Mc Connell, J.V. 1977. *Understanding Human Behaviour*. New York, Halt Rinehart and Winston.

Robert A. Barons. 2006. Psychology. Prentice Hall of India, Ltd., India, New Delhi.

Andrews, T.G. (ed). 1958. *Methods of Psychology*. New York: John Wiley & Sons.

Atkinson, R.L, Hilgard, E.R. 1975. Introduction to Psychology. New York: Harcourt Brace Joanovich.

## **NOTES**

# UNIT 2 PSYCHOLOGY: MEMORY, DREAM AND LEARNING

#### **Structure**

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 The Concept of Memory
- 2.3 States of Consciousness
  - 2.3.1 Sleep and Dream
- 2.4 The Concept of Learning
  - 2.4.1 Principles of Learning and their Application
  - 2.4.2 Methods of Learning
  - 2.4.3 Observational Learning
  - 2.4.4 Cognitive Learning
  - 2.4.5 Optimizing Learning
  - 2.4.6 Transfer of Learning
  - 2.4.7 Learning Disabilities
- 2.5 Theory of Insight
  - 2.5.1 Trial and Error
- 2.6 Summary
- 2.7 Key Terms
- 2.8 Answers to 'Check Your Progress'
- 2.9 Questions and Exercises
- 2.10 Further Reading

## 2.0 INTRODUCTION

In this unit, you will be familiarized with the concept of learning and memory. The unit will discuss the concept, principles and methods of learning. You will learn about the concept of programmed and automated learning, and will be introduced to the nature of learning disabilities. It will explain the concept of memory in light of process theory, study the different types of remembering, and discuss the basic retrieval process. The unit will also explain the nature and process of thinking, forms of thought and problem-solving, as well as decision-making. Finally, we will explain the theory of insight and trial and error.

## 2.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Explain the concept of memory
- Discuss the nature and process of thinking

- Explain the concept, principles and methods of learning
- Interpret the levels of mind
- Discuss the theory of insight and trial and error

#### **NOTES**

## 2.2 THE CONCEPT OF MEMORY

Memory is the retention of information over time through three different stages encoding, storage and retrieval (refer Figure 2.1). They are discussed as follows:

- **Encoding:** The first step in the memory system is to get sensory information (sight, sound, etc.) into a form that the brain can use, a process called encoding. Encoding is the set of mental operations that people perform on sensory information to convert the information into a form that is usable in the brain storage system. Encoding is not limited to turning sensory information into signals for the brain, but instead it can take a different form in each of three different storage systems or stages of memory. In one stage of the memory storage, encoding can take the form of revising the information over and over to keep it in memory, whereas in another stage encoding involves elaborating on the meaning of information.
- **Storage:** The next step in memory is to hold on to the information for some period of time, a process called storage. The period of time will vary depending on the stage of memory.
- **Retrieval:** Retrieval takes place when information is taken out of storage. Our memories are affected by a number of things, including the pattern of facts we remember, the situations we associate with memories and the personal and emotional content.

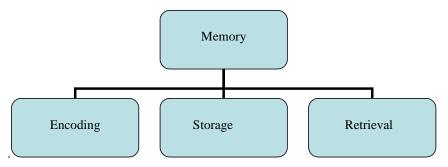


Fig. 2.1 Different Stages of Memory

#### **Forgetting**

We cannot talk about remembering without mentioning its counterpart. It seems that as much as we do remember, we forget even more. Forgetting is actually a natural phenomenon. Imagine if we remembered every minute detail of every hour, of every day of our entire life, no matter how good, bad, or insignificant. Now, imagine trying to sift through it all for the important things like remembering where we left our keys.

**NOTES** 

There are many reasons we forget things and often these reasons overlap. Like in the example mentioned, some information never makes it to long-term memory (LTM). Other times, the information gets there, but is lost before it can attach itself to our LTM. Other reasons include decay, which means that information that is not used for an extended period of time decays or fades away over time. It is possible that we are physiologically preprogrammed to eventually erase data that no longer appears pertinent to us.

Failing to remember something does not mean the information is gone forever though. Sometimes the information is there, but for various reasons we cannot access it. This could be caused by distractions going on around us or possibly due to an error of association (e.g., believing something about the data which is not correct, causing us to attempt to retrieve information that is not there). There is also the phenomenon of repression, which means that we purposefully (albeit, subconsciously) push a memory out of reach because we do not want to remember the associated feelings. This is often seen in cases where adults 'forget' incidences of sexual abuse when they were children. Another reason is amnesia, which can be psychological or physiological in origin.

## Two-Process Theory (Memory Information Processing Theory)

The two-process theory of memory can also be referred to as the memory information processing theory, which was first proposed by R.C. Atkinson and R.M. Shiffrin (1968). Memory processes differ between situations that requires us to store material like less than a second, for a matter of seconds and for longer intervals ranging from minutes to years. Thus, the two processes are short-terms memory and long-term memory processes (refer Figure 2.2). These two processes will be discussed a bit late in the unit, first it is important to understand sensory memory.

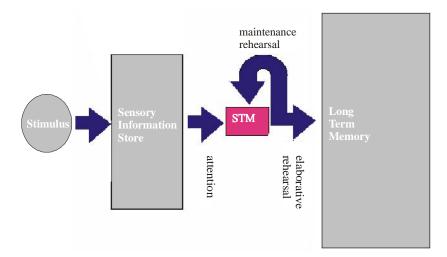


Fig. 2.2 Atkinson and Shiffrin (1968) Process Model of Memory

Figure 2.3 illustrates a detailed memory structure.

## **NOTES**

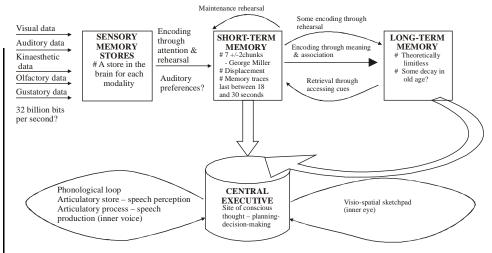


Fig. 2.3 Memory Structure

#### **Sensory Memory**

Sensory memory is the first stage of memory, here the information enters through different sensory systems like visual and auditory and other senses (G. Rainer and E.K. Miller, 2002).

Information is encoded into sensory memory as neural messages in the nervous system. As long as those neural messages are travelling through the system, people have a memory for that information that can be accessed if needed. During morning walk, thousands of stimuli come across our fields of vision and hearing—chirping birds, a noisy motor cycle, the blue sky, etc., but we do not process all the stimuli. We process many more stimuli at the sensory level that we noticed consciously. Sensory memory retains this information from our senses, including the ignored portion also. There are two kinds of sensory memory, viz., iconic (visual) and echoic (hearing) memories.

> (i) **Iconic sensory memory:** Iconic memory is visual sensory memory, lasting only a fraction of a second. GA. Sperling (1960), studied sensory memory and presented their subjects with a pattern of stimuli. He flashed the letter on the screen for about 1/20th of a second. These subjects could only recall only five or four letters. With such short exposure, reporting all nine letters was impossible.

Duration of iconic memory: Research suggests that only after a quarter of second, old information is replaced by new information.

Functions of iconic memory: The following are the functions of iconic memory:

- Iconic memory helps the visual system to view surrounding as continuous and stable in spite of the saccadic movement.
- It also allows enough time for the brain to decide if the information is important enough to be brought into consciousness.

**NOTES** 

(ii) **Echoic sensory memory:** It refers to the phenomenon in which there is a brief mental echo that continues to sound after an auditory stimulus has been heard. We hear something, but the brain does not interpret it immediately. Instead, it took several seconds to realize the sound. Then we think it might have been important and then try to remember what it was. If we realize all this within 4 seconds (the duration of the echoic memory) we would be able to hear an echo of the statement in our head as a kind of instant reply.

Duration of echoic memory: Capacity is limited to what can be heard at any moment and is smaller than the capacity of iconic memory, although it lasts longer—about 2 to 4 seconds (R. Schweickert, 1993). Functions of echoic memory: The following are the functions of echoic memory:

- It is very useful in meaningful conversations with others. It allows the person to remember what someone said.
- It allows people to hold on to incoming auditory information long enough for lower brain centre to decide if the information is important enough to become conscious.
- Echoic memory allows the musician to learn a musical instrument.

Now, we will discuss the two memory processes, viz., short-term and long-term memory processes in detail.

## **Short-term/working Memory**

The second stage of memory process is the short-term memory (STM). It takes place through the process of selective attention or the ability to focus only one stimulus from among all sensory input (D.E. Broadbent, 1958).

In short-term memory, the information is held for a brief period of time while being used. It is a limited capacity memory system in which information is usually retained for only for 30 seconds. Short-term memory tends to be encoded in auditory (sound) form. In other words, people tend to talk inside their own heads. Although, some images are certainly stored in STM in a kind of visual sketch pad (A.D. Baddeley, 1986), auditory storage accounts for much of short-term encoding.

Short-term memory is a working memory which process the information in a working and active system. It was proposed that STM consists of three interrelated systems, viz., a central executive that controls and coordinates the other two systems, a visual sketch pad of sorts and a kind of auditory recorder (Baddeley, 1986, Baddeley and Hitch, 1974; Engle and Kane, 2004). The central executive would act as interpreter for both the visual and auditory information in STM. For example, when a person is reading a book, the sketch pad will contain images of the people and events of the particular passage being read, while the recorder plays the dialogue in the person's head. The central executive interprets the information from both systems and pulls it all together.

Short-term memory can be taken as a kind of desk where the files are kept. As files are on the desk one can see them, read them and work with them. The files are now conscious material and will stay that way as long as they are on the desk.

#### **NOTES**

#### **Capacity**

George Miller (1956) was interested to know the capacity of STM or how much information human can hold in short-term memory at one time. He used a memory list called the digit. It was a span test in which a series of numbers were read to subjects in the experiments who were then asked to recall the numbers in order. Each series gets longer and longer, until the subjects cannot recall any of the numbers in order. Miller concluded that the capacity of STM is about seven items or pieces of information, plus or minutes two items, Miller called it the magical number seven plus or minus two.

## **Chunking**

If the bit of information is combined into meaningful units or chunks, more information can be held in STM; for example, recording the last sequence of number as 654-789-3217, instead of 10 bits of information. Then, there would be only three chunks that read like a phone number and would be easier to memorize. The process of recording or reorganizing the information is called chunking.

#### Rehearsal

Is often verbal, giving the impression of an inner eye. One way to use your visualization skills is to maintain the image of an object or a scene for a while after review.

Rehearsal work best when we need to briefly remember a list of items, but rehearsal does not work well in the long-term due to rotary repeating information without imparting meaning to it. Remembering information for a longer time works better when we add meaning to it.

## **Long-term Memory**

Long-term memory is a relatively permanent memory that stores huge amounts of information for a long time. John Von Neurman, a distinguished Computer scientist, put the size at 2.8\*10 powers of 20 (280 quintillion) bits. In other words, our storage capacity is virtually unlimited. He assumed that we never forget anything, but even considering that we do forget things, we can hold several billion times more information than a large computer.

At the top level, it is divided into substructures of explicit memory and implicit memory. In simple terms, explicit memory has to do with remembering who, what, where, when and why; implicit memory has to do with remembering how. Explicit memory can be further subdivided into episodic and semantic memory and distinguished as either retrospective or prospective memory. Implicit memory includes the systems involved in procedural memory, priming, and classical conditioning.

## **Explicit Memory**

Explicit memory is the conscious recollection of information, such as specific facts or events and, at least in humans, information that can be verbally communicated (Tulving, 1989, 2000). Examples of using explicit memory include recounting the events of a movie we have seen and describing the basic principle of psychology to someone. However, we do not need to discuss explicit memory. Simply sitting and consciously reflecting about Einstein's theory of relatively or recollecting the dates of the last weekend involves explicit memory.

Canadian cognitive psychologist, Tulving (1972, 1989, and 2000) has been the foremost advocate of distinguishing between two subtypes of explicit memory—episodic and semantic. Episodic memory is the retention of information about the where and when of life's happenings. It is autobiographical; for example, episodic memory includes the detail of what it was like when our younger brother or sister was born, what happened on our first date.

Semantic memory is a person's knowledge about the world. An important aspect of semantic memory is that it appears to be independent of an individual's personal memory of the past. Another aspect of explicit memory, which is currently a hot topic, is the difference between retrospective memory (remembering the past), and prospective memory (remembering information about doing something in the future) (Burgess, Quayle, and Frith, 2001; Graf, 2004; Kliegel and others, 2001; McDaniel and Einstein, 2000). Prospective memory includes memory for intentions. Some failures in prospective memory are referred to as 'absentmindedness'. We become more absentminded when we become preoccupied with something else, or are distracted by something, or are under a lot of time pressure (Matlin, 2004).

## **Implicit Memory**

Another type of LTM is related to unconsciously remembering skills and perceptions rather than consciously remembering facts.

Implicit memory is memory in which behaviour is affected by prior experience, without that experience being consciously recollected. Examples of implicit memory include the skills of playing tennis and typing, as well as the repetition in our mind of a song we heard in the supermarket, even though we did not consciously attend to the music. The subsystems of implicit memory consist of memories that we are not aware of, yet predispose us to behave in certain ways (Schacter, 2000).

- **Procedural memory:** Procedural memory involves memory for skills. For example, once we have learnt to drive a car, we remember how to do it; we do not have to consciously remember how to drive the car as we put the key in the ignition, turn the steering wheel, push on the gas pedal, hit the brakes, and so on.
- **Priming:** Priming is the activation of information that people already have in storage to help them remember new information better and faster (Badgaiyan, Schacter, and Alpert, 2001; Huber and others, 2001). However, priming can lead to false memories.

#### **NOTES**

**Classical conditioning:** Classical conditioning is a form of learning. Classical conditioning involves the automatic learning of associations between stimuli. For instance, a person who is constantly criticized may develop high blood pressure or other physical problems. Classically conditioned associations involve implicit, unconscious memory.

## Types of Remembering and Memory as a Constructive Process

There are different types of remembering, which depends on how well we know the information. They are described as follows:

- **Recall method:** It is the highest level of learning. When we recall the information immediately, it is a test of retention. In experiment on remembering and forgetting one is first made to learn something. After sometimes has passed, he is asked to recall what he had learned.
- **Recognition method:** It is another test of retention. When the same word is presented with some other words, we recognize it very easily.
- **Relearning:** When we have no recollection, but can relearn the information faster than the first time it was learned. In case of perfect recall, or there is no recall, the subject is again made to learn the material in the same method.
- **Reconstruction method:** Here, the subject is tested for the reproduction of the order of arrangement of stimuli. In this method, stimuli are presented to the subject in a certain order—temporal and spatial. After the stimuli are presented their arrangement is disturbed and has to set them in the presented order.

#### Memory as a constructive process

The meaning of forgetting in terms of failure to retrieve gives the idea that memory storage is static. Memory and remembering has been shown to be constructive process. The reconstructive nature of memory is evident when we recall some event. If we compare recollections of the story of a movie we will notice that different people have constructed the same story in different manner. In fact, rumours often show our tendency to highlight certain details and assimilating some. It seems that recall is always a combination of retrieval and reconstruction. Three main tendencies are sharpening, levelling, and assimilation.

## The Process of Memory Making

In the following section, we will discuss the process of memory making.

## **Eye Witness and False Memory**

Human memory as an active process creates a major challenge when we collect eye witness account of accidents and other events. People often interpret what they see in terms of what they expect and their memories reflect that. It has been found that we always actively process our memories and try to fit them in the schema and beliefs that we hold about the situation. It is only when we look at the overall meaning and context of a memory that we can really judge about the accuracy of accounts.

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The details do not constitute the most significant aspects of memory in such cases. Eye witness memory in which people are called on to report what they saw in relation to the crime may also contain errors (Schacter, 2001). Hundreds of individuals have been harmed by witnesses who made a mistake that could have been avoided (Loftus, 2003, Radelet, 2002). The amount of time that has passed between an incident and a person's recollection of it is a critical factor in eye witness testimony.

#### **Retrieving Memory**

To retrieve something from our mental 'data banks', we search our store of memory to find the relevant information. Memory retrieval takes place when information is taken out of storage. Our memories are affected by a number of things, including the pattern of facts we remember, the situations we associate with memories, and the personal or emotional context. It is like finding a book we wanted only with a few pages remaining. We have to reconstruct the rest. There has been a flurry of interest in these memory quirks and glitches. Figure 2.4 represents the process of memory retrieval.

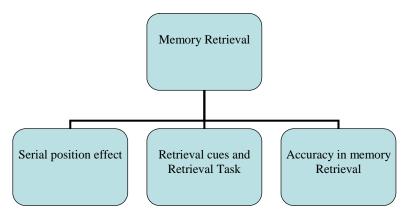


Fig. 2.4 Memory Retrieval Process

The process of retrieving memory is as follows:

(i) Serial position effect: Serial position effect is the tendency for items at the beginning and at the end of a list to be recalled more readily than items in the middle of the list (Howard and Kahana, 1999; Surprenant, 2001). This phenomenon is known as primary and recency effect. The primary effect refers to better recall for items at the beginning of a list. The recency effect refers to better recall for items at the end of the list. It is because of the primary effect that the first few items in the list are easily remembered as they are rehearsed more or receive more elaborative processing than do words later in the list (Atkinson and Shiffrin, 1968; Craik and Tulving, 1975).

Working memory is relatively empty when they enter, so there is little competition for rehearsal time, and because they get more rehearsal, they stay in working memory longer and are more likely to be successfully encoded into LTM. In contrast, many items from the middle of the list drop out of working memory before being encoded into LTM.

#### **NOTES**

(ii) Retrieval cues and the retrieval task: Two other factors involved in retrieval are: (a) the nature of the cues that can prompt your memory, and (b) the retrieval task that you set for yourself. If effective cues, for what we are trying to remember, do not seem to be available, we need to create them; a process that takes place in working memory. For example, if we have a block about remembering a new friend's name, we might go through the alphabet generating names that begin with each letter. If we manage to stumble across the right name, we will probably recognize it.

Thus, we can learn to generate retrieval cues (Allan and others, 2001). One good strategy is to use different subcategories as retrieval cues. Although cues help, but our success in retrieving information also depends on the task we have set for ourselves. Following are some task and cue that affect the ability to retrieve memory:

- Recall and recognition: Recall is a memory task in which the individual has to retrieve previously learned information. Recognition is memory task in which the individual only has to identify learned items when they are presented.
- Encoding specificity: Amount of information present at the time of encoding or learning. It can be served as retrieval cue (Hanna and Remington, 2001).
- Context and state: Change between encoding and retrieval cause memory to fail. Internal state can influence memory.
- **Priming:** Priming is a form of implicit memory that is non conscious. People remember information better and faster when it is preceded by similar information (a Cue).
- **Tip-of-the-tongue phenomenon:** The TOT state occurs when people are confident that they know something but can't quite pull it out of memory (Schwartz, 2002).

## **Accuracy in Memory Retrieval**

The following are the factors that lead to accuracy in memory retrieval:

- Flashbulb memories: They are memories of emotionally significant events that people often recall with more accuracy and vivid imagery than every day events (Davidson and Glisky, 2002).
- **Personal trauma:** Emotional arousing experience that may create more detailed, long-lasting memories than other (Langer, 1991).
- Eye-witness testimony: As explained earlier in the unit, eye-witnesses account for any event that occurred. However, they remember what they saw or imagine what they saw. Also, this memory will be remembered for a long time.
- Repressed memories: Psychodynamic theory depicted that the main function of the repression is to protect the individual from threatening information. Repression does not erase a memory, but it makes conscious remembering extremely difficult (Anderson and Green, 2001).

## NOTES

## Repressed Memory

Repressed memory is a hypothetical concept used to describe a significant memory, usually of a traumatic nature, that has become unavailable for recall; also called motivated forgetting in which a subject blocks out painful or traumatic times in one's life. This is not the same as amnesia, which is a term for any instance in which memories are either not stored in the first place (such as with traumatic head injuries when short-term memory does not transfer to long-term memory) or forgotten.

The term is used to describe memories that have been dissociated from awareness as well as those that have been repressed without dissociation. Repressed memory syndrome, the clinical term used to describe repressed memories, is often compared to psychogenic amnesia, and some sources compare the two as equivalent.

In Freud's theory of 'repression' the mind automatically banishes traumatic events from memory to prevent overwhelming anxiety. Freud further theorized that repressed memories cause 'neurosis', which could be cured if the memories were made conscious. While all this is taught in introductory psychology courses and has been taken by novelists and screenwriters to be a truism, Freud's repression theory has never been verified by rigorous scientific proof.

#### John Hockmann

A repressed memory is the memory of a traumatic event unconsciously retained in the mind, where it is said to adversely affect conscious thought, desire, and action. It is common to consciously repress unpleasant experiences. Many psychologists believe that unconscious repression of traumatic experiences, such as sexual abuse or rape is a defence mechanism which backfires. The unpleasant experience is forgotten, but not forgiven. It lurks beneath consciousness and allegedly causes a myriad of psychological and physical problems from bulimia to insomnia to suicide.

The theory of unconsciously repressing the memory of traumatic experiences is controversial. There is little scientific evidence to support either the notion that traumatic experiences are typically unconsciously repressed or that unconscious memories of traumatic events are significant causal factors in physical or mental illness. Most people do not forget traumatic experiences unless they are rendered unconscious at the time of the experience. No one has identified a single case where a specific traumatic experience in childhood was repressed and the repressed memory of the event, rather than the event itself, caused a specific psychiatric or physical disorder in adulthood.

The strength of the scientific evidence for repression depends on exactly how the term is defined. When defined narrowly as intentional suppression of an experience, there is little reason to doubt that it exists. However, when we talk about a repression mechanism that operates unconsciously and defensively to block out traumatic experiences, the picture becomes considerably murkier.

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Psychologist Lenore Terr, a defender of repressed memory therapy, argues that repression occurs for repeated or multiple traumas, such as a repeatedly abused child. Schacter notes that 'hundreds of studies have shown that repetition of information leads to improved memory, not loss of memory, for that information'. He also notes that people who have experienced repeated traumas in war, even children, generally remember their experiences. A person who suffers a great trauma often finds that he/she cannot get the event out of her mind or dreams. Terr's theory is that the child becomes practiced at repression to banish the awful events from awareness, and forgetting might aid in the child's survival. Her dissociative theory, however, is based on speculation rather than scientific evidence.

Most psychologists accept as fact that it is quite common to consciously repress unpleasant experiences, even sexual abuse, and to spontaneously remember such events long afterward. Most of the controversy centres around recovered memories during repressed memory therapy (RMT). Critics of RMT maintain that many therapists are not helping patients recover repressed memories, but are suggesting and planting false memories of alien abduction, sexual abuse, and satanic rituals.

## **Improving Memory**

Steps for memory improvement are as follows:

- (i) We must be in a relaxed mood
- (ii) We must write down the things that we are supposed to remember in a piece of paper.
- (iii) We must read it aloud (if possible) once or twice and recite it two to three times.

By following the steps mentioned, we will surely retain the item longer and find it easier to recall it when in need.

Most of us might have complained about our memory one time or other. However, some of us have been frequently complaining about our poor memory. When we generally talk about poor memory we are really talking about poor recollection. Recollection is possible only if the content is retained in memory. This is possible only if we have recorded it into memory. That is, unless we have not assimilated, we cannot recall at all. That is why William James, usually thought of as the fathers of psychology, and many others including mnemonists give emphasis to how we record things into our memory.

Even if we record something correctly in our memory, we may not be able to recall it. This is due to many reasons, the main reasons being problems in retention and stress. The former can be solved by systematic revision and the latter by practicing some Stress Management Techniques.

Now, let us discuss five simple techniques to improve memory: Four of these techniques are used to improve assimilation and thus to have longer retention. The last one is a simple strategy for recollection.

- (i) Chunking: In this method, the items to be memorized are divided into small and easily memorizable chunks or groups. This method works best when the order of the items is not important.
  - This method is found to be particularly well suited for memorizing multidigit numbers (eg., ID numbers., telephone numbers., etc.) and for committing complicated spellings to memory.
  - If possible, we can organize the material as meaningfully as we can and think out relationships among each group. This not only improves learning ability and retention, but also aids in faster and effortless recollection.
- (ii) **Rhyming:** This is also one of the popular and oldest methods in memorization. This technique makes use of the fact that we have a natural tendency to remember rhymes and rhythms. If possible, we can create rhymes and it will not only aid in improving our memory, but in improving our creativity as well.
- (iii) Mediation/bridging: In this method, a bridge is built in between the items given to be memorized. This technique is best suited for learning material involving word pairs or material that can be reduced to word pairs. An example often cited by memory experts is the learning of the capital of Poland. The capital of Poland is Warsaw. World War II started with Germany's attack on Poland. Thus it may be arranged as Poland SAW War first.
  - Here, the word pair to be connected together is Poland and Warsaw. The additional information of the World War II is used as a bridge or mediator in bringing these two words together. Again, like other techniques, the mediation technique calls for the learner's active participation in the learning process. This is because one is to bring in the mediator or the bridge from relevant items one has learned.
- (iv) Bed-time recital: In this technique, we do our recital or rote learning just before going to bed. The mind in the process of sleeping would then arrange the information in a systematic and effective way when we are sleeping. Psychologists have also found that if we sleep after thinking about your problems there is a better chance that you arrive at a solution the next day.
- (v) Trying by not trying: All of us apply this method knowingly or unknowingly. Sometimes, when we try to recall we may not be able to recall it at that time even if we are sure that we know it very well. We experience a blocking that prevents us from recalling it. Normally, we tend to try again and again, but in vain. To handle this situation we just have to keep away from trying to recollect it and do something else; to our pleasant surprise that information automatically pops up into our mind after some time. This is because even if we stopped trying, the mind is searching for that information and brings it to awareness when it is found. Sometimes the information was blocked when we wanted, and mind brings it forward when the blocking is removed. This is where stress plays its role in hindering recall.

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If we are very anxious by nature or very stressful in nature, we may encounter this type of blockage very often. In such case, it is highly recommended that we practice some kind of relaxation technique and thus keep our anxiety and stress away. This is very important because this behaviour can bring many undesirable psychological and physiological conditions. We may even consult a clinical psychologist in extreme cases.

#### **Nature of Forgetting: Are Memories Permanent?**

Hermann Ebbinghaus (1913) was one of the first researchers to study forgetting. Because he did not want any verbal associations to aid him in remembering, he created several lists of 'nonsense syllables', pronounceable, but meaningless (such as, GEX and WOL). He memorized a list, waited a specific amount of time, and then tried to retrieve the list, graphing his results each time. The result has become a familiar graph—the curve of forgetting. This graph clearly shows that forgetting happens quickly within the first hour after learning the lists and then tapers off gradually. In other words, forgetting is greatest just after learning. Although, meaningful material is forgotten much more slowly and much less completely, the pattern obtained when testing for forgetting is similar (Conway et al., 1992). Forgetting can be due to several reasons; some of them are as follows:

- **Encoding failure:** There are several reasons why people forget things. One of the simplest is that some things never get encoded in the first place. Researchers Nickerson and Adams, 1979, developed a test of encoding failure using images of pennies.
- Memory trace decay theory: A memory trace is some physical change in the brain, perhaps in a neuron or in the activity between neurons, which occurs when a memory is formed (Peterson and Peterson, 1959). Over time, if these traces are not used, they may decay, fading into nothing.
- **Interference theory:** A possible explanation of LTM forgetting is that although most long-term memories may be stored more or less permanently in the brain, those memories may not always be accessible to attempted retrieval because other information interfaces (Anderson and Neely, 1995).
- **Proactive interference:** The tendency for older or previously learned material to interfere with the retrieval of newer, more recently learned material
- **Retroactive interference:** When newer information interferes with the retrieval of older information, this is called retroactive interference.
- Memory and the brain: The physical aspects of memory: The physical change that takes place in the brain when a memory is formed is called the anagram. Researchers have evidence that specific areas of the brain may be the place in which anagram is formed and that these areas are different for different types of memory.
- Neural activity and structure in memory formation: The changes that take place as an engram forms are called consolidation. Although people may learn quickly, the memory of what has been learned takes some time to form completely.

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- When memory fails: It is also referred to as organic amnesia. There are two forms of severe loss of memory disorders caused by problems in the functioning of the memory areas of the brain.
- **Retrograde amnesia:** Retrograde amnesia is a form of amnesia where someone is unable to recall events that occurred before the development of the amnesia (Hodges, 1994). This kind of memory loss occurs when consolidation process, which was busy making the physical changes to allow new memories to be stored, gets disrupted and loses everything that was not already nearly 'finished'.
- Anterograde amnesia: Anterograde amnesia is a loss of the ability to create new memories after the event that caused the amnesia, leading to a partial or complete inability to recall the recent past, while long-term memories from before the event remain intact (Squire and Slater, 1978). People with this kind of amnesia have difficulty remembering anything new and is often seen in people with senile dementia, a mental disorder in which severe forgetfulness, mental confusion, and mood swings are the primary symptoms.
- Infantile amnesia: Involves the type of memory that exists in the first few years of life, when a child is still considered an infant. Early memories tend to be implicit and implicit memories are difficult to bring to consciousness.

## CHECK YOUR PROGRESS

- 1. Name the three stages of memory.
- 2. What do you understand by the term 'sensory memory'?
- 3. What are the functions of iconic memory?

## 2.3 STATES OF CONSCIOUSNESS

Consciousness is an awareness of external events and internal sensations, including awareness of the self and the thoughts about various experiences. The content of our awareness change from moment to moment. Information moves rapidly in and out of consciousness. William James (1890–1950) described the mind as a stream of consciousness, a continuous flow of changing sensation, images, thoughts and feelings. Our mind can jump from a topic to another.

The flow of sensation, images, thoughts and feelings can occur at different levels of awareness as explained:

• **High-level consciousness:** It represents the most alter states of human consciousness in which individuals actively focus their efforts towards a goal (Cooper and others, 2002; S. Monsell and J. Driver, 2000). Controlled processes require selective attention, the ability to focus on a specific aspect of experience while ignoring others.

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- **Low-level consciousness:** It includes automatic processing that requires little attention, as well as day dreaming and does not interfere with other ongoing activities. Automatic processes require less conscious effort then controlled processes (L.J. Trainor, K.L. McDonald and C. Alain, 2002). Another state of lower-level awareness is daydreaming, which lies somewhere between active consciousness and dreaming while asleep.
- **Alter states of consciousness:** Alter states of consciousness are mental states which can be produced by drugs, trauma, fatigue, hypnosis and sensory deprivation. In some cases, the drug used may create a higher level of awareness. It is believed that caffeine increases alertness. Awareness may also be altered to a lower level.
- **Subconscious awareness:** It can take place while we are awake or while we are asleep (A.R. Damasio, 2001). Csikszentmihalyi, (1995) believes that creative ideas often incubate for sometime below the threshold of conscious awareness before they emerge. When an idea is incubating, our mind may be processing information even though we are not aware of it.

Subconscious information processing can occur simultaneously along many parallel tracks, e.g., when a man is running down the street we are consciously aware of the event, but not of the subconscious processing of object identity (a man), its height, colour, weight, etc.; whereas, conscious processing is serial.

## 2.3.1 Sleep and Dream

Sleep and dream could also be viewed as low levels of consciousness, even though our level of awareness is lower than when we daydream (M. Schredl and R. Hoffman, 2003).

Research has also found that when people are clearly asleep (as determined by physiological monitoring devices), they are able to respond to faint tones by pressing a handheld button (Ogilvy and Wilkinson, 1988). The presentation of pure auditory tones to sleeping individuals activated auditory processing regions of the brain, whereas participant's names activated language areas, the Amy data, the prefrontal cortex (R. Stickgold, 2001).

#### Unconscious

Unconscious thought is a reservoir of unacceptable wishes, feeling and thoughts that are beyond conscious awareness, S. Freud (1917). According to Freud, unconscious thoughts are too laden with anxiety and other negative emotions for consciousness to admit them. Freud's concept of unconscious mind was not accepted by all.

#### Sleep: A Biological Rhythm

Sleep is the periodic physiological fluctuation in the body. Most of the time we are unaware of most biological rhythms, but they can influence our behaviour. The rhythms are controlled by biological clocks, which includes the following:

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- **Seasonal cycle:** Examples of seasonal cycles are migration of birds, the hibernation of bears and seasonal fluctuation of humans eating habit. Other examples are as follows:
  - o Twenty-eight-day cycle, such as moment menstrual cycle.
  - o Circadian rhythms: Twenty-four-hour cycles, sleep/walk cycle and change in body temperature, blood pressure, etc.
- Desynchronizing the biological clock: Biological clock can throw off their regular schedules (Jensen and others, 2003). Circadian rhythms may also become desynchronized when shift workers change their work hours (Ahasan and others, 2001). Problems related to shift work most often affect night shift workers who never fully adjust to sleeping in the day time.
- Resetting the biological clock: Strategies for shift workers who need to reset their biological clocks include splintery sleep between after-works morning naps and a nap before they have to work late. Afternoon naps increase the number of hours of sleep, increasing the amount of light in the work place and going to sleep in complete darkness.

## **Importance of Sleep**

When we do not get proper sleep we are not able to function physically or mentally. Following are the important functions of sleep:

- **Restoration:** Sleep is fundamental mechanism for survival. Researches show that sleep restores, replenishes and rebuilds our brain and body, which can feel depleted by the day's waking activities.
  - Many body cells indeed show increased production and reduced breakdown of proteins during deep sleep (National Institute of Neurological Disorder and Stroke, 2001). Protein molecules are the building blocks needed for cell growth and for repair of damages from factors such as stress. Some scientists believe that sleep is essential as it gives neurons used while we are awake a chance to shut down and repair themselves (NINDS, 2001).
- Adaptation: In order to protect themselves, animals need to develop sleep when it is dark.
- **Growth:** Sleep is beneficial to physical growth and brain development in infant and children. Deep sleep coincides with the release of growth hormone in children (NINDS, 2001).
- **Memory:** It plays an important role in the storage and maintenance of long-term memory—REM phase of sleep (active). Sleep has been linked with the formation of emotional memories in humans (U. Wagner, S. Gais and J. Born, 2001).

In one study, a good night's sleep helped the brain to store the memory of what had been learned during the day (R. Stickgold and A. Hobson, 2000).

