



GENERAL PSYCHOLOGY

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COURSE INTRODUCTION

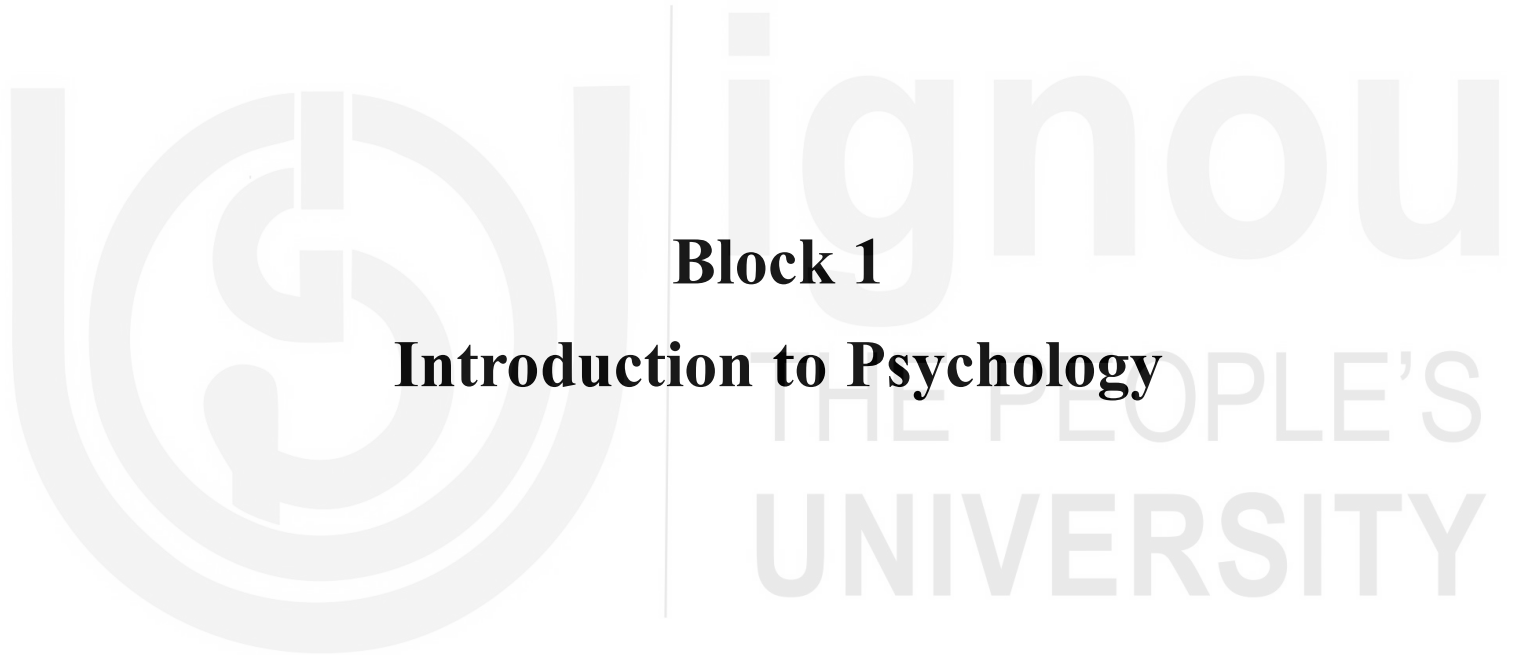
The Course of Introduction to Psychology is one of the courses of First Semester of BA (Honours) Psychology. The attempt of this course is to explain you the meaning and concept of psychology. It also explains the human behavior and their cognitive processes; biological processes and affective processes that make them behave differently.

The first block of this course is **Introduction to psychology** which discusses the origin of the field of psychology and the emergence of psychology as an independent Discipline in the world including India. The second block of this course is- **Perception** which explains the steps and process of perception. It also explains how our perception is influenced by other factors.

The third block of this course is- **Thinking and language** which deals with the process of thinking and concept of creativity. The fourth block of this course is- **Learning and Memory** which will deal with the definition, process, stages and theories of learning and memory. In the last block of **Motivation and Emotion**, you will be introduced with the concept and theories related to motivation and emotion.



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Block 1

Introduction to Psychology

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BLOCK 1 INTRODUCTION TO PSYCHOLOGY

Introduction

This block comprises of two units. *The first unit* deals with the historical developments of Psychology. It sketches the origin of Psychology as an independent discipline. In this unit, the term 'Psychology' will be defined and you will also come to know about the nature as well as characteristics of Psychology. You will be introduced to the fact that psychology is inter related to other disciplines and has several scopes and subfields. Much of the historical development of psychology in west as well as in Indian context will also be discussed in the present unit.

The *second unit* of this block deals with the nature and scope of Psychology in detail. The unit will explain the inter relationship of psychology to other disciplines. You will also come to know about the scopes and subfields of Psychology. Further, some of the other applications of Psychology will also be discussed in the second unit of this block.



