
UNIT 2 BRANCHES AND FIELDS OF PSYCHOLOGY

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2.0 INTRODUCTION

We have come to know from unit 1 that psychology is the scientific study of behaviour and cognitive (mental) processes. We now, also know about the nature and characteristics of behaviour. However, behaviour is studied by other academic disciplines too. So, which aspects of behaviour are the concerns of psychology? Also, what is the relation of psychology with other academic disciplines?

You might have heard people using the terms ‘psychiatrist’, ‘psychologist’, ‘counselor’, etc. But, many of them perhaps, do not know the difference between them. Many of them also do not know, as to where do psychologists work. They think, psychologists mainly work in mental hospitals to treat abnormal/insane people, or may be teaching psychology at schools and colleges/universities. While certainly, these are the places where psychologists work, there are many other areas where knowledge of psychology is applied.

In this unit, you will find answer to the above questions. You will also come to know about the various branches of psychology and the wide range of fields where psychologists apply the principles of psychology, to solve a variety of human problems and/or improve the quality of life.

2.1 OBJECTIVES

On successful completion of this unit, you will be able to:

- Discuss the relation of Psychology to other academic disciplines;
- Describe the basic branches of Psychology;
- Explain various applied fields of Psychology;
- Identify the basic and the applied fields of Psychology;

- Distinguish between a Psychologist and a Psychiatrist; and
- Identify the places where psychologists work.

2.2 PSYCHOLOGY: ITS RELATION TO OTHER SCIENCES

You have already learnt from unit 1 that psychology as a 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 the results of physics, chemistry and mathematics and have made life easier and comfortable. Similarly, medical sciences have contributed significantly to not only fight and control/eradicate many deadly diseases, but also cure/prevent many diseases. Psychologists have also developed a number of techniques to help people lead a fuller and happier life by promoting/enhancing their psychological health. Psychologists also cure 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, man made 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, developments in one particular science, or sometimes more than one discipline, have influenced the developments in other sciences. Thus, no particular field of science can not 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, sociology, anthropology, cybernetics and other sciences. Its methods of enquiry and analysis as well as application have all been influenced by developments in other subjects.

Of course, development in psychology have in turn, influenced the growth and development of other disciplines 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 in some detail 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 and Beena, 2002)

2.3 BRANCHES AND FIELDS OF PSYCHOLOGY

All sciences have broadly, 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, 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

Psychology too, like other sciences, started with basic branches, which were classified as: experimental and non-experimental. The experimental branches started with *physiological*, *learning*, and *perception*. Many psychologists attempt to understand the fundamental causes of behaviour and their work may not be directly applied to solve practical problems. They are primarily engaged in basic research, and study such fundamental processes as learning, memory, thinking, sensation and 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*. 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 many theories, e.g.; application of theories of motivation to organisations has resulted in many work motivation theories. Thus, today, there are many branches of psychology, which are categorized under both basic and applied branches.

Many authors use the terms ‘branch’ and ‘field’ interchangeably. Area or branch seem 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.

Now, let us look at some of the psychology's major branches/fields, as described by various authors (Baron, 1999; Coon, & Mitterer, 2008; Morgan et al., 1986; and Parameswaran & Beena, 2002).

2.3.2 Basic Fields

The basic fields in psychology are primarily concerned with identifying the causes of behaviour. Psychologists who work in these fields try to understand and describe the determinants of behaviour. The following are the basic fields:

Biopsychology: Studies the 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. It is impossible to understand and explain behaviour without an understanding of the structure and functioning of the brain. Along with the brain, the entire nervous system plays a crucial role in behaviour. Hence, there is an intimate relationship between psychology and neurology, neurophysiology, neurochemistry and other branches of knowledge which are directly involved with the study of the nervous system, particularly the brain. 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.

Cognitive Psychology: Studies 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.

Comparative Psychology: 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 does the queen bee direct, control, and gets things done by the worker bees, may provide meaningful information about leadership.

Cultural Psychology: Studies the ways in which culture, subculture, and ethnic group membership affect behaviour. These psychologists do cross cultural research and compare behaviour of people in different nations.

Experimental Psychology: Investigates all aspects of psychological processes