#### NOTES

## **Effects of Chronic Sleep Deprivation**

In a national survey of more than 1,000 American adults, conducted by the National Sleep Foundation (2001), 63 per cent said that they get less than eight hours of sleep a night, and 31 per cent said that they get less than seven hours of sleep a night. Many said they try to catch up on their sleep on the weekend, but they still reported getting less than eight hours on weekend nights. 40 per cent of those surveyed said that they become sleepy during the day per month, and 22 per cent said their work suffer a few days each week; 7 percent said sleepiness in the job is a daily problem for them.

Sleep expert James Mass (1998), argues that the quality of our lives, if not life itself, is jeopardized by sleep deprivation. An increasing number of research studies underscores that optimal performance is enhanced by sleeping more than eight hours a night and reduce by sleeping less. At one sleep-disorder research centre, the alertness of eight-hour sleepers who claimed to be well rested increased when they added two hours to their sleep (T. Roehrs and T. Roth, 1998). In another study, brain scans revealed that sleep deprivation decreased brain activity in the thalamus and the prefrontal cortex (Thomas and others, 2001). Alertness and cognitive performance also declined. In another study, sleep deprivation was linked with an inability to sustain attention (Doran, Van Dongen, and Dinges, 2001). In yet another study, brain scans of individuals who experienced total sleep deprivation for twentyfour hours revealed a decline in the complexity of brain activity (Jeong and others, 2001). Sleep deprivation can also affect decision-making. A review of studies concluded that sleep deprivation adversely affects aspects of decision-making, such as being able to deal with the unexpected, innovate, and revise plans, and communicate (Harrison and Horne, 2000).

## Stages of Sleep

The five stages of sleep are differentiated by the depth of sleep and the wave patterns detected with an EEG. They are as follows:

**Stage 1 sleep:** This stage is characterized by theta waves, which are slower in frequency and greater in amplitude than alpha waves. The transition from just being relaxed to entering Stage 1 sleep is gradual.

**Stage 2 sleep:** Theta waves continue, but are interspersed with a defining characteristic of stage 2 sleep, sleep spindles or sudden increases in wave frequency (Gottselig, Bassetti, and Ackermann, 2002). Stages 1 and 2 are both relatively light stages of sleep, and if people awaken during one of these stages, they often report not having been asleep at all.

**Stage 3 and 4 sleep:** These stages are characterized by delta waves, the slowest and highest-amplitude brain waves during sleep. These two stages are often referred to as delta sleep. Distinguishing between stage 3 and stage 4 is difficult. Typically, stage 3 is characterized by delta waves occurring less than 50 per cent of the time and stage 4 by delta waves occurring more than 50 per cent of the time. Delta sleep is our deepest sleep, the time when brain waves are least like waking brain waves. Sleepers are most difficult to wake during delta sleep. If awakened during this stage, they usually are disoriented.

**State 5 sleep:** After going through stages 1 through 4, sleepers drift up through the sleep stages toward wakefulness. However, instead of re-entering stage 1, they enter stage 5, a different form of sleep called REM (rapid-eye-movement) sleep.

## **Sleep Disorders**

Each year, at least 40 million Americans suffer from chronic, long-term sleep disorders, and an additional 20 million experience occasional sleep problems (National Institute of Neurological Disorders and Stroke, 2001). Many people suffer from undiagnosed and untreated sleep disorders (National Commission of Sleep Disorders Research, 1993). Following are some of the major sleep problems:

- Insomnia: The inability to sleep, can involve having trouble falling asleep, waking up during the night, or waking up too early (Harvey, 2001; Mahendran, 2001). Behavioural changes can help insomniacs to increase their sleep time, as well as to awaken less frequently in the night. Sleepwalking or somnambulism occur during the deepest stages of sleep. For many years, experts believed that somnambulists were just acting out their dreams. However, somnambulism occurs during stages 3 and 4, usually early in the night, at the time when a person is unlikely to be dreaming (Stein and Ferber, 2001).
- **Sleep talking:** It is another night behaviour (Hublin and others, 2001). Although, sleep talkers will talk and make fairly coherent statements, they are soundly asleep.
- **Nightmares:** They are frightening dreams that awaken a dreamer from REM sleep. The nightmare's content invariably involves danger—the dreamer is chased, robbed, raped, murdered, or thrown off a cliff. Nightmares peak at 3 to 6 years of age and then decline.
- **Night terrors:** Night terrors are characterized by sudden arousal from sleep and intense fear. Night terrors are accompanied by a number of physiological reactions, such as rapid heart rate and breathing, loud screams, heavy perspiration, and movement (Thiedke, 2001). Night terrors occur during slowwave, non-REM sleep. Night terrors peak at 5 to 7 years of age and decline thereafter.
- Narcolepsy: It is the overpowering urge to sleep. The urge is so strong that the person may fall asleep while talking or standing up. Narcoleptics immediately enter REM sleep rather than progressing through the first four sleep stages (Mignot, 2001; Mignot and Thorsby, 2001).
- **Sleep apnea:** It is a sleep disorder in which individuals stop breathing because the windpipe fails to open or because brain processes involved in respiration fail to work properly. Untreated, sleep apnea can cause high blood pressure, strokes, and impotence.

#### **Dreams**

Freud's theory has largely given way to newer theories of dreams, such as the cognitive theory of dreaming. It proposed that dreaming can be understood by relying

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on the same cognitive concepts that are used in studying the waking mind. That is, dreaming involves information processing, memory and problem solving. The cognitive theory of dreaming involves little or no search for the hidden, symbolic content of dreams that Freud sought (Foulkes, 1993, 1999).

- Wish fulfilment: Freud's concept of dreaming is an unconscious attempt to fulfil needs (especially for sex and aggression) that cannot be expressed or that go ungratified while awake.
- Manifest content: In Freud's view, a dream's surface content contains symbols that distort and disguise the dream's true meaning.
- Latent content: In Freud's view, a dream has hidden content (unconscious).

Neuroscientists address this shortcoming with the view that dreams reflect the brain's effort to make sense out of neural activity that takes place during sleep (Hobson, 1999). When we are awake and alert, the contents of our conscious experience tend to be driven by external stimuli that result in specific motor behaviour. During sleep, however, conscious experience is driven by internally generated stimuli that have no apparent behavioural consequence. A key source of this internal stimulation is spontaneous neural activity in the reticular formation of the limbic system, at the base of the brain (Hobson, 2000).

## **Hypnosis and Meditation**

Hypnosis and meditation are psychological states, or possibly a state of altered attention and awareness, in which the individual is unusually receptive to suggestions. Basic hypnotic techniques have been used since the beginning of recorded history in association with various religious ceremonies, magic, the supernatural, and many erroneous psychological theories.

## The Nature of Hypnosis

A common misconception is that the hypnotic state is much like a sleep state. Unlike sleepers, hypnotized individuals are aware of what is happening and remember the experience later, unless they are instructed to forget what happened. EEG studies document that individuals in a hypnotic state show a predominance of alpha and beta waves, characteristic of person in a relaxed waking state (De Benedittis and Sironi, 1985; Graffin, Ray and Lundy, 1995; Williams and Gruzelier, 2001). However, during hypnosis, individuals show different patterns of brain activity that they do when they are not under hypnosis (Isotani and others, 2001; Jensen and others, 2001).

## **Explanations of Hypnosis**

Ernest Hilgard (1977, 1992) proposed that hypnosis involves a special divided state of consciousness, a sort of splitting of consciousness into separate components. One component follows the hypnotist's commands, while another component acts as a 'hidden observer'. Some experts are skeptical that hypnosis is truly an altered state of consciousness (Chaves, 2000). They believe that hypnosis is a normal state in which the hypnotized person behaves the way he or she believes a hypnotized

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person should behave. In this view, the important questions about hypnosis focus on cognitive factors like the attitude, expectations, and beliefs of good hypnotic participants, and on the social context in which hypnosis occurs (Barber, 1969; Spanos and Chaves, 1989).

## **Applications of Hypnosis**

Hypnosis is widely used in medicine and dentistry, in criminal investigations, and in sports. Hypnosis has also been used in psychotherapy to treat alcoholism, somnambulism, suicidal tendencies, overeating, and smoking (Eimer, 2000; Yapko, 2001). Hypnosis is most effective when combined with psychotherapy (Borckardt, 2002). Along history of research and practice clearly has demonstrated that hypnosis can reduce the experience of pain (Crasilneck, 1995; Langenfeld, Cipani and Borckardt, 2002; Patterson and Jensen, 2003). Hypnosis has sometimes been used in attempts to enhance people's ability to accurately recall forgotten events (Coleman, Stevens and Reeder, 2001). For example, police departments sometimes eyewitnesses to crimes hypnotize in the hope that their recall of the crime will significantly improve.

#### Meditation

Meditation refers to achieving an altered state of consciousness by performing certain exercises like regulating breathing, restricting one's field of attention, eliminating external stimuli, assuming yogi body position, and so on. These leads to a pleasant, mildly altered subjective state in which the individual feels mentally and physically relaxed. Extensive practice resulted in mystical experiences in which they lose self-awareness and gain a sense of being involved in a wider consciousness. The common techniques of meditation are opening up meditation, in which the person cleans his mind in order to receive new experiences. Another is concentrative meditation, in which the benefits are obtained by actively attending to source object, word or idea.

- Opening up meditation: To relax completely and let go of one's mind and body—stepping out of the stream of ever-changing ideas and feelings in which your mind is indulged.
- Concentrative meditation: The aims of this method are to learn about concentration. The aim is to concentrate on any object. Concentration does not mean analyzing the different parts of the objects; rather, trying to see the object as it exists in itself, without connecting to other things.

After a few session of concentrative meditation, people typically report a number of effects—an altered, more intense perception of the object, sometimes shortening, particularly in retrospect, conflicting perceptions, as if the object fills the visual field and does not fill it, decreasing effect of external stimuli (less distraction eventually less conscious registration) and an impression of the meditative state as pleasant and rewarding.

In his study of a centuries old Tibetan Buddhist text, Brown (1977) has described the complex training required to master the technique. He had also mentioned that cognitive changes can be expected at different levels of meditation. (In this type of meditation people proceed through five levels until they reach a

#### **NOTES**

thoughtless, perception-less, selfless state known as concentrative Samadhi.) Meditation may reduce arousal (especially in easily stressed individuals) for people suffering from anxiety and tension. Some researches argued that the benefits of meditation come largely from the relaxation of the body (Holmes, 1984).

## **Deep Muscle Relaxation**

The individual is thought to experience both tension and relaxation alternatively in each and every group of muscles in the body. Experience of relaxation and appreciation of difference between tension and relaxation immensely helps the individual in maximizing the feelings of calmness. It is also progressive, muscles relaxation follows muscular relaxation.

#### **Bio-feedback**

Bio-feedback is based on skin response (GSR), feedback on brain waves (EEG) and feedback in any other physiological parameter. The individual is made to study the internal reactions to stress and relaxation. By giving the individual feedback whether he/she is in a state of stress or relaxation, the individual can be made to alter the reaction in favour of relation which one can maintain as much as possible. Visual or auditory feedback is given. In the visual feedback, when the individual experience stress, red-light will switch on. The individual then will have to relax and the state of relaxation will be indicated by green light. Hence, the goal is always to keep the green light on when the individual under goes treatment of management of stress through bio-feedback. Once, the individual masters the art of relaxation to any other situation he can gain perfect control over all the situations.

In case of auditory feedback, 'beep' sound will come whenever the individual is tense. Focus is given by the individual to successfully pull off the beep sound. As the very sound may at times prevent the individual from relaxation, visual feedback, is preferred more than the auditory one.

## CHECK YOUR PROGRESS

- 4. What is consciousness?
- 5. What does a high level of consciousness represent?

## 2.4 THE CONCEPT OF LEARNING

Learning pervades our lives. It helps us in mastering a new skill, developing social interaction, personality, emotions, etc. We learn how to behave in a society. Most learning may be described as a modification of behaviour. Before learning to speak a word, child just babbles; when he learns to use a sentence, his behaviour is further modified; when he tries to write, his movement becomes modified, these are all examples of learning. It takes place under the influence of the environment of objects and persons in which the individual lives. Learning continues throughout our life,

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with direct observation. However, learning will make no sense if it is not retained by the person. It is only through the capacity of memory that we are able to relate to different events, experiences, conditions people and objects. The memory makes it possible to operate beyond the constraints of time and place.

#### **Nature of Learning**

Learning is relatively a permanent change in behaviour that occurs through experience. The relatively permanent refers to the fact that when people learn anything, some part of their brain physically changes to record what they have learned. People cannot learn anything in memory if their brain fails to record what happens. Researchers suggest that once people learn something, it is always present somewhere in memory (L.W. Barsalu, 1992). Regarding change, not all change is accomplished through learning. Any kind of change in the way an organism behaves is learning. Any changes in the body, e.g., increase in the weight or the size of the brain is controlled by a genetic blueprint. This kind of change is called maturation. Behaviour refers to any action. The modification of behaviour in learning is generally gradual; it does not come at once. Hence, behaviour is very important for learning, and it may be muscular, social mental, or a combination of these. Another important factor in learning is experience or practice; our past experiences and practices help us to learn the things in a proper manner. The definition of learning consists of the following three important characteristics:

- (i) Learning is a continuous change in behaviour.
- (ii) It is a change that takes pace through practice or experience. Changes due to growth, maturation, fatigue or injury are not included in learning. It brings about improvement in performance.
- (iii) The change must be relatively permanent or enduring. It lasts a long time.

Learning is a thoughtful reaction to a given stimulus. A child cannot learn to walk unless his leg muscles are strong enough to support his/her weight. This implies that maturation provides the necessary readiness to learn. Certain level of maturity is required to acquire skill or knowledge. Learning and maturation both result in changes in behaviour. Maturation may be considered as development brought about by growth of the normal and muscular system, while learning is an outcome of stimulating situations.

Reflex action is a direct automatic and immediate response of a muscle or a gland to the stimulation of a sense organ, e.g., blinking of eye in response to a sudden movement of an object in front of a person's eyes. Reflex actions have innate tendencies and are not acquired through practice. However, instinctive behaviour can be modified by learning. Learning can be classified into verbal learning and motor learning. Learning of words, and numbers, and of facts and ideas expressed by words and numbers, is called verbal learning. Learning of the activities that involve movements of body parts is called motor learning. Both types of learning involve some common processes. There are a set of conditions without which learning will not be possible, e.g., ability to learn, effort to learn, meaningfulness of the material. Interest, incentives, etc.

## 2.4.1 Principles of Learning and their Application

**NOTES** 

Educational psychologists and pedagogues have identified several principles of learning, also referred to as laws of learning, which seem generally applicable to the learning process. These principles have been discovered, tested, and used in practical situations. They provide additional insight into what makes people learn most effectively. Edward Thorndike developed the first three 'Laws of learning', that include readiness, exercise, and effect. Since, Thorndike set down his basic three laws in the early 20th century, four additional principles have been added, viz., primacy, recency, intensity, and freedom.

## **Classical Conditioning**

Classical conditioning is a learning process in which a neutral stimulus associates with another stimulus through repeated pairing with that stimulus. The study of classical conditioning began in the 20th century with the work of the Noble Prize winner Russian Physiologist, Ivon Pavlov. In his experiment on a dog, Pavlov observed that just prior to being fed, the dog secreted saliva from its mouth. In his experiment Pavlov daily placed meat powder in the dog's mouth, causing it to salivate. Pavlov noticed that meat powder was not the only stimulus that causes salivation. The dog salivated in response to a number of stimuli associated with the food. Pavlov identified many key elements that must be responsible for conditioning to take place. They are mentioned as follows:

- Unconditioned stimulus: Unconditioned denotes unlearned or the naturally occurring stimulus, which leads to the reflex, involuntary response. Food is the unconditioned stimulus here.
- Unconditioned response: It is unlearned and occurs because of genetic wiring in nervous system. Salivation of the dog is an example of an unconditioned response.
- Conditioned stimulus: Stimulus that is able to produce a learned reflex response by being paired with the original unconditioned stimulus. Conditioned stimulus means learned.
- Conditioned response: It is a learned reflex response to a condition stimulus. In his experiment, Pavlov used meat powered as the original unconditioned stimulus, which produced salivation in his dog. Pavlov placed the meat powder in the dog's mouth and rang the bell. Later on, he first rang the bell and little after that he placed the food. He increased the time interval between the sound stimulus (the bell) and the food stimulus (meat powder), and noticed that the sound stimulus produced salivation. After a certain number of such paired administrations of two stimuli, Pavlov presented only the sound stimulus and every time the sound stimulus produced salivation (saliva from the dog's mouth). He called the original stimulus the unconditioned stimulus (USC) and its response the unconditioned response (UR). He called the new stimulus the conditioned stimulus (CS) and the old response, when attached to the CS, was called conditioned response (CR).

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The connection between the CS and CR—the sound stimulus and the salivary response—could be established only when the UCS—the food stimulus—was also subsequently applied. The UCS was therefore called the reinforcement stimulus. CS gained the strength or force from the UCS, which was paired with it, to produce the conditioned response. The paired presentation of the two stimuli could alone establish the new connection. The conditioned reflex principle, when applied to learning of new responses, came to be called the Conditioning Theory of Learning.

The findings of Pavlov have been tabulated in Table 2.1.

Table 2.1 Conditioning Theory of Learning

<b>Before Conditioning</b>		
	CS	No response or/irrelevant
	(Sound)	response.
	UCS	UCR
	(Food)	Salivation
After Conditioning		
	CS	CR
	(Sound)	Salivation

## **Working of Classical Conditioning**

Classical conditioning works in the following manner:

- Stimulus generalization: Generalization in classical conditioning is the tendency of a new stimulus that is similar to the original stimulus to elicit a response that is similar to the conditioned response (Nicholas Jones, Ildiko Kemenes and Paul Benjamin, 2001). Pavlov found that the dog not only salivated to the tone of the bell, but also to other sounds that are similar to the original sound of the bell. The similar the bell sounded, the more the dog salivated.
- **Discrimination:** Stimulus generalization cannot continue for a long period of time. When the dog did not receive only food on hearing the similar bell, real CS was followed. With food appearing only after the real bell, the dog started to differentiate between the fake bells and the real one. This process is called stimulus discrimination; the process of learning to response to a particular stimuli and not to others (R.A. Murphy, A.G. Baker and N.A. Fouquet, 2001).
- Acquisition: The time interval between the CS and UCS is one of the most important aspects of classical conditioning (S. Kotani, S. Kawahara and Y. Kirino, 2002; G Weidemann, A. Georgilas and E.J. Kehoe, 1999). Conditioned responses develop when the CS and UCS occur close together; often optimal spacing is a fraction of a second (GA. Kimble, 1961). In Pavlov experiment, the bell rang 15 minutes before the presentation of food. The dog probably would not have associated the ringing of the bell with the food.
- Extinction: It means learning that the CS no longer predicts the UCS; it is not unlearning like original learning. It involves formation of a new CS-no UCS memory that inhibits expression of the CS-UCS association. Hence, the dog gradually stopped salivating to the sound of the bell. When the CS (bell)

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was repeatedly presented in the absence of UCS (food), the salivation (CR) died out

- **Spontaneous recovery:** It refers to the reappearance of a learned response after extinction has occurred. If Pavlov had followed the ringing of the bell with the food—after the dog had stopped salivating to the sound of the bell the dog's spontaneous salivation would have reoccurred. This is called retraining. Retraining is made simpler by the fact that the extinguished response is not gone, just suppressed.
- **Higher order conditioning:** This occurs when a strong conditioned stimulus is paired with a neural stimulus. The stronger CS can actually play the part of a UCS, and the previous neutral stimulus becomes a second conditioned stimulus. For example, previously the dog was conditioned to salivate at the sound of the bell. If the dog is put in a situation wherein it is exposed to a light followed by the bell on each trial, the light alone will eventually elicit a CR, even though it has never been paired with food. The existence of secondorder conditioning greatly increases the scope of classical conditioning especially in human beings, for whom biological significant UCS occurs relatively infrequently.

## **Application of Classical Conditioning**

The following are the applications of classical conditioning:

- Survival value: Classical conditioning has a great deal of survival value (Vernoy, 1995). Due to classical conditioning, we jerk our hands away before they are burned by fire. Pavlov conducted his experiments and concluded that individuals have been conditioned to respond to the sound of a buzzer, a glimpse of light, a puff of air or the touch of a hand (Woodruff-Pak, 1999).
- Health problems and mental disorders can be attributed to classical conditioning: B. Watson and Rosalie Rayner (1920) brought to light the role of classical conditioning in phobias (irrational fear). They conducted the 'Little Albert' that included a white rat. They concluded that if we can produce fears through classical conditioning we can eliminate them using conditioning procedure. Counter conditioning is a classical conditioning procedure for weakening a CR by associating a fear-provoking stimulus with a new response incompatible with the fear. Classical conditioning is not restricted to unpleasant emotions. We become conditioned with the pleasure moment of our life. Certain physical complaints can also be partly the products of classical conditioning. Classical conditioning can be involved in certain aspects of drug use.
- Classical conditioning used by contemporary advertisers: Many contemporary advertisers use classical conditioning (J. Perner, 2001). For example, whenever males see a beautiful woman (UCS) their emotion or the UCR is arousal. Therefore, many times a beautiful woman (UCS) is paired with an automobile (not yet a CS). In such a case, the automobile becomes the CS that results in arousal (CR).

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Recent research has shown that if the CS is encountered outside the ads, it does not predict the UCS (J.R. Bettman, 2001). Thus, classical conditioning may work best for infrequently encountered products and cases in which the UCS is associated with only one brand. Classical conditioning may work best for infrequently encountered products and cases in which the UCS is associated with only one brand. It also works best when the CS precedes the UCS in ads.

#### **Operant Conditioning**

Classical conditioning occurs with reflexive, involuntary behaviour. Learning which is due to voluntary behaviour is called operant conditioning. The concept of operant conditioning was developed by the American psychologist B. F. Skinner (1938). Operant conditioning, also known as instrumental conditioning, is a form associative learning in which consequences of behaviour change the probability of occurrence of behaviour. Skinner described the term operant as the behaviour of the organism—the behaviour operates in the environment, and the environment in turn operates on the behaviour. Operant conditioning consists of voluntary behaviour that acts or operates on the environment and produces rewarding or punishing stimuli. Contingency is an important aspect of classical conditioning, the occurrence of one stimulus is dependent on the presence of another one.

## Multiple Response Learning or Thorndike's Law of Effect

Although Skinner was the pioneer contributor of operant conditioning, the experiment by E.L. Thorndike (1874–1949) establishes the power of consequences in determining voluntary behaviour. Thorndike placed a hungry cat inside a puzzle box from which the only escape was to press a lever located on the floor of the box. A piece of fish was outside the puzzle box. The hungry cat made all possible efforts to get out of the cage to have food. It made a series of all possible movement, such as pulling the box bar biting and clawing them, pressing the floor, jumping, etc. During jumping its paw struck against the latch and it was pushed up. The door opened and the cat had the food. Thorndike repeated trial again and again. In his observation, Thorndike found that the number of movement the cat was making, before it could open the door was gradually decreasing from trial to trial. After a certain number of trials, the cat made no other movements than the correct one. It easily lifted the latch and came out. Thorndike mentioned this process as trial and error. Based on this research, Thorndike developed Law of Effect, which states that behaviours followed by positive outcomes are strengthened, whereas behaviours followed by negative outcomes are weakened.

The key question was how to correct stimulus. Response bound and dominates incorrect stimulus response. Thorndike also adds to law of exercise. A more often repeated response becomes established and a less often repeated response dies out. It is also called the 'Law of Use and Disuse', e.g. the part of the body which is more exercised becomes stronger part of the body that is less exercised. Thorndike's view is called S-R theory because the organism's behaviour is due to a connection between a stimulus and response.

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# Principle of Reinforcement: Reward and Punishment in the Control of Learning

Principle of reinforcement is also called Skinner's operant conditioning approach, which expanded Thorndike's basic ideas. Skinner (1938) strongly believed that the mechanisms of learning are the same for all species. Skinner conducted operant conditioning studies in his behavioural laboratory using rat in skinner boxes. A rat was placed in a box called skinner's box. The box presented a set of different stimuli to the rat, one of them was a lever. The rat was hungry and started responding to the stimuli present in the situation. Accidentally, it pressed the lever and a pellet (small ball) of food was dropped from a slot. The rat reached the pellet and consumed the food. Several trials were taken and rat finally avoided all other stimuli, it pressed the lever which produce the food pellet. It had learnt the connection between the pressing of the lever and food pellet. The dropping of the food pellet was conditioned to the pressing of the lever. It followed the response made by the rat. The conditioning was called operant, because the rat operated upon the stimuli present in the situation. It actively manipulated the situation. The condition was also called instrumental because the lever served as an instrument for obtaining the food objects. The food was reinforcing or reward stimulus.

## **Shaping**

Shaping is the process of rewarding approximation of desired behaviour. It is extensively used in training animals. For example, shaping can be used to train a rat to press a bar and obtained food. It also used to train animals to perform tricks. It can use effectively be in educational classroom (J.W. Santrock, 2001). Shaping can be especially helpful for learning tasks that require time and persistence to complete.

## Reinforcement/reward

Reinforcement is a term for the process of increasing the rate or probability of a behaviour (e.g. pulling a lever more frequently) by the delivery or emergence of a stimulus (e.g. a candy) immediately or shortly after the behaviour, called a 'response', is performed. Skinner defined reinforcement as anything that, when following a response, causes that response more likely to happen again. Behaviour psychologists have formulated a number of principles of reinforcement.

#### **Types of Reinforcement**

There are many types of reinforcement, such as follows:

• Positive and negative: In positive reinforcement, the frequency of a behaviour increases because it followed a rewarding stimulus; whereas negative reinforcement prevents the response or leads to the avoidance of a punishing stimulus. For example, a rat placed in a maze. Let the maze have two alternative paths, one path has its floor covered with electrical wires and produces electrical shock to the rat passing through it. The other path has no wires and does not produce any shocks. After a number of trials, the rat learns to avoid the wired path, and hence the electric shocks, to reach in

reaching the choice point. In this example, the shock producing electrical wire became a negative reinforced.

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- **Primary and secondary:** Primary and secondary reinforcement are as follows:
  - Primary reinforcement involves the use of reinforcers that are innately satisfying, i.e., they do not take any learning on the organism's part to make them pleasurable. Foods, water, sexual satisfactions are primary reinforcers.
  - o Secondary reinforcement involves the use of reinforces that acquire their positive value through experience. We have hundreds of secondary reinforces in our lives, such as getting a pat on the back, praise and eye contact. When an object can be exchanged for some other reinforcer, the object may have reinforcing value in itself, it is also called token reinforcers.

#### Schedules of Reinforcement

Skinner (1956) found that reinforcing each and every response was not necessarily the best schedule of reinforcement for long lasting learning. There are a number of schedules; some of them are as follows:

- **Fixed-ratio schedule:** In fixed-ratio schedule, the number of responses required to receive each reinforcer will always be the same number. If someone receive a pay cheque once every two weeks (provided that they show up at work in those two weeks), they are being reinforced on this kind of schedule.
- Variable-ratio schedule: Variable interval is one in which the number of responses changes from one trial to the next. In other words, it occurs when a response is reinforced after an unpredictable number of responses. For example, the rat might be expected to push the bar an average of twenty times to get reinforcement. That means that sometimes the rat would push the lever only ten times before the reinforce comes, but at other times it might take thirty lever pushes or more. Buying lottery tickets is same as gambling.
- **Fixed-interval schedule:** It is a schedule where the first response is rewarded only after a specified amount of time has elapsed. This schedule causes high amounts of responding near the end of the interval, but much slower responding immediately after the delivery of the reinforcer. For example, the rat pushes the bar and the food appears after every 5 minutes after the pushing of the bar. Initially, the rat will not be aware that the food will appear after some time. It will get agitated and run or hop everywhere, but as it gets to know of the pattern, it will wait for the food to appear every time it will push the bar.
- Variable-interval schedule: It is a schedule in which the interval of time, after which the organism must respond, in order to receive a reinforcer, changes every time. In other words, it occurs when a response is rewarded after an unpredictable amount of time has passed. This schedule produces a slow, steady rate of response. For example, on an average, the rat might receive a

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food pellet every 5 minutes. Sometimes, it might be two minutes, sometimes ten, but the rat must push the lever at least once after that interval to get the pellet. Dialling a busy phone number is also this kind of schedule; people do not know when the call will get through, and hence, they keep dialling the busy number.

#### **Punishment**

Although, punishment can be effective in reducing or weakening behaviour, it is the opposite of reinforcement. Most of the times, punishment only serves to temporarily suppress or inhibit a behaviour until enough time has passed that the inhabitation itself weakens and disappears. Punishing a child's bad behaviour does not always eliminate the behaviour completely. After some times, the punishment is forgotten and the bad behaviour may occur.

## Positive punishment

Negative or bad behaviour decreases when positive punishment is followed after an unpleasant stimulus. In an attempt to decrease the likelihood of a behaviour occurring in the future, an operant response is followed by the presentation of an aversive stimulus. This is positive punishment. Let us assume an example, if we stroke a cat's fur in a manner the cat finds unpleasant, the cat may attempt to bite us. Therefore, the presentation of the cat's bite will act as a positive punisher and decrease the likelihood that we will stroke the cat in that same manner in the future.

## **Negative punishment**

In negative punishment, behaviour decreases when a positive stimulus is removed. In an attempt to decrease the likelihood of a behaviour occurring in the future, an operant response is followed by the removal of an appetitive stimulus. This is negative punishment. For example, when a child 'talks back' to his/her mother, the child may lose the privilege of watching his favourite television programme. Therefore, the loss of viewing privileges will act as a negative punisher and decrease the likelihood of the child talking back in the future. Let us consider another example of a timeout. It is a form of negative punishment in which a child is removed from a positive reinforcement. If a child is disturbing the classroom, the teacher might make the child stand in a corner of the room, or take the child to a time-out room.

### **Punishment by application**

Punishment by application is one in which something unpleasant is added to the situation. Punishment by application can be quite severe, and does one thing well; it stops the immediate dangerous behaviour (B. Bucher and O.I. Lovaas, 1967, E.G. Carr and O. I. Lovass, 1983). Severe punishment may cause the child (or animal) to avoid the punishment instead of the behaviour being punished. It is due to the following reasons:

• Severe punishment creates fear and anxiety, and emotional responses that do not promote learning (D. Baumrind, 1997, Elizabeth Gershoff, 2000).

• Hitting provides a model for aggression (Elizabeth Gershoff, 2000; Milner, 1992).

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## Immediate and delayed reinforcement

Learning is more efficient in operant conditioning when the interval between a behaviour and its reinforcement is a few second.

## Immediate and delayed punishment reinforcement and punishment

Immediate punishment is more effective than delayed punishment in decreasing the occurrence of behaviour.

## Immediate punishment and delayed punishment

When the delayed negative consequences of behaviour are punishing and immediate consequences are reinforcing, the immediate consequences usually win, e.g., smoking and drinking follow the same patterns.

## Punishment by removal

Bad behaviour is punished by the removal of something pleasurable or desired after the behaviour occurs. For example, putting a child in the time-out room (removing the attention of the others in the room), fining someone for disobeying the law (removing money), and punishing aggressive behaviour by taking away television privileges. This type of punishment is more acceptable for child development. It involves no physical aggression and avoids the problem caused by more aggressive punishment.

### **Problem with punishment**

In using an aggressive type of punishment, such as spanking and yelling, the adult is indirectly modelling a particular behaviour (presenting behaviour to be imitated by the child). Some people turn too quickly to aversive stimuli, because they were harshly disciplined when they were growing up and they are just repeating how their parents dealt with them.

#### Application of operant conditioning

The following are the applications of operant conditioning:

- **Useful in behaviour modification:** Operant conditioning procedures have helped people adapt more successfully and cope more effectively with their problems (Sussman, 2001).
- Mental and physical health: Behaviour modification can be used to help people improve their self-control in many aspects of mental and physical health (A.E. Kazdin, 2001, R.G. Miltenberger, 2001, D.L. Watson and R.G. Tharp, 2002).
- Education: Operant conditioning has also been applied in classrooms to improve the education of children (Charles, 2002, C.M. Evertson, E.T. Emmer, and M.E. Worsham, 2003).

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## 2.4.2 Methods of Learning

Learning is acquiring new or modifying existing knowledge, behaviours, skills, values, or preferences and may involve synthesizing different types of information. The ability to learn is possessed by humans, animals and some machines. Progress over time tends to follow learning curves.

Human learning may occur as part of education, personal development, or training. It may be goal-oriented and may be aided by motivation. The study of how learning occurs is part of neuropsychology, educational psychology, learning theory, and pedagogy.

Learning may occur as a result of habituation or classical conditioning, seen in many animal species, or as a result of more complex activities such as play, seen only in relatively intelligent animals. Learning may occur consciously or without conscious awareness. There is evidence for human behavioural learning prenatally, in which habituation has been observed as early as 32 weeks into gestation, indicating that the central nervous system is sufficiently developed and primed for learning and memory to occur very early on in development.

Play has been approached by several theorists as the first form of learning. Children play, experiment with the world, learn the rules, and learn to interact. Vygotsky agrees that play is pivotal for children's development, since they understand their environment through play.

The different methods of learning are as follows:

- **Part method:** For learning any written material, one may have to read it a number of times. One way of doing this is to learn the material in parts. One may read a sentence, or couple of sentences, a good number of times till they have been fully learned. He may then pass on to another sentence and read and re-read it. In this manner, one may complete the entire passage by reading and re-reading it bit by bit. The entire passage is thus divided into parts and each part is learned separately.
- Whole method of learning: The other method of learning is to read the entire passage repeatedly till it is fully learned. This is called the whole method of learning. The whole method is found to be generally better than the part method. It requires less time and less effort to learn the material.
- Passive learning: One may read a passage a number of times, understanding the content as he proceeds. After having given several repetitive readings, he may stop and find that he is able to reproduce what he read. This is called passive reading.
- **Active learning:** After every reading, one may turn his eyes from the passage and try to recite from memory what he has read. In doing so, he strains himself to recite or recapitulate as much as possible. He may then took at the passage and see how much he has been able to recite correctly and where he has made a mistake. He may then give a second reading and follow the same procedure. This is called active learning, or learning

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by the method of recitation. This active method is to be preferred to the passive method. The active method takes less time and less effort to learn. Within the same time, one can learn much more by active method than by the passive method; this method also betters the learning process.