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UNIT 1 ORIGIN OF PSYCHOLOGY*

Content

- 1.1 Introduction
- 1.0 Objectives
- 1.2 Definition of Psychology
 - 1.2.1 Early Definitions
 - 1.2.2 Current Definitions
 - 1.2.3 Nature and Characteristics of Behaviour
- 1.3 Historical Development of Psychology
- 1.4 Psychology: As a Science
 - 1.4.1 Characteristics of Science
- 1.5 Let Us Sum Up
- 1.6 Unit End Questions
- 1.7 Glossary
- 1.8 Answers to Self Assessment Questions
- 1.9 References and Suggested Readings

1.1 INTRODUCTION

Psychology is concerned with almost all aspects of our lives. The field of psychology deals with behavioural aspects of human beings and that is probably the reason why everyone is interested to know about psychology. On the other hand, there are many misconceptions about psychology also. Many people think that psychology deals with dealing of abnormal people only. Some others feel that psychologists can read your mind just by looking at you or your face/forehead. They tend to equate psychologists with astrologers, gemologists, numerologists, palmists or graphologists, who claim to solve your problems of life and predict your future. You might have heard the terms ‘psychology’, ‘psychological’, ‘mental’ etc., but do you know what is the meaning of psychology and how did it evolve? Is psychology a ‘science’ or ‘art’? What is science and what are its characteristics? What is the subject matter of psychology? In this chapter you will find answer to these and many more such questions. By studying psychology, you will be able to understand what psychology is and what it is not. This unit introduces the subject of psychology.

1.0 OBJECTIVES

After reading this Unit, you will be able to:

- Define psychology;
- Describe the historical background and perspectives of psychology;
- Illustrate the methods and subfields of psychology; and
- Delineate the researches of psychology in Indian context.

* Prof. Amulya Khurana, School of Humanities and Social Sciences, IIT Delhi (Adapted from BPC 001, Block 1)

1.2 DEFINITION OF PSYCHOLOGY

Psychology has been defined in a number of ways by various authors. Psychologists have been debating on whether psychology should focus on “mind”, “consciousness” or “behaviour”. Let us look at how the definitions of psychology have come a long way over the past years.

1.2.1 Early Definitions

Earlier, psychology was part of Philosophy. Ancient philosophers were interested in the study of the soul. Thus, it was first defined in terms of ‘the science of soul’. However, since the term ‘soul’ has very wide and comprehensive meanings, it was considered as a vague term and was criticized severely, in the middle ages. There were questions regarding the physical existence, weight, and volume of soul.

Dandapani (2004) states that “people were rather naïve to believe in esoteric terms such as Soul, Mind and Consciousness. It was believed, and rightly so, that every human being is endowed with a soul that would remain sublime at all times. To a philosopher soul is the firm foundation upon which ethical values are erected. Realisation of one’s soul was considered the chief mission of life. Definition of Psychology as the study of soul became unacceptable primarily because no convincing proof or evidence of the precise nature of soul was furnished. It was discarded because of its METAPHYSICAL nature. It was found inadequate to satisfy the canons of science;.....”.

Thus, this definition was not accepted by psychologists. Next, psychology was defined in terms of ‘the science of mind’, by some ancient Greek philosophers. According to them, psychology was held as a branch of mental philosophy. Since this definition does not include overt behaviour of human beings and mind cannot be measured directly, this definition was also dropped by psychologists.

Later, psychology was defined as ‘the science of consciousness’. According to Bagga & Singh (1990), at one time during the history of Psychology, it was felt that the main business of Psychology was with the conscious experience.

Consciousness makes us conscious or aware of the situation or a thing around us. This definition too is now obsolete and it has been rejected due to the following reasons:

Consciousness cannot be studied objectively as it is more personal and subjective. Second objection came from the fast developing branch of the abnormal psychology which brought the study of unconscious part of our mind within the province of Psychology. The term consciousness does not include animal or human behaviour.

The term consciousness also was supposed to have a philosophical-tinge and not accepted by the modern scientific minded psychologists. Finally, the modern era has defined Psychology as ‘a science of behaviour.’ In the early decades of twentieth century, Watson, the father of the school of ‘Behaviourism’, defined psychology as ‘the study of behaviour’. According to Morgan et al. (1986), Watson rejected mind as the subject of psychology and insisted that psychology be restricted to the study of behaviour – the observable (or potentially observable)

activities of people and animals. Watson held the opinion that there are no essential differences between human and animal behaviour and that we can learn much about our own behaviour from the study of what animals do. Watson emphasised that nothing is innate and everything can be learned. In this context, Woodworth (1948) had earlier stated that, first psychology lost its soul, then its mind, and then it lost its consciousness. It still has behaviour of sort. As we will see below, the term 'behaviour' is still there in almost all the modern definitions.

1.2.2 Current Definitions

Hilgard, Atkinson, & Atkinson (1975) have compiled the changing definitions of psychology starting from that of William James (1890) to that of Kenneth Clark and George Miller (1970). Bagga & Singh (1990) have also cited the following two definitions of Woodworth and Munn, respectively: "Psychology is the scientific study of the activities of the individual in relation to his environment".

"Psychology today concerns itself with the scientific investigation of behaviour, including from the stand-point of behaviour to much of what earlier psychologists dealt with as experience". Some of the more recent definitions of Psychology, in chronological order, are as follows:

- Psychology is the science of human and animal behaviour. It includes the application of this science to human problems. (Morgan et al., 1986)
- The scientific study of behaviour and mental processes. (Feldman, 1996)
- The scientific study of behaviour and mental processes and how they are affected by an organism's physical state, mental state and external environment (Tavris and Wade, 1997)
- Psychology is all about human behaviour, about mental processes, and about the context in which behaviour and mental processes occur. (Das, 1998)
- The science of behaviour and mental processes. (Lahey, 1998)
- The science of behaviour and cognitive processes. (Baron, 1999)
- Scientific study of behaviour and mind. (Nairne, 2003)
- A science in which behavioural and other evidence is used to understand the internal processes leading people (and members of other species) to behave as they do. (Eysenck, 2004)
- The scientific study of behaviour and mental processes. (Ciccarelli & Meyer, 2006; Coon & Mitterer, 2007, 2008)
- The science that studies behaviour and mental processes. (Rathus, 2008)

As is evident in the above definitions, study of behaviour (human and animal) has been emphasised in all of them. In addition, most authors have also included 'cognitive/mental processes' in their definitions of psychology. But, what is behaviour? We will now look at the nature and characteristics of behaviour.