- **Distributed learning or spaced learning**: If one has to learn something by practicing it a number of times, he must take a short rest after some practice. This method of taking short breaks is helpful in refreshing the brain. This method of learning is called distributed learning or spaced learning, as there is a space interval while studying.
- Massed learning: If one goes on practicing until he have learned the task, without taking any rest, or goes on reading for three or four hours without any break, the learning will be called massed learning.

The distributed learning method has proved to be better than the massed learning method. In some cases, the spaced learning may require less total time than the massed learning. Even when distributed learning takes as much time as massed learning, the rest pauses in distributed learning keep the learner fresh and he is able to work for longer. While studying for long hours, it is useful to take some rest at intervals. One may have a fifteen-minute rest after studying for an hour and then start his studies again.

## 2.4.3 Observational Learning

Observational learning (also known as vicarious learning, imitation, social learning, or modelling) is a type of learning that occurs as a function of observing, retaining and replicating novel behaviour executed by others. Observational learning, also called social learning theory, occurs when an observer's behaviour changes after viewing the behaviour of a model. An observer's behaviour can be affected by the positive or negative consequences—called vicarious reinforcement or vicarious punishment—of a model's behaviour.

Although observational learning can take place at any stage in life, it is thought to be of greater importance during childhood, particularly as authority becomes important. The best role models are those a year or two older for observational learning. Because of this, social learning theory has influenced debates on the effect of television violence and parental role models.

As mentioned, learning a new behaviour by observing a model (watching someone else who is doing that behaviour) is called observational learning. Albert Bandura (1986, 2000) believes that if we learn only through trial and error fashion, learning would be exceedingly tedious and at times hazardous. He says many of our complex behaviours are the result of exposure to competent models that display appropriate behaviour in solving problem and coping (Streifel, 1998). By observing other people, we can acquire knowledge, skills rules, strategies, beliefs and attitude (Schunk, 2000).

Bandura's classic study in observational learning involved preschool children in a room, Bo-Bo doll and an experimenter, in which the experimenter and a model interacted with toys in the room in front of the children (Bandura, et al., 1961). In the

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first condition, the model interacted with the toys in a very calm manner, without any aggression. The model completely ignored the presence of the Bo-Bo doll (a punchbag doll that looks like a clown). In the second condition, the model became very aggressive with the doll, kicking it and yelling at it, throwing it in the air and hitting it with a hammer. When each child was left alone in the room and he had the opportunity to play with the toys, a camera filming through a one-way mirror caught the children who were exposed to the aggressive model, as they were beating up the Bo-Bo doll exactly like the model. Children who saw the model ignore the doll, did not act aggressively toward the toy. Obviously, the aggressive children learned their aggressive actions by merely watching the model—with no reinforcement necessary.

The fact that learning can take place without actual performance (a kind of latent learning) is called the learning/performance distinction. Four important element of observational learning described by Bandura (1986) are as follows:

- (i) Attention: Attention is the most important aspect in learning anything through observation. Attention represents that condition within a person which enables him to be clearly aware of a certain object or activity. Attention to the model is influenced by a host of characteristics; for example, warm and powerful people command more attention than to cold and weak people.
- (ii) **Retention:** The learner must be able to retain the memory of the sensory registered in order to retrieve it.
- (iii) Imitation: People might see a model and retain in their memory what they have seen. However, limitations in motor development might make it difficult for them to reproduce the model's action. A two-year old child might be able to watch someone tie shoelaces and might even remember most of the steps, but any two-year old will not have the dexterity for tying the laces.
- (iv) Motivation/reinforcement: The learner must have a desire to perform the action. If a person expects a reward because one has been given in the past or if the reward has been promised (like the children in the second group of Bandura study), or has witnessed a model getting a reward (like the children in the first group), that person will be much more likely to initiate the observed behaviour. Successful models are powerful figures for imitations, but surely would be motivated to imitate someone who fails or is punished.

## **Application of observational learning**

Positive role models and mentors play an important role in developing potential and help the people to achieve their goals. Role model and mentors can be parents, teachers, and older peer. A mentor can be very beneficial for the students.

### 2.4.4 Cognitive Learning

Cognitive learning is a powerful mechanism that provides the means of knowledge and goes well beyond simple imitation of others. Conditioning can never explain

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what we are learning at any given time. This learning illustrates the importance of cognitive learning. Cognitive learning is defined as the acquisition of knowledge and skill by mental or cognitive processes—the procedures we have for manipulating information 'in our heads'. Cognitive processes include creating mental representations of physical objects and events, and other forms of information processing.

## **Purposive Theory**

Edward Tolman (1932) emphasized on the purposiveness of behaviour, in other words, much behaviour is goal directed. Tolman (1948) believed that an organism's expectations about which actions are needed to attain a goal, take the form of cognitive maps. A cognitive map is an organism's mental representation of the structure of physical space. His experiments with rats in maze led him to conclude that rat developed mental awareness of physical space and the elements in it and then used these cognitive maps to find the food at the end of the maze, which is their goal.

By conducting experiment in latent learning, cognitive map in learning was obtained. Latent learning is unreinforced learning that is not immediately reflected in behaviour. In one study, three groups of rats in the same maze—one at a timewere studies. In the first group, each rat was placed in the maze and rewarded with food for making its way out the other side. The rat was then placed back in the maze, rewarded every time the maze was solved, until the rat could successfully solve the maze with no errors. The second group of rats was treated exactly like the first, except that they never received any reinforcement upon exiting the maze. They were simply put back in repeatedly, until the tenth day of the experiment. On the tenth day, the rats in the second group began to receive reinforcement for getting out of the maze. The third group of rats, serving as a control group, was also not reinforced and was not given reinforcement for the entire duration of the experiment. A strict Skinnerian behaviourist would predict that only the first group of rats would learn the maze successfully because learning depends on reinforcing consequences. At first, this seemed to be the case. The first group of rats did indeed solve the maze after a certain number of trials, whereas the second and third groups seemed to wander aimlessly around the maze until accidentally finding their way out.

On the tenth day, however, something happened that would be difficult to explain using only Skinner's basic principles. The second group of rats, upon receiving the reinforcement for the first time, should have then taken as long as the first group to solve the maze. Instead, they began to solve the maze almost immediately. Tolman concluded that the rats in the second group, while wandering around in the first nine days of the experiment, had indeed learned where all the blind alleys, wrong turns, and correct paths were in the maze. They had simply not demonstrated this learning because there was no reason to do so. The learning had remained hidden, or latent, until the rats had a reason to demonstrate their learning by getting to the food. Tolman called this latent learning.

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### **Seligman's Learned Helplessness**

In the mid-to late-1960s, M.E.P. Seligman and his colleagues accidentally discovered an unexpected phenomenon while experimenting on dogs using classical conditioning (M.E.P. Seligman, 1975). Their original intention was to study escape and avoidance learning. Seligman and colleagues presented a tone followed by a harmless, but painful electric shock to one group of dogs. The dogs in this group were harnessed so that they could not escape the shock. The researchers assumed that the dogs would learn to fear the sound of the tone and later try to escape from the tone before being shocked. These dogs, along with another group of dogs that had not been conditioned to fear the tone, were placed into a special box with a low fence that divided the box into two compartments. The dogs, which were now unharnessed, could easily see over the fence and jump over. In fact, these dogs showed distress, but did not try to jump over the fence even when the shock began.

Why would the conditioned dogs refuse to move when shocked? The dogs that had been harnessed and then provided the shocks were conditioned and had apparently learned—in the original tone/shock situation—that there was nothing they could do to escape the shock. So when placed in a situation where an escape was possible, the dogs still did nothing because they had learned to be 'helpless'. They believed they could not escape, so they did not even try. Seligman extended this theory of learned helplessness, the tendency to fail to escape from a situation because of a history of repeated failure in the past, to explain depression. Depressed people seem to lack normal emotions and become somewhat apathetic, often staying in unpleasant work environments or bad marriages or relationships rather than trying to escape or better their situation. Seligman proposed that this depressive behaviour is a form of learned helplessness. Depressed people may have learned in the past that they seem to have no control over what happens to them (L.B. Alloy and C.M. Clements, 1998). A sense of powerlessness and hopelessness is common to depressed people, and certainly this would seem to apply to Seligman's dogs as well.

#### **Insight Theory of Learning**

Wolfgang Kohler (1887–1967) was a Gestalt psychologist. In one of his more famous studies (Kohler, 1925), he set up a problem for one of the chimpanzees. Sultan, the chimp was faced with the problem of how to get to a banana that was placed just out of his reach outside his cage. Sultan solved this problem relatively easily, first trying to reach through the bars with his arm, then using a stick that was lying in the cage to rake the banana into the cage. As chimpanzees are natural tool users, this behaviour is not surprising and is still nothing more than simple trial-and-error learning.

Then, the problem was made more difficult. The banana was placed just out of reach of Sultan's extended arm with the stick in his hand. At this point there were two sticks lying around in the cage, which could be fitted together to make a single pole that would be long enough to reach the banana. Sultan first tried one stick, then the other (simple trial-and-error). After about an hour of trying, Sultan seemed to have a sudden flash of inspiration. He pushed one stick out of the cage as far as it would go toward the banana and then pushed the other stick behind the first one. Of course, when he tried to draw the sticks back, only the one in his hand came. He

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jumped up and down and was very excited. When Kohler gave him the second stick, he sat on the floor of the cage and looked at them carefully. He then fitted one stick into the other and retrieved his banana. Kohler called this Sultan's rapid 'perception of relationships' insight and determined that insight could not be gained through trial-and-error learning alone (Kohler, 1925). Although, Thorndike and other early learning theories believed that animals could not demonstrate insight, Kohler's work seems to demonstrate that insight requires a sudden 'coming together' of all elements of a problem in a kind of 'aha' moment that is not predicted by traditional animal learning studies. More recent research has also found support for the concept of animal insight (B. Heinrich, 2000; C. Heyes, 1998; T.R. Zentall, 2000), but there is still controversy over how to interpret the results of those studies (Wynne, 1999).

## 2.4.5 Optimizing Learning

Learning is based on experience and leads to long-term changes in behaviour potential. Behaviour potential designates the possible behaviour of an individual, not actual behaviour. As already studied, the main assumption behind all learning psychology is that the effects of the environment, conditioning, reinforcement, etc., provide psychologists with the best information from which to understand human behaviour.

## **Programmed Learning and Automated Instruction**

Programmed learning is a teaching technique in which a learner is presented with a small chunk of information, and is asked to answer a question after understanding it. If the answer is correct, the learner may proceed to the next chunk, otherwise go back to a previous piece of information and proceed from there. Programmed learning was introduced in the mid-1950s by B.F. Skinner, a behaviourist. It is a system whereby the learner uses specially prepared books or equipments to learn without a teacher. It is based on the principle of operant conditioning, which theorized that learning takes place when a reinforcing stimulus is presented to reward a correct response. In early programmed instruction, students punched answers to simple math problems into a type of keyboard. If the answer was correct, the machine would advance to another problem. Incorrect answers would not advance. Skinner believed such learning could, in fact, be superior to traditional teacher-based instruction because children were rewarded immediately and individually for correct answers rather than waiting for a teacher to correct written answers or respond verbally. Programmed instruction quickly became popular and spawned much educational research and commercial enterprise in the production of programmed instructional materials. It is considered the antecedent of modern computer-assisted learning.

Two types of programmed learning can be compared. Linear programming involves a simple step-by-step procedure. There is a single set of materials and students work from one problem to the next until the end of the programme. Branching programming is more complex. Students choose from multiple-choice answers and then are prompted to proceed to another page of the book depending on their answer. If correct answer is given, students move on to another page with more information to learn and more questions to answer. An incorrect answer leads to comments on why the answer is incorrect and a direction to return to the original question to make another selection.

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Programmed-learning books differ from traditional workbooks because they actually teach new information through this step-by-step stimulus-response method rather than simply offering practice material for already-learned skills.

Research has shown that programmed learning often is as successful, and sometimes more successful, than traditional teacher-based learning because it recognizes the different abilities and needs of individual children. Students who have mastered the material can move ahead more quickly, while those who need more practice are repeatedly exposed to the problems. Programmed learning also allows teachers more time to concentrate on more complex tasks. One criticism of programmed learning is that it lacks student-teacher interaction. It has been shown that some students thrive more fully with the human motivationinherent in more traditional learning situations.

Although, there has been considerable controversy regarding the merits of programmed instruction as the sole method of teaching, many educators agree that it can contribute to more efficient classroom procedure and supplement conventional teaching methods. Teaching machines enable students to work individually, calling for active participation of the learner. Programmed instruction is often used to train personnel in industry and the armed services.

### **Automated instruction**

Automated instruction is useful to researchers as well as practitioners looking for guidance on designing automated instruction systems. In so doing, the following two critical problem are focussed upon:

- (i) Diagnosis of the student's current level of understanding or performance.
- (ii) Selection of the appropriate intervention that provide specific, detailed guidance on how to develop these systems.

## 2.4.6 Transfer of Learning

Transfer of learning is the process of applying or carrying over knowledge, skills, habits, attitudes or other responses from one learning situation, in which they were initially acquired, to a different learning situation. For example, a person who has learnt to ride a bicycle finds it easy to ride a scooter. It means that experience or performance on one task influences performance on subsequent learning tasks. A person's ability to recognize objects, perceive relationships and conceptualize the experiences of daily life is facilitated by transfer of learning. The influence of transfer is found, not only in the domain of intellectual tasks and in complex motor skills, but also in emotional reactions and individuals' attitudes. If transfer of learning does not take place, each task would have to be learnt afresh and it would make life difficult.

### Types of transfer of learning

Transfer of training affects learning of a new task in three ways, viz., positive, negative and zero. They are discussed as follows:

(i) Positive transfer: When learning of one task makes the second task easier to learn, positive transfer effect is seen. What one has learnt in one subject or

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a task may facilitate learning in another subject or task. In positive transfer, the carry-over of knowledge or skill is beneficial to future learning. For example, after learning to spell the word 'house' a child may be able to apply the appropriate phonetic rule and spell the word 'mouse' correctly, even without being taught the word 'mouse'. Similarly, skill in riding a bicycle facilitates learning to ride a motor cycle. Learning the rules of addition and subtraction makes it easier to count one's change and check the balance when one makes purchases from the market. Learning to drive a car makes it easier to learn to drive a truck or a bus. In all these cases, the previous learning experience facilitates subsequent learning. It occurs when the responses expected from two tasks or learning situations are similar. However, the maximum amount or positive transfer is obtained, when the stimulus and the response elements in the previous and the new learning situations are similar.

- (ii) Negative transfer: Sometimes, carrying over the knowledge or experience in one task interferes with further learning. As a result of negative transfer, performance on one task may block performance on the subsequent task. For example, a child's experience in learning the plural of house may inhibit his/her learning the plural of a word 'mouse'. The child may spell the plural of the world mouse as 'mouses' instead of 'mice'. Negative transfer usually occurs when the stimuli in the previously learnt task and the new task are the same or comparable, but the responses are dissimilar.
- (iii) Zero transfer: When the learning of one task, does not have any effect on the ability of a person to perform another task, zero transfer is seen. It happens when the tasks are dissimilar in stimuli as well as responses. In zero transfer, the performance in the new situation is neither aided nor hindered by the past learning. Learning history may contribute to the understanding of one's own culture, but it has hardly any effect on learning mathematics. Similarly, improving one's skill in playing football will have no effect on the improvement of one's skill in writing an essay. Learning to typewrite, will not affect the learning of painting.

## **Learner and Learning Styles**

Leaning styles are the various approaches or ways of learning. They involve educating methods, particular to an individual that are presumed to allow that individual to learn best. Most people prefer an identifiable method of interacting with, taking in, and processing stimuli or information. Different types of learners have different styles of learning, they are as follows:

- Active and reflective learners: Active learners tend to retain and understand information best by doing something active—by discussing or applying it—like group; whereas, reflective learners prefer to think about it quietly first. They tend to work alone.
- Sensing and intuitive learners: Sensing learners tend to learn facts, solve problems, resent being tested on material, use well-established methods, are more practical and careful; whereas, intuitive learners often prefer discovering

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possibilities and relationships, like innovation and dislike repetition, they may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.

**Visual and verbal learners:** Visual learners remember best what they see pictures, diagrams, flow charts, time lines, films, and demonstrations. Verbal learners get more out of words, written and spoken explanations. Everyone learns more when information is presented both visually and verbally.

In most college classes, very little visual information is presented. Students mainly listen to lectures and read material written on chalkboards and in textbooks and handouts. Unfortunately, most people are visual learners and that means that most students do not get nearly as much as they would if more visual presentation were used in class. Good learners are capable of processing information presented either visually or verbally.

- Sequential and global learners: Sequential learners tend to gain understanding in linear steps, with each step following logically from the previous one. Global learners tend to learn in large jumps, absorbing material almost randomly without seeing connections, and then suddenly getting it.
- Auditory earners: They learn through listening and learn best through verbal lectures, discussions, talking things through and listening to what others have to say. Auditory learners interpret the underlying meanings of speech through listening to tone of voice, pitch, speed and other nuances. Written information may have little meaning until it is heard. These learners often benefit from reading text aloud and using a tape recorder.
- Tactile/kinesthetic learners: Such learners learn through moving, doing and touching. Tactile/kinesthetic persons learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted by their need for activity and exploration.

## 2.4.7 Learning Disabilities

The central concept of specific learning disabilities (SLD) involves disorders of learning and cognition that are intrinsic to the individual SLD. They are specific in the sense that each of these disorders significantly affects a relatively narrow range of academic and performance outcomes. SLD may occur in combination with other disabling conditions, but they are not due to other conditions, such as mental retardation, behavioural disturbance, lack of opportunities to learn, or primary sensory deficits, etc. (D.E. Bradley et. al., 2002).

Learning disabilities fall into broad categories based on the four stages of information processing used in learning—input, integration, storage, and output (NIHY, 2004). These stages are discussed in detail as follows:

**Input:** This is the information perceived through the senses, such as visual and auditory perception. Difficulties with visual perception can cause problems with recognizing the shape, position and size of items seen. There can be problems with sequencing, which can relate to deficits with

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processing time intervals or temporal perception. Difficulties with auditory perception can make it difficult to screen out competing sounds in order to focus on one of them, such as the sound of the teacher's voice. Some children appear to be unable to process tactile input; for example, they may seem insensitive to pain or dislike being touched.

- Integration: This is the stage during which perceived input is interpreted, categorized, placed in a sequence, or related to previous learning. Students with problems in these areas may be unable to tell a story in the correct sequence, unable to memorize sequences of information such as the days of the week, able to understand a new concept, but be unable to generalize it to other areas of learning, or able to learn facts but be unable to put the facts together to see the 'big picture'. A poor vocabulary may contribute to problems with comprehension.
- Storage: Problems with memory can occur with short-term or working memory, or with long-term memory. Most memory difficulties occur in the area of short-term memory, which can make it difficult to learn new material without many more repetitions than is usual. Difficulties with visual memory can impede learning to spell.
- Output: Information comes out of the brain either through words, that is, language output, or through muscle activity, such as gesturing, writing or drawing. Difficulties with language output can create problems with spoken language; for example, answering a question on demand, in which we must retrieve information from storage, organize our thoughts, and put the thoughts into words before we speak. It can also cause trouble with written language for the same reasons. Difficulties with motor abilities can cause problems with gross and fine motor skills. People with gross motor difficulties may be clumsy, that is, they may be prone to stumbling, falling, or bumping into things. They may also have trouble running, climbing, or learning to ride a bicycle. People with fine motor difficulties may have trouble buttoning shirts, tying shoelaces, or with handwriting.

### **Impaired functions**

Deficits in any area of information processing can manifest in a variety of specific learning disabilities. It is possible for an individual to have more than one of these difficulties. This is referred to as comorbidity or co-occurrence of learning disabilities.

### Reading disorder (ICD-10 and DSM-IV codes: F81.0/315.00)

Reading disorder is the most common learning disability. Of all students with specific learning disabilities, 70–80 per cent has problems in reading. The term, developmental dyslexia is often used as a synonym for reading disability; however, many researchers assert that there are different types of reading disabilities, of which dyslexia is one. A reading disability can affect any part of the reading process, including difficulty with accurate or fluent word recognition, or both, word decoding, reading rate, prosody (oral reading with expression), and reading comprehension. Before the term 'dyslexia' came to prominence, this learning disability used to be known as 'word blindness'.

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Common indicators of reading disability include difficulty with phonemic awareness (the ability to break-up words into their component sounds), and difficulty with matching letter combinations to specific sounds (sound-symbol correspondence).

#### Writing disorder (ICD-10 and DSM-IV codes F81.1/315.2)

Speech and language disorders can also be called dysphasia/aphasia (coded F80.0-F80.2/315.31 in ICD-10 and DSM-IV).

Impaired written language ability may include impairments in handwriting, spelling, organization of ideas, and composition. The term 'dysgraphia' is often used as an overarching term for all disorders of written expression. Others, such as the International Dyslexia Association, use the term 'dysgraphia' exclusively to refer to difficulties with handwriting.

### Math disability (ICD-10 and DSM-IV codes F81.2-3/315.1)

Sometimes called dyscalculia, a math disability can cause such difficulties as learning math concepts (such as quantity, place value, and time), difficulty memorizing math facts, difficulty organizing numbers, and understanding how problems are organized on the page. Dyscalculics are often referred to as having poor 'number sense' (Jane Emerson, 2009).

#### Non ICD-10/DSM

- Nonverbal learning disability: Nonverbal learning disabilities often manifest in motor clumsiness, poor visual-spatial skills, problematic social relationships, difficulty with math, and poor organizational skills. These individuals often have specific strengths in the verbal domains, including early speech, large vocabulary, early reading and spelling skills, excellent rote-memory and auditory retention, and eloquent self-expression.
- Disorders of speaking and listening: Difficulties that often co-occur with learning disabilities include difficulty with memory, social skills and executive functions (such as, organizational skills and time management).
- Auditory processing disorder: Difficulties processing auditory information include difficulty comprehending more than one task at a time and a relatively stronger ability to learn visually.

#### Assessment

Many normed assessments can be used in evaluating skills in the primary academic domains, reading, not including word recognition, fluency, and comprehension; mathematics, including computation and problem solving; and written expression, including handwriting, spelling and composition.

The most commonly used comprehensive achievement tests include the Woodcock-Johnson III (WJ III), Weschler Individual Achievement Test II (WIAT II) and the Wide Range Achievement Test III (WRAT III), amongst others. These tests include measures of many academic domains that are reliable in identifying areas of difficulty (Marcia et al, 2007).

#### **NOTES**

### **CHECK YOUR PROGRESS**

- 6. What are the two classifications of learning?
- 7. How is retraining made simpler?
- 8. What is operant conditioning?
- 9. State the Law of Effect.
- 10. What is punishment by application?
- 11. How do programmed-learning books differ from traditional workbooks?

### 2.5 THEORY OF INSIGHT

According to cognitive field theorists, teaching is a process of developing insight or understanding in the learner. Learning is the organization of percepts and purposes by the learner. Classroom experiences are related to the individual goals of students. They are encouraged to discover relationship so that they might use to create the consequences of their efforts.

Gestalt psychology emerged when traditional psychology was under fire in America and Germany. Thorndike and Watson were busy with doing away with mentalistic concepts in psychology. They were developing objective methods to study behaviour. They were attempting to bring psychology at par with other physical sciences. At the same time, three German psychologists—Max Wertheimer, Kurt Koffka and Wolfgang Kohler—being dissatisfied with atomistic and molecular approach to behaviour, were busy in developing a new approach to behaviour. They considered man's inner processes as the proper subject for study. They vehemently criticized the behaviouristic view that everything we see or think is put together of tiny pieces like those of a jigsaw puzzel. Instead, they advocated that we perceive and think of wholes. They further assumed that our perception of the world is of meaningful wholes and that is different from and more than an accumulation of sensations, images or ideas. They rejected the simple Stimulus-Response (S-R) connections as the explanation of behaviour. They introduced the concept of organization between Stimulus-Response (S-R) approach developed by behaviourists.

The new explanation of behaviour developed by three German psychologists is known as Gestalt Psychology. Gestalt is a German word which means pattern, shape, form or configuration. Gestalt psychologists believe that we react to the pattern of our own perceptions, when we face a problem, depending upon the set of stimulating conditions in the environment. We learn, not by associating bits of experiences, but by forming new Gestalts—by seeing new patterns and by organizing them into a meaningful whole in the total situation. When we struggle with a problem, the solution may come to us all of a sudden. This quick change in our perception is called insight.

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Gestalt psychologists were opposed to the molecular and mechanistic approach to behaviour. They were also opposed to the idea of quantification of behaviour. They do not believe in the authenticity of measuring instruments used for measuring human behaviour. They criticized the usefulness of statistical analysis of behaviour.

## **Basic Principles of Perceptual Organization**

Gestalt psychologists conducted most of their experiments in the field of perception. On the basis of their experimental studies, certain laws of perceptual organization have been developed by them. Some of the basic laws are described below:

- Figure-ground: Everything we perceive stands against a background. There is a close relationship between figure and ground. We listen to a song against the background of music.
- **Principle of pragnanz:** This principle states that our perceptual patterns always tend to be simple, regular and complete with no loose ends. The gaps are closed by the perceiver. The law of closure operates with the principle of pragnanz in all sensory modalities.
- Law of transposition: This principle states that because Gestalten are isomorphic to stimulus pattern, they may undergo extensive changes without losing their identity.
- Law of similarity: It suggests that similar words, numbers and objects tend to associate in a group and are easy to recall than dissimilar ones.
- Law of proximity: It states that objects which are close in space and time tend to form a Gestalt.

The Gestalt theory of perception has been summarized by Kohler as follows:

'Our view will be that instead of reacting to local stimuli by local and mutually independent events, the organism responds to the pattern of stimuli to which it is exposed; and that this answer is a unitary process, a functional whole, which gives in experience, a sensory scene rather than a mosaic of local sensation.'

#### Theory of Learning by Insight

Gestalt psychologists developed a new theory of learning popularly known as theory of insight. This theory is associated with the name of Kohler who conducted a series of experiments on chimpanzees. The four classical experiments are described as follows:

**Experiment 1.** A chimpanzee named Sultan was confined in a cage. There was a stick in the cage and outside the cage some bananas were put. In the first instance, on seeing the bananas the chimpanzee showed restlessness and tried his best to reach the bananas but he could not reach without the help of the stick. All of a sudden, the chimpanzee perceived the stick and established relationship between the stick and the bananas. He fished inside the bananas with the help of the stick.

**Experiment 2.** In the second experiment, two sticks were used which could be fitted with each other with some mechanism. The chimpanzee could only get the bananas with the help of both the sticks fitted in each other. He first tried to get the bananas with the help of one stick, but failed. All of a sudden he succeeded in fitting

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**Experiment 3.** The experimental setting was slightly changed in this experiment. The bananas were hung from the ceiling of the cage and a box was put in the corner of the cage. The chimpanzee attempted to get the bananas, but could not reach to them. He suddenly established relationship between the box and the bananas, put the box under the bananas and climbed on it and got the bananas.

**Experiment 4.** Slight change was introduced in this experiment: two boxes were kept instead of one. The chimpanzee had to use both the boxes in order to get the bananas.

These experiments by Kohler show that the animal must perceive the total situation and relationship among all relevant parts of the problem before insight can occur in solving the problem. The second point, these experiments point out, is that insight follows a trial and error behaviour on the part of the animal. Once the animal learns to solve a problem by insight, there is every possibility of high degree of transfer to similar problems.

The main factor in Gestalt theory of learning is the development of insight. The individual and his environment form a psychological field. According to Gestalt psychology, the perception of the field and gradual restructuring of it is insight.

According to Yerkes, insightful learning has the following characteristics:

- Survey of problematic situation.
- Hesitation, pause, attitude of concentrated attention to the problematic situation.
- Trail of mode of responses.

both the sticks and could reach the bananas.

- In case initial mode of response proves inadequate, trial of some other response, the transition from one method to the other being sharp and often sudden.
- Frequently recurrent attention to the objective or goal and motivation.
- Appearance of critical point at which the organism suddenly, directly and definitely performs the required act.
- Steady repetition of adaptive response.
- Notable ability to discover and attend to the essential aspect or relation in the problematic situation and to neglect relatively, variations in nonessentials.

The most general principle of learning is pragnanz or the goal directed tendency to restore the equilibrium. Learning takes place when there is a tension or disequilibrium of forces in the psychological field; the learning process removes the tension.

Several experiments have been conducted on insightful learning in children. Certain general conclusions have been drawn on the basis of these experiments which are as follows:

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- Small children are usually better able to perceive essential relations when they are given concrete material. They have limited capacity to manipulate, examine and draw conclusions about objects or events not directly present before them.
- At a higher intellectual level, students are partially freed from their dependence on concrete materials actually before them. They can think in an abstract way.
- Still further development and experience enable the students to directly deal with symbols without immediate or recalled physical properties. Adjusting instruction to students' ways to thinking and working is the way to hasten and ease their further development.
- The structure and organization of subject matter plays an important role in learning. According to Bruner, the teacher should study the learner's reactions in order to determine the methods and order of presentation that will prove most helpful.
- The teacher should encourage the students to search the material to develop insight. He must help the learners to perceive the goal and the intervening variables.

## **Insight and Motivation**

In cognitive learning theory, motivation and purpose are much the same. The learner's goal is the end result he anticipates and desires. The goal controls the behaviour of the learner. The teacher's most important responsibility is to help the learner find worthwhile goals which may be clear and realistic. They should recognize and use the prominence of social and achievement motives in school learning. The teacher must know about what is familiar to students and then he must introduce elements of novelty but not too rapidly. A good teacher must pace his presentation to maintain the interest and attention in learning.

The teachers' management of conflicting motives may be an important factor in student's success.

### **Guiding Exploration and Action**

The teacher must make an effort to expose relationship that expose a sensible hypothesis or effort. Reviews, outlines, analogies and use of simple diagrams serve a great purpose to organize the subordinate ideas.

The whole is greater than the sum of its parts because of the importance of patterns and relationships.

The cognitive theorists in teaching of reading being with thoughts interesting and understandable to the learner. In every type of instruction we start with meaningful wholes.

An attempt is made to focus attention on elements and relationship that determine the correct response.

**NOTES** 

 Teachers' guidance must match the students' level of thought or ways of working. If a student has not advanced above the level of concrete thinking, information presented symbolically will not help him.

• The teacher can help students to find purpose or order in learning.

The formation of concepts may be regarded as the organization of experience. The teacher's role is to use appropriate means to clarify the critical features of both old and new experiences.

#### **General Features of Cognitive Learning Theory**

- Cognitive learning theory aims to be a comprehensive theory of learning. Some psychologists refer the term cognitive process to problem solving and concept learning theory and exclude all other types of learning from cognitive theory. However, on the contrary cognitive theory attempts to deal with all types of learning from the simplest to the most complex, occurring in the organism.
- 2. Cognitive learning theory includes behavioural and subjective data. Cognitive theorists have emphasized the importance of subjective experiences of the learner in contradiction to behaviourists who emphasize the importance of overt, objective and measurable experience of the learner. Cognitive psychologists use behavioural data and subjective experiences of the learner to solve the problem of learning.
- 3. Cognitive learning theory is not a theory basically in terms what the person knows: Neal Miller and other psychologists have attempted to explain learning in terms of what the person knows. Neal Miller said, 'S-R theorists are confronted with the problem of explaining man's obviously intelligent behaviour; cognitive theorists are confronted with the problem of explaining obvious stupidity. Although recognizing that much of man's behaviour involves cognition, I have preferred the strategy of trying to explain such behaviour as the outgrowth of simpler, non-cognitive mechanisms. It is hard to conceive of cognitive insight as the sole means of acquiring maladaptive neurotic symptoms or those many motor skills that seem to be almost entirely unconscious.'

Cognitive learning theorists use terms like believe or perceive. The empirical foundations of cognitive learning theory include many matters where the perceptions or beliefs of the individual are incorrect yet they are very compelling anyway.

The term 'know' could be used for those beliefs of the person that rest on adequate evidence and on highly efficient construct systems. Cognitive learning theory is not a theory basically in terms of what the person knows. But the individual responds or functions in terms of what he perceives or believes and the explanation of this functioning must be sought in terms of the factors and relation which govern such perception.

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- 4. The fundamental interest of cognitive learning theory is an interest in:
  - (a) Perceptual or representational processes as the main functional unit in terms of which the psychological functioning proceeds.
  - (b) In the background factors and processes that produce these perceptual or representational processes.

## **Learning Theory by Kurt Lewin**

Learning, according to Lewin, is a process of perceptual organization or reorganization. Any type of learning involves insight and insight is a perceptual process. Lewin's theory represents sign-Gestalt theory of learning in contradiction to the S-R theories of learning. Lewin shares the theory of insightful learning as developed by Gestalt psychology in as much as insight is a process of structuring or restructuring the perceived area.

Learning is behaviour, a locomotion from one region of life space to another. When a person moves from one region to another, the structure of life space undergoes a change. Learning and insight can always be viewed as a change in the cognitive structure of the situation. It frequently includes differentiating and restructuring in the sense of separating certain regions which have been connected and connecting regions which have been separated.

Perception is the main issue in Lewin's theory of learning. He has classified learning into the following four categories:

- (a) Learning is a change in cognitive structure.
- (b) Learning is a change in motivation, i.e., in valences and values.
- (c) Learning is acquisition of skills.
- (d) Learning is a change in group belonging.

Learning as a change in knowledge is basically a process of differentiation of formerly unstructured area. Learning of all types involves change in perception. During childhood, the perception undergoes considerable change and becomes enlarged. The child learns to distinguish between reality and unreality levels of the life space.

Lewin is against repetition in learning because too many repetitions lead to satiation which may lead to differentiation of the field and unlearning. Changes in cognitive structure are caused by the forces in the psychological field, needs, aspirations and valences. All intellectual processes are influenced by the goals a person sets for himself. Change in valences and attitudes is another type of learning. The valence of an activity depends partly on its meaning and on the cognitive structure of the psychological field. Change in motivation is caused by change in needs and means of their satisfaction.

According to Lewin, level of aspiration is an important factor in the learning process. Level of aspiration depends on the potentialities of the individual and on the influences of the group to which he belongs. It has been further advocated by him that too high or low level of aspiration discourages learning.