1.2.3 Nature and Characteristics of Behaviour

Behaviour is a broad term and a complex phenomenon. In this section, we will discuss the nature and characteristics of behaviour. According to psychologists,

behaviour is everything or anything that a human being or animal does that can be observed in some way. In other words, behaviour includes all actions and responses of organisms that can be measured directly or indirectly. Behaviour not only means bodily movements but also can include mental and cognitive processes such as feelings, attitudes, thoughts, emotions, and all other internal vents, which cannot be observed directly but can be measured indirectly through what people say (vocal behaviour) and how they react to different problems and situations.

We will now consider some of the general characteristics of human behaviour, as described by Parameswaran & Beena (1988, 2002). These are:

- *Behaviour is influenced by a number of factors*

Behaviour is influenced by a number of factors such as biological, cultural, social, environmental, past experience, motivational, emotional, cognitive (e.g. feelings, emotions, motivation, thoughts) etc.

- *Behaviour varies in complexity*

Behaviour can be as simple as picking a pen, waving a friend or reflex responses like sneezing etc. Some other behaviours include certain skills which become a habit over a period such as playing guitar, cycling etc. Yet some other behaviours involve complex activities like repairing a car. Activities such as landing on the moon, flying a fighter plane, rock climbing etc. are some of the examples of highly complex behaviour.

- *The factors influencing behaviour are of different kinds. Behaviour is influenced by two large sets of factors:*

- i) Those belonging to the individual; and
- ii) Those belonging to the environment.

Factors pertaining to an individual can be categorized under physiological (biological needs such as hunger, thirst etc.) and psychological (ideas, opinions, attitudes etc.).

The environmental factors include physical surroundings, family and friends, the larger society and even the overall cultural and social background.

- *Individual differences*

Behaviour also varies from one person to the other as well as from one group of people to the other group of people. People differ in their physiological and bodily conditions, in their past experiences, in their abilities, in their background etc. It is therefore, natural that if ten people are put in same situation, each person's behaviour differs from that of others, in some respects or in some degrees.

- *Behaviour also shows similarities*

Though behaviour differs from person to person but this does not mean that all people differ from all others, at all times, and in all situations. There is also a considerable degree of similarity in behaviour among people. For instance, if a particle of dust falls into a person's eye, he/she tries to remove it. This type of behaviour is universally found.

- *Behaviour is always purposeful and goal directive*

Human behaviour is always purposeful and one's actions are always directed towards some goal or the other. A boy sitting and studying suddenly gets up and takes a glass of water. Here, the goal is to have a glass of water and the purpose is to quench his thirst. On the other hand, a boy is sitting and studying and feels cold. He gets up and switches off the fan. Here the goal is to switch off the fan and the purpose is to avoid the discomfort of cold. So, all our behaviours can be categorized under:

- i) Approach behaviour (Positive goal directed) or
- ii) Avoidance behaviour (Negative goal avoidance)

- *Behaviour is changeable to a large extent*

It was mentioned earlier that a number of factors influence behaviour. In view of this, it is possible to change behaviour by modifying these factors. It is this changeability which enables a bad man to become a good man and a good man to become a bad man. It is again this very characteristic which helps people to adjust to new surroundings. These changes are the results of one's practice or experiences (learning).

- *Behaviour also shows stability*

Though emphasis has been laid on the possible changes in behaviour, it must be mentioned that life is not always full of all sorts of changes. While behaviour changes, at the same time there is also a certain stability in behaviour. It does not change with every change in the environment nor do all forms of behaviour change. Human behaviour shows a lot of stability. For instance, you may still find your grandmother preferring old ideas and old ways of life, though she is living in an ultra modern society.

- *Behaviour is integrated*

As already mentioned, behaviour is influenced by a number of factors and a variety of purposes. Every human being has physiological, psychological, personal and social purposes. He/she has also been the subject of different learning experiences. In spite of all this, behaviour always shows an order and a hierarchy of purposes. Every individual behaves as a total person and this process of the organisation of different purposes, different learnings and different influencing factors results in an integration of behaviour.

Thus, an individual put in different situations, still shows certain characteristic ways and styles of behaviour which help us to understand and predict his/her behaviour. We often say, Ram is a pleasant person. Gobind is an unpleasant person, Krishna is a sociable person and so on. Psychologists use the term Personality to describe this process of integration. The greater the degree of integration in a person's behaviour, the more effective her/his behaviour is likely to be. It can therefore be appreciated that behaviour is a complex phenomenon and studying behaviour is not an easy task.

1.3 HISTORICAL DEVELOPMENT OF PSYCHOLOGY

The origin of psychology dates back to 1870s. The term 'Psychology' is derived from two Greek words; *Psyche* means "soul or breath" and *Logos* means

“knowledge or study” (study or investigation of something). The word ‘Psychology’ was not in common use before the nineteenth century, and the field of psychology did not actually become an independent science until the middle of the nineteenth century.