## NOTES

### Tolman's Sign-Gestalt Theory of Learning

Edward C. Tolman (1886–1959) developed a theory of learning, combining the advantages of Stimulus-Response theories and cognitive field theories. He also was influenced by Freud and Mc Dougall in the development of principles of learning. His system stands in between S-R theories and cognitive field theories. His system, no doubt, is rooted in behaviourism but he was strongly opposed to S-R associationism. A Stimulus-Response psychology was not acceptable to him. Tolman published his major work 'Purposive Behaviour in Animals and Men' in 1932. His system is known as 'Purposive Behaviourism'. It is behaviourism in the sense that it rejected introspection as a method of study of human behaviour. He was opposed to the psychology of consciousness. He was very much impressed with the behaviourisms' objective methods of collecting data, interest in precise measurement of behaviour and its faith in the improvability of man. At the same time he was convinced that behaviourism showed too little appreciation of the cognitive aspect behaviour. We do not only respond to stimuli; but we act on beliefs, express attitudes and strive towards goal. He rejected the molecular approach to behaviour developed by Watson. He developed molar approach to behaviour and held that an act of behaviour has distinctive properties of its own, to be identified and described irrespective of the underlying muscular, glandular and neural processes. Molar behaviour is goal seeking and purposive. His system of behaviour is non-teleological purposivism. This means that behaviour is organized and regulated in accordance with objectively determinable goals. Tolman developed a system which recognizes cognitive aspect of behaviour without sacrificing the objectivity of behaviourism. He introduced the concept of variables. He proposed three types of variables:

#### **Independent Variables**

We observe that the behaviour of an organism is caused by a number of causes. He conceived five initiating causes of behaviour as independent variables: (i) The environmental stimuli (S), (ii) Physiological drives (P), (iii) Heredity (H), (iv) Previous training (T), and (v) Maturity or age (A).

Behaviour of the organism is the function of all these independent variables interacting with each other. It may be represented as:

$$B = F(S.P.H.T.A.)$$

Tolman revised his list of independent variables in 1937 and divided variables into two broad categories:

- (i) Individual differences, and
- (ii) The experimental independent variables.

#### **Dependent Variables**

The dependable variables include the observable behaviour of the organism. Tolman conducted a series of experiments on rats and on the basis of his studies concluded that behaviour of an organism is:

- Active and selective.
- Purposeful and goal-directed.

#### **NOTES**

- Behaviour is, no doubt, Stimulus-Response affair but it is not mechanistic. It does not operate like a machine.
- Behaviour is molar and teachable. It is the function of the organism as a whole. Tolman's system deals with docile or teachable behaviour, which is purposive and cognitive. It is determined by the goal-directed perceptions of the totality of the situation, or the sign-Gestalt expectations of the individual. The sign-Gestalt expectations, in simple language, represent a combination of perception and motivation of the individual. The main idea underlying his system is that behaviour is not a sequence of causes and effects but a chain of goal and actions toward the goal object.

#### **Intervening Variables**

Tolman postulated a set of intervening variables between independent and dependent variables. The intervening variables have been divided into two categories: (a) purposive and cognitive determinants, and (b) capacities and behaviour adjustment. These variables cannot be observed but are inferred from the behaviour of the organism. In 1952, Tolman finally revised his list of intervening variables and gave three types of variables as (i) Need system which depends on physiological deprivation or drive situation. (ii) The belief, value and motives which indicate the preference or certain goals and their relative value in gratification of needs. (iii) The behaviour spaces.

## **Types of Learning**

Tolman revised his theory of learning in 1949 and distinguished six types of learning:

- Cathexis: This type of learning explains the final type of positive or negative objects to basic drives. It is a connection between a given type of food and drive of hunger.
- Equivalence beliefs: It is a connection between a positively cathected objects and a type of sub-disturbance of objects.
- Field expectancy: Field expectancy develops in the organism when certain environment set-up is repeatedly presented to him.
- Field cognition modes: New modes of remembering and perceiving the objects of the environment.
- **Drive discrimination:** There is a definite relationship between type of drive and mode of response.
- **Motor patterns:** Tolman admits that motor patterns are conditioned.

Learning is the centre of purposive behaviouristic theory of Tolman. Behaviour of an organism is docile and hence can be modified by experience and training. He divided learning theory as trial and error, conditioning and Gestalt theory. His theory of learning is sub-variety of the Gestalt theory of learning.

According to him, learning is an affair of sign-Gestalt formation, refinement, selection and invention. According to Tolman, behaviour takes place in the behaviour space and the organism moves in the space. Some objects attract and others repel

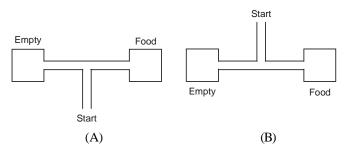
the organism. Objects have positive and negative valence. Let us examine some experiments conducted on different types of learning.

## **Some Representative Experiments**

Tolman's students conducted a series of experiments to test his theoretical system of behaviour. Macfarlane (1930) trained some rats to swim across a simple maze filled with water to reach the goal box. Granted that the animals learned to reach the food, there remained the question of whether they had learned something cognitive about the maze or had learned a series of Stimulus-Response (S-R) connections. To clarify this problem, he drained the water out of the maze. Rats were put into the maze so that they could run through, instead of swimming, to reach the goal box. He found that the rats could reach the goal without committing any error. He concluded that the animals learned the specific layout of the maze. They had acquired a cognitive map of the maze.

Place learning experiment. There were other types of experiments conducted in 1940 called the place learning experiments. These experiments prove that the learner does not reach the goal in a fixed sequence of movements but changes his behaviour according to the variation in conditions.

The simple experimental apparatus is 'T' maze as given below:



The rat is trained on (A) to get food and then tested on (B). It has been found that the rat learns where food placed.

## Latent learning experiment

The original latent learning experiments were conducted by Tolman himself at Berkeley. Tolman and Honzik (1930) conducted experiments on rats. Group of rats was allowed to run through the mazes without giving food. Later on the food, as reward, was introduced. The rats who had the chance to explore the maze, learned much faster than those (Group B) who had not explored the maze. Tolman's interpretation was that some latent learning took place as a result of exploration of the maze.

## Reward expectancy learning experiment

One of Tolman's associates M.H. Elliot in 1928 conducted experiment on reward expectancy learning, which means that the learner comes to anticipate the presence of a reward (or in some cases some types of reward) and if that reward is withheld or changed, behaviour is disrupted. Elloit selected two equally hungry groups of rats and trained them to find a reward of bran mash and sunflower seed in 'T' maze.

#### **NOTES**

The bran mash group was called experimental group and the sunflower seed group was called control group. This training continued for nine days and on the 10th day sun-flower seed was substituted for bran mash. The experimental group which expected bran mash committed more errors and learning was disrupted.

The hypothesis is that the animals had come to expect bran mash, more desirable reward, but when their expectation was not confirmed, behaviour was disrupted. This experiment shows the importance of reward expectancy as a factor in learning.

## **Other Laws of Learning**

Tolman postulated a number of laws of learning during his long career. His laws vary with the nature of learning situation. There are laws of conditioned reflex learning, trial and error, and inventive learning. Three types of laws are needed to account for learning:

- Capacity laws relating to traits, aptitudes and characteristics of the learner which determine type of tasks and situations which can be mastered successfully.
- Stimulus laws which deal with conditions inherent in the material itself such as belongingness of its parts and how well it leads to insightful solution.
- Laws relative to the manner in which material is presented such as frequency of presentation, distribution of practice and use of rewards.

#### **Motivation**

Tolman was one of the first psychologists who systematically treated the problem of motivation. He proposed that an organism is activated to an action when it has a demand for a particular goal. Behaviour is influenced by two types of demands one is physiological disturbances which are avoided and another physiological quiescences which are being sought by the organism. According to Tolman, appetite, aversion and states of agitation are the causes of motivation. The ultimate goal of appetites is the physiological quiescence to be reached by commerce with consummatory object and the ultimate goal of aversion is the physiological state to be reached when the disturbing stimulus ceases to act upon the organism.

The consummatory and avoidance responses of the organism are teachable and not wholly blind and reflexes.

Appetite and aversion have three phases:

- 1. A physiological state
- 2. A demand for action
- 3. A sign-Gestalt readiness

The behaviour of an organism is motivated by two factors except in case of reflexes, by deprivation or drive and the incentive value provided by goal object.

The drives include appetite and aversion both. Tolman called them as firstorder drives and said that these are docile and capable of modification. Secondorder drives according to him are curiosity, self-assertion, and self-abasement. The second-order drives are weaker and independent of the first-order drives.

#### **Tolman's Contribution**

Tolman was an eclectic theorist. He gathered ideas from here and there but did not synthesize them into a systematic theory. He never adhered to a single explanation of behaviour. Even then Tolman and his associates made significant contribution to learning. His main contribution is that behaviour is purposeful and docile. He always emphasized that what is learned is an expectancy or the value of signs rather than Stimulus-Response connections. He developed a cognitive framework for interpreting learning. Tolman stood outside the main stream of behaviouristic psychology. He influenced to a great extent the psychologists who were in the mainstream of behaviourism. He was against Watson's simple S-R connectionism and mechanistic philosophy of life. He attempted to combine the advantages of two families of learning theory and succeeded to a certain extent. His findings after his death, could not create research.

#### 2.5.1 Trial and Error

E L Thorndike (1874–1949) was the chief exponent of the theory of connectionism or trial and error. The basis of learning, accepted by Thorndike, was an association between the sense impressions and impulses to action. This association came to be known as a 'bond' or a 'connection'. Since it is these bonds or connections which become strengthened or weakened in the making and breaking of habits, Thorndike's system is sometimes called a 'bond' psychology or simply 'connectionism.' As it believed in stimulus and response type of learning, it was also called SR Psychology of Learning. Thorndike called it learning by selecting and connecting. It is also known as trial and error theory as learning takes place through random repetitions.

Thorndike propounded his theory on the basis of experiments conducted on cats, chickens, dogs, fish, monkeys and rats. He placed them under different learning situations and studied them carefully. With the help of these experiments, he tried to evolve certain laws and evolved his theory of connectionism or trial and error. It is interesting to know the type of experiments he carried out with these animals. One such experiment is mentioned below.

He put a hungry cat in a puzzle box. There was only one exit door which could be opened by correctly manipulating a latch. A fish was placed outside the box. The smell of the fish worked as a strong 'motive' for the hungry cat to come out of the box. Consequently, the cat made every possible effort to come out. Thorndike observed, the cat tries to squeeze through every opening; it claws and bites at the bars or wires, it thrusts its paws through any opening and claws at everything it could reach." In this way, it made a number of random movements. In one of such movements, by 'chance', the latch was manipulated, the cat came out and got its 'reward'.

For another trial, the process was repeated. The cat was kept hungry and placed in the same puzzle box. The fish and its smell again worked as 'motive' for getting out of the box. It again made random movements and frantic efforts. But this time, it took less time in coming out. On subsequent trials, incorrect responses—biting, clawing and dashing gradually diminished and the cat took less time on every

succeeding trial. In due course, it was in a position to manipulate the latch as soon as it was put in the box. In this way, gradually, the cat learnt the art of opening the door.

An analysis of the trial and learning indicated the following characteristics:

- 1. Where there is drive or motive, there is learning. In the experiment, the cat was hungry, so its motive was to get food by learning to come out of the cage.
- 2. An organism makes a number of varied types of responses. The cat made these responses—clawing, scratching, walking around, pawing, pulling, etc.
- 3. When some responses lead to the goal, they are known as satisfying responses. The response of pulling the strings, etc., by the cat was satisfying. Some do not lead to the goal and they are known as annoying responses. The responses of clawing, pawing, scratching, and walking were annoying for the cat.
- 4. Satisfying responses are better learnt as they lead to the attainment of the
- 5. Annoying responses tend to be eliminated gradually as they do not lead to

The experiment summed up the following stages in the process of learning:

- 1. **Drive**: In the present experiment, drive was hunger and was intensified with the sight of the food.
- 2. **Goal**: The goal was to get the food by getting out of the box.
- 3. **Block**: The cat was confined in the box with a closed door, which was the main blockage.
- 4. **Random Movements:** The cat, persistently made random movements, by trying to get out of the box.
- 5. Chance Success: As a result of this striving and random movement, the cat, by chance, succeeded in opening the door.
- 6. **Selection of Proper Movement:** Gradually, the cat selected the proper way of manipulating the latch out of its random movements.
- 7. **Fixation:** At last, the cat learnt the proper way of opening the door by eliminating all the incorrect responses and fixing the only right responses. Now it was able to open the door without any error or in other words, it learnt the way of opening the door.

Thorndike named the learning of his experimental cat as 'Trial and Error Learning'. He maintained that learning is nothing but the stamping in of the correct responses and stamping out of the incorrect responses through trial and error. In trying for the correct solution, the cat made so many vain attempts. It committed errors and errors before getting success. On subsequent trials, it tried to avoid the erroneous ways and repeat the correct way of manipulating the latch. Thorndike called it, "Learning by selecting and connecting" as it provided an opportunity for the selection of the proper responses and corrected or associated them with adequate stimuli. In this context, Thorndike wrote, "Learning is connecting. The mind is man's

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connection system." Learning is, thus, caused by the formation of connection in the nervous system between stimuli and response.

The following summary description of the behaviour of 12 cats ranging from 3 to 19 months of age in the puzzle box is quoted from Thorndike's book entitled, *Animal Intelligence* (1901). "When put into the box the cat would show evident signs of discomfort and an impulse to escape from confinement. It tries to squeeze through any opening; it claws and bites at the bars or wire; it thrusts its paws out through any opening and claws at everything it reaches; it continues its efforts when it strikes anything loose and shaky; it may claw at things within the box. It does not pay very much attention to the food outside, but seems simply to strive instinctively to escape from confinement. The vigour with which it struggles is extraordinary. For eight or 10 minutes it will claw and bite and squeeze incessantly. The cat that is clawing all over the box in her impulsive struggle to open the door, will probably chance upon the string or loop or button. And gradually all the other non-successful impulses will be stamped out by the resulting pleasure, until, after many trials, the cat will, when put in the box, immediately claw the button or loop in a definite way." (Fig. 2.5 and 2.6)

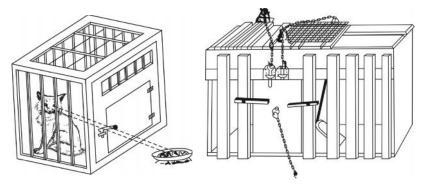


Fig. 2.5 Thorndike's Cat Trying to Come Out Fig. 2.6 The Cat is Successful in Coming Out

## Laws Propounded by Thorndike

On the basis of his experiments, Thorndike propounded the following laws of learning:

1. Law of Readiness: The law stated, "When any conduction unit is ready to conduct, for it to do so is satisfying. When any conduction unit is not in readiness to conduct, for it to conduct is annoying. When any conduction unit is in readiness to conduct, for it not to do so is annoying."

The law is indicative of learner's state to participate in the learning process. According to Thorndike, readiness is preparation for action. Readiness does not come automatically with maturation. It is a law of preparatory adjustment, not a law about growth. Thorndike termed the neurons and synapses involved in establishment of a specific bond or connection, a conduction unit. According to this law, for a conduction unit ready to conduct, to do, is satisfying and for it not to do so is annoying.

*Educational Implications:* Teachers should prepare the minds of students to be ready to accept knowledge, skills and aptitudes. For this, he should

#### **NOTES**

provide opportunities of experiences in which students can spontaneously participate. In other words, he should arouse their capacity to link the experiences with their everyday life. 'Simple to complex' is an important maxim. Aptitude tests may be given to students to find out their readiness to learn.

**2. Law of Effect:** The law stated, "Of several responses made to the same situation, those which are accompanied or closely followed by satisfaction to the animal will, other things being equal, be more firmly connected with the situation, so that, when it recurs, they will be more likely to recur; those which are accompanied or closely followed by discomfort to the animal, will, other things being equal, have 'their' connections with that situation weakened, so that, when it recurs, they will be less likely to occur. The greater the satisfaction or discomfort, the greater is the strengthening or weakening of the bond."

Thorndike explained the meaning of satisfaction and discomfort as: "By a satisfying state of affairs is meant one which the animal does nothing to avoid, often doing such things as attain and preserve it. By a discomforting or annoying state of affairs is meant one which the animal commonly avoids and abandons."

**Educational Implications:** A pleasing environment should be created in the classroom. The teacher should be sympathetic but firm and should enjoy his work. Experiences provided to the students should be satisfying and meaningful. They should be organized in the order of increasing difficulty. Material should be provided in a number of interesting ways including the use of audio-visual aids.

In simple words, the law of effect means that learning takes place properly when it results in satisfaction and the learner derives pleasure out of it. In the situation when the child meets a failure or is dissatisfied, the progress in learning is blocked. All the pleasant experiences have a lasting influence and are remembered for a long time, while the unpleasant ones are soon forgotten. Therefore, the satisfaction or dissatisfaction, pleasure or displeasure obtained as a result of some learning ensures the degree of effectiveness of that learning.

3. Law of Exercise or Repetition: It stated, "Any response to a situation will, other things being equal, be more strongly connected with the situation in proportion to the number of times it has been connected with that situation and to the average vigour and duration of the connection."

According to this law, the more a stimulus-induced response is repeated, the longer it will be retained. The law states, other things being equal, exercise strengthens the bond between situation and response. Conversely, a bond is weakened through failure to exercise it. Thus, the law has two subparts, (i) law of use, and (ii) law of disuse.

(i) Law of Use: "When a modifiable connection is made between a situation and response, that connection's strength is, other things being equal, increased."

(ii) Law of Disuse: "When a modifiable connection is not made between a situation and response, during a length of time, that connection's strength is decreased.

Psychology: Memory, Dream and Learning

*Educational Implications:* More and more opportunities should be provided to the students to use and repeat the experiences they do in the classroom. Drill strengthens the bonds of SR. Review of the lesson helps tp maintain connections.

**NOTES** 

#### **Subordinate Laws**

Apart from the three laws explained above, Thorndike gave the following subordinate laws:

- 1. Multiple Response—Confronted with a new situation, the learner responds in a variety of ways before arriving at the correct response.
- 2. Attitude—The learner performs the task well if he has his attitude set in the task.
- 3. Prepotency of Elements—The learner reacts to the learning situation in a selective manner. He uses his insight, selects the prepotent elements in a situation and bases his responses upon those elements.
- 4. Analogy—The organism responds to a new situation on the basis of the responses made by him in a similar situation in the past. He makes responses by comparison or analogy.
- 5. Associative Shifting—According to it, we can get from the learner any response of which he is capable, and response associated with any situation to which he is sensitive.
- 6. Principle of Polarity—It states that connections act more easily in the direction in which they were first formed than in opposite directions.

### CHECK YOUR PROGRESS

- 12. State the principle of pragnanz.
- 13. According to Yerkes, name some of the characteristics of insightful learning.

## 2.6 SUMMARY

- Memory is the retention of information over time through three different stages—encoding, storage and retrieval.
- The two-process theory of memory can also be referred to as the memory information processing theory, which was first proposed by R.C. Atkinson and R.M. Shiffrin (1968).

- Sensory memory is the first stage of memory, here the information enters through different sensory systems like visual and auditory and other senses (G. Rainer and E.K. Miller, 2002).
- Information is encoded into sensory memory as neural messages in the nervous system.
- In short-term memory, the information is held for a brief period of time while being used.
- Long-term memory is a relatively permanent memory that stores huge amounts of information for a long time.
- Explicit memory is the conscious recollection of information, such as specific facts or events and, at least in humans, information that can be verbally communicated (Tulving, 1989, 2000).
- Implicit memory is memory in which behaviour is affected by prior experience, without that experience being consciously recollected.
- Human memory as an active process creates a major challenge when we collect eye witness account of accidents and other events.
- Consciousness is an awareness of external events and internal sensations, including awareness of the self and the thoughts about various experiences.
- Subconscious information processing can occur simultaneously along many parallel tracks, e.g., when a man is running down the street we are consciously aware of the event, but not of the subconscious processing of object identity (a man), its height, colour, weight, etc.; whereas, conscious processing is serial.
- Unconscious thought is a reservoir of unacceptable wishes, feeling and thoughts that are beyond conscious awareness, S. Freud (1917).
- Ernest Hilgard (1977, 1992) proposed that hypnosis involves a special divided state of consciousness, a sort of splitting of consciousness into separate components.
- Learning is relatively a permanent change in behaviour that occurs through experience.
- Classical conditioning is a learning process in which a neutral stimulus associates with another stimulus through repeated pairing with that stimulus.
- Punishment by application is one in which something unpleasant is added to the situation. Punishment by application can be quite severe, and does one thing well; it stops the immediate dangerous behaviour (B. Bucher and O.I. Lovass, 1967, E.G. Carr and O. I. Lovass, 1983).
- Observational learning (also known as vicarious learning, imitation, social learning, or modelling) is a type of learning that occurs as a function of observing, retaining and replicating novel behaviour executed by others.
- Cognitive learning is a powerful mechanism that provides the means of knowledge and goes well beyond simple imitation of others.

**NOTES** 

- Transfer of learning is the process of applying or carrying over knowledge, skills, habits, attitudes or other responses from one learning situation, in which they were initially acquired, to a different learning situation.
- The central concept of specific learning disabilities (SLD) involves disorders of learning and cognition that are intrinsic to the individual SLD.

## 2.7 KEY TERMS

- **Encoding:** Encoding is the set of mental operations that people perform on sensory information to convert the information into a form that is usable in the brain storage system.
- Echoic sensory memory: It refers to the phenomenon in which there is a brief mental echo that continues to sound after an auditory stimulus has been heard. We hear something, but the brain did not interpret it immediately. Instead, it took several seconds to realize the sound. Then we think it might have been important and then try to remember what it was. If we realize all this within 4 second (the duration of the echoic memory) we would be able to hear an echo of the statement in our head as a kind of instant reply.
- **Long-term memory:** Long-term memory is a relatively permanent memory that stores huge amounts of information for a long time.
- Explicit memory: Explicit memory is the conscious recollection of information, such as specific facts or events and, at least in humans, information that can be verbally communicated (Tulving, 1989, 2000).
- **Repressed memory:** Repressed memory is a hypothetical concept used to describe a significant memory, usually of a traumatic nature, that has become unavailable for recall; also called motivated forgetting in which a subject blocks out painful or traumatic times in one's life.
- Alter states of consciousness: Alter states of consciousness are mental states which can be produced by drugs, trauma, fatigue, hypnosis and sensory deprivation. In some cases, the drug used may create a higher level of awareness. It is believed that caffeine increases alertness. Awareness may also be altered to a lower level.
- **Observational learning:** Observational learning (also known as vicarious learning, imitation, social learning, or modelling) is a type of learning that occurs as a function of observing, retaining and replicating novel behaviour executed by others.
- **Transfer of learning:** Transfer of learning is the process of applying or carrying over knowledge, skills, habits, attitudes or other responses from one learning situation, in which they were initially acquired, to a different learning situation.

#### ANSWERS TO 'CHECK YOUR PROGRESS' 2.8

- 1. The three stages of memory are encoding, storage and retrieval.
- 2. Sensory memory is the first stage of memory, here the information enters through different sensory systems like visual and auditory and other senses (G. Rainer and E.K. Miller, 2002).
- 3. The following are the functions of iconic memory:
  - Iconic memory helps the visual system to view surrounding as continuous and stable in spite of the saccadic movement.
  - It also allows enough time for the brain to decide if the information is important enough to be brought into consciousness.
- 4. Consciousness is an awareness of external events and internal sensations, including awareness of the self and the thoughts about various experiences.
- 5. High-level consciousness represents the most alter states of human consciousness in which individuals activity focus their efforts towards a goal.
- 6. Learning can be classified into verbal learning and motor learning.
- 7. Retraining is made simpler by the fact that the extinguished response is not gone, just suppressed.
- 8. Learning which is due to voluntary behaviour is called operant conditioning.
- 9. According to the Law of Effect, behaviours followed by positive outcomes are strengthened, whereas behaviours followed by negative outcomes are weakened.
- 10. Punishment by application is one in which something unpleasant is added to the situation.
- 11. Programmed-learning books differ from traditional workbooks because they actually teach new information through this step-by-step stimulus-response method rather than simply offering practice material for already-learned skills.
- 12. The principle of pragnanz states that our perceptual patterns always tend to be simple, regular and complete with no loose ends. The gaps are closed by the perceiver. The law of closure operates with the principle of pragnanz in all sensory modalities.
- 13. According to Yerkes, insightful learning has the following characteristics:
  - Survey of problematic situation.
  - Hesitation, pause, attitude of concentrated attention to the problematic situation.
  - Trail of mode of responses.
  - In case initial mode of response proves inadequate, trial of some other response, the transition from one method to the other being sharp and often sudden.
  - Frequently recurrent attention to the objective or goal and motivation.

## 2.9 QUESTIONS AND EXERCISES

## **Short-Answer Questions**

- 1. What is positive and negative punishment? Give examples for both.
- 2. What is the Conditioning Theory of Learning?
- 3. What are the four stages of information processing in learning?
- 4. What is sensory memory and what are its types?
- 5. What do you understand by the term consciousness?

## **Long-Answers Questions**

- 1. Explain Thorndike's S-R theory.
- 2. Describe the various methods of learning.
- 3. Analyse the two processes of memory information in detail.
- 4. Explain the concept of dreams.
- 5. Discuss the theory of insight.

## 2.10 FURTHER READING

Bandura, A. 1986. *Social Foundations of Thought and Action*. New Jersey: Prentice Hall.

Skinner, B.F. 1957. Verbal Behaviour. New York: Appleton-Century Crofts.

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Schunk, D.H. 2000. Learning Theories. New Jersey: Prentice-Hall.

# **UNIT 3 PHILOSOPHY OF RELIGION**

#### Structure

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Philosophy of Religion
- 3.3 Theories of the Origin of Religion
  - 3.3.1 Preliminary Hypotheses Regarding Origin of Religion
  - 3.3.2 Difference between Anthropological and Psychological Perspectives
  - 3.3.3 Anthropological Perspective
  - 3.3.4 Psychological Perspective
- 3.4 Classification of Religion
  - 3.4.1 Tribal Religion
  - 3.4.2 Universal Religion
  - 3.4.3 National Religion and Civil Religion
- 3.5 Summary
- 3.6 Key Terms
- 3.7 Answers to 'Check Your Progress'
- 3.8 Questions and Exercises
- 3.9 Further Reading

#### 3.0 INTRODUCTION

Several philosophers necessarily associate the origin of religion with human need for knowledge (cognitive aspect), feeling (emotive aspect) and willingness (connative aspect), but Paul E. Johnson in his famous text *Psychology of Religion* (1955) asserted that,

"... to these may be added others such as social and institutional definitions, theological definitions and synthesis definitions that seek to unite these aspects in the larger views'

Apparently, in the above mentioned perspective, two important aspects of religion were left unnoticed, namely:

- (i) social values
- (ii) solitariness

These are the aspects usually taken by the anthropologists and psychologists who attempt to describe the origin of religion as an institution directed towards:

- (i) establishing social-values (external source), or
- (ii) seeking explanation for human-solitariness (inner source of religion)

In this unit, you will learn about the concept of philosophy of religion and the theories of the origin of religion.

**NOTES** 

#### 3.1 UNIT OBJECTIVES

After going through this unit, you will be able to:

- Describe the concept of philosophy of religion
- Discuss the fundamental differences between anthropological and psychological theories of the origin of religion
- Explain the classical theories propounded by famous social thinkers
- Recall the psychological theories to explain the necessity of religion
- Describe the distinction between different forms of religion: tribal, universal and national

#### 3.2 PHILOSOPHY OF RELIGION

Religion is a system of beliefs in the existence of God or Gods. It is the belief that God or Gods created the Universe and gave human beings a spiritual nature which continues to exist after the death of the body. Religion can also be described as a particular system of faith and worship based on religious beliefs. For example, the Christian, Jewish, Hindu religions etc. In this world there are many religions and each one has a different way and method to realize the divine being. The different religions share a set of similarities and differences with each other and thus have family resemblances.

Most of the religions believe in God or divine being, liberation, immortality of soul, rebirth, revelation, miracle, mysticism etc. There are a few who do not believe in some of these concepts. The methods to experience the divinity consist of rituals, meditation, worship, prayer, Bhakti etc. There exists a huge difference between the religions of the East and those of the West. The religions of the East contain philosophy, morality, science etc. within themselves. In short, it guides humankind how to live a meaningful and harmonious life. The religion of the West is in isolation from philosophy, morality, science etc. Philosophy, religion, science etc. are studied separately from religion and this is precisely the reason that there arises a comparison between religion and theology, religion and philosophy, religion and science, religion and morality and so on. This kind of trend is not visible in the East.

In the West since philosophy and religion are studied separately, so philosophy of religion has emerged as a discipline for the rational and philosophical thinking about religion. Philosophy of religion is not a branch of theology but a branch of philosophy. It studies the concepts and belief systems of the religion as well as the prior phenomena of religious experience and the activity of worship and meditation. It is a second order activity and a borderline subject combining the features of philosophy and religion. Philosophy of Religion is in a way a critique of religion.

Theology is a systematic formulation of religious belief whereas religion is the study of religious belief in its entirety. Theology takes the help of reason, while religion completely relies on faith. Even if theology uses reason for the study of

religious belief theology is not at par with philosophical study of religion which also uses reason.

Theology is defensive to the religious belief of which it has undertaken the study whereas philosophy or philosophy of religion is free from such defensive attitude. Philosophy of religion investigates the truthfulness of religious beliefs with the help of reason and at the same time without being defensive to any religion. Theology at times suggests methods for the development of the religion while philosophy of religion brings out the dark side or the superstitions inherent within the religion. Science on the other hand is mostly in conflict with religion. Science is objective and relies upon experiment, observation, test, etc. while religion emphasises upon the subjectivity. For example:- facts related to divinity are a matter of self-experience and even if someone has been enlightened about the mysterious ways of divinity then he/she has to confine it to himself/herself. For each person has to earn that enlightenment themselves by performing good deeds in the world.

Science has advanced very much since the last decade whereas religion has only ended up dividing itself into many other sub-religions; which are in conflict with each other over the superiority of one another. Apart from theology and science there is morality. No religion is valuable if it is devoid of morality. Morality adds value to religion and makes it developed. Besides, morality can sustain itself independently of religion while the vice-versa is not true. Religion depends on morality for its confirmation. Since morality can be observed through experiences in the phenomenal world so it gives a conviction for the possibility of the noumenal world and indirectly of religious truths.

The word religion is a very ambiguous and does not have any one agreed definition. It has many definitions. H.S. Paton in, The Modern Predicament says that those who have meditated on the subject have the most varied and indeed opposite views. Professor Whitehead tells us that religion is 'what the individual does with his own solitariness'. According to Professor Macmurray it seems to be concerned rather with what individual does in his social relation. The field of religion he says, 'is the whole field of common experience organized in relation to the central fact of personal relationship'. Matthew Arnold defines religion as 'morality touched with emotion'. According to G.W.F Hegel, a genuine religion should be revealed and revealed by God. Immanuel Kant declares religion within the bounds of reason by itself – to be the recognition of all our duties as divine commands.

Freud condemns religion as an illusion, while sung speaks of it as a source of life, meaning and beauty' and as giving 'a new splendour to the world and to mankind'. Even Jung speaks of it as 'a real illusion', but he is able to give assurance in the accommodating spirit of modern verbalism that the difference between a real illusion and a healing religious experience is merely a matter of words.

According to H. J. Paton, religion is for simple people and so must itself be simple. A theory which ignores this simplicity must be mistaken. He has described religion as worship, dedication and trust and he says that these are possible even for the simplest of men. He says that these three words i.e. worship, dedication and trust are not three things but only one. This one thing which is the essence of the

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religious life is described most simply by the simple word 'love' provided love is understood as worship and dedication and trust. And like all love, it may seem to come as a favour or a gift not by our own efforts but by divine grace.

John H. Hick has categorized the definitions into phenomenological, psychological, sociological and naturalistic and religious. He states that some definitions of religion are phenomenological as they state what is common to all the acknowledged forms of religion. For example religion is, 'human recognition of a superhuman controlling power and especially of a personal God or Gods entitled to obedience and worship'. Hick says that the other definitions are interpretative and therefore, psychological definitions. For example, the feelings, acts, and experiences of individual men in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider the divine(William James). Some definitions are sociological. For example:- a set of beliefs, practices and institutions which men have evolved in various societies(Talcott Parsons). Then there are naturalistic definitions. For example:-a body of scruples which impede the free exercise of our faculties(Salmon Reinach). There are also definitions which are religious. For example:- religion is the recognition that all things are manifestations of a power which transcends our knowledge(Herbert Spencer) or religion is also a humanity's response to the divine.

According to Hick, these definitions are all stipulative as they decide how the term is to be used and impose this in the form of a definition. As we have many definitions of religion which share some overlapping or some different views with each other, so Ludwig Wittgenstein has given the name family resemblance for them. It means that all the definitions of religion share some set of family resemblances. He uses the analogy from the family in the sense that as in a family there are people who resemble each other but at the same time they are different from each other as well. For example:- The grandchild shares some resemblance to his/her paternal or maternal grandfather/mother and the grandchild also resembles his father/mother and the grandchild is also different from all of them. Hence, in the similar manner all the definitions of religion resemble one another and are different as well.

Religion in the West is altogether different from philosophy and therefore the need for philosophy of religion arose. In the East, religion is a way of life and very much embedded in philosophy and so the necessity of having philosophy of religion never came into being. The Vedic, Upanashidic, Charvaka, Jainism, Buddhism, Samkhya yoga, Nyaya and Vaiseshika, Advaita, Dvaita all guide us how to lead a rational and a meaningful life. These cults are all known as schools of philosophy as well as religion. Most of these schools believe in the concept of God, Soul, Moksha, rebirth, reincarnation etc. whereas some accept only Moksha/Nirvana, rebirth, reincarnation. Charvaka, Buddhism and Jainism reject the concept of God and soul. Charvaka even denies the concept of Moksha, rebirth, reincarnation whereas Buddhism and Jainism accept the concept of rebirth, Moksha/Nirvana and reincarnation. All these schools preach universal love.