Psychology emerged as an independent academic discipline in 1879, when a German Professor Wilhelm Wundt established the first psychology laboratory at the University of Leipzig, Germany. According to Bolles (1993), Wundt was a medical doctor by training and early in his career, he was fortunate to work with some of the great physiologists of the nineteenth century. The intellectual roots of psychology lie at the union of philosophy and physiology. Wundt is traditionally recognised as the founder, or father of the modern psychology. The year of 1879 is seen as a remarkable year when psychology finally emerged as a unique field. Prior to Wundt, it was not possible to major in psychology, because there were no official psychologists or psychology departments. Wundt started studying the structure of *mind* which referred the immediate (conscious) experience, the contents and processes of subjective experience such as sensations, thoughts, feelings and emotions.

Thus, formally, psychology was recognised as an independent science in 1879.

<p>Self Assessment Questions (SAQ-I)</p> <p>Fill in the following blanks:</p> <ol style="list-style-type: none"> 1) established the first psychology laboratory at the University of Leipzig, Germany. 2) includes all actions and responses of organisms that can be measured directly or indirectly. 3) held the opinion that there are no essential differences between human and animal behaviour 4) Human behaviour is always purposeful and one’s actions are always directed towards..... 5) Modern era has defined Psychology as
--

1.4 PSYCHOLOGY: AS A SCIENCE

Psychology has been defined as a science of behaviour. But is it a science like physics, chemistry, biology and zoology or some thing different? In this section we will look at some of the definitions of science. We will also discuss the nature and characteristics of science and understand psychology, as a science. Let us look at the following definitions of science:

- Science is a systematized body of knowledge gathered through carefully observing and measuring events (Morgan et al.,1986).
- Science is an approach to knowledge, based on systematic observation (Lahey,1998)

The sole aim of science is to classify, understand, and unify the objects and phenomena of the material world. By using a combination of accurate observation and experimentation, logic and intuition, scientists seek to understand the rules that govern all levels of the natural universe.

Let us now look at the characteristics of science.

1.4.1 Characteristics of Science

The observation of events are systematized in various ways, but mainly by classifying and establishing general principles and laws to describe and predict new events as accurately as possible. Psychology studies behaviour in the same way as the other sciences study their subject matter and therefore shares a number of features with them. In common with other sciences, psychology, as a science, has the following characteristics, as described by Morgan et al. (1986).

- *Empirical observation*

Like other disciplines of science, the discipline of psychology, rests on experiment and observation, rather than on argument, opinion, or belief.

- *Systematic approach and theory*

Data from observations and experiments are essential to science in order “to make some sense” in helping us to understand events. The scientist tries to find a limited number of principles which will summarize the data economically. Like other scientific theories, psychology also follows a systematic procedure of observation, data collection, analysis and interpretation.

- *Measurement*

Another distinguishing feature of many sciences is measurement, defined as assignment of numbers to objects or events according to certain rules. Physics is ranked highest (most scientific) among the sciences as it has developed the most precise measurements.

- *Definition of terms*

Careful definition of terms is essential to clear thinking in science. The procedure in psychology is to define concepts by relating them to observable behaviour (operational definition). When we define a concept operationally, we define it in terms of measurable and observable operations. For example, the concepts of length, height in physics, and concepts like intelligence, motivation, personality in psychology are defined in terms of observable operations, which can be performed to measure them. However, psychology cannot measure many behaviours such as bravery, friendship, love, beauty etc. as these cannot be defined operationally. The above characteristics are common to all sciences including psychology. However, psychology is a different type of science (Behavioural science). In physics or chemistry, researchers investigate processes and events which remain stable and constant to a large extent. This makes it possible to measure and predict with a reasonable degree of accuracy. But it is not the case with human behaviour, which is highly complex, not easily controllable, and appears to be much more unpredictable than the reactions of physical and chemical substances. Whereas other sciences investigate things around man, psychology studies man himself. The methods used in psychological research include observation, interviews, psychological testing, laboratory experimentation, and statistical analysis.

Thus, psychology is categorized under the youngest group of scientific inquiry, the ‘Social/Behavioural Sciences’, which also includes subjects like anthropology,

economics, education, geography, history, linguistics, sociology etc. (Rush, 1972). The first group of sciences are the ‘Physical Sciences’, which include subjects like physics, chemistry etc. Next is the ‘Biological / Life Sciences’ that include such subjects as biology, botany, zoology etc. The application of knowledge to practical problems is an *art*; it is the skill or knack for doing things which is acquired by study, practice and special experience. Since principles and laws of psychology are applied to solve human problems in a number of situation (families, schools, organisations, environment) as well as treating behaviour disorders and emotional problems, it is also an art.

Self Assessment Questions (SAQ-II)

State whether the following are ‘True’ or ‘False’:

- 1) The ‘Biological / Life Sciences’ that include subjects such as anthropology, economics, education, history, linguistics, sociology etc.
- 2) Like other disciplines of science, the discipline of psychology, rests on experiment and observation, rather than on argument, opinion, or belief.
- 3) The sole aim of science is to classify, understand, and unify the objects and phenomena of the material world.
- 4) Psychology has been defined as a science of behaviour.....
- 5) Psychology is categorized under the physical sciences group.

1.5 LET US SUM UP

It can be summed up from the above discussion that the psychology emerged as an independent academic discipline from philosophy. In this unit, the term ‘Psychology’ was defined and the nature as well as its historical development was also discussed. Lastly, characteristics of psychology as a science were also discussed in this unit.

1.6 UNIT END QUESTIONS

- 1) Discuss the origin and evolution of psychology.
- 2) Enumerate the nature and characteristics of behaviour.
- 3) Describe the historical development of psychology.
- 4) Describe the characteristics of science.
- 5) Can we consider psychology as science? Support your answer with appropriate justifications.

1.7 GLOSSARY

Behaviour : Observable actions and responses of human beings and animals. Behaviour also includes not so directly observable activities, such as, inner mental (cognitive) processes (e.g. feelings and thoughts) as long as they can be observed and measured in a systematic way.

- Behaviourism** : Emphasises that psychology should focus on behaviour rather than on mind.
- Critical thinking** : Critical thinking means reasoned judgments (logical and well thought out judgments).
- Pseudo-psychology** : Any unfounded system that superficially resembles psychology.
- Psychology** : The science of human behaviour and cognitive (mental) processes.
- Science** : Science is a systematised body of knowledge gathered through carefully observing and measuring events.

1.8 ANSWERS TO SELF ASSESSMENT QUESTIONS (SAQ)

SAQ-I

- 1) Wilhelm Wundt
- 2) Behaviour
- 3) Watson
- 4) Some goal or the other
- 5) A science of behaviour

SAQ-II

- 1) False
- 2) True
- 3) True
- 4) True
- 5) False

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UNIT 2 NATURE AND SCOPE OF PSYCHOLOGY*

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2.0 OBJECTIVES

After reading this Unit, you will be able to:

- Discuss the relationship between psychology and other sciences;
- Illustrate the early division of psychology;

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- Describe the various subfields of psychology; and
- Delineate the researches of psychology in Indian context.

2.1 INTRODUCTION

In the previous unit, we discussed definition of psychology, its development and its nature as science. In the present unit we will extend our discussion on psychology as a subject. We will discuss different fields and sub-fields of psychology and see how they are inter-related. Further, growth of psychology as a discipline in India will be discussed.

2.2 PSYCHOLOGY: ITS RELATION TO OTHER FIELDS/SCIENCES

You have already learnt from previous section that psychology as behavioural science shares common characteristics with other physical and biological sciences. All sciences have practical application to deal with human problems and improve their quality of life. Engineering and technology have developed from disciplines like physics, chemistry and mathematics and have made life easier and comfortable. Likewise, medical sciences have contributed significantly to not only fight and control/eradicate many deadly diseases, but also cure/prevent many diseases. Similarly, psychologists have also developed a number of techniques to help people lead a happier life by promoting/enhancing their psychological health. Psychologists also care and help in prevention of various psychological and emotional problems (behaviour disorders). Sometimes, the world's problems such as climatic change, pollution, aftermath of natural disaster, manmade disasters etc. are so widespread and serious that no one or two sciences can solve such problems. A group of scientists from different fields have to, therefore, come together and jointly handle such problems. This is known as 'transactionalism' (Rush, 1972). Due to the interaction of the results of different disciplines, new fields of knowledge have emerged. Examples of such disciplines are: biophysics, biochemistry, geophysics etc.

Over the years of development of one particular science, or sometimes more than one discipline, have influenced the developments in other sciences. Thus, no particular field of science can be completely isolated from other fields of science, and different fields of scientific knowledge are quite closely related. It is clear that though psychology has emerged as an independent field of scientific enquiry, nevertheless it has very close relationship with other sciences. In fact, the very emergence of psychology as a science, was possible because of developments in other sciences like genetics, physiology, neurology, medicine, physics, chemistry, cybernetics and other sciences. Its methods of enquiry and analysis as well as application have all been influenced by developments in other subject areas. Of course, development in psychology have in turn, influenced the growth and development of other disciplines as well like sociology, anthropology, economics, political science, management etc. It is obvious that even though we can think of different fields of scientific knowledge, the fact is that these fields depend for their expansion on the findings of other disciplines. Perhaps, this will become clearer if we can examine the relationship of psychology with certain other sciences. For this purpose, we may group the other sciences in to the following categories: biological sciences, physical sciences, medical sciences and social sciences (Parameswaran & Beena, 2002).

2.3 NATURE AND SCOPE OF PSYCHOLOGY

As mentioned to you earlier that psychology is a science which studies human behavior with reference to context as well as other individuals. With the help of observation and learning, the discipline tries to find out the causes of a particular behavior shown by an individual in a specific situation. Broadly, all sciences have two branches. One, the basic or academic branch and the other, applied. The basic or academic branch is the result of an academic curiosity or a question e.g. Newton asked “Why does the apple fall on the ground?” which gave rise to the theory of ‘gravity’. On the other hand, the applied branch deals with solving problem by applying inputs from the basic/academic branch. However, this distinction is not rigid and beyond a point, both the branch converge. e.g. many theories of basic branch are applied, or have potential to be applied, to solve problems. Similarly, many applied branches have come up with new or supplementary theories that have been included in the basic branch. According to Parameswaran and Beena (1988), psychology may be broadly classified into general psychology and differential psychology. The former is concerned with the investigation of generalities and similarities in behaviour, especially among the normal adults while the later has been primarily concerned with the observation, measurement and explanation of individual differences. Gradually, these two broad divisions developed into further branches or divisions of general psychology and applied psychology.