In Swami Vivekananda's words: Life's one purpose is the realization of divinity. Realization of divinity is religion. At base, all religions teach this same truth although

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accretions often obscure it. Vedanta emphasises the one objective of realization but accepts diverse methods of reaching it. Realization may be gained by the practice of the yoga of knowledge, or of control of mind, or of selfless work, or of love of God or by a combination of yogas. The great prophets of the world afford living examples of the realization of divinity. As models they inspire man, and a dispensers of grace they assist him towards realization.

The translation of the word religion in hindi language is Dharma. Dharma in Hinduism also means duty and with duty comes responsibility. It is defined as a set of duties and rules to be performed or followed to maintain social order, promote general well-being and be righteous. Dharma is one of the four Purusartha whereas the other three are Artha(wealth), Kama(pleasure) and Moksha(liberation from the cycle of birth and death). These four are the pursuit of life in Hinduism. Dharma, Artha and Kama are the means to reach the end i.e. Moksha.

By now we have an idea how differently religion has been defined by different individuals. But we have to agree with Wittgenstein that all the definitions of religions share a set of family resemblances. Almost all religions discusse the idea of God or divine being, except Buddhism, Jainism and Charvaka. John H. Hick writes that religion talks of social cohesion yet in some strands it is aptly characterized as, what man does with his solitariness. He says the family resemblances model allows for such differences. It also allows us to acknowledge the similarities as well as the differences between more standard examples of religion and such secular faiths as Marxism. Marxism has its eschatological ideal of the ultimate classless society, its doctrine of predestination through historical necessity, its scriptures, prophets, saints and martyrs. Thus, we can see it as sharing some of the features of the family of religions while lacking other and probably more central ones.

Hick says that the concept of salvation or liberation within the set of family resemblances in religion is extremely widespread even though not universal. Salvation or liberation is probably not a feature of 'primitive' or 'archaic' religion, which is more concerned with keeping things on an even keel, avoiding catastrophe. However, all the great developed world faiths have a soteriological (from the Greek word soteria, salvation) structure. They offer a transition from a radically unsatisfactory state to a limitlessly better one. They all speak in their different ways of the wrong or distorted or deluded character of our present human existence in its ordinary, unchanged condition. It is a 'fallen' life, lived in alienation from God it is caught in the world-illusion of maya; or it is pervaded throughout by dukkha, radical unsatisfactoriness.

All the religion also proclaim as the basis for their gospel, that the ultimate, the Real, the Divine, with which our present existence is out of joint is good or gracious or otherwise to be sought and responded to. The ultimately real is also the ultimately valuable. Completing the soteriological structure, they each offer their own way to the ultimate through faith in response to divine grace or through total self-giving to God or through the spiritual discipline and maturing which leads to enlightenment and liberation. In each case, salvation or liberation consists of a new and limitlessly better quality of existence which comes about in the transition from self-centeredness to Reality-centeredness.

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Besides, H. J. Paton says that religion appears to aim at a whole in which our intellectual ideals, our moral aspirations, our emotional needs, and even our sense of beauty may all alike find their satisfaction. He says if this is so, religion cannot be a matter of negligible interest, and we may reasonably demand of it that it should be sound or sane. He also says that there are many reasons why the account so far given is bound to seem inadequate and incomplete. Religion may possibly aim at some sort of integrated personality- if this modern jargon may be forgiven-but surely a man can be integrated personality without being religious, and he can also be religious without being an integrated personality.

But, the wholeness or harmony of a nonreligious life is regarded as imperfect by religion. Religion does not exist in the isolated individual soul but in man's relation to something that is other and greater than himself. Hence, 'the Whole' becomes almost akin to a proper name, the name of something that is individual and so is written with a capital. Since no finite individual can be the whole, the whole is also known as 'the Other'. The other has been spoken of as if it were something out there for us to know, to work with or against and so on. The other may not merely be the object of our thought or the aid to our striving, but may be active in use and so perhaps not wholly other than ourselves. This way the other would be not merely the whole on which we depend but also the whole of which we are somehow a part.

H. J. Paton writes that the talk of this kind is highly abstract and even metaphysical but is one of the way in which philosopher try to formulate the idea of God. The question whether the religious man feels a relation to something which is the whole or the other, or is somehow both, is akin to the theological questions of Gods' immanence or transcendence. Now, if we are to believe in God at all, we must think of him as immanent in the self and in the world at least to the extent of being conceivable, however imperfectly, by man. We must also think of Him as transcendent in the sense of not being wholly conceivable by finite beings. Another, greater interest to the religious man is the question whether God is to be conceivable as personal or impersonal.

The religious man seeks to put his whole life at the service of God and is doing God's will to serve others. His aim is not his own personal spiritual progress but the coming of the kingdom of God and all the duties incumbent upon him in that enterprise he sees as divine commands. The religious man trusts in God that in spite of appearances He will do all things well and will not allow any effort towards goodness to be made in vain. It is this that gives the saint an assurance of strength and peace.

So far we have learnt what religion is and how they share some set of similarity and differences with each other. Now let us see what religion is not more position.

Religion is not about thinking or knowing so it is not a science. It is not history. It is not philosophy and also it is not even theology. From the point of view of religion, one may have knowledge of all the mysteries and yet be nothing. It is not morality and still less it is prudence. Morality is a necessary element of a developed religion and a religion indifferent to morals is valueless. Also, religious men are usually the first to insist that religion is something more than mere morality. Religion is also not

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emotion. If it were simply the form of emotional indulgence, it could never have played the part it has played in the history of the world. It may be tempting to find the specifically religious activity in some sort of mystical experience yet religion is not mysticism unless we choose to alter the meaning of one or other of these words.

Further, it would be a mistake to identify religion with the merely primitive. There is a marked distinction between primitive and developed religion. It is the task of philosophy to examine the principles on which the religion is regarded as higher or better than another. Although, it is a very difficult task but philosophy attempts to mirror religion by investigating its rationality. Philosophy tries to analyse and extract the contradictions inherent in the religious doctrines. It studies religion with the help of its own tools and this study of religion by philosophy has given birth to a new discipline that is philosophy of religion.

Philosophy of religion is philosophical thinking about religion. It is concerned primarily with the norms or standards which religion must follow and by which it must be judged. It is also regarded as the essence of religion. Some also say that it is concerned with the study of principles of religion. It is not part of religion but related to it. The task of philosophy of religion is to make explicit the principles which are already unreflectively adopted. Whether, these principles are consistent with themselves and with others. Also what are grounds on the basis of which these principles should be accepted or rejected? It could be said that philosophy of religion is the rational study of religion. It seeks to analyse concepts such as God, creation, eternal life, immortal soul, Dharma, Brahman, Moksha, Reincarnation, Rebirth, etc.

Although religions are typically complex systems of theory and practice including both myths and rituals, philosophers tend to concentrate on evaluating religious truth claims. In the major theistic traditions Judaism, Christianity, and Islam the most important of these claims concern the existence, nature, and activities of God. Such traditions commonly understand God to be something like a person who is disembodied, eternal, free, all-powerful, all knowing, the creator and sustainer of the universe, and the proper object of human obedience and worship. One important question is whether this conception of the object of human religious activity is coherent; another is whether such a being actually exists. Philosophers of religion have sought rational answers to both questions.

Philosophy of religion is also regarded as borderline subject combining the features of philosophy and religion. Philosophy is essentially discursive and theoretical. Some people regarded philosophy as a disinterested pursuit of truth unbiased and with no practical purpose. For them, religion on the other hand is a way of life and is practised with primary interest of getting freedom/Moksha from sufferings of life and attaining eternal peace and bliss. There are also people who are sceptical about religion and its subject matter. In religion most of the experiences of divinity are personal and a matter of faith. Thus, for such people and even for religious people seeking rationality within religion Philosophy of Religion being a combination of both provides an excellent ground for seeking truth. Philosophy of religion becomes complementary in the form of Philosophy of Religion. We can also say that to some extent Philosophy of Religion is a critique of religion. As a critique, Philosophy of

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Religion performs the function of making religion rationally intelligible by bringing out the shortcomings and limitations of religion. Philosophy of religion is the sphere of theist, atheist, religious, non-religious or in other words anyone who wishes to seek sound arguments in support or against the subject matter of Philosophy of Religion i.e. religion.

Philosophy of religion does not make any person religious or non-religious. It simply rescues a religious person from falling in the depth of darkness by showing him the difference between rational and irrational. In religion, reason always plays a secondary role, but in Philosophy of Religion reason has the primary role to play. This is one of the reasons that religion simply accepts the reality of God, immortality of soul and freedom without investigating its truth whereas Philosophy of Religion subjects them to rational and logical scrutiny. Philosophy of Religion shares some similarity as well as difference with theology, morality and science. Let us examine them one by one.

# Religion, Theology and Philosophy of Religion

Religion is a set of beliefs and practices, often with a supernatural entity that give meaning to the practitioner's experiences of life through reference to a divine or supreme being. It may be expressed through prayer, rituals, meditation, music and art, among other things. It may focus on specific supernatural, metaphysical and moral claims about reality which may yield a set of religious laws, ethics and a particular way of living. Religion also encompasses primitive, ancestral or cultural traditions, history and mythology as well as personal faith and religious experiences. The term religion refers to both personal practices related to communal faith and group rituals and communication stemming from shared convictions. However, we have already dealt at length with the concept of religion so let us proceed towards the other notions.

Religion is the subject matter of both Philosophy of religion and theology. Philosophy of Religion is mainly concerned with the rational and philosophical study of religion. Philosophy of Religion studies about nature and existence of God, religious experience, religious language, mysticism, prayer, miracle, evil. It also studies the relationship of religion and other disciplines such as science, morality, theology etc. It is sometimes distinguished from religious philosophy i.e. the philosophical thinking that is inspired and directed by religion such as Christian philosophy and Islamic Philosophy etc. In case of Philosophy of Religion, the philosophical thinking is not inspired by religion but it is completely dominated by reason and logic. Religious philosophy can be carried out only by a theist whereas the Philosophy of Religion is the sphere of both theist and atheist.

Philosophy of Religion at times is confused with theology as well. The divider between theology and Philosophy of Religion is not always wide because apart from differences both of them share a lot of similarities. One of the main differences between Philosophy of Religion and theology is that theology tends to be apologetic in nature, committed to the defence of particular religious positions. It is based on faith rather than reason. Theology is mainly the study of the nature of God and of the foundations of religious belief. It is a doctrine developed on the basis of a definite

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history of religion such as Christianity, Islam, Vedic, Upanishadic, Jainism, Buddhism, and so on. We can sometimes see the doctrine of theology developed from one particular school or institution such as Roman Catholic Church. Philosophy of Religion on the other hand, is not attached to any such institution or any particular religion. Theology is always associated with some sacred scripture or books such as Vedas, Bible, Quran, Bhagvad-Gita etc. while Philosophy of Religion is in principle free from such associations. Theology can be natural theology, philosophical theology and supernatural theology.

Natural theology is theology that uses the methods of investigation and standards of rationality of any other area of philosophy. Traditionally, the central problems of natural theology are proofs for the existence of God and the problem of evil. In contrast with natural theology, supernatural theology uses methods which are supposedly revealed by God and accepts as fact beliefs that are similarly outside the realm of rational acceptability. Relying on a prophet or a pope to settle factual questions would be acceptable to supernatural but not to natural theology. Nothing prevents a natural theologian from analysing concepts that can be used sanguinely by supernatural theologians. For example:- revelations, miracles, infallibility, and the doctrine of trinity. Theologians often work in both areas as did by Anslem and Aquinas. And for his brilliant critiques of traditional theology, Hume deserves the title of 'natural anti-theologian'. Philosophical theology comes very close to metaphysics. It is thought as a part of metaphysics in the general philosophical sense though it was included by Aristotle in the subject matter of metaphysics in his sense of the study of being qua being.

Further, theology is also confused with religious studies but there is a difference between the two. Theology is understood as the study of religion from an internal perspective of commitment to any religion and religious studies as the study of religion from an external or secular perspective. Theologians use various forms of analysis and argument to help understand, examine, test, defend or promote any of myriad religious topics. It helps theologians to understand their own religious tradition coherently. Philosophy of religion on the other hand has no bias towards a particular religion. It does not intend to promote or degrade any religion. It goes into the detail of every aspect of the religion itself and in that way it is neutral in nature. It draws conclusions based on the facts available to it. It provides a platform where there may be a negotiation possible between religions. Thus the scope of Philosophy of Religion is larger than that of theology.

Philosophy of religion occupies an intermediate position between philosophy in general on the one hand and theology on the other. In the same fashion as, Philosophy in general is a critical interpretation of experience as a whole and Philosophy of religion is a more intensive study of religious experience as such. So, theology finds its data in a still more special aspect of religious experience in comparison to Philosophy and Philosophy of religion. Theology enlarges its outlook. It tends to broaden out in the direction of Philosophy of religion, although it may not completely loose its identity in Philosophy of religion. Also, Philosophy of religion will develop in vitality and wealth of content if while not abandoning its impartiality it remains in sympathetic communication with the theology of some historic religion. It

is because of the fact that if Philosophy of Religion opts for a purely detached attitude, it will become too academic in nature which is of no use.

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## CHECK YOUR PROGRESS

- 1. Name the characteristic which adds value to religion and makes it developed.
- 2. List the four purusartha of Hinduism.
- 3. What are the central problems of natural theology?

## 3.3 THEORIES OF THE ORIGIN OF RELIGION

The institution of religion is generally considered as the 'by-product of the evolution of human society'. It has been conditioned by our social environment. At the time of origin, the social environment was nothing more than a society based on 'might is right', 'law of the jungle', and 'survival of the fittest'. It can be rationally presumed that at this stage, the religious consciousness was nothing more than that possessed by an animal. In this context, the obvious question which is equally posed by philosophers, anthropologists, psychologists, historians and sociologists is that: 'What are the factors because of which mankind has deliberately encased itself in this shell of religion, which has been raised as a protective growth around almost every society?'.

The first and the foremost response to this curiosity has been that being a 'man' is not simply an animal existence, but is distinct from other beings in having an eternal soul and a natural religious instinct. The argument in support of this response may be presented in the following manner: 'With this presumption that there have been absolutely no races in human-history which have revealed no traces of religious inclinations, the element of religiosity must be considered as natural, universal and essential trait of humanity. It is thus considered as an integral part of human thought and human nature. It is on the ground of this conviction that religion is considered as an obvious outcome of man's natural instincts.

It might be counter-argued (by some thinkers) that the traits of 'universality' and 'necessity' are not natural to our religious instincts. Moreover, even the existence of such an instinct is itself questionable (for there are several skeptic groups which make this presumption of dubious validity). As such, the religious instinct according to them is neither presumed nor probable in nature. This is further supported by our everyday observation when we see that children have absolutely no instinct (or inclination) towards religion.

# 3.3.1 Preliminary Hypotheses Regarding Origin of Religion

A researcher may have his specific prejudices towards religion, but his *prima-facie* task is simply to reveal how belief in religious concepts and components have evolved; this he can achieve only by systematizing the available data in an orderly fashion.

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The nature of any study regarding the origin of religion is such that it has to incorporate human history of the past as well as the present, though the psychological inclinations of the prehistoric man cannot be known by any means whatsoever. This makes the researcher largely handicapped, as there is enough possibility of him falling into (one or the other) extremity of biasness: either he shall be presuming that the primordial were the counterparts of the primitive man or he shall be presuming that being prelogical, the prehistoric man was beyond our comprehension. Not only this, but even what is normally called primitive is also often un-primitive in its historicity. For instance, the 'Amerind' or the Red-skins are considered primitive human species, though they were far from being primitive when compared to the Australians or the Negros.

Due to several such complex scenarios, the researchers take the safe recourse by justifying their efforts in recognizing the lower and simpler forms of religion like the simpler forms of art as relatively primitive in nature. It was based on the argument that the simpler form of religion prevalent among savages today would probably reveal the reminiscent of the religion known to such savages in remote antiquity.

It is on the basis of these presumptions that several distinct hypotheses were presented to explain the origin and evolution of religion. If we take the case-study of the Indian subcontinent, it may be established that there was only one inspired form of religion, while all other available forms of religion were decadents of it. While this was the orthodox version of religious understanding, the heterodox Hindus were deliberately constructed by the priests for their own selfish interests. It would be interesting to note here that strikingly similar theories were presented in the European continent as well, though it happened several centuries later. Thus, it might be said that though these theories were the kinds of crud guess-works, but they were honest and impartial descriptions based on whatsoever insufficient data was available. In the present times, a variety of refined theories have been presented on the basis of better and advanced resources, wider surveys and deeper knowledge. Since these modern theories are believed to be based on a plethora of careful observations and are supported by competent researchers, only these deserve our attention at present.

Some of the prominent hypotheses regarding the origin and evolution of religion are as follows:

#### (i) Theory of Animism

Several thinkers consider animism as the first theory discussing the phenomena of religious origin. This theory was propounded by Herbert Spencer and Sir Edward Tyler. It is based on facts and inductive reasoning. This theory proposed that the primitive man held the belief that 'being active' is the essential trait of being alive and anything that is not alive (whether an animal or an object) possesses the same kind of spirit which prevails the human existence. Due to this belief, the primitive man considered the universe to be full of *spirit-inhabited* objects. This spirit, he believed, was indulged in a variety of acts inside the body when he was awake and even outside the body when he was dreaming. In this way, the primitive man cherished the idea of a fully autonomous spirit independent of the physical body. In the similar fashion, he attributed the existence of similar spirit and spiritual powers to other men, animals and even objects.

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This notion was further strengthened by several incidences where the primitive man used to dream about his dead relatives still living, acting and performing. These dreams led him to infer that the spirits connected to his dead relatives is still lingering on and that the spirit of his own self will also linger on in the same fashion after the death of his body.

As it was further believed that these 'still-living spirits' may be good as well as evil in nature, the primitive man always attempted to appease and pacify these potential enemies. This was done by different kinds of offerings and sacrifices to them. It was further believed that with these offerings, these ghostly spirits acquire more-and-more supernatural power and thus achieve the status of deities.

**Criticism:** The theory of animism was rejected on several grounds. Some of the most popular criticisms are as follows:

- (a) This theory was primarily rejected on the ground that the idea of an autonomous spirit distinct from our gross physical body (as is implied in this theory) could not be prevalent in the ancient times, as the primitive man had absolutely no clear and distinct notion of the differences between the abstract and concrete. This fact makes this theory thin and dubious in nature.
- (b) This theory does not give any satisfactory explanation for the reverence of natural entities like ocean, sky and fire. This deliberate avoidance, despite the availability of several instances of such practices (traced later), makes this theory unacceptable.
- (c) If this theory would have been working in primitive societies, one would have naturally expected the emergence of a universal tradition of ghostworship, but this tradition is not perceived later.

# (ii) The Theory of Naturalism

This theory was proposed by famous German scholar Max Muller and was later supported by several other German thinkers. Sometimes this theory was seen as German reaction to British animism. This theory proposed that the primitive man has the natural tendency to be afraid of the uncontrollable and magnified objects and events of nature, such as the vastness of the sky and ocean, force of the waterfalls, shattering sound of thunderstorm etc. The primitive man attributed life as well as anthropopathic character to these natural phenomena and started worshipping them for their grandeur.

In the same manner, the primitive man was also in awe of and worshipped several inexplicable human and animal existences such as kings, witches, wizards etc. who were projected as the 'controllers of natural events' and thereby, started worshipping them. In fact, the primitive man attempted to personify all natural objects and worshipped them for their magnificence and grandeur. We find several instances of such inclinations, when we identify sun as a powerful god, earth as mothergoddess and moons-stars as children. Greek and Indian mythologies are living examples of this theory.

Criticism: The theory of naturalism was rejected on several grounds. Some of the most popular criticisms are as follows:

- (a) This theory is primarily criticized for overemphasizing the primitive man's inclinations for the personification of natural objects and events, in the course of which the tendency of animism was altogether neglected and overlooked.
- (b) The primitive man's inclinations towards the natural phenomena cannot be accepted as an explanation of all the religions of the world since there were many religions which did not attribute much significance to these natural happenings and considered them as mere tools.
- (c) While Max Muller proposed that the misinterpretation of primitive myths by later societies created the perverted religious opinions thus holding that the modern religion originates from language. But this overdependence of language for the evolution of religion is waived off by other thinkers.

# (iii) Theory of Magic

This theory has been proposed by Sir J.G. Frazer who attempted to explain that religion is the reflection of primitive man's realization of his incompetency to control the events of nature. Frazer explained that the primitive man tried to control the natural phenomena by all means available, but after realizing that it is impossible to do so, resorted to the unexplained phenomena of magic to seek solace. This obsession for the mystic, inexplicable and uncontrollable nature of the magical practices made it a prime attraction for the primitive man. Gradually, this led to the development of a well-organized and systematic institution known as religion. That is why this theory proposes that 'Religion is the child of magic'.

**Criticism:** Though the explanation provided by this theory seems to be quite convincing in nature, it was criticized by the famous sociologist Emile Durkheim on the ground that instead of accepting 'religion as the child of magic', it would be more sensible to accept 'magic as the child of religion'. This view was further supported by several instances where religion may have clear-cut explanation of magic, whereas magic becomes inexplicable in the absence of religion.

## (iv) Theory of Totemism

This theory was proposed by the French sociologist Emile Durkheim and may be suitably referred to as 'Collectivism' or 'Illusionism'. According to this theory, religion in its nascent form may be identified with some kind of totems. Here, the term 'totem' indicates any particular and convenient animal living nearby, where the religion is designed as a framework around this totem. Such a taboo thing collectively represents the overall human-group and is expressed in the belief that the sacred power or the totemic force acts as the moral-religious power.

Thus, the totem is accepted as the symbol of human group as well as of the power which becomes the representative deity of the concerned religious community, Such a totemic force works as the living known as the totemic force.

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symbolization of God as well as the human group at the same time. It is to be noted that here God is nothing but 'clan personified'. Almost all religions are found to have some totemic religion and go through some such phases which established that the human society and God are identical. In fact, several researches have revealed that the majority of religious sanctions, dictums and rights are social in origin and contextual in nature. They manifest our codes of conduct with reference to the 'sacred', this multifaceted collection of sacred things and supernatural powers is represented collectively throughout social excitement and thus takes birth the institution of religion. Though the origin of any such totem is simply an illusion or a vague idea, yet its outcomes are quite realistic in nature.

**Criticism:** This theory of totemism proposed by Durkheim sees quite realistic and convincing explanation of the origin of religion. Its detailed description received a huge support and favour from sociologists and anthropologists. However, some of the prominent objections to this theory are as follows:

- (a) Totemism presumes some totemic power or symbol as the starting point of any religion. But this explanation overlooks individual rationality in favour of the collective one. The collective consciousness generated by rituals and ethics is reflected in primitive societies as well. It is natural that our environment creates certain values for the concerned society as well as individuals. For instance, the concept of 'holy cow' in India and 'buffalo cult' in *Todas* depends upon their significance in the natural food-chain of the region. Also, the native Australians imagine their own ancestorship in the prototypes of animals on which their hunting and food-supply depended. May be this is the reason why an Australian clan would connect such religious significance with them that their conservation becomes a socio-ethical norm for the society. As Professor King has indicated; such totemic ritual loses its significance in Africa where food is so easily available that the practice of hunting loses its religious significance. In this way, it can be said that our religious activities are an outcome of economic and social needs.
- (b) This theory fails to differentiate between socio-economic formations of the religious system and the subjective status of the religious mind. Though it is partially true that man's religious thoughts are influenced by the socio-economic group-mentality, it by no means entails that the humans have no intrinsic-subjective religious feelings or inclinations. In other words, religion cannot be considered merely a mob-mentality but it has individualistic aspect as well. Though it may be argued that the individual state of mind is more-or-less influenced by the group, it does not imply that the group-solidarity totally dissolves our individual inclinations.
- (c) This theory presumes that our religious sanctions and dictums are influenced by our surrounding environment, yet it does not mean that individual's subjective inclinations are entirely submissive to the dictates of the group. Durkheim and his followers maintained that 'all religious consciousness is a product of social atmosphere'- they conceived

individuals as having no identity outside the collective consciousness, but the fact is as Clement states that (according to this theory) individual has no idea of his own, in fact he is incapable of speculating any idea by his own individualistic self.

# (v) Theory of 'Live Wire'

Several thinkers have attempted to arrive at similar assertion that 'religion is an outcome of social intercourse' by following a different approach and methodology. This theory argues that whenever the primitive man faced some unknown and inexplicable entity, he instinctively became cautious in dealing with it. Thus the first cautionary step towards supernatural is not actually a religious inclination, but it is simply like 'treating a live wire with caution'. Irvin King in his prominent text *The* Development of Religion supports this view by using the instance where Hurons express their respect to some deity by sacrificing fat or tobacco, not as the mark of their religious inclination but as mere practical steps. These acts of sacrifice are simply cautionary steps whether or not associated with religious inclinations. Though some critics would accept this attitude as similar to that of religious worship, but it has subtle differences from the earlier ones, as it is not volitionary but simply instinctive in nature. Thereby, these thinkers underestimate religious facts as 'not really religious in nature'.

# Outcomes of these hypotheses

The idea that religion is first step out of social needs and manipulations is neither supported by facts nor is a completely novel concept. Such a theory was proposed long time back by Gruppe, where he proposed that religion for the first time and under the impact of intoxication conceived him as something divine in nature, thus recognizing himself under the influence of group morality.

The question which arises here is how our laws get religious values and validity in a country like India where the legal code is considered to be of divine origin (apauruseya). Since every law is inspired by some primary custom whose validity comes from the society itself, it naturally gets affected by the religious authority where avoiding father's dictates is considered a punishable offence for the younger generation. In some other cases, sin is considered to be that which offends the group-sentiments of the tribe. For example, in the Indian subcontinent, the lawgivers assured that only those acts were considered as sin which violated the ancient customs of the land in one way or the other. That is why, those acts which are considered distinctively sinful in northern part of India are not sinful anymore as we move to the south.

Most of the norms are justified on the ground that they were enforced in the form 'so did the gods of old'. This imposes undeniable authority upon antiquity. As we can see in all such cases, sin (in the religious sense) was nothing more than the violation of established customs and traditions. In this way, we see that religious functions and governing policies run parallel to each-other and sometimes, even coincide with each-other.

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In both the cases the intention of religion was identical. Anything that violated the accepted norms of society was considered a sin. It can be said, therefore, that at the primary stage, religion was intermingled with the social administration, a phenomenon which can be perceived even in civilized societies of antiquity, it is probable because of this reason that the ancient societies treated morality and law as 'one complete whole' expressed in the institution of religion. In this way, we can consider the morality of religion and the law of religion as a full-fledged system, for example the tradition of dancing to celebrate the initiation of harvesting was primarily an economic ceremony which gradually acquired a religious significance in the festival of Holi in India.

That is why, thinkers like Durkheim considered religion as a human institution, which survives on the prevalence of social activities. This is the reason why the collective representation of religion is, though based on pre-logical mentality, not yet fully inexplicable in nature.

What we actually find in pre-logical mental states is not a lower form of mentality or absence of logic, but an inability to distinguish between mind and matter, abstract and concrete, since for the primitive man, everything whether material or non-material meant the same. The spirits are undifferentiated from the material in which they are manifested. Every object, undifferentiated from the spirit encased in it has a power of its own. Thus, every object has a distinct power but for the primitive man, there is no universal power as such expressed in every single object. The description of Mana will be discussed later. Now, it is more significant to understand that the religious belief is an undifferentiated whole comes before any established belief in the differentiation of spirit from the body.

# 3.3.2 Difference between Anthropological and Psychological **Perspectives**

On the basis of above discussion, it can be accepted that any study regarding the origin of religion possesses a challenge for our imagination. While we have to understand the role of rituals and traditions, we also need to make some sense out of beliefs and myths. In other words, we have to establish a balance between the eternal ideals on one side and mundane convictions on the other. That is why, the sociologists tend to define religion as such a cultural system which is based on shared beliefs and customs, thereby providing meaningful life. In this context, there are three postulates regarding the establishment of the institution of religion:

- (i) It is a form of culture: Just like culture, it develops on the ground of shared ideas, values, norms and beliefs among groups of people.
- (ii) Its beliefs take the form of rituals and customs: This manifests the social aspect of religion.
- (iii) It provides a sense of purpose to the life of an individual: The religious explanation attempts to provide consistency to the mysteries of life which other institutions cannot.

This leads to two different perspectives regarding origin of religion:

Anthropological Perspective		Psychological Perspective	
2.	Religion is a primarily a social institution.  It has a functional significance for the society as a whole, such as discipline, sense of security and collective growth.	2.	Religion is primarily an individualistic institution. It has a functional significance for the individual as an autonomous entity.
	It depends on external or social sources (such as social bonding, solidarity and values).		It depends on internal or psychical sources (such as fear, anxiety and suppression).
4.	It is manifested in social norms and rituals.	4.	It is manifested in our psyche.
5.	Some of the prominent anthropological theories are as follows: conflict theory, cohesive theory and social transformation theory.	5.	Some of the prominent anthropological theories are as follows: Theories of sense of security, mystic experiences, psychic manifestations etc.

# 3.3.3 Anthropological Perspective

According to anthropologists, the three basic postulates of any religion are as follows:

- (a) It has an institutionalized form
- (b) It has a code of conduct
- (c) There should be a feeling of faith towards the above two

On the basis of these postulates, following classical theories are proposed by prominent anthropologists and sociologists to explain the origin of religion:

## (i) The Conflict perspective of Religion: Karl Marx (1818-83)

This perspective was provided by the famous German thinker Karl Marx who interpreted religion not as a manifestation of primitive or psychological needs of early society but as a reflection of society itself. While other thinkers were engaged in explaining religion through its positive functions, Marx attempted to emphasize on dysfunctions of religion. According to Marx, every religion is designed in such a manner so as to cater to the needs of the ruling class and suppressing the proletariats. In his own words, a religion is nothing but '... the sigh of the oppressed, sentiments of a heartless and soul of soulless conditions... It is the opium of the masses'.

He established religion as morpheme of the society which does not cure the disease but only hides its symptoms thereby providing a false hope and illusion to the sick man. It teaches the common men that the suffering on earth shall be wellcompensated by heavenly rewards later. In this way, it tends to divert attention from the deliberatively exploitative nature of the present-day society for Marx. Religion is nothing but a tool of operation in the hands of Bourgeoisie. Marx envisioned religion as 'alienation personified'. While in its standard form, the sub-theory of alienation symbolizes a workers' estrangement from the society, in the same manner the religious alienation makes us more-and-more other worldly and renunciatory in nature. In his own words, 'the more a man attributes to God, the less he has left in himself'.

In this way, Marx affirms that the ideal society can only be realized by complete denial of religious institution in society. It is only through such denial that a man would be able to think at and fashion his reality through reason. He envisions that in the ideal society religion would and should become unnecessary and should be avoided. With the end of elitism, the religion would end itself. In this way, he

considers religion as exploiters' power stricture along with culture. It is uncalled for and shall be rejected at the very outset.

## (ii) Theory of Cohesiveness: Emile Durkheim (1858-1917)

#### **NOTES**

This perspective was provided by the famous French sociologist Emile Durkheim. Just like Marx, Durkheim invested a major portion of his academic endeavor in the study of the origin of religion. In his prominent work *The Elementary Form of* Religious Life, he presented religion on a small scale in traditional societies. His approach is considered one of the most prominent in the origin of religion.

Contrary to Marx, Durkheim never attempted to relate religion with the notion of 'power' or 'differences in the social structure' but attempted to focus on the overall structure of society. He focused primarily on the study of totems in the Australian Aboriginals and believed that this totemism symbolizes the most fundamental form of religion.

A totem is any specific animal or plant imposed with specific symbolic value for the group as a whole. It is considered a sacred object around which the rituals of the society evolve. According to Durkheim, religion is nothing but the distinction between 'sacred' and 'profane', where the totems are considered sacred and other practices profane in nature. The sacred value of totem is because of its significance for the group as a whole. The social values and reverence it derives from society; in fact, it is the society itself in a minuscule form.

According to Durkheim, any religion does not originate on the basis of beliefs only, but it incorporates a variety of rituals and ceremonies collectively. They provide a sense of solidarity to the whole group, thus taking the profaneness to the level of sacredness. These rituals and ceremonies play a vital role in bringing 'cohesiveness' in the society in the process of worship and also in other prominent aspects of life such as birth, marriage and death etc. He argues that these collective rituals establish solidarity among people and thus, assist the individual to adjust in various crises of life. These rituals out-live the individual life, for example the rituals of mourning and funeral is performed not only for the deceased but also for the social readjustment of the grieving relatives. In fact, it is considered a duty on the part of group to perform their rituals. Durkheim asserted that in small social groups particularly in traditional cultures, religion governs all dimensions of human life. These rituals reaffirm the traditional values and also help in the construction of new values. The schedule of rituals develops the sense of time (and thereby, calendar) in primitive society.

However, in the modern societies, the impact of religion has gradually faded away giving place to influence generated by scientific temper and rational explanation. It is on this point that Durkheim agrees with Marx that the distinctive features of traditional religion are gradually losing its significance in the society. Probably, this is why he asserts that 'old gods are dead'. However, he affirms that the institution of religion is still continued though in a different altered form since the modern societies also derive their force from these values. As such new rituals and ceremonies may emerge in future to fill up the vacuum caused by the absence of earlier ones, though he is not sure about what their nature would be. Although several analysts presume that Durkheim is talking about new ideals of equality, humanism and freedom etc.

## (iii) Theory of Social transformation: Max Weber (1864-1920)

This perspective was provided by the famous German thinker Max Weber. While Durkheim focused on the small-scale traditional societies, Max Weber took his study to a universal level. His prime attention was on so-called world-religions which attract the majority of people and influence the course of world-history. Here, he focuses on the study of religions like Judaism, Taoism, Buddhism and Hinduism. In fact, he has written a lot about the social impact of Christianity on forming the European history. While Durkheim did not elaborate much on the interrelationship between religion and social change, Weber discusses the phenomena in detail.

Weber asserts that religion has not only a conservative function but it has also motivated new social movements and transformations. For example, the belief in the protestant ethics and religion leads to the norm that material achievements are representations of 'divine favour' and since everybody desires such a favour of God, the Capitalist outlook prevailed in the European society. Similarly, in the Oriental societies, the different king of religious nature leads to the prohibition of any capitalist outlook in the society. For instance, since Hinduism is fundamentally a renunciatory and 'other-worldly' religion, reverence is given here more to spiritual achievements and less to the material ones. That is why, material success is not looked upon as a divine favour in the Indian society.