2.3.1 Early Divisions of Psychology

Like other sciences, psychology also started with basic branches, which were classified as: *experimental and non-experimental*. *The experimental branch* started with the research studies in the field of physiological, learning, and perception processes. Many psychologists attempt to understand the fundamental causes of behaviour and such attempts may not be directly applied to solve practical problems. They are primarily engaged in basic research, and study fundamental processes such as learning, memory, thinking, sensation, perception, motivation, and emotion, by using experimental method. Thus, the experimental psychologist investigates how behaviour is modified and how people retain these modifications, the processing of information thinking, how human sensory systems work to allow people to experience what is going on around them, and the factors that urge them on and give direction to behaviour.

The non-experimental branch included personality, social, and developmental processes. However, many of these academic branches are having further sub branches, i.e. developmental psychology has sub-branches like child psychology, adolescence psychology and gerontology. Similarly, social psychology has an ‘applied social psychology’ branch and it has given rise to an applied field called ‘organisational psychology’. Applied fields have also led to development of many theories, e.g. application of theories of motivation to organisations has resulted in many work motivation theories.

2.3.2 Subfields of Psychology

As discussed above there are many branches of psychology, which are categorized under basic and applied branches. Many authors use the terms ‘branch’ and ‘field’ interchangeably. Area or branch seems to be broader terms which include both

basic and applied aspects, whereas, field implies specific area, where expertise or specialised knowledge is required to solve problems. However, some authors use the term 'field' in a broad manner, e.g. 'the field of psychology' has many sub fields. Others use the term 'division' and 'sub-divisions' of psychology. Clear cut distinction is not obvious. Therefore, these terms are used interchangeably. The subfields of psychology have increased the scope of psychology in various other disciplines and areas. The implications of psychology have therefore led to emergence of several other subfields. It is applicable to different fields such as employment, industries, education, and personality development. It has also led to an emergence of a subfield that studies and assesses the mental and emotional problems of individuals. *The scope of psychology can therefore be discussed under the following sub fields:*

2.3.2.1 Biopsychology

This branch deals with biological bases of behaviour. The intimate relationship between psychology and the biological sciences is quite obvious. All behaviour occurs through bodily processes. The brain plays a very important role in coordinating and organising the functions of the different organs of the body. In fact, it is the seat of all forms of complex behaviour. Genetics, the branch of the biology which deals with the nature of inheritance of different qualities is also an important discipline from the point of view of psychology. Over the years, geneticists have carried out important researches, bringing out the role of heredity in determining behaviour. This has been particularly so in the case of abnormal behaviour like neurosis, mental retardation, psychosis etc. Studies on the role of heredity have also indicated the importance of the genes in determining the intelligence level. In recent years, the role of chemical factors especially the hormones, secreted by endocrine glands have been shown to play an important role in behaviour. Emotional behaviour, temperament etc. are to a considerable extent, influenced by the hormones of the endocrine glands.

2.3.2.2 Cognitive Psychology

The cognitive psychology deals with human information processing abilities. Psychologists in this field try to study all aspects of cognition such as memory, thinking, problem solving, decision making, language, reasoning and so on.

2.3.2.3 Comparative Psychology

It studies and compares the behaviour of different species, especially animals. That is why some authors used to call this field as animal psychology. By studying animal behaviour, these psychologists gather important information which can be compared with and applied to human behaviour. For example, investigating how the queen bee directs, control, and gets things done by the worker bees, may provide meaningful information about leadership.

2.3.2.4 Cultural Psychology

The branch studies the ways in which culture, subculture, and ethnic group membership affect behaviour. These psychologists do cross cultural research and compare behaviour of people of different culture across different nations.

2.3.2.5 Experimental Psychology

This field investigates all aspects of psychological processes like perception, learning, and motivation. The major research method used in this field deals

with controlled experiments. Morgan et al. (1986) mentioned that experimental method is also used by psychologists other than experimental. For instance, social psychologists may do experiments to determine the effects of various group pressures and its influences on a person’s behaviour. So, in spite of its name, it is not the method that distinguishes experimental psychology from other sub-fields. Instead, experimental psychology is distinguished by what it studies—the fundamental processes of learning, and memory, thinking, sensation and perception, motivation, emotion, and the physiological or biological bases of behaviour under certain circumstances.

2.3.2.6 Gender Psychology

This field studies the roles and influences of gender on basis of researches done on males and females. It tries to analyse the acquisition of gender identity, and the role of gender throughout life.

2.3.2.7 Learning Psychology

It studies how and why learning occurs. In this field the psychologists develop theories of learning and apply the laws and principles of learning to solve a variety of human problems.

2.3.2.8 Personality Psychology

The field of personality psychology studies personality traits and dynamics. The psychologists develop theories of personality and tests for assessing personality traits. They also identify the causes of problems related to personality development.

2.3.2.9 Physiological Psychology

Physiological psychologists investigate the role of biochemical changes within our nervous systems and bodies in everything we do, sense, feel, or think. Mostly, they use experimental method and do basic research on the brain, nervous system, and other physical origins of behaviour. Physiological psychology is not only a part of psychology, but also is considered to be part of the broader field called neurobiology which studies the nervous system and its functions.

2.3.2.10 Sensation and Perception Psychology

The field studies about the sense organs and the process of perception. Psychologists working in this field help to investigate the mechanisms of sensation and develop theories about how perception or misperception (illusion) occurs. They also study how we perceive depth, movement, and individual differences in perception. Researches in this field have given rise to many laws and principles that help us understanding the ways we adjust to the visual world in a meaningful way.

<p>Self Assessment Questions (SAQ-I)</p> <p>State whether the following are ‘True’ or ‘False’:</p> <ol style="list-style-type: none">1) The field of physiological psychology, studies about the sense organs and the process of perception.....2) The field of personality psychology studies about the roles and influences of gender on basis of researches done on males and females.
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- 3) The cognitive psychology deals with human information processing abilities.
- 4) The experimental branch includes personality, social, and developmental processes.
- 5) The experimental psychologist investigates how behaviour is modified and how people retain these modifications as well as the processing of information thinking.

2.3.2.11 Social Psychology

The field of social psychology helps in investigating human social behaviour, including attitudes, conformity, persuasion, prejudice, friendship, aggression, helping and so forth. It emphasises on all aspects of social behaviour such as how we think about and interact with others, how we influence and are influenced by others. For example, social psychologists study how we perceive others and how those perceptions affect our attitude and behaviour towards them in a society. This field has developed by the joint contribution of sociologists and social psychologists and their research interest overlaps. However, their focus differs in the sense that while the former are concerned primarily with social institutions, the later focus typically upon the individual.

The social psychologists work on the applied side of this field, have developed and standardised techniques to measure attitudes and opinions of individual in a societal context. Their survey research ponders upon political opinion, consumer attitudes and attitudes related to important social issues which provide important information to politicians, business executives, and community leaders who benefit from these, while making decisions.

2.3.2.12 Clinical Psychology

This field emphasises on the diagnosis, causes, and treatment of severe psychological disorders and emotional troubles. Confusion between the fields of clinical psychology and psychiatry occurs because both clinical psychologists and psychiatrists provide psychotherapy. And both usually work together in many hospitals/clinics. That is why many people get confused regarding the difference between the two. Well, they belong to two different groups of professionals and differ in their educational background as well as the ways of diagnosis and treatment. Psychiatrists are physicians. After completing medical studies, they do Doctor of Medicine (M.D.) in psychiatry and specialise in the treatment of mental disorders, whereas, clinical psychologists hold a master's degree M.A/M.Sc and/ or a doctorate degree (Doctor of Philosophy [Ph.D] or Doctor of Psychology [Psy.D]) in clinical psychology. Because of this difference in training, clinical psychologists who do not have medical training, cannot prescribe drugs to treat behaviour disorders. Clinical psychologists carry out research to find out better ways of diagnosing, treating, and preventing psychological disorders. They also rely heavily on standardised tests for identifying the causes of these disorders. They use psychotherapy, for which they are trained, for the treatment of mental disorders. But clinical psychologists are not authorised to prescribe drugs to treat behaviour disorders, as they do not have medical training.

2.3.2.13 Community Psychology

The field applies to the community-wide mental health through research,

prevention, education, and consultation. Community psychologists apply psychological principles, ideas, and points of view to help solve social problems and to help individuals in adapting to their work and living groups. Some community psychologists are essentially clinical psychologists and they specially organise programmes to reach those people in the community, who have behavioural problems or who are likely to have such problems. These psychologists not only deal with mental health problems of community members but also attempt to promote their mental health as well as the mental health of their care givers. Other community psychologists are more concerned with bringing ideas from the behavioural sciences to bear on community problems. They may be called the 'social-problem community psychologists'. Hostility among groups in the community, bad relations between the police and community members, or distress due to lack of employment opportunities, for example, might be problems on which a social-problem community psychologist would work. Such psychologists also, often work to encourage certain groups to participate in community decisions, to provide psychological information about effective and health promoting child-rearing practices, or to advise school systems about how to make their curricula meet the needs of community members.

2.3.2.14 Consumer Psychology

The field is involved in researches related to packaging, advertising, marketing methods, and characteristics of consumers. This field is an offshoot of social psychology.

2.3.2.15 Counseling Psychology

This branch deals with helping people/individuals with personal problems including interpersonal relations, career choice, mild emotional troubles or behavioural problems such as over eating, slow learning or lack of concentration. Counseling psychologists assist individuals having specific problem like how to plan career, how to develop more effective interpersonal skills (e.g. communication skills). Now a days, there are experts like marriage counselors, family counselors, school counselors etc.

2.3.2.16 Educational Psychology

The discipline deals with classroom dynamics, teaching styles, and learning; it develops educational tests and evaluates educational programs. Investigates all aspects of educational process ranging from curriculum design to techniques of instruction to learning disabilities. This branch deals with broader problem of increasing the efficiency of learning in school by applying psychological knowledge about/of learning and motivation to the curriculum. Another specialised sub-field called School Psychology may be included in educational psychology.

2.3.2.17 Ergonomics

It is a discipline which inter relates engineering technologies to human behaviour. It deals with the process of designing and managing the work place environment, products or systems for the comfort and optimum performance of employees and individuals.

2.3.2.18 Industrial/Organisational Psychology

Investigates all aspects of behaviour in work setting ranging from selection and recruitment of employees, performance appraisal, work motivation and leadership. The first application of psychology to the problems of industries and organisations was selection and recruitment of employees by using intelligence, aptitude tests. Now-a-day by number of companies are using modern versions of such tests in their programmes for hiring and selection of employees. Specialists in this field also apply psychology to problems related to management and employee training, leadership and supervision, communication, motivation, inter- and intra-group conflict within the organisation. They organise on-the-job training programmes for improving work environments and human relations in organisations and work settings. These psychologists are sometimes called personnel psychologists.