The same kind of phenomena influenced the Chinese society as well, where Confucianism prohibited material accumulation as inferior in nature, giving higher value to spiritual harmony among people. That is why, the Chinese society repelled the idea of material achievement and financial control of the society. Weber pointed out that a religion based on the notion of salvation (such as Christianity) generates a tension between the acceptability of sin and saviors. In these salvation-based religions, there is an active revolutionary aspect. But the oriental religions are based on a more passive approach towards life, curtailing any possibility of struggle or revolution in the society.

#### Criticisms of the classic Anthropological theories

The above mentioned classical theories regarding origin of religion proposed by Marx, Durkheim and Weber shared certain common features and complementary views:

- (a) Marx was correct in affirming that the religious norms have certain ideological interests of the ruling class in the society. The influence of religion on European society may be cited as an illustration of this. The Christian missionaries justified conversions on the basis of their religion. Even the practice of slavery up to the 19th century in United States was justified as a 'divine law'.
- (b) Weber was also correct in the revolutionary aspect of religion on society. In spite of Christianity's early justification in United States, it was precisely the religious leaders who took affirmative steps to abolish it. In fact, the civil right movement of 60s was promoted by religion itself. Thus, religion not only conserves social order but also leads to changing them radically. This is the reason why some of the most bloodied rebels and revolutions were inspired by religious motives.

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(c) Though the above mentioned divisive functions of religion (as mentioned by Marx and Weber) could not be overlooked, yet Durkheim's emphasis on the cohesive nature of religion is well-accepted. After all, the moral norms of the society are inspired partially or fully by religion itself, leading to discipline, sense of security and collective growth of the society. However, the same ideas may be employed to justify the dysfunctional aspect of religion as well such as division, change and conflict.

# **Functions and Dysfunctions of Religion: Some Modern Anthropological Theories**

According to the modern anthropological approach, religion as a social institution establishes its relevance through the specific functions (affirmative/constructive actions) or dysfunctions (negative/destructive actions) it performs towards the individual as well as the society. The supporters of this approach are called the 'functionalists'.

One of the prominent supporters of the functionalist approach was Malinowski. He emphasized on the functions of religion and magic to assist the individual to adjust with the unfavourable social circumstances. For instance, the rituals enable him to collective and social solidarity and emphasize fundamental norms on which the society runs. Religion also helps in the acceptability of such knowledge which is not established or explained yet on justifiable grounds.

Durkheim emphasized social cohesion as the function of religion that helps in establishing and maintaining solidarity in the society. Thus, it constructs a mutual understanding of values for the society.

Some recent functionalists like Kingsley Davis has emphasized that religion functions as the platform on which social objectives and values flourish. It thus helps in establishing a common identity and behaviour in society.

This theory is criticized on the ground that it fails to explain the apparent decline of beliefs and rituals in modern societies. The question is: If religion performed such vital functions for the society, it should not have declined and even so this disintegration should have resulted in the degradation of the social fabric itself. However, what we see is that the apparent fall in religious participation has resulted in more acceptability of secular approach in the society.

The functionalists respond that in these modern secular societies, religion does not decline, but merely changes its form. Now it is more individualistic and less associated with the conventions. For instance, in a modern society like United States, this blooming of individualism has led to several new forms of religious manifestations. On the other hand, in the modern Communist society, the celebration of National festivals, war-victories and communist celebrities perform the same function as the religion would have done. Also, even in the radically secular societies, the phenomenon of civil religion still persists. It manifests the rational basis for national history and transcendental explanation for our national virtues and values.

**Dysfunctions:** Prominent sociologist Robert K.Merton established certain dysfunctions of the religion for the first time in 20th century. He focused on the

negative role played by religions in a multi-religious society where instead of building solidarity, it becomes a cause of various conflicts and clashes. Marx has also talked about the negative functions of religion as a source of fake consciousness among the proletariats. It merely helps to provide a vent leading to diversion of any possible reaction against the elite ruling class and thus, maintains the status quo.

#### Conclusion

With this detailed discussion on the classic as well as modern anthropological theories of origin and functions of religion in the society, we shall turn our attention to the other alternative explanation of religion known as the 'Psychological perspective on religion'.

# 3.3.4 Psychological Perspective

As against the anthropological perspective (and the theories associated with it) seeking some 'external (or social) cause' and explanation for the origin of the religion, the psychological perspective searches for some 'internal (or psychical) cause' or explanation for the origin of religion as an institution. Thus, most of the psychological theories of religion presume that as a concept, the origin of religion is inspired by the psychic states of primitive man, such as fear, despair and feeling of imperfectness etc. It is in this context that we naturally search for some supernatural or divine inspiration (such as God) to guide and protect us.

The institution of religion proposes the alternative of after-life (instead of death) as final termination of the human existence. Some of the prominent psychological theories dealing with the cognitive aspect of religion treat religion 'as guide to understand the world'. The prominent thinkers in support of such perspective are I.P. Pawlow, William James, Sigmund Freud etc. The prominent philosophers with psychological argumentation are Xenophanes, Marx and Feuerbach.

#### Philosophers behind psychological explanation

**Xenophanes:** Xenophanes is considered to be the first thinker to have noticed anthropomorphic tendencies in conceptions of gods. He was the pre-Socratic philosopher who lived around 6th century BC. In his own words, 'Mortals suppose that the gods are born, and have their own dress, voice, and body'. He further added, 'Ethiopians say that their gods are snub-nosed and dark, Thracians, that theirs are grey-eyed and red-haired'. In the same manner, he suggested that horses, oxen, and lions would have equine, bovine, and leonine gods. Thus, he emphasized that the idea of God is derived from 'our psychological understanding of the phenomenon'.

**Ludwig Feuerbach:** Feuerbach (1804 to 1874) is considered to be one of the most important thinkers in the modern times who has taken the issue of origin of religion and has attempted to give a psychological explanation of it. His famous text *The* Essence of Christianity published in 1841 explains the idea of God as a projection of man - a psychological manifestation of all his hopes, expectations and desires. According to him, since human-beings could not tolerate the realization of their imperfectness and finiteness, thus attempt to conceive the idea of a perfect and

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omnipotent being. No human ever wants to entertain the idea of death, thus conceives the idea of an immortal soul. In the same manner, no human could psychologically bear the indubitable prevalence of injustice in society (which leads to the mental state of frustration and intolerance), therefore he conceives and cherishes the idea of heavenly justice.

**Karl Marx:** Marx (1818 - 1883) was the revolutionary thinker whose philosophy holds equal significance in anthropological as well as psychological perspectives of religion. According to him, the institution of religion originates from alienation and assists the continuity of this alienation. In his prominent works like Das Capital, Communist Manifesto and Economic and Philosophic Manuscript of 1844, he defines alienation as a phenomenon in which the work of the labourer itself transforms into a commodity that is sold and bought. In due course of this process, the worker gives up his capacity to transform the world and thus seeks solace in religion as the only viable option to overcome his sufferings (born out of this alienation).

In his other work Critique of Hegel's Philosophy of Right (1843), he asserts religion as an illusory and temporary source of happiness, or at least a psychological solace of illusory comfort. In this way, he emphasizes that religion is not as necessary or natural part of human culture, but is devised and imposed on man so as to divert his attention from the tragic state of his life.

#### Psychologists behind psychological explanation

# (i) Theory of 'sense of security': I.P. Pawlow: (1849 - 1936)

Pawlow is considered to be the first thinker to have proposed religion as an attempt to achieve some 'sense of security'. According to Pawlow, at the primitive stages of evolution, the primitive man must have experienced several aspects of nature which were intimidating and terrifying. As a consequence, humans constructed the institution of religion which helped them psychologically to survive in accordance with the merciless and all-powerful nature. It was from then on that the acceptance of religiosity is transmitted phylogenetically.

In the state of crisis, this religiosity inspired the individuals with relatively weak neural system to survive ontologically, while the psychologically strong individuals had the tendency to overcome religious inclinations and thus, have a reason-centric approach towards the world. Consequently, every society should allow weaker sections of the society to have the psychological support of their specific religious beliefs.

## (ii) Theory of mystic experience: William James (1842 – 1910)

The explanation given by James in the famous book Varieties of Religious Experience (1902) led to several responses and became a well-accepted theory of religion. James was not so much interested in the origin of religion, but promoted the investigation of religious experience in humans. According to him, 'Study of religion should base on the *prima-facie* topic of religious experience (mystic experience), rather than religious institutions—since institutions are merely the social descendant of genius'.

This strong and pathological variety of religious experience is to be analysed by psychologists, as it is only through psychological explanation that the drastically enlarged form of the seemingly normal processes of things can be explained.

James concluded that though the revelations of the mystic hold true, they are valid only for the mystic; for others, they are certainly ideas to be considered, but without any personal experience as such, hold no claim to truth.

#### (iii) Theory of psychic manifestation: Sigmund Freud (1856 - 1939)

The theory proposed by Freud is considered as one of the most satisfying and detailed explanation regarding the origin of religion. According to him, the origin of religion (as an institution) took place in two distinct phases:

# (a) Religion as Obsessive-compulsive neurosis

According to Freud, there are distinct resemblances between the compulsive actions of people with obsessive-compulsive neurosis and religious rituals:

- Neurotic person does not know why he keeps on doing his compulsive actions. Similarly, most of the religious people do not know why they perform certain religious ceremonies.
- Neurotic person repeats rituals as protective actions out of fear, remorse or shame. Similarly, religious people psychologically accept that they are sinners and that is why, keep on performing religious practices like prayers, worship, fasting etc.
- While neurosis is believed to be an outcome of repeated suppression of our sexual desires, similarly religion seems to be an outcome of the suppression of our sexual and aggressive inclinations. Religion is inevitably associated with shame and guilt, as our temptations keep returning all the time-this is accompanied by the fear of divine wrath and penances.
- In obsessive-compulsive neurosis, something unimportant may become the most important part of our personality. Similarly, in religion, performance of specific rituals tends to become most important for us.

As such, for Freud, religion is a universal obsessive-compulsive neurosis of mankind.

## Criticism

The critics point out that this theory confuses the institution of religion with the practice of religious rituals. However, the rituals are usually practiced in specific circumstances such as in public gatherings and masses, while most of the activities intricately woven with a specific religion are performed in practice, for example praying in private. The public practices are mostly used to provide an objective standardization to our religion.

Moreover, when people perform rituals, they do not actually understand them, thus they cannot be accepted as necessary-compulsive in nature. In fact, most of the times, they are learned and automatized through our social expectations. Individual religiosity may be caused by other factors apart from the dictates of our superego.

## (b) Religion as a suppressed desire to be protected by an omnipotent father

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According to Freud, every human-personality is engrossed with Oedipus complex. In Oedipus, the male child is sexually inclined towards his mother, but the father does not permit this and threatens him with dire consequences such as castration. In Oedipus complex, there is undecided feelings of son towards father whereby he desires (though in a suppressed manner) to possess his mother by killing father.

In prehistoric times, sons used to hate their father, but admired them at the same time for their power and secretly wished to take their place. Despite such hidden feelings, the sons felt deep sense of guilt and remorse due to their love and admiration for the father. As such, they (sons) defined a surrogate of the father image in the form of a totem animal. This inevitably led to acceptance of two taboos (moral laws):

- a) killing the totem animal was strictly forbidden, and
- b) Incest was strictly prohibited.

For observing these taboos, the father is expected to assure protection, care and security to sons. Later, father and totem animal were replaced by god. That is why, for each one god is the father. Further, Freud emphasized the saviour or guardian image of the father or the God. Thus, believing in god means regression to such a puerile and idealized image of the father that is constructed as a defense against all fears and the dangers of life. These expectations are projected at unknown powers - the gods - that have the features of an almighty and protecting father.

Three functions of gods and religion: Freud emphasizes following primary functions of religion for any society and its members:

- (i) Religion performs the function of the teacher and counselor to the society. It gives instructions that satisfy human's craving of knowledge- it also conceives how and why this world is created by idealized supernatural beings (gods).
- (ii) Religion performs the function of a therapist by comforting us and cooling down our anxiety and fear of the unknown.
- (iii) Religion works as the guide and mentor by providing a uniform code of conduct in the form of moral dictums.

Criticism: Freud's explanation of religion, even if accepted, cannot explain the worship of goddesses- it satisfies the explanation of only the father image, but its basic ideas are not acceptable universally. He attempts to explain the origin of religion through psychoanalysis and the Oedipus conflict, but the hypothesis of Oedipus conflict as a universal phenomenon in human development is already proved false.

As our observations prove, as against Freud's assumptions, the higher mammals usually do not have incest or sexual intercourse with potential partners they know from childhood. Therefore, this whole explanation of Oedipus complex to establish relationship of incest seems unnecessary. Conclusively, it may be said that Freud's interpretation of the origin of religion on the basis of Oedipus conflict is unacceptable.

## (iv) Theory of Terror-management: Malinowski (1884-1942)

This theory was proposed by Malinowski (1884-1942) in his famous work *Magic*, Science, and Religion (1948). It was later supported by thinkers like S. Solomon, J. Greenberg and T. Pyszczynski.

This theory gives a social-psychologically orientation of religion by emphasizing that human being's awareness of his mortality leads to intense feeling of terror within him. This feeling of terror can only be curtailed by two coping mechanisms:

- (i) Cultural world-views (concepts of the origin of the world, norm and protection from evil by observing norms, ideas of immortality).
- (ii) Cherishing self-esteem by believing in such a world-view.

#### Criticism

The proposed relationship between fear of dying and belief in life-after-death is not really well investigated and analysed. First of all, the fear of dying should not be confused with the fear of death. In fact, a person may not have fear of death, still might be afraid of the painful process of dying. So, the proposed relationship between fear of death and observance of intrinsic religiosity seems unnecessary. In fact, what we see is that the people with mediocre religious affiliations have the highest fear of the phenomenon of death and the process of dying, whereas people with extremely low and/or high religious inclinations have relatively less or absolutely no fear of these.

# (v) Attribution-theoretical theory

This theory was proposed by Spilka, Hunsberger and Gorsuch in the famous book The Psychology of Religion: An Empirical Approach. According to this approach, people generally justify various events and incidences of their lives (such as their success and failure) by attributing their causes to some unknown mystic factors. This tendency gradually extends to impose religious attributions to non-religious events as well. Such religious attributions primarily serve three functions:

- The psychological craving to understand the working of this universe as a 'grand design' looks towards religion to justify that the world is well-ordered and all events are part of a bigger design.
- There is an obvious desire in all of us to control and predict the working of nature. Here, religion provides some perceived control by means of faith and prayers, religious rituals and norms.
- It provides conviction that God can govern everything and, therefore, everything has to be correct.
- The psychological desire for good self-concept helps in establishing the institution of religion. It is religion that assures people that God cares about each single one and provides some sort of fortification of religious community.

According to this approach, the preference for religious attribution over any other possible factor relies on four features:

- a) Attributing person's individuality (e.g. his family background, education, selfconcept and self-esteem) on god.
- b) Context: Context is very important if experience with religious explanations (success of prayers) seems evident.
- c) Nature of Event: The attribution of event help to re-establish self-concept (e.g., religious victims of accidents blame themselves more likely than nonreligious ones).
- d) Context of event: Location and timing of event lead to feasibility of specific explanation (e.g., if somebody prayed just before a successful surgery, he will more likely see prayers as means to curb unfortunate consequence).

In this way, Attribution-theoretical theory seems to attribute every success to god's grace and every failure to god's punishment. This phenomenon is more prevalent in protestant religions.

# (i) Theory of Neuro-theology

This theory was proposed, for the first time, by d'Aquili & Newberg. This approach relies on the question whether we are hardwired to necessarily have religious experiences. It asserts that the distinction between our body and the outer world is pre-installed in human constitution. In fact, the experiments by Persinger revealed that such helmet may be designed that produces specific kind of magnetic fields and promotes hyperactivity in temporal lobe. This leads to certain experiences such as levitation, hearing voices, sensed presence of somebody (often reported as god or angel).

# **Criticism**

This approach was criticized by some psychologists for its improper experimental design. They pointed out that the abovementioned mystical experiences are predicted by suggestibility, not by the application of trans-cranial weak complex magnetic fields. There are no indications that these neural activities are developed for religion exclusively or that these activities are solely dedicated to religious functions. Then the next question which arises here is that if humans are really 'hardwired' for religion, why do we see that the phenomena of religiosity is relatively low in modern European countries?

## (ii) Evolutionary theory of Religion

This theory focuses on the role of natural selection in the emergence and sustenance of religion. This theory is based on two presuppositions:

- Behavioral ecology: Religion is a direct product of evolution.
- Adaptability: Religion is a by-product of evolution.

Brain and mental mechanisms evolved in order to increase fitness of humans in the nature. These mechanisms of evolution can also be used for things they were not

designed before. Also, religion is a by-product of evolution, as our cognitive systems are the result of evolution, though not exclusively for religion. Basically, the institution of religion was developed to cater to three fundamental needs: cognitive, motivational and social.

**Religion as a direct product of evolution:** The pioneer of this approach was Hardy (1976). According to this standpoint, religion can be interpreted as an evolutionary approach, where the religion is an outcome of our psychological craving for 'inclusivity' and 'assimilation' with the peer groups. This also works as an explanation for our altruistic behavior.

Such a behaviour may be observed in some species of animals which deliberately high-jump in front of predators so as to establish their strength and signal other preys for more cohesiveness. That is why, religion is often manifested in rituals, usually public, which serve as signals.

# (iii) Cognitive Theory

This theory emphasizes for higher-level knowledge, information, meaning people need to understand the workings of this world, so as to live in coherence with nature. Especially in distressing life situations (death, illness), question (not only for religious explanations), we are often satisfied with very weak explanations (known as pseudoexplanations) provided by religion.

#### Conclusion

In this way, we see that the psychological perspective (and its theories) attempts to explain origin of religion on the basis of some internal causes, such as desire for 'sense of security', mystic experiences and psychic manifestations, but not on external grounds as was attempted in anthropological theories (previously discussed).

#### CHECK YOUR PROGRESS

- 4. Name the theory which is based on facts and inductive reasoning.
- 5. State the theory of live wire.
- 6. Mention examples which prove Marx's contention that religious norms have certain ideological interests of the ruling class in the society.
- 7. What is the attribution-theoretical approach?

#### **CLASSIFICATION OF RELIGION** 3.4

No one can deny the fact that religion is a social reality. The persistence of the institution of religion through the ages is sufficient evidence of its 'survival value'. It has rendered undeniable services to mankind at individual as well as social level and is still serving.

Sociologists have attempted to classify religion in different classes on the basis of their origin and orientation as follows:

- (a) Tribal religions
- (b) Universal religions
- (c) National religions

Let us discuss them one-by-one:

# 3.4.1 Tribal Religion

According to sociologists, tribal religion is an indigenous institution that pleads to a specific social group from a specific place, ethnicity and historicity. Though some tribal religions might have different denominations, but mostly they do not. Sometimes, such tribal religions are also known as the 'ethnic religions'.

In terms of the sheer number of followers, the most popular tribal/ethnic religion is Hinduism, though in terms of its geographic prevalence, Judaism may be accepted as the most popular tribal/ethnic religion. Around 24 per cent of the world's population sticks on one or the other tribal religion, while around 62 per cent belong to a universal religion and 14 per cent belong to no particular religion at all.

Almost all tribal religions are several thousand years old and have evolved from indigenous practices prevalent in pre-historical times. In fact, the chronological record of pre-historic religions like Hinduism, Shintoism and Judaism cannot be measured precisely because they originated much before the practice of historical documentation.

Quite contrary to the ceremonies in universal religions, which are primarily based around the lives of the founders, the ceremonies in tribal religions tend to be based on the cycle of the nature such as cultivation, harvesting and hunting. For example, the Hindu festivities (of New Year and Holi) and the Jewish holidays are celebrated around the season of harvest. Probably this is the reason why the calendars of most tribal religions are lunar calendars (as opposed to the common Gregorian Solar calendar in case of later evolved religions).

In most of the tribal religions, the practice of religious conversion was unknown and as such, it is often very troublesome to convert to (or from) a tribal religion. For instance, an orthodox Hindu or a Jewish is theoretically impossible to convert. In fact, Rabbis are traditionally against any potential convert unless they return (at least) thrice as a symbolic representation of their complete devotion to the newly acquired religion.

Most of the tribal religions are either animistic or polytheistic (henotheistic) in nature. For instance, Hinduism, Shintoism, Celtic religions, Native American religions and several indigenous African religions. Though there may be thousands of unexplored tribal religions, but some of the major ones are as Hinduism, Confuscianism, Taoism, Shintoism and Judaism. Even though some of the (so-called) modern religions like Wicca and Neo-paganism are properly considered universal religions, they (arguably) trace their origin in tribal religions.

# 3.4.2 Universal Religion

According to several sociologists, a universal religion is a religion that functions on a global level and appeals to all people irrespective of their ethnic origin, residence, inclinations and early affiliations. Most of the universal religions are sub-divided further into sub-branches and sects. Some of the examples of living universal religions are those of Christianity, Islam and Buddhism.

Most of the universal religions are traced to a single founder or prophet, since they are relatively newer than most of the tribal ones. For instance, Christianity can be traced to Jesus, Islam to Prophet Mohammed, Buddhism to Gautam Buddha etc. The factor responsible for this is that these were established within recorded chronological history, a common feature shared by almost all of the universal religions. In fact, all universal religions were founded in A.D. (Buddhism as the only exception).

Another significant feature of universal religions is that they have specific ceremonies associated with their propounder: their festivities and ceremonies revolve around the lives of their known propounders. For instance, major Christian holidays of Christmas and Easter are related to the particular incidences in the life of Jesus.

The possibility of religious conversion is considered as another significant feature of universal religions. Since they usually function on a global level, conversion to universal religions is relatively easier for the newer affiliates of the faith. It is to be noted that most of the universal religions got their global face only through the missionaries who travelled far and wide to convert tribals. Some even forced conversion through conquest, as Islam did in the first half of the second millennium AD.

Sometimes, the religious cults manifest several features of universal religion, such as having specific propounder and a possibility of religious conversion. There are several sociologists who assert that most of the universal religions initiated as cults and evolved to their current religious stature over the years, though others are of the opinion that to say such a thing would be akin to degrade the most established religions of the world.

# Major differences between tribal and universal religions

The broad differentiation between tribal and universal religions may be represented through a tabular representation as follows:

#### **NOTES**

Tribal Religion	Universal Religions
It usually consists of beliefs, superstitions and rituals carried out from generation to generation within a specific ethnicity and culture.	It is the one that always seeks out for new members: incorporates anyone and everyone.
It follows one specific ethnicity as the religion does not tend to convert. Therefore, new members are created primarily from birth rates like ethnicities.	It applies to all, which is more information.     Universal religions consist of many members, and these members are often of different ethnic backgrounds (very diverse) hence the term universal.
3. In some ways it also acts like folk culture.	3. It is also true that one can convert to a Universal religion at any moment of desire as anyone is welcome to be a member/follower of a universal religion.
It expands via relocation diffusion and increases often through birth rates.	It consists of different ethnicities because they convert, they accept anyone and are not closely tied to one specific geographical location.
Ethnic religions are also closely tied to culture and ethnic heritageare closely tied to a specific geographic location.	1 0 0 1

# 3.4.3 National Religion and Civil Religion

National religion refers to a religious institution or group sanctioned and approved by the nation. Sometimes, it is also called the state religion or the official religion. Here, the interests of the specific religion coalesce with the national interests. It is to be noted here that a national religion, though not identical with secularism, need not necessarily be a theocracy (rule of the religion).

National religions have been prevalent in human-history in almost all cultures and were supported by several states, be it mono-ethnic or poly-ethnic in nature, and strict adherence to them was mandatory for all citizens.

These national religions functioned so as to justify and reaffirm the current government and sanctifying them as the only correct (divine) form of government. For instance, the term *state church* is usually associated with the historical sustenance of the Roman State religion in the last centuries of the Empire, and is sometimes even used to designate the modern national Christianity.

The prevalence of such national religion can be traced back to ancient times. The first state-sponsored religion was the Apostolic Church of Armenia established around 301 AD. Even today in the Middle East, many states with primarily Islamic population have Islam as their national religion, though the degree of religious impositions varies from State-to-State. For instance, the government of Saudi Arabia employs both secular as well as religious authority, while the government of Iran prefers to abide by the verdicts of religious authorities. Thus, the degree of religious imposition varies considerably from state to state; from absolute as in Saudi Arabia to minimal as in England, Denmark and Greece.

**Types of national religion:** The degree of state-control over religion (or vice-versa) may vary as per the policies of the government. It may range from mere political support (with or without financial support) and permission for practice of other religions at will, to complete forbiddance of other religions within the periphery of the state. For example, the competition between Catholic and Protestant denominations for state sponsorship in the 16th century Europe led to the emergence

of the principle of 'state follows the religion of the ruler', in England, it was Henry VIII who dissociated his state from the Church of Rome in 1534, though the official religion of England continued as 'Catholicism without Pope' up to 1547.

In some states, the administrative region financially supports a specific set of religious denominations; as in the case of some regions of France. Also, in certain communist countries such as North Korea and Cuba, the government directly funds religious organizations and celebrations. Here, the national religion may be seen as efforts by the government to strictly forbid any alternate sources of authority.

# **Civil Religion**

The inherent complications and intricacies of the national religion have led to the introduction of a novel concept called 'Civil Religion'. This concept is becoming more-and-more popular in developed nations like America. This novel idea was introduced for the first time in the famous article 'Civil Religions in America' written by Robert Bellah in 1976. According to Bellah, Civil Religion is 'the transcendent universal religion of the nation'. According to him, majority of the American population accepts such a religion which is manifested through refined religious belief, symbols and practices and which gives a religious dimension to the whole of America. It presents a 'higher standard' for the nation. In Encyclopedia of Religion and Society, William H.Swatoz has affirmed,

'American Civil Religion is that it is an institutionalized collection of sacred beliefs about the American nation'.

According to Bellah, such a civil religion gets symbolic resonance in the constitution of U.S., manifesto of liberty and inaugural speech of the first American President.

Bellah sees it as a belief in unified values of liberty, equality, fraternity and justice. It seems that such a living notion of 'American Civil Religion' is required by almost all nations of the world: the religion which should not be based on bad faith but on sound-rational faith. In the contemporary times, a persetroika in the role of religion has become inevitable. A unified code of conduct which clearly explains the relationship between the religion and the state, which is quintessential for a mutual dialogue and liberates the religion from its orthodoxies and stigmas.

## **CHECK YOUR PROGRESS**

- 8. List some tribal religions.
- 9. State a common factor shared by all universal religions.
- 10. When and where did the idea of civic religion find mention for the first time?

#### 3.5 **SUMMARY**

- Religion is a system of beliefs in the existence of God or Gods. It is the belief that God or Gods created the Universe and gave human beings a spiritual nature which continues to exist after the death of the body.
- The religions of the East contain philosophy, morality, science etc. within themselves. In short, it guides humankind how to live a meaningful and harmonious life. The religion of the West is in isolation from philosophy, morality, science etc.
- Theology is defensive to the religious belief of which it has undertaken the study whereas philosophy or philosophy of religion is free from such defensive attitude. Philosophy of religion investigates the truthiness of religious beliefs with the help of reason and at the same time without being defensive to any religion.
- The religious man seeks to put his whole life at the service of God and is doing God's will to serve others. His aim is not his own personal spiritual progress but the coming of the kingdom of God and all the duties incumbent upon him in that enterprise he sees as divine commands.
- Philosophy of religion is philosophical thinking about religion. It is concerned primarily with the norms or standards which religion must follow and by which it must be judged. It is also regarded as the essence of religion. Some also says that it is concerned with the study of principles of religion. It is not part of religion but related to it.
- Philosophy of Religion occupies an intermediate position between philosophy in general on the one hand and theology on the other. In the same fashion as, Philosophy in general is a critical interpretation of experience as a whole and Philosophy of Religion is a more intensive study of religious experience as such.
- Animism theory was proposed by the French sociologist Emile Durkheim and may be suitably referred to as 'Collectivism' or 'Illusionism'. According to this theory, religion in its nascent form may be identified with some kind of totems. Here, the term 'totem' indicates any particular and convenient animal living nearby, where the religion is designed as a framework around this totem.
- The live wire theory argues that whenever the primitive man faced some unknown and inexplicable entity, he instinctively became cautious in dealing with it. Thus the first cautionary step towards supernatural is not actually a religious inclination, but it is simply like 'treating a live wire with caution'.
- Durkheim considered religion as a human institution, which survives on the prevalence of social activities. This is the reason why the collective representation of religion is, though based on pre-logical mentality, not yet fully inexplicable in nature.

- While we have to understand the role of rituals and traditions, we also need to make some sense out of beliefs and myths. In other words, we have to establish a balance between the eternal ideals on one side and mundane convictions on the other. That is why, the sociologists tend to define religion as such a cultural system which is based on shared beliefs and customs, thereby providing meaningful life.
- According to anthropologists, the three basic postulates of any religion are as follows: It has an institutionalized form, It has a code of conduct, and there should be a feeling of faith towards the above two.
- The conflict perspective was provided by the famous German thinker Karl Marx who interpreted religion not as a manifestation of primitive or psychological needs of early society but as a reflection of society itself. While other thinkers were engaged in explaining religion through its positive functions, Marx attempted to emphasize on dysfunctions of religion.
- The totemism theory was provided by the famous French sociologist Emile Durkheim. Just like Marx, Durkheim invested a major portion of his academic endeavor in the study of the origin of religion.
- The theory of social transformation was provided by the famous German thinker Max Weber. While Durkheim focused on the small-scale traditional societies, Max Weber took his study to a universal level.
- According to the modern anthropological approach, religion as a social institution establishes its relevance through the specific functions (affirmative/ constructive actions) or dysfunctions (negative/destructive actions) it performs towards the individual as well as the society. The supporters of this approach are called the 'functionalists'.
- Dysfunctions: Prominent sociologist Robert K.Merton established certain dysfunctions of the religion for the first time in 20th century. He focused on the negative role played by religions in a multi-religious society where instead of building solidarity, it becomes a cause of various conflicts and clashes.
- As against the anthropological perspective (and the theories associated with it) seeking some 'external (or social) cause' and explanation for the origin of the religion, the psychological perspective searches for some 'internal (or psychical) cause' or explanation for the origin of religion as an institution.
- Xenophanes is considered to be the first thinker to have noticed anthropomorphic tendencies in conceptions of gods. He was the pre-Socratic philosopher who lived around 6th century BC.
- Feuerbach (1804 to 1874) is considered to be one of the most important thinkers in the modern times who has taken the issue of origin of religion and has attempted to give a psychological explanation of it.
- Marx (1818 1883) was the revolutionary thinker whose philosophy holds equal significance in anthropological as well as psychological perspectives of religion. According to him, the institution of religion originates from alienation and assists the continuity of this alienation.

- Pawlow is considered to be the first thinker to have proposed religion as an attempt to achieve some 'sense of security'. According to Pawlow, at the primitive stages of evolution, the primitive man must have experienced several aspects of nature which were intimidating and terrifying.
- James in the famous book Varieties of Religious Experience (1902) led to several responses and became a well-accepted theory of religion. James was not so much interested in the origin of religion, but promoted the investigation of religious experience in humans. According to him, 'Study of religion should base on the *prima-facie* topic of religious experience (mystic experience), rather than religious institutions—since institutions are merely the social descendant of genius'.
- The theory proposed by Freud is considered as one of the most satisfying and detailed explanation regarding the origin of religion: Religion as Obsessivecompulsive neurosis and religion as a suppressed desire to be protected by an omnipotent father.
- This theory gives a social-psychologically orientation of religion by emphasizing that human being's awareness of his mortality leads to intense feeling of terror within him.
- Attribution-theoretical theory: This theory was proposed by Spilka, Hunsberger and Gorsuch in the famous book *The Psychology of Religion: An Empirical* Approach. According to this approach, people generally justify various events and incidences of their lives (such as their success and failure) by attributing their causes to some unknown mystic factors.
- Theory of Neuro-theology: This theory was proposed, for the first time, by d'Aquili & Newberg. This approach relies on the question whether we are hardwired to necessarily have religious experiences. It asserts that the distinction between our body and the outer world is pre-installed in human constitution.
- Evolutionary theory of Religion: This theory focuses on the role of natural selection in the emergence and sustenance of religion. This theory is based on two presuppositions: Behavioral ecology: Religion is a direct product of evolution and Adaptability: Religion is a by-product of evolution.
- Cognitive Theory: This theory emphasizes for higher-level knowledge, information, meaning people need to understand the workings of this world, so as to live in coherence with nature. Especially in distressing life situations (death, illness), question (not only for religious explanations), we are often satisfied with very weak explanations (known as pseudo-explanations) provided by religion.
- Sociologists have attempted to classify religion in different classes on the basis of their origin and orientation as follows: Tribal Religions, Universal Religions, and National Religions.
- According to sociologists, tribal religion is an indigenous institution that pleads to a specific social group from a specific place, ethnicity and historicity.

- According to several sociologists, a universal religion is a religion that functions on a global level and appeals to all people irrespective of their ethnic origin, residence, inclinations and early affiliations.
- National religion refers to a religious institution or group sanctioned and approved by the nation. Sometimes, it is also called the state religion or the official religion.
- The inherent complications and intricacies of the national religion have led to the introduction of a novel concept called 'Civil Religion'. This concept is becoming more-and-more popular in developed nations like America.

#### 3.6 **KEY TERMS**

- Totem: It is any specific animal or plant imposed with specific symbolic value for the group as a whole.
- Animism: It refers to the attribution of a living soul to plants, inanimate objects, and natural phenomena.
- Tribal religion: It is an indigenous institution that pleads to a specific social group from a specific place, ethnicity and historicity.
- Universal religion: It is a religion that functions on a global level and appeals to all people irrespective of their ethnic origin, residence, inclinations and early affiliations.
- National religion: It refers to a religious institution or group sanctioned and approved by the nation.

#### 3.7 ANSWERS TO 'CHECK YOUR PROGRESS'

- 1. Morality is the characteristic which adds value to religion and makes it developed.
- 2. The four purusartha of Hinduism are Dharma(duty), Artha(wealth), Kama(pleasure) and Moksha (liberation from the cycle of birth and death).
- 3. The central problems of natural theology are proofs for the existence of God and the problem of evil.
- 4. Animism is the theory which is based on facts and inductive reasoning.
- 5. The theory of live wire states that whenever the primitive man faced some unknown and inexplicable entity, he instinctively became cautious in dealing with it. Thus the first cautionary step towards supernatural is not actually a religious inclination, but it is simply like 'treating a live wire with caution'.
- 6. The Christian missionaries and their conversions and the practice of slavery are examples which prove Marx's contention that religious norms have certain ideological interests of the ruling class in the society.

#### NOTES

- 7. According to attribution-theoretical approach, people generally justify various events and incidences of their lives (such as their success and failure) by attributing their causes to some unknown mystic factors. This tendency gradually extends to impose religious attributions to non-religious events as well.
- 8. Hinduism, Confuscianism, Taoism, Shintoism and Judaism are some of the tribal religions.
- 9. A common feature shared by almost all universal religions is that they were established within recorded chronological history.
- 10. The novel idea of universal religion was introduced for the first time in the famous article 'Civil Religions in America' written by Robert Bellah in 1976.

# 3.8 QUESTIONS AND EXERCISES

# **Short-Answer Questions**

- 1. What is naturalism?
- 2. Define totemism.
- 3. How are religion and magic related?
- 4. Distinguish between national and civil religion.
- 5. Write a short note on the animism.

## **Long-Answer Questions**

- 1. Discuss the theory of class conflict regarding origin of religion.
- 2. Distinguish between Weber's and Durkheim's explanation of the origin of religion.
- 3. What are the functions and dysfunctions of religion?
- 4. Discuss Freudian hypothesis regarding origin of religion.
- 5. Differentiate between tribal and universal religions.

# 3.9 FURTHER READING

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Basic Concepts of Social Philosophy

# UNIT 4 BASIC CONCEPTS OF SOCIAL PHILOSOPHY

# **NOTES**

#### Structure

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Society: Basic Concepts
  - 4.2.1 Social Contract Theory
  - 4.2.2 Organismic Theory
  - 4.2.3 Relation between Society and Individual
- 4.3 Social Institutions, Groups, Association and Community
  - 4.3.1 Forms of Social Instutions
- 4.4 Agencies of Social Control: Law, Custom, Education etc.
- 4.5 Summary
- 4.6 Key Terms
- 4.7 Answers to 'Check Your Progress'
- 4.8 Questions and Exercises
- 4.9 Further Reading

#### 4.0 INTRODUCTION

Sociology as a subject, deals with the study of the society and the interrelationship between the members of the society. Philosophy on the other hand is the study of the guiding factors of behaviour in different human beings. While trying to grasp the nuances of the philosophy of mind, it is important to study the constituents of the society. And for this it is not only crucial to get a good understanding of the external and internal factors which construct the society but also the different types of social institutions which exist in the system and the manner in which control is exercised in the society. In this unit, you will learn about the basic concepts of society; the relationship between the individual and the society; different social groups, association and institutions; and the agents of social control like law, education, custom, religion etc.

#### **UNIT OBJECTIVES** 4.1

After going through this unit, you will be able to:

- Discuss the basic concepts of society
- Describe the various different social groups, associations, institutions and community
- Explain the relationship between society and individual
- Interpret the means of social control like law, custom, religion and education

#### 4.2 SOCIETY: BASIC CONCEPTS

# **NOTES**

The origin or emergence of society may be viewed as one of the great steps in evolution. However, this step was taken only by a few species. Like other steps, it represents a new synthesis of old materials, possessing unique qualities that are not found in old materials that are considered separately. It is thus a true example of what is known as an emergent evolution. To realize that society is a true emergent, one needs to trace its independent origin in countless animal types. One needs to merely grasp the difference between it and the organisms which it is composed of. Several decades ago, it was normal to compare society with an organism. The idea was to demonstrate that a social system after all, is a system. The analogy was helpful but never perfect. The cells of an organism are rigidly fixed in their mutual relations, completely subordinated to the organism and too specialized to be called members of the society. They are not spatially detached and independently mobile. So the organism is not, strictly speaking, a society of cells. The organism possesses a consciousness, which no society possesses.

Like an organism, a **society** is a system of relations between organisms themselves rather than between cells. Like the organism, a society has a determined structure and parts of this structure, when in operation contribute to the existence of the whole. This gives it continuity, which is apart from that of the constituent individuals. It is this possession of continuity and structure of its own that makes it impossible to reduce the study of society, merely to a study of its individual members. It is like a house, which, though composed of bricks, nails, mortar and pieces of lumber, cannot be understood purely in terms of these materials, as it has a form and functions as a complete house.

A **society**, or a **human society**, is a group of people related to each other through persistent relations, or a large social grouping sharing the same geographical or virtual territory, subject to the same political authority and dominant cultural expectations. Human societies are characterized by patterns of relationships between individuals who share a distinctive institutions and culture. A given society may be described as the sum total of such relationships among its constituent members. In social sciences, a society invariably entails stratification and hierarchy. A society helps its members benefit in ways not possible had the members existed individually. It consists of like-minded people governed by their own values and norms. Within a society is almost always found smaller cultures or sub societies with their own idiosyncratic set of rules.

Broadly, a society may be described as a social, economic and industrial infrastructure made up with varied kinds of people. A society may constitute of different ethnic goups, a nation state or a broader cultural group.

#### **Definitions**

Society has been differently defined by different sociologists. Here are a few definitions:

A society is a form of organization involving:

- relatively sustained ties of interaction among its members,
- relatively high degree of interdependence among its members and
- a high degree of autonomy

## Gerhard Lenski (1970) Human societies. New York: McGraw-Hill

The Latin word *socius* denotes a companion or ally and in their specific sense the words 'society' and 'social' refers to associations of individuals, to group relations. When we speak of social structure, or the organization of society, it is clear what is meant: the way a mass of people is constituted into families, clans, tribes, states, classes, sets, clubs, communities, and the like. A society is a group of interrelated individuals.

## A.L. Kroeber (1948) Anthropology. New York: Harcourt, Brace

A society is a collection of people who are linked to one another, either directly or indirectly, through social interaction...The term society can be applied to the total human community, encompassing all of humanity. Alternatively, we may speak of American or Canadian society, or we may restrict ourselves to even smaller geographical or social groupings.

## Michael Howard and Patrick McKim (1983) Contemporary Cultural Anthropology

For convenience of study, aggregates of individuals in their relational aspects are arbitrarily isolated as social units. Where these show a number of common features in distinction from other such units, they are conveniently termed societies.

## Raymond Firth (1951) Elements of Social Organization. Boston: Beacon Press

## 4.2.1 Social Contract Theory

The Social Contract Theory is unique, giving importance to individuals as architects of society. This theory was propounded by three eminent philosophers: Thomas Hobbes, John Locke and J.J. Rosseau. According to this theory, all men were born free and equal and individuals made a mutual agreement and created a society.

Thomas Hobbes, in his book, *The Leviathan*, discusses the state of nature. He gives a very gloomy picture of the state of nature. According to him, society is a means of protection for men, against the consequence of their own untrammelled nature. In the state of nature, man was in perpetual conflict with his neighbours on account of his essentially selfish nature. Man's actions were motivated by selfish interests. According to Hobbes, the state of nature was solitary, poor, nasty, brutish and short. There was liberty without license. The stronger enjoyed a privileged position. As a result, man's life became miserable and totally insecure. In order to come out of these evil consequences and to ensure peaceful coexistence, a civil society was needed. So men came out of the state of nature to set up a civil society. By such a contract, men gave up their liberty to a single individual who would give them security. Thus, the individual became the 'great monster' i.e., repository of all

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power and he was known as the *leviathan*. Thus man, with his fellow men, organized society in order to be at love and peace with all.

John Locke, in his book, Two Treatieses on Civil Government, gave an optimistic view about the state of nature. He tried to justify that the state of nature was not so perverted and it was a state of peace, goodwill, mutual existence and preservation. The only disadvantage of the state of nature was that there was no recognized system of law. To overcome this deficiency and to ensure the exercise of his liberty, man entered into a contract by which certain powers were confered upon a community.

J.J. Rosseau, in his book, Contract Social, gave a classical opinion about the Social Contract Theory. He started with Hobbes and ended with Locke. He held that all men, in the state of nature, were equally self-sufficient and contended. Man was a noble savage and was untouched by all negative vices of life. Man lived a life of idyllic happiness and primitive simplicity. But, with the growth of population, quarrels arise which necessitate the establishment of a civil society. Consequently, men entered into a contract and thus society originated.

The criticisms of Social Contract Theory are as follows:

- MacIver argues that the theory is not historical because history has not supported the existence of the state of nature anywhere.
- This theory is considered illogical. The theory seems to assume that man existed before society, but such an assumption is erroneous.
- This theory suppresses the sociable character of individuals.
- Society emerged gradually, thus, this theory does not offer a valid explanation of the origin of society.

## 4.2.2 Organismic Theory

Organismic theory is another vital theory about the origin of human society. Plato, Aristotle, Herbert Spencer and Novicow were the exponents of this theory. However, Spencer occupies a unique place. This theory states that society is never manmade. It is a natural creation and has started through the process of evolution. Spencer conceives society as a biological system, a greater organism alike in its structure and functions, exhibiting the same kind of unity as the individual, organism and subject to similar laws of development, maturation and decline. Thus the basic assumption is that society is like a biological organism and the only difference is in the size. Spencer tries to draw an analogy between the organism and the society on the basis of the following points:

#### **N** Evolution

Evolution or development is the basic characteristic of a biological organism. Society, like an organism, grows or develops gradually. As an organism passes through the laws of development, maturation and decline, so does society.

#### **N** Systems

The biological organism consists of different systems like the circulatory, nervous, respiratory, etc., which correspond to similar systems in society. For instance,

circulatory system corresponds to the system of transport and communication in the society, the nervous system corresponds to the government of the state, etc.

## N Structural differentiation and function integration

In both society and biological organisms, there exists a close integration or interdependence of parts. The institutions are parts of the society. Just as different parts of an organism are mutually dependent so are the individuals mutually dependent upon each other. If any part of the structure is affected, the entire system is paralyzed.

## N Cellular formation of both society and individual

The individual or organism is made up of cells; similarly, the society is also composed of cells and people are the cells of society.

Thus, Spencer concluded that society is like an organism. Spencer observed the following differences between the organism and the society:

- In organic growth, nature plays a dominant role and the organism grows naturally, while social growth may be checked.
- An organism is composed of many cells, whereas a society is composed of a collection of individuals.
- Society is abstract whereas organism is concrete.
- The units of society are not fixed, like those of an individual organism.

#### Criticism

MacIver argues that the theory does not explain the relationship between society and individual in social life. He also argues that this theory is the unreal death of an individual organism, which does not correspond in a proper sense to the death of society.

Human beings have grouped themselves, throughout human history, in various types of groups. One of these social groups is a society. There are different types of societies. According to anthropologists, societies may be divided into pre-industrial, industrial and post-industrial.

#### Pre-industrial societies

The main economic activity of a pre-industrial society is using animal labour to produce food. These societies may be further divided into: hunting-gathering, pastoral, horticultural, agricultural and feudal. In the hunting-gathering society, the main activities of the members were hunting wild animals and gathering edible fruits and vegetables. Hunter-gatherers were nomads, moving from one place to another in search of food. So, there were never these permanent dwellings in clusters (later to be termed as villages) during this age. In the next stage, we find pastoral societies which had domesticated animals to plough the lands and produce foods. Pastorals also lead a nomadic life, moving from one pasture to another. Pastoral societies were larger as they could support the members by cultivating their food. Some people in these societies also worked as craft smiths, jewelers and traders. Some

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families gathered more wealth than others in these societies and often, as a result, became more powerful. Over time, these powerful wealthy families emerged as the new chiefs of the tribes and former leadership came into being.

In horticultural societies, people grew fruits and vegetables, along with staple crops in their garden plots. These societies used slash and burn techniques for growing crops and their techniques and technologies were more advanced than those used in the pastoral societies. When a horticulturist society found that the land has become barren, they would move to a fresh piece of land. They often came back to their original piece of land after many years. Hence, by rotating the piece of land, they would manage to stay in the same area for many years at a stretch. The villages that were built during this period could inhabit thirty to 2000 people. As in the pastoral societies, in the horticulturist society also, a discrepancy was noticed in possession of wealth.

In agricultural societies, advanced technology was used to cultivate crops over a large area. Advancement in technology ensured increases in food supplies and thereby, a support for a larger society. Surplus production created centres for trade and exchange of grains, thereby founding towns and cities. These towns saw rulers, craftsmen, merchants and religious leaders gather together to propagate their economic activities. Agricultural societies had greater degrees of social stratification than the previous societies. In the previous societies, women were considered equal to men as they shared the same role. However, as granaries and food storage became rampant, women lost their position and became subordinates to men as they were not required anymore in cultivation. As villages and towns expanded, constant tussles with the neighbouring population ensued. Food was provided by farmers to warriors in exchange for protection against invasion by enemies. These societies also saw the emergence of a ruler and nobility that ensured that the lesser members were taxed in every way possible to fill their coffers.

Feudalism was a form of society that thrived from the 9th to the 15th centuries. This type of society was based on ownership of land. Vassals under feudalism were made to cultivate the land and hand over all produce to their ruler in exchange for military protection. The peasants were exploited by the lords who expected food, crafts, homage and total subservience to them. In the 14th century, feudalism was replaced by capitalism.

## **Industrial societies**

As an aftermath of the industrial revolution, a greater surplus of food as well as manufactured goods became available. Again, inequality in the society became more pronounced. The decadence of the agrarian society prompted people to leave the villages and flock to industrial towns in search of lucrative jobs. This created a surplus of labour and gave capitalists the opportunity to exploit the working class. Workers were hired at extremely low wages, their quality of life was greatly compromised and the capitalists did not care about the working and living conditions of their workers as long as the production went on.

#### **Post-industrial societies**

The societies that were formed after the industrial revolution were mostly dominated by services, high technological advancement and information, more than surplus production. Societies with an advanced industrial twist have a major part of the workforce in research, education, health, law, sales, banking, etc.

## 4.2.3 Relation between Society and Individual

As we have seen, a society, especially human society, comprises a group of people who are related to each other through persistent relations and share the same geographical or virtual territory, subject to the same political authority and dominant cultural expectations.

Society has the capacity to encourage personal growth and development of individuals through the process of socialization. It provides an opportunity to individuals to develop their potential to the fullest extent. It is society that orients the individuals towards conformity to institutionalized norms and keeps them in limits. It makes a person worth calling a human being. Society is external to individuals and exerts a pressure on them to act according to norms, it also counteracts the deviant behaviour in individuals. The honour killings by Khap panchayats is a case in point. Individuals gain immensely from being a part of the society. Man becomes man by being in company with other men. A child picks up everything from its surroundings and from things he is taught by the family he is born in. As every family is part of some society, it has to adhere to certain acceptable social norms. The family, consciously or otherwise, passes these norms to the child in his impressionable years, gradually moulding him to become suitable for living in the society. An individual gains fulfillment and empowerment only by being a part of the society that recognizes his abilities and respects his individualism.

The following cases have been discussed here to highlight the importance of society for individuals.

## Case I

The famous case of Kaspar Hauser is peculiarly significant because this ill-starred youth was in all probability bereft of human contacts through political machinations. Therefore his condition could not be attributed to a defect of innate mentality. When Hauser, at the age of seventeen, wandered into the city of Nuremberg in 1828, he could hardly walk, had the mind of an infant and could mutter only a meaningless phrase or two. Sociologically, it is noteworthy that Kaspar mistook inanimate objects for living beings. And when he was killed five years later, his post-mortem revealed that the development of his brain was subnormal. The denial of society to Kaspar Hauser was the denial of human nature itself.

#### Case II

One of the most interesting of the feral cases involved two Indian children in 1920. These children, who were eight and two years old respectively, were discovered in a wolf's den. The younger child died within few months of the discovery but the

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elder, Kamala, as she became named, survived until 1929. Her history has been carefully recorded in human society. Kamala brought with her almost none of the traits that we associate with human behavior. She would walk on all four of her limbs and could not speak any language other than wolf-like growls. Like any other undomesticated animal, she too was shy of humans. However, as a result of the most careful and apparently sympathetic training, she was taught rudimentary social habits. Before her death, she had slowly learned some amount of simple speech, human eating and dressing habits, etc. This wolf child utterly lacked human habits when she was first found, but her individuality emerged when she interacted with human society.

#### Case III

Recently, sociologists and psychologists have studied the case of Anna and her illegitimate American child, who were isolated since the child was six months old, until her discovery five years later, in 1938. During her confinement, Anna was fed little else than milk, was not given any general training and had no contact with other human beings. This extreme and cruel social isolation provided scientists with a laboratory case and left the child with few attributes of a normal, five-year-old child. When Anna was discovered she could not walk or speak, she was completely apathetic and indifferent to people around her. As in the case of Kamala, Anna responded to the careful treatment provided to her after she was released. However, because of her young age and limited contacts while she was a prisoner, she interacted with humans much more rapidly before she died in 1942. Anna's case illustrates once again that human nature develops in man only when he is a social being, only when he is a part of the society and shares a common life.

## **Individual Dependence on Social Heritage**

Each individual is the offspring of social relationships, itself determined by preestablished mores. Further, man or woman are essentially terms in relationships. The individual is neither a beginning nor an end, but a link in the succession of life. This is a sociological as well as a biological truth. Yet, it does not express the depth of our dependence as individuals on society, for society is more than a necessary environment and more than just the soil in which we are nurtured. Our relation to social heritage is more intimate than that of a seed to the earth in which it grows. We are born in a society, the processes of which determine our heredity and part of which becomes our internal mental equipment in time and not merely an external possession. Social heritage, continuously changes because of our social experiences. It evokes and directs our personality. Society both liberates and limits our potentialities as individuals, not only by affording definite opportunities and stimulations, not only by placing definite and interferences restraints on us, but also subtly and imperceptibly, by molding our attitudes, beliefs, morals and ideals.

Comprehension of this fundamental and dynamic interdependence of individual and social heritage permits us to appreciate the truth of Aristotle's famous phrase, that 'man is a social animal'. However, this does not mean that man is a sociable animal. Man is greater than that, in this respect. This also does not mean that man is

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altruistic in his impulse toward society, nor does it mean that he is social by virtue of some original constitution of human nature. This means that without society, without the support of social heritage, the individual personality does not and cannot come into existence.

## **Individual and Society**

The Systems Approach of Talcott Parsons claims that the governance of individual relationships at the micro level is taken care of by the macro level and that the functional contribution of an individual to the society is so indispensable, that the society cannot live without the individual and vice versa. The entire interactive approach in sociology and even social psychology revolves around this concept of relationships between individuals and society. This relationship paves the way for framing the most acceptable definition of society which is given by MacIver and Page, 'Society is a system of usages and procedures of authority and mutual aid, of many groupings and divisions of controls of human behaviour and of liberties'.

We will discuss the relationship of individual and society through the following points:

- (i) The nature of social unity: The unique quality of social unity is revealed when it is contrasted with other types of unities. Various forms of unities may be distinguished by viewing the nature of the functional relations of the units or parts of the whole. A type of unity is the organism, to which the society itself is assigned, mistakenly. In this type, one can interpret the cells, organs and various systems that these compose, for instance, circulatory, glandular, nervous, etc. These derive their significance solely from their utility to the life of the organism, as a whole. Mechanism is another type of unity, the specific form of which is a man-made machine. The machine is not autonomous or self sustaining or self reproducing, like the organism. However, its various parts like wheels, gears, transmission belts, etc., can be understood in terms of their contribution to the functioning of the whole machine. Like organic unity, mechanical unity has been attributed to the society or parts of it. But the social system must be distinguished from these types. For a social system, social relationships grow and change in accordance with the changing attitudes and interests of its members, of some or all of the units or individuals who compose it. Here, the system derives its significance from its support of and contribution to the final purpose of individuals themselves. Without this purpose, social unity cannot be envisaged. This principle makes the harmonization of society and individuality possible.
- (ii) Understanding individuality: When we extend the meaning of individuality to man, we find it essential to use the term in its sociological reference. Here, one can argue that a social being has more individuality in the following circumstances:
  - a. His conduct is not imitative nor is it the result of suggestion.
  - b. He is not entirely the slave of custom or even of habit.
  - c. His responses to the social environment are not altogether automatic and subservient.

- d. His personal purpose are factors in his real-life activities.
- e. Individuality in sociological sense is that attribute which reveals the member of a group as more than merely a member.
- f. He is a self, a centre of activity and response, expressive of a nature that is his own. This concept supports the admonition that we often give to others or to ourselves.
- g. The factor of 'being yourself'. Being oneself need not mean just originality; it certainly does not mean eccentricity. A strong individuality may, in fact, express more fully the spirit or quality of his country or his time, but he does so, not because he is quickly imitative or easily suggestible, but because of his sensitivity to the age itself.

It is true that when members of a group are more individualized, they will exhibit greater differences and will express themselves in a greater variety of ways. But the criterion of individuality is not the extent to which each individual differs from the rest. It is rather, how far each acts autonomously, in his own consciousness and with his own interpretation of the claims of others. When the possessor of individuality does as others do, at least in those matters which he deems important, he does it simply. This is not because others do it, but because he himself approves that particular behaviour. When he follows authority, except as far as he compelled to, he follows it partly because of conviction and not because of authority. He does not specifically accept or reflect the opinions of others. He has certain independence of judgment, initiative, discrimination, strength of character, etc. The extent to which he exhibits these qualities is directly proportional to his individuality.

#### CHECK YOUR PROGRESS

- 1. Name the philosophers who propounded the social contract theory.
- 2. State the organismic theory.
- 3. List the sectors in which a major part of the post-industrial society's workers are engaged.

#### 4.3 SOCIAL INSTITUTIONS, GROUPS, ASSOCIATION AND COMMUNITY

Generally, the term institution refers to a group of people who have some specific purpose. But, the sociological understanding is quite different from common usage. Every society is characterized by certain social norms. These norms are very important in interactive social systems. These norms are in fact, institutionalized, i.e., they are widely accepted among the members of the society. In this context, it can be said that an institution is neither a building, nor people, nor an organisation. An institution is a system of norms aimed at achieving some goal or activity that people feel is important. It focuses on major human activities. Institutions are structured processes through which people carry on their activities.

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Institutions have been defined by MacIver, as 'established forms or conditions of procedure characteristic of group activity'. So, it can be said that social institutions are the social structures and machinery, through which the society organizes, directs and executes multiple activities that are required to fulfil human needs. An institution is an organized system of social relationships which embodies certain common values and procedures and meets certain basic needs of the society (Horton and Hunt, 1984).

Every organization is dependent on certain established norms that are accepted and recognized by the society. These norms govern socio-cultural and interpersonal relationships. These norms are institutions that are in different forms like marriage, family, economy, polity, religion, etc. These institutions govern social life.

## **Features of Social Institutions**

A social norm is said to be institutionalized in a particular social system when three conditions are fulfilled:

- (i) Many members of the social system accept the norm.
- (ii) Many of those who accept the norm take it seriously. In psychological terms, they internalize it.
- (iii) The norm is sanctioned. This means that certain members of the system are expected to be guided by the norm in appropriate circumstances.

However, the process of institutionalization involves the following characteristics:

- Institutions emerge as largely unplanned products of social living. People struggle to search for practical ways of meeting their needs; they find some patterns that work and become regular by repeated practice. These patterns are converted into standardized customs. As time passes, these patterns become part of customs and rituals which justify and sanction them. For example, the system of lending has paved the way for banks to emerge as institutions for borrowing, lending and transferring money in a standardized manner.
- Institutions are means of controlling individuals.
- Institutionalized role behaviour is guided by expectations of the role and not by personal preferences. For example, all judges act in a similar manner when they are practicing, but it is not necessary for them to behave in the same manner in every situation as well.
- Institutions have some proceedings, which are formed on the basis of certain customs.
- Institutions have certain cultural symbols. People adhere to certain symbols which serve as convenient reminders of the institution. For example, the citizen is reminded of loyalty to the government by the sign of the flag. Similarly, national anthems, national songs, national flags, etc., strengthen institutional ties.
- Institutions have certain codes of behaviour. The people involved in certain institutions are expected to carry out some roles which are often expressed in formal codes, such as the oath of loyalty to ones country, marriage vows, etc.

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- Every institution is based on certain ideological principles. An ideology may be defined as any set of ideas that explain or justify social arrangements, structures of power, or ways of life. These are explained in terms of goals, interests or social position of the groups or activities in which they collectively appear. The ideology of an institution includes both, the central beliefs of the institution and a rational justification for the application of institutional norms to the problems of life.
- Institutions are formed to satisfy the primary needs of the members of the society and they have social recognition.

#### **Functions of Social Institutions**

A society is so complex and interrelated that it is impossible to foresee all consequences of any action pertaining to it. Institutions have a list of functions, which are the professed objectives of the institution. They also have latent functions, which are unintended and may not be recognized. If they are recognized, then they may be regarded as by-products.

#### Manifest functions of social institutions

These are functions which people assume and expect the institution to fulfil, for instance, families should care for their children, economic institutions should produce and distribute goods and direct the flow of capital where it is needed, schools should educate the young, etc. Manifest functions are obvious, admitted and generally applauded.

#### **Latent functions of social institutions**

These are unintended and unforeseen consequences of institutions. Economic institutions not only produce and distribute goods, but sometimes also promote technological change and philanthropy. Sometimes they promote unemployment and inequality. Latent functions of an institution may support manifest functions.

Apart from these functions, social institutions have some other common functions like provision of food, power, maintenance of law and order, shaping of personalities of individuals, manufacture and supply of commodities and services, regulation of morals, provision of recreation, etc.

Malinowski has remarked, 'Every institution centres round a fundamental need, permanently unites a group of people in a cooperative task and has its particular set of doctrines and techniques or craft. Institutions are not correlated simply and directly to new functions, one need not receive satisfaction in one institution'.

## **4.3.1** Forms of Social Instutions

The various forms of social institutions are: marriage, family, education, economy, polity and religion. These are discussed in detail in next page.

## (a) Marriage

Marriage is a universal social institution. Marriage is a deep personal commitment to another human being and a public celebration of the ideals of mutuality, companionship, fidelity and family. Marriage is a socially approved way of acquiring a family. It is only through the establishment of culturally controlled and sanctioned marital relations that a family comes into being. The institutionalized form of sexual relations is called marriage. Marriage and family are two sides of the same social reality. From a broader and more collective perspective, marriage ensures survival of the species of the group and its culture.

## Forms of marriage

The forms of marriage are diverse in nature. A cross-cultural study of marriage practices in different societies would include rules. These rules lay down preferences, prescriptions as well as proscriptions in deciding the form of marriage.

On the basis of the number of mates, marriage is classified into two types, monogamy and polygamy. Monogamy is the marriage between single partners (i.e., a husband having one wife or a wife having one husband). Monogamy is a prevalent form of marriage in most societies. It is also considered an ideal form of marriage. Polygamy is the practice of having more than one partner in marriage. Polygamy may be of two types: *polygyny* and *polyandry*. When one man has two or more wives at a time, the practice is known as polygyny. When two or more sisters share one husband, the practice is known as sororal polygyny.

When one woman gets married to more than one man simultaneously, the practice is known as polyandry. Polyandry may be of two types: fraternal or adelphic polyandry and non-fraternal polyandry. When one woman marries several brothers at the same time, the practice is known as fraternal polyandry. This practice is prevalent among the Toda community in India. When a woman has several husbands, none of whom are necessarily brothers, the practice is known as non-fraternal polyandry.

One may consider this with reference to two types of polygamous marriages, namely

## (i) Levirate and Sororate

Marriage of a man with the childless widow of his deceased brother is known as levirate marriage. When a levirate marriage prevails, on the death of a husband, it is the duty of one of his brothers to marry his widow and any children that are born as a result of this union are counted as progeny of the deceased man.

When a sororate marriage prevails, the husband of a childless woman marries her sister and at least some of the children that are born as a result of this union, are counted as children of the childless wife. The term sororate is also used with reference to the custom whereby, upon the death of a wife, her kin provide her sister as wife to the widower. However, any children that are born as a result of this union are recognized as her own.

Levirate and sororate customs emphasize the acceptance of inter familial obligations and recognition of marriage as a tie between two families and not simply between two individuals.

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## (b) Family

The institution of family is the basic and fundamental institution in the life of an individual. It is the basic primary group and an important agency of socialization. Historically, the institution of family has undergone many changes. The term family has been defined by many sociologists and anthropologists. Murdock (in 1949), after studying about 250 multi-cultural societies, defined family as a social group that is characterized by common residence, economic cooperation and reproduction. It includes adults of both the sexes, at least two of whom maintain a socially approved sexual relationship and one or more children are owned or adopted by the sexually cohabiting adults.

A family, according to MacIver and Page, is a group defined by a sexual relationship that is sufficiently precise and enduring to provide for the procreation and upbringing of children. They also bring out certain characteristic features of family:

- It is a relationship that originates from and is bound by marriage. It is formed when two individuals mate and produce offspring.
- It is a system of finding the hierarchy of ancestry.
- A family must have the financial sufficiency to achieve its economical wants and necessities that pertain to the birth and upbringing of children.
- A family should have a habitat, home or a household which it may either own solely or share with others.

### Forms of families

Various sociologists have studied different forms of families. They have taken into consideration different factors for the classification of families. Following are the different types of families:

- Marriage classifies families into: monogamous and polygamous categories.
- Based on the location of their residence, families are categorized into two main types, family of matrilocal residence and family of patrilocal residence.
- On the basis of ancestry or descent, families are classified into matrilineal and patrilineal types.
- According to the type of authority, families may be identified as matriarchal and patriarchal types.
- In terms of size or structure, there may be two types of families, nuclear or
- Families can be divided into conjugal and consanguineous types, based on the relations between the members. In a conjugal family, relations between the husband and the wife are private and their ties with the extended family are

voluntarily. A consanguine family consists of close relatives other than parents and children.

## (c) Education

Education means developing of and cultivating various physical, intellectual, aesthetic and moral faculties of an individual. Durkheim defines education as 'the action exercised by the older generations on those who are not yet ready for social life. Its object is to awaken and develop in the child, those physical, intellectual and moral values which are required of him, both, by his society as a whole and by the milieu for which he is specially destined'. It is a social process. Education is imparted by both, formal and informal means. It is an important means of socialization. Aristotle's famous concept of education says, 'education develops man's faculties, especially his mind, so that he may be able to enjoy the contemplation of the supreme truth, goodness and beauty, in which perfect happiness essentially consists'. Durkheim further conceives education as socialization of the younger generation. According to him, it is a continuous effort to impose on the child, ways of seeing, feeling and acting which he could not have achieved spontaneously.

## Education as a social process

Education is viewed as an integral fragment of socialization. Such a process of social learning is continuous. Education is also considered an agent of cultural transmission. The elements of culture are transmitted from one generation to another, through education. Education not only helps in acquiring knowledge but also inculcates the values of morality among individuals. Educational institutions are instrumental in shaping the personality of individuals and also formulation of ideologies. On the whole, education helps in reforming the attitudes of individuals and encourages them by inculcating a spirit of competitiveness in them.

Primitive and ancient societies had no educational institutions. Children learnt from their surroundings. Schools appeared when cultures became too complex for the learning to be handled within the family. Thus, educational institutions grew as time passed by. In India, the historical roots of educational institutions are referred to in the guru-shishya tradition. In this tradition, students had the advantage of being in personal contact with the teacher. The image of the guru was personified and the students were obliged to the guru or teacher.

### Sociological perspectives on education

From a functionalist perspective, it is preferred that education contributes to the maintenance of the social system. Emile Durkheim saw the major function of education as the transmission of society's norms and values. He maintained that the society can survive only if a sufficient degree of homogeneity exists among its members. Education functions to strengthen this homogeneity by maintaining a balance of these similarities in an individual, since his childhood. Due to these similarities, the demands of life in all individuals are similar. Cooperation and social solidarity would never have existed in the absence of these essential similarities. Drawing conclusions from Dukheim's concept, the American sociologist, Talcott Parsons, gave a

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functionalist view of education. Parsons put across the theory after the spread of primary socialization within a family, the school assumes the role of a central socializing agency. School brings the family closer to the society. It prepares the child for his role as an adult. Davis and Moore shared Parson's view with reference to education. They too considered education to be useful in providing suitable roles to individuals. However, they hold the educational system directly responsible for creating divisions in the society. According to Davis, the education system has proved that it is able to select people on the basis of their capacities and allocate appropriate positions to them. Thus, the process of educational filtering organizes and categorizes individuals on the basis of their skills and capacities. The people with the highest level of talent get the highest level of qualification. Consequently, this leads them to better occupations which are most important in terms of functions to the society.

However, the Marxian perspective provides a radical alternative to the functionalist position. Louis Althusser presents a general framework for the analysis of education, from a Marxian perspective. Being a section of the superstructure, the infrastructure finally gives shape to education. According to him, education benefits only the ruling class. For survival and prosperity, it is very important to reproduce the power of labour. Two steps are involved in the process of reproducing labour, the first step is reproduction of the skills that are required for a capable labour force. The second step is reproduction of the ideology of the ruling class and socialization of workers. These processes combine to reproduce a technically efficient, submissive and obedient workforce. In a social structure that is dominated by capitalism, education reproduces such a workforce. Althusser stresses that reproduction of labour power not only requires reproduction of its skills, but also a simultaneous reproduction of its submission to the ruling ideology. This submission is reproduced by a number of 'Ideological State Apparatuses' which include the mass media, law, religion and education. Ideological State Apparatus is a trademark of the ideology of the ruling class which creates artificial class awareness. This awareness maintains the subject class in its subordinate position to a large extent. Education, according to Althusser, not only transmits ideologies of the general ruling class (which justifies and legitimates the capitalist system), it also reproduces the attitudes and behaviour that are required by major groups in the division of labour.

Ivan Illich has been critical of both, functionalist and liberal views of education. In Deschooling Society, that was published in 1971, he raises issues on the incapability of schools in matching educational ideals. In his opinion, schools are institutions that teach students about various means of exploitation. According to him, schools instigate compliance to the society and create a belief in students, to accept the interests of the powerful. However, real learning can never prevail through a set of instructions. It can be inculcated only when an individual is involved in every part of the learning process, on his own. To conclude, the majority of learning processes require no teaching. Illich blames the educational system as the main cause of all problems that have emerged in the modern industrial society. School teaches the individual to delay authority, assume isolation, to absorb and accept the services of the institution and neglect his own needs and wants. He is instructed to view education as a precious product such that it should be taken in large amounts. He, however also

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presents a solution. According to him, to resolve this issue, it is important to abolish the present system of education, since schools form the base of education. Deschooling is the primary step towards the liberation of mankind. Finally, Illich confirms that deschooling will create a society where every man can be truly liberated and can experience a sense of fulfillment.

#### Education as an instrument of social control and social change

The general character of formal education has undergone a rapid change through modern science and technology. Technological development today is quite unlike the development that took place in the 19th century. Unlike the present day society, in ancient societies, education was considered as the learning related to a way of life. However, in primitive societies, the terminology of science comprised the production and distribution of labour. Formal education quickens the overall process of education. However, it is incapable in transmitting any practical knowledge. In societies of the recent times, the content of education is more scientifically inclined and less scholarly. Thus, it can be concluded that education in modern societies inculcates freedom of thought and values that have an important role in streamlining the attitude of an individual.

It has been argued that education by itself does not bring about social change, rather it is an instrument which performs the functions that are entrusted to it. Innovations in the education system may lead to structural changes in the society. The Indian society has deep-rooted customs and traditions which are strongly embedded in the Indian lifestyle. Changes are resisted because they are in direct conflict with traditional values and beliefs.

#### (d) Economy

In considering the historical development of sociology, a few figures are taken from a vast interplay of schools of social thought. Any division of labour which leads people to pursue diverse and possibly conflicting lines of economic activity, may generate conditions of social dislocation and inequity. Here, the social arrangements that are aimed at establishing peaceful, cooperative and equitable interchange among economic agents are taken into consideration.

Herbert Spencer marked a confluence of two great traditions of evolution and classical economics. Spencer, from his evolutionary tradition saw many similarities between biological and social organisms. Both are capable of growth; both increase the complexity of the structure as they grow in size and both display a close interdependence of parts. He viewed social evolution as being similar to biological evolution. Establishing his evolutionary scheme, he introduced a distinction between two types of societies, the militant and the industrial. The militant society is integrated by force and is characterized by compulsory cooperation. On the other hand, the industrial society contrasts with the militant one on many fronts. The political machinery is no longer subordinated to the single military principle. The principle of integration of industrial society is based on voluntary cooperation.

In an industrial society, men interact by forming contractual arrangements. Spencer viewed the industrial society like Smith viewed the competitive economy.

So his characterization of the industrial society indicates that political regulation is almost unnecessary in such a society, since social coordination is guaranteed by voluntary cooperation among individuals.

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## Emile Durkheim: Solidarity as an active force in economic life

Most of the insights of Durkheim that concern economic integration are found in his book, The Division of Labour in Society. In this book, he has analysed the integration of social life. Durkheim set up a dichotomy between two types of societies, segmental and complex. To him, a segmental society is a homogeneous society with the presence of mechanical solidarity. There is a presence of repressive law. It has subordination of the individual to the undifferentiated collective conscience of the society. On the other hand, it differentiates complex societies as powerful forms of integration. He is different from Spencer such that he stressed the increased salience of integration in complex societies, rather than tending to regard it as a by-product of individual interactions.

## Max Weber: The origins and sustaining conditions for capitalism

Max Weber made a comparative analysis of societies by using the method of ideals. Weber mentioned a historically unique configuration such as rational bourgeoisie capitalism. This refers to systematic and rational organization of the production itself. While identifying the historical conditions that gave rise to industrial capitalism, Weber rejected the belief that the rise of capitalism could be explained by the increase of population. On the positive side, he considered the rise of ascetic Protestantism, especially Calvinism. He established social and psychological conditions that were conducive to this form of capitalism. To him, bureaucracy also forms the most rational form of social organization for perpetuating industrial capitalism. Weber also found out certain institutional structures that were permissive for industrial capitalism. He found these structures in the political legal complex. So Weber specified certain institutional conditions under which maximum mobility is both, permitted and regulated. Weber also stressed the political legal regulation of money and exchange. Above all, he believed that rational capitalism cannot flourish unless the political authority guarantees the supply of money with relatively stable values. As to the type of medium of exchange, Weber saw the advantage of a generalized money currency since it allows for expansion of market and creation of credit. However, unlike traditional economists, Weber was not interested in the regularities that were produced within the capitalist system of production. He believed in establishing an important background of institutional conditions, under which the capitalist system and its regularities could exist.

#### Social aspects of division of labour and types of exchange

One of the best known works of Durkheim is his study of division of labour, in which he analysed social functions of the division of labour. He also sought to show how in modern societies, it is the principal source of social cohesion or solidarity. In the course of his enquiry, Durkheim distinguished two kinds of solidarities, mechanical and organic. He associated these with two types of laws, which he called repressive and restitutive. He also analysed the abnormal forms of division of labour, i.e., the

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anomic and the forced division of labour. By the first, he meant a condition of extreme specialization of labour. In this condition, the individual became isolated in his specialty and particularly a condition in which there was permanent division between capital and labour. Durkheim proposed the fostering of regular and prolonged contacts through professional associations and corporations and through institutional arrangement for discussion and negotiation between capital and labour. By the second form, Durkheim meant a condition in which individuals did not freely choose their occupations, but were forced into them. He regarded this discrepancy between the abilities of individuals and the functions imposed upon them, as the principal source of class conflict. Durkheim thought that modern societies could and would get rid of these abnormal forms of division of labour.

However, division of labour has not become so extensive in India, as in advanced industrial countries. Division of labour affects the caste system. In the caste system, the division of labour had the integrative functions, which Durkheim emphasised. In the village economy, caste, like the medieval guilds, ensured the performance of necessary functions (by passing on craft, skills, etc). These functions were organized by the direct exchange of services between castes (the *jajmani* system). In an industrial and money economy, the division of labour becomes far more complex and the exchange of services is accomplished through the market or by central planning. The caste system retains some integrative functions on the cultural level. However, these are likely to be less important as social cohesion comes to depend increasingly on the economic division of labour.

## Types of exchange

The division of labour and possession by different individuals and groups makes exchange necessary for higher levels of efficiency in production. It is equally true that exchange makes division of labour possible. Exchange is found in every economy, no matter how primitive. There are six possible kinds of exchanges, according to the items exchanged, these are: goods for goods, services for services, goods for services, money for goods, money for services and money for money. The use of money occurs only in advanced economies. Interest was stirred in comparative exchange by the appearance of a volume, edited by Polanyi, Arensberg and Pearson, in the late 1950s. Going through the records of Babylon, Mesopotamia, Greece, Mexico, Yucatan, the Guinea Coast and rural India, they depicted how trading practices were separate from the familiar practices of free market exchange. They criticized the traditional economic theory and suggested an alternative framework for better comparative economics of exchange. Polanyi and his associates identified three major patterns of exchange: reciprocative, redistributive and exchange.

Reciprocative exchange is the most common form of exchange among primitive people. It is illustrated by ritualistic gifting practice among families, clans and tribes, as analysed by Malinowski and Mauss. Exchange of gifts like kula exchange is ceremonial in nature. Another illustration is found among farmers of many civilizations, who frequently work for one another, especially during the time of harvest. Economic calculation, price payments and wages are typically absent. Goods or services are given because it is traditional to do so. The only principle of

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calculation is that giving and receiving should balance among exchanging parties in the long run.

Redistributive exchange means that the produce of the group is brought together, either physically or by appropriation. This is then distributed among the members again. This brings economic goods and services to a central source that is often governmental. It then redistributes them throughout the populace. Polyani, Arensberg and Pearson identified several instances of this exchange pattern in ancient Asian and African civilizations. Any system of redistribution involves some economic exchange, but redistribution at the same time is political. Modern illustrations of such type of exchanges are tax institutions which redistribute wealth in the society. Potlatch, among the Trobriand islanders and jajmani system in traditional India are also examples of redistributive exchange.

The third pattern, which is more familiar in the modern West, is termed exchange. In this case, economic goods and services are brought into the market. Prices are not standardized on the basis of tradition, but as a result of bargaining for economic advantage.

### (e) Polity

Every individual is involved in some kind of political institution, as member of the society. Political systems have existed since ancient times. Our political institutions are amalgamations of modern superstructure, historical delegation of authority, decentralization and inculcation of the basic level of Panchayati system. These are characterized by the traditional consensus pattern of decision making and are held together by a charismatic leadership. The state has been an important governing institution. No study of society is complete without the study of the state or the governing institutions of society, because the government occupies an important place in the social lives of people.

#### The state

The relation between state and other associations has been a matter of debate among scholars. Some scholars argue that the state is the supreme social institution and all other associations owe their origin to its initiative, acquiescence and support. They exist because the state allows them to exist. On the other hand, the pluralists recognize the special role of the state as a regulator of social life. Laski has argued that the state does not exhaust the associative impulses of men. In his opinion, the society should be regarded as essentially federal in its nature. The other associations are real in the sense that the state is real. State is viewed as a community agency that is charged with the responsibility of coordinating and adjusting the claims and activities of various associations. This distinctive function gives the state its unique character.

### Nature of power

Power in general means the ability to carry out ones wishes despite opposition. In any process of interaction, some participants usually have more power than others. When we assert that someone has more power than someone else, we usually imply

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the existence of a more or less extended field of potential conflict. We often have to specify the field of potential conflict. However, it can also be true that A has more power than B in some situations, while B has more than A in others. Power is a relative matter. Weber's definition of power implies that those who hold power do so at the expense of others. It suggests that there is a fixed amount of power and therefore everyone does not have access to it. This view is sometimes known as the constant sum of power. Since the amount of power is constant, power is held by an individual or group to the extent that it is not held by others. Arguing from a functionalist perspective, Talcott Parsons rejects the 'constant-sum' concept of power. They view that power is employed in the furtherance of sectional interests. A Marxian analysis of power provides a radial alternative to Parson's functionalist approach. From a Marxian perspective, the source of power in societies is the economic infrastructure. In all stratified societies, the forces of production are owned and controlled by the minority ruling class. This relationship to the forces of production provides the basis for dominance. It therefore follows that the only way to return the power to the people involves communal ownership of the forces of production. Since everyone will now bear some relationship to the forces of production, power will be shared by all members of the society. From a Marxian perspective, the use of power to exploit others is defined as coercion. It is seen as an illegitimate use of power which forces the subject class to submit to a situation which is against its interest. If the power of the ruling class is accepted as legitimate by the subject class, it indicates false consciousness.

## Power of random groups

Power is the capability of a person or a group to achieve its goals, irrespective of any resistance from any other person or group. Weber recommends that the access of power is based on the party. Party is a united category of organizational structure that focuses on a common interest. This interest may be on the basis of a class, a status or any similar type. Very few persons are able to act individually in order to achieve their interests.

## Voting behaviour

Marx predicted that class struggle has turned the western society into an institution that would end in the proletarian revolution. With the extension of franchise and the proliferation of interest groups, members of the working class are drawn into the political process. Their interests are represented by political parties and interest groups such as trade unions. They are able to express their discontent with an institutional framework and as a result, more violent expressions of class conflicts are unlikely. S.M. Lipset sees national elections as an expression of class struggle and competition between political parties as the institutionalization of class conflict. He argues that more than anything else, the party struggle is a conflict among classes and the most impressive thing about party support is that in virtually every country it is economically sound. The lower-income groups vote mainly for parties of the left front while higher income groups vote mainly for parties of the right front. The voting behaviour does not strictly follow class lines.

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#### Pressure groups and political parties

Pressure groups are associations or groups which have objectives that are different from political parties. These pressure groups or interest group have important political functions in all modern societies. These functions may either be useful or harmful to the stability or progress of the society. Interest groups may be based on economic, ethnic, linguistic, religious, regional or other considerations. Sometimes they would convert themselves into political parties or win over some members of the government and pressurize the government to give in to their demands. In this case, the group could be considered as a pressure group. At times, when the government introduces a bill or a budget proposal in the Parliament, the interest groups will use their influence and lobby to pressurize the government to either withdraw or to amend it to a form that is acceptable to them. Interest groups and pressure groups use a number of strategies to influence the government and to get their demands accepted. These strategies include threats of direct action like boycott, threat of holding back essential services, protest closure of shops and agitations such as street demonstrations and strikes.

Political parties are organized groups of citizens who hold common views on public issues and act as political units. They seek to obtain control of the government with a view to encourage the programme and policy, which they profess. A political party is essentially a social group that has an associative type of social relationship. A political party primarily strives to secure political power and to hold it either singly, or in cooperation with other political parties. Political parties are indispensable for the working of a democratic government. They are the connecting link between people and the government. They are the vehicles which individuals and groups use to secure and exercise political power. Political parties are seen as representing diverse elements in a national tradition and as being concerned to some degree with general, rather than class or sectional interests.

#### Political participation

Political system functions on the basis of political participation. Lester Milbrath has suggested that members of the society can be divided into four categories, in terms of their degree of political participation. Firstly, the politically apathetic who are literally unaware of the politics around them, secondly, those involved in spectator activities, which include voting and taking part in discussions about politics, thirdly, those involved is transitional activities, which include attending a political meetings or making financial contributions to a political party, finally, those who enter the political arena and participate in activities such as, standing for and holding public and party offices. These levels of political participation are not uniformly distributed throughout the population. In general, higher an individual's position in the class structure, greater is his degree of participation. Studies have shown that political participation is directly proportional to income level, occupational status and educational qualification. It has also been associated with a variety of other factors. For example, men are likely to have higher levels of participation than women, married people than single people, middle-aged people than either young or old, members of clubs and associations than non-members, long-term residents in a community than short-

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term residents, etc. However, those with low levels of participation often lack the resources and opportunities to become more directly involved in politics. They lack the experience of higher education, which brings a greater awareness of the political process and knowledge of the mechanics of participation. Secondly, individuals are unlikely to participate in politics if they are likely to be rewarded for their involvement. Robert Dahl argues that an individual is unlikely to participate in politics, if he feels that the probability of his influencing the outcome of events is low. Thirdly, levels of political participation appear to be related to the degree of involvement and integration of an individual in the society. Thus, an individual who is not likely to be involved in local or national politics, does not feel a part of either the local community or the wider society. Finally, Dahl suggests that individuals are not likely to have high levels of political participation if they believe that the outcome of events will be satisfactory without their involvement.

However, the significance of differential political participation varies. Pluralists have argued that low participation may be an indication that the interests of the politically inactive are adequately represented. Lipset proclaims that the combination of a low vote and a relative absence of organization among the low-status groups means that they will be neglected by politicians who are receptive to the wishes of the more privileged, participative and organized strata.

#### **Democratic and authoritarian forms**

Abraham Lincoln defined democracy as a government of the people, by the people and for the people. Democracy is a mixture of the rational, legal and charismatic types, with a touch of traditionalism in some instances. However, democracy is an emotive term which means for many as freedom of the individual to participate in those decisions which affect his life. This suggests that the individual should be directly and regularly involved in the political process. From a pluralist's perspective, democracy is seen as a system of representative government, whereby many elites represent a range of interests in the society. It implies that the representative government is the only way in which the democratic ideal can be realized in a contemporary society. Bottomore regards the western system of governance as an imperfect realization of democracy, as it permanently excludes many from the experience of governance. He argues that only when the democratic ideal becomes an established feature of everyday life, a democratic system of national government can be created. This would involve 'social democracy', where people directly participate in the management of their firms. He further argues that a truly democratic national government will only be possible when all major institutions of the society operate on the principles of democracy.

Therefore, democracy can be seen as a system in which every individual has an equal opportunity to participate in the political process and an equal say in the governance of the society. Democracy often means easy, egalitarian manners with no expectation that anyone will show a marked deference to another. In a democratic society, power is distributed among many groups. Democratic governance is characterized by emphasizing on the autonomy of individuals and subsystems. An important feature of the democratic government is rule by the law and equal treatment by the law.

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## Religion

Since the days of the primitive society, religion has always existed in one form or another. There are mysteries and perplexities of life for which there is no adequate explanation. The elements of nature, sunshine, wind and rain affect man in a number of ways. Religion is the expression of the manner and type of adjustment that is effected by people in terms of their conception of the supernatural. In the words of James Frazer, the author of the book *The Golden Bough*, religion has been explained as 'a belief in powers superior to man, which are believed to direct and control the course of nature and of human life.' According of Ogburn and Nimkoff, 'Religion is the attitude towards superhuman powers'. Such attitude gives rise to coherent systems of beliefs and practices that concern the supernatural order. Thus religion is a more or less a coherent system of beliefs and practices that concerns a supernatural order of beings, forces, places, or other entities: a system that, for its adherents, has implications for their behaviour and welfare implications that the adherents in varying degrees and ways take seriously in their private and collective lives.

## The origin and evolution of religion

The early sociological studies of religion had three distinctive methodological characteristics, these were evolutionist, positivist and psychological. These are shown in the works of Comte, Tylor and Spencer. According to Comte, sociology is one of the fundamental conceptions of the so called law of three stages, according to which human thought had passed through theological metaphysical and positive stages. Comte treats theological thinking as an intellectual error which is dispersed by the rise of modern science. He traces, within the theological stage, a development from animism to monotheism and he explains religious belief in psychological terms by reference to the perception and thought processes of early man. Later, Comte propounded his own religion of humanity and thus recognized in some sense a universal need for religion.

However, the works of Tylor and Spencer were rigorous as they were concerned with explaining the origin of religion. They believed that the idea of the soul was the principal feature in a religious belief. They set out to give an account, in rationalist terms, of how such an idea might have originated in the mind of primitive man. According to this, men obtained their idea of the soul from a misinterpretation of dream and death. Spencer refers to that original theory of things as from which the supposed reality of dreams, resulted a supposed reality of ghosts. E.B. Tylor believes animism was the oldest practice of religion. He argues that animism was a result of the efforts of mankind to answer two questions of the difference between a living body and a dead one and what are those human shapes which appear in dreams and visions. The soul is a spirit being which leaves the body temporarily during dreams and visions. Animals were invested with spirits as were human tribes, such as Australian aborigines. Tylor points out that religion, assumes the form of animism with the purpose of satisfying the intellectual capacity of mankind and meet his quest for knowledge about death, dreams and vision. Similarly, naturism endorses the concept that the forces of nature are supernatural powering nature. Max Muller believes this to be the earliest form of religion. He argues that naturism came to

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exist as a result of man's interaction with nature, typically as the outcome of the reaction of nature on man's emotions. According to him, animism tries to find the source of religion in man's intellectual requirements; naturism seeks it in his emotional needs. Naturism is how man responds to the effect of power and to the nature on his emotions.

However, there is a lot of criticism about the evolutionary approach. The origin of religion is lost in the past. However, theories about the origin of religion can only be based on speculation and intelligent guess work, according to some critics. Moreover, the exact phases of the evolution of religion do not match with the facts. Andrew Lang has highlighted that the religion of a large number of simplest societies is monotheistic in nature, which according to Tylor was restricted to modern societies.

## The sacred and the profane

Durkheim held that the essence of religion is to sustain divisions into the phenomena of sacred and profane ideologies. He does not believe that the essence of religion lies in the belief of a transcendent God. He proclaims that the true aim of religion is to establish the phenomena of the sacred and the profane in the society. The 'sacred' consists of a body of things, beliefs and rites. Supernatural entities are always sacred, that is, they are worthy of being treated with respect whether they are good or evil. Supernatural beings and forces are invisible and intangible, but certain sacred objects are quite tangible and visible, for instance, the alter in a Christian church. On the other hand, everything that is not holy is profane. Profanity is using names without proper respect.

## Functions and dysfunctions of religion

Religion has various social functions. Religion is an agency of social control. It disciplines human behaviour in terms of sacred and profane. Performance of rituals and ceremonies gives a sense of collectivity to the society. The law of karma, the fear of retribution and such other prescriptions, always has a moderating and civilizing impact on human action. The norms of conduct, once established, regulate social relations. Religion has unified the principles of every society. Religion is an integrating and unifying force of the human society. Kingsley Davis and Wilbert E. Moore reason why religion is necessary and is apparently to be found in the fact that human society achieves its unity through the possession by its members of certain ultimate values in common. Although these values and ends are subjective, the influence of behaviour and its integration enables the society to operate as a system.

Though the direct impact of religion remains healthy, elevating and socializing, its indirect effect may be dysfunctional for the society. In Europe, religion hindered the growth of science and inquiry till decline of the organized church in the 19th century. The superstitious superstructure that developed successively, caused immense harm to the society at all levels. Religion inhibits protests and impedes social changes. Religion has resulted in wars, devastations and genocides. While fulfilling the identity function of religion, certain loyalties arise which may actually impede the development of new identities that are more appropriate to new situations.

## CHECK YOUR PROGRESS

- 4. Name the type of marriage where a man marries the childless widow of his deceased brother.
- 5. What is rational bourgeoisie capitalism?
- 6. Name some of the strategies used by the interest and pressure groups to pressurize the government to give in to their demands.

#### 4.4 AGENCIES OF SOCIAL CONTROL: LAW, CUSTOM, EDUCATION ETC.

Social control is carried out through series of agencies, many of which are discussed below as both formal and informal agencies of control. The regular channels of social control are as follows:

#### Law

Law constitutes one of the primary mechanisms through which social control is enacted. Simple societies are characterized by homogeneity among individuals and operation of informal social control. However, when societies grew in size and complexity, they were compelled to formulate rules and regulations which defined certain behaviour patterns. Due to increased differentiation and division of labour, there has been interdependence between different individuals who portray heterogeneous relations. In a society that is marked by extreme differentiation, the old informal means of control like folkways, mores, etc., seem to be insufficient to exercise control. So there is a need to regulate individual behaviour by formulating a set of common laws which are backed by the political machinery of the state.

For Black (1976), law is 'governmental social control', being the rules and processes that the state uses to intervene in social conflicts between both organized and individual interests. Law is a body of rules that is enacted by legally authorized bodies and enforced by authorized agencies. It is enforced with the help of the police, the court and even the armed forces. Law is an instrument of control that eliminates and suppresses the homicidal activities of individuals. It also motivates individuals to pay attention to the rights of others and act in cooperation with others. Law has become the most pervasive and indispensable agency of social control in the contemporary society.

## **Education**

Apart from law, education is also an important agency of social control. Durkheim conceived of education as socialization of the younger generation. He also stated that 'it is actually a continuous effort to impose on the child ways of seeing, feeling and acting'. Education does not restrict itself only to the transfer of a way of life. In modern times, a large section of it is dedicated to communicate empirical knowledge. Through education, the new generation learns about the social norms and about the

penalties that can be awarded for violating them. Education converts social control into self-control. In the absence of a well-organized educational system, social control would remain merely as an arbitrary pressure, which may not last long.

#### Coercion

Coercion is the practice of attaining a specific goal by using compulsion or power. Whenever people are refrained from doing a particular work, whenever limits are imposed on the range of their choices through the use of force, or through threat of its consequences, it may be defined as coercion. This emerges as the final method to achieve social control when every other method fails. State is the only association which is empowered to use coercion in social control. No other association is vested with this power. State resorts to coercion to combat anti-social tendencies. Coercion may or may not be of a physical nature. Physical coercion can also comprise of bodily harm, captivity or capital punishment. Physical coercion is the most degrading means of social control and societies should avoid using it unless it becomes a necessity. Non-violent coercion, on the other hand, consists of strike, boycott or non-cooperation.

Human experience has revealed that coercion or force is necessary as a guarantee of political laws. Its service is best rendered when it is used to the minimum. Where a common rule is considered necessary or beneficial for the common good, some degree of compulsion is involved. Hence force becomes necessary for common rule. But only when the use of force is limited, it becomes subjugated to the liberties of the people.

Informal means of social control are exercised by informal institutions like family, peer group, neighbourhood, etc. These are discussed below:

## **Folkways**

Folkways are informal means of social control in the sense that they are some customary norms which individuals conform to. These are actually ways of thinking, feeling and acting in a human group that has certain prescribed modes of conduct. William Graham Sumner (1906), in his book Folkways: A Study of Mores, Manners, Customs and Morals, defined folkways as 'folkways are a societal force'. They are instinctive in nature. The folkways simultaneously serve every need of life. In one group, they are consistent and global, crucial and constant. As time passes by, folkways become increasingly random, constructive and inevitable. The process of producing folkways comprises of activities that are repeated continuously, when faced with the same need. It inculcates habits in the individuals and customs in the group. Through the use of habit and custom, every individual within its domain feels the stress. Thus, it emerges as a force of the society. Folkways are not a creation of human purpose or wit. They are like products of natural forces which men, unconsciously set in operation and are handed down by tradition. As a consequence of this, the life of the entire mankind, in all ages and stages of culture, is mainly governed by a large collection of folkways. These folkways are transferred from the primitive races and undergo changes by human philosophy, ethics and religion.

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#### **Mores**

Mores are established practices of the society rather than written laws. They are basically in the form of social regulations and have a significant impact on social conduct. Sumner used the concept of mores for folkways which were very significant to groups and highly important for their welfare. According to Sumner, mores comprise of popular usages and traditions when they include a judgment that they are conducive to social welfare and when they exert coercion on the individual to conform to them. They are not coordinated by any authority. Sumner believed that mores represent the living character of the group. They are always considered right by the people who share them. Mores help an individual in realizing that living in a community or a group is possible only when one conforms to the norms of that community or group. A distinction is always made between folkways and mores. Sumner says that when folkways work on the ideology of correct living and are directed to the wellbeing of life, then they are converted to mores. Thus, in this context, it can be said that mores are important means of social control. They determine much of our individual behaviour, such that they compel behaviour and also forbid it. In a society, many mores like monogamy, democracy, prohibition, etc., operate. These mores also identify an individual with a group and help in maintaining social bonds. Moreover, violations of these mores entail some punishment in the form of penalties. Therefore mores are considered one of the strongest means of informal social control.

#### Customs

Custom is also an informal means of social control. According to Kingsley Davis, customs refer primarily to practices that have been often repeated by a multitude of generations. These practices tend to be followed simply because they have been followed in the past. The socially accredited ways of acting are the customs of the society. Many of our daily activities are regulated by customs. Custom is a broader term that comprises of both, folkways and mores. Customs are social habits, which through repetition become the basis of an order of social behaviour.

Customs are long established habits and usages of people. Whenever there is a widespread habit, there is a corresponding custom as well. According to Lundberg, they are folkways that persist over relatively long periods of time. Thus, they attain a degree of formal recognition and are passed down from one generation to another. A particular characteristic of custom is that it exists only as a social relationship and an external sanction for the individual. Customs not only regulate social life but also bind it together. Customs guide human behaviour and enlighten man in social life.

Customs are conformed most unconsciously. Man learns about them since early years of socialization and diligently follows them. They are rarely opposed and mostly adhered to. Customs form the base to collective human life and are found in almost every society. They are more influential and dominant in the primitive society rather than in modern societies. In the struggle for existence, only those societies survive which are able to evolve through customs that bind them together, assimilate their actions to the accepted standards, compel control of the purely egoistic impulses and exterminate individuals who are incapable of such control.

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Custom is obeyed more spontaneously because it grows slowly. People follow similar behaviour patterns. Thus, customs play an important part in regulating our social behaviour. They determine our culture, preserve it and transmit it from one generation to the next.

## Religion

Religion implies man's faith on some supernatural power or force. According to MacIver and Page, 'religion encompasses relationships among men and also those between man and supernatural forces. Religion regulates the activities of people in its own way. It regulates human conduct through religious code. Religion fulfills social, psychological, emotional and spiritual needs of human beings. Religion conserves the norms and values of life through agencies like family, church and school. Religion inculcates the values of life in the minds of growing children. Religion has its own methods to deal with those individuals who violate religious norms and conduct. Various religious institutions like church, temples and monasteries also help to control the disobedient. Religion has its own ways and means to re-integrate people into a social group. Moreover, religious sanctions are widely used to support ethical codes and moral practices.

## CHECK YOUR PROGRESS

- 7. State the mechanisms through which law is enforced.
- 8. How are folkways produced?
- 9. Mention a particular characteristic of custom.

#### 4.5 **SUMMARY**

- The origin or emergence of society may be viewed as one of the great steps in evolution. However, this step was taken only by a few species. Like other steps, it represents a new synthesis of old materials, possessing unique qualities that are not found in old materials that are considered separately.
- A society, or a human society, is a group of people related to each other through persistent relations, or a large social grouping sharing the same geographical or virtual territory, subject to the same political authority and dominant cultural expectations.
- The Social Contract Theory is unique, giving importance to individuals as architects of society. This theory was propounded by three eminent philosophers: Thomas Hobbes, John Locke and J.J. Rosseau. According to this theory, all men were born free and equal and individuals made a mutual agreement and created a society.
- Organismic theory is another vital theory about the origin of human society. Plato, Aristotle, Herbert Spencer and Novicow were the exponents of this theory. However, Spencer occupies a unique place. This theory states that

- society is never man-made. It is a natural creation and has started through the process of evolution.
- Human beings have grouped themselves, throughout human history, in various types of groups. One of these social groups is a society. There are different types of societies. According to anthropologists, societies may be divided into pre-industrial, industrial and post-industrial.
- Society has the capacity to encourage personal growth and development of individuals through the process of socialization. It provides an opportunity to individuals to develop their potential to the fullest extent. It is society that orients the individuals towards conformity to institutionalized norms and keeps them in limits. It makes a person worth calling a human being.
- The Systems Approach of Talcott Parsons claims that the governance of individual relationships at micro level is taken care of by the macro level and that the functional contribution of an individual to the society is so indispensable, that the society cannot live without the individual and vice versa.
- An institution is a system of norms aimed at achieving some goal or activity that people feel is important. It focuses on major human activities. Institutions are structured processes through which people carry on their activities.
- Manifest functions are functions which people assume and expect the institution to fulfil, for instance, families should care for their children, economic institutions should produce and distribute goods and direct the flow of capital where it is needed, schools should educate the young, etc. These functions are obvious, admitted and generally applauded.
- Latent functions are unintended and unforeseen consequences of institutions. Economic institutions not only produce and distribute goods, but sometimes also promote technological change and philanthropy.
- Marriage is a universal social institution. Marriage is a deep personal commitment to another human being and a public celebration of the ideals of mutuality, companionship, fidelity and family. Marriage is a socially approved way of acquiring a family.
- The institution of family is the basic and fundamental institution in the life of an individual. Murdock (in 1949), after studying about 250 multi-cultural societies, defined family as a social group that is characterized by common residence, economic cooperation and reproduction.
- Education means developing of and cultivating various physical, intellectual, aesthetic and moral faculties of an individual.
- In considering the historical development of sociology, a few figures are taken from a vast interplay of schools of social thought. Any division of labour which leads people to pursue diverse and possibly conflicting lines of economic activity, may generate conditions of social dislocation and inequity. Here, the social arrangements that are aimed at establishing peaceful, cooperative and equitable interchange among economic agents are taken into consideration.

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- Every individual is involved in some kind of political institution, as member of the society. No study of society is complete without study of the state or the governing institutions of society, because the government occupies an important place in the social lives of people.
- Power means the ability to carry out ones wishes despite opposition. In any process of interaction, some participants usually have more power than others. When we assert that someone has more power than someone else, we usually imply the existence of a more or less extended field of potential conflict. We often have to specify the field of potential conflict.
- Religion is a more or less a coherent system of beliefs and practices that concerns a supernatural order of beings, forces, places, or other entities: a system that, for its adherents, has implications for their behaviour and welfare implications that the adherents in varying degrees and ways take seriously in their private and collective lives.
- Social control is carried out through series of agencies, many of which are discussed as both formal and informal agencies of control. The regular channels of social control are: Law, education, coercion, mores, customs and religion.

#### 4.6 **KEY TERMS**

- Society: It refers to a group of people related to each other through persistent relations, or a large social grouping sharing the same geographical or virtual territory, subject to the same political authority and dominant cultural expectations.
- **Institution:** It refers to a group of people who have some specific purpose.
- Education: It means developing of and cultivating various physical, intellectual, aesthetic and moral faculties of an individual.
- **Pressure groups:** It refers to associations or groups which have objectives that are different from political parties.
- **Religion:** It is the expression of the manner and types of adjustment that is effected by people in terms of their conception of the supernatural.

#### 4.7 ANSWERS TO 'CHECK YOUR PROGRESS'

- 1. The three philosophers who propounded the social contract theory were Thomas Hobbes, John Locke and J. J. Rousseau.
- 2. The organismic theory states that society is never man-made. It is a natural creation and has started through the process of evolution.
- 3. Post-industrial society's major part of the workforce are engaged in research, education, health, law, sales, banking, etc.

- 4. The type of marriage where a man marries the childless widow of his deceased brother is known as levirate marriage.
- 5. Rational Bourgeoisie capitalism is the systematic and rational organization of the production.
- 6. Boycott, threat of holding back essential services, protest closure of shops and agitations such as street demonstrations and strikes are some of the strategies used by the interest and pressure groups to pressurize the government to give in to their demands.
- 7. Law is enforced with the help of the police, the court and the armed forces.
- 8. The process of producing folkways comprises of activities that are repeated continuously, when faced with the same need.
- 9. A particular characteristic of custom is that it exists only as a social relationship and an external sanction for the individual.

#### 4.8 **QUESTIONS AND EXERCISES**

## **Short-Answer Questions**

- 1. What is the social contract theory?
- 2. List the different kinds of industrial societies as per the anthropologists.
- 3. What are the characteristics of the process of institutionalization?
- 4. Explain the functions of social institutions.
- 5. Mention the different types of families.
- 6. Write a short note on polity in society.

## **Long-Answer Questions**

- 1. Explain the organismic theory.
- 2. Discuss the relationship between individual and society with examples.
- 3. Describe the different forms of social institutions.
- 4. Assess the role of education in the society.
- 5. Discuss the manner in which religion affects the behaviour of individuals in the society.
- 6. Explain the different agents of social control.

#### 4.9 **FURTHER READING**

MacIver, R.M and C. Page. 1962. Society: An Introductory Analysis. New Delhi: Macmillan Publishers.

Horowitz, A. 1990. The Logic of Social Control. New York: Plenum Press.

Horton, Paul and Chester, L. Hunt. 1984. Sociology. New York: McGraw-Hill.

Kingsley, Davis. 1937. Human Society, New York: Macmillan.