2.3.2.19 Medical Psychology

The field of Medical Psychology applies psychology to manage medical problems, such as the emotional impact of illness, self-screening for cancer, compliance in taking medicines. Job of these psychologists overlaps with part of health psychology.

2.3.2.20 Forensic Psychology

It is a field which is a blend or combination of psychology and law. It involves psychological assessment of individuals (usually suspected for an illegal act or crime). The forensic psychologists are involved in various settings like a school doing threat assessments, the prison or in the courtroom serving as an expert witness. They are professionally skilled in behaviour analysis, evaluation, assessment and treatment. Though they get training in law and criminal psychology, they also have to be trained in clinical psychology. They need to have hands on experience in clinical assessment, interviewing, report writing and strong verbal communication skills.

2.3.2.21 Military Psychology

This branch of psychology refers to the study of applying psychological theories to understand as well as predict behaviours of military forces within country as well as those of outside the country. The administration of psychological tools can help the armed forces to thrive better in stressful situations. The discipline also deals on application of psychological theories and principles to deal with the enemy forces. It also reflects on how to make work-life balance.

2.3.2.22 Environmental Psychology

This discipline aims at researching and solving environmental issues in order to enhance better living conditions for human and their well being. It deals with interaction of human with environment.

2.3.2.23 Sports Psychology

Sports psychology is the study of influence of psychology on sports, athletic performance, exercise, and physical activity. It deals with the various aspects that can enhance the level of motivation, performance and team spirit among professional athletes and coaches. It also reflects the relevance of involvement in sports and exercise with reference to positive well being of individuals.

2.4 PSYCHOLOGY IN INDIA: TRADITIONAL AND MODERN

As it was informed earlier, that psychology emerged as an independent stream from philosophy in western countries and the western ideas and principles had a significant influence on the psychology in India. Basically the Indian Psychology focuses on the ancient Indian thoughts and preachings. Traditionally, the philosophical and religious literature like the Vedas and Epic literature reflected the religious thoughts and philosophies on how an individual should deal with different situation. The Vedas, Yoga Sutras and Bhagavad Gita reflect upon human actions and its effect on society.

In India, the psychology was first introduced in Department of philosophy in Calcutta University in 1916. The independent psychology departments started only post independence. During early years much relevance was given to experimental psychology. With an aim to promote, advance and spread the knowledge of psychology, the Indian Psychological association was established in 1924 followed by the Indian Journal of Psychology a year later. In late 40's applied psychology gained importance in India.

The development of modern psychology in India can be seen from the theories developed to explain sensation and perception by Indian psychologists (for example, a book Indian Theories of Perception, by J. Sinha). Like the Western Psychologists, the Psychologists in India also started looking for Indian theories of cognition. In 1958, Jadunath Sinha wrote a book on Cognition and later on, worked upon a book on emotion. Today, the works of Oriental Psychology, Buddhist Psychology, Yoga Psychology and Jain Psychology are an eminent part of modern psychological literature. Many western based psychometric tools have been adapted as well as Indian tools have been developed in accordance to the cultural context. At present lot of psychological researches are also going on throughout the country.

Self Assessment Questions (SAQ-II)

Fill in the following Blanks:

- 1) The field of emphasises on the diagnosis, causes, and treatment of severe psychological disorders and emotional troubles.
- 2) Psychology emerged as an independent stream from
- 3) The branch of Military Psychology refers to the study of
- 4) inter relates engineering technologies to human behaviour.
- 5) Sports psychology is the study of influence of psychology on

2.5 LET US SUM UP

It can be summed up from the *second unit* of this block there are specific nature and scope of Psychology. The unit explained the inter relationship of psychology to other disciplines. You also came to know about the scopes and subfields of Psychology. Further, some of the other applications of Psychology were also discussed in the present unit.

2.6 UNIT END QUESTIONS

- 1) What are the different applications of psychology?
- 2) Illustrate the tasks of psychologists.
- 3) Discuss the various fields of psychology.
- 4) Write a note on the nature and scope of psychology
- 5) Explain early division of psychology.
- 6) Write a note on the following subfields of psychology:
 - a) Comparative psychology
 - b) Cultural psychology
 - c) Social psychology

2.7 GLOSSARY

- Clinical Psychology** : It is that branch of psychology which deals with the assessment and treatment of mental illness and abnormal behaviour.
- Cognitive Psychology** : It deals with human information processing abilities. Psychologists in this field study all aspects of cognition such as memory, thinking, problem solving, decision making, language, reasoning and so on.
- Community Psychology** : The field applies to the community-wide mental health through research, prevention, education, and consultation. Community psychologists apply psychological principles, ideas, and points of view to help solve social problems and to help individuals in adapting to their work and living groups.
- Counseling Psychology** : This branch deals with helping people/individuals with personal problems including interpersonal relations, career choice, mild emotional troubles or behavioural problems such as over eating, slow learning or lack of concentration.
- Ergonomics** : It is a discipline which inter relates engineering technologies to human behaviour. It deals with the process of designing and managing the work place environment, products or systems for the comfort and optimum performance of employees and individuals.

2.8 ANSWERS TO SELF ASSESSMENT QUESTIONS (SAQ)

SAQ-I

- 1) False

- 2) False
- 3) True
- 4) False
- 5) True

SAQ-II

- 1) Clinical Psychology
- 2) Philosophy
- 3) implying psychological theories to understand as well as predict behaviours of military forces
- 4) Ergonomics
- 5) sports, athletic performance, exercise, and physical activity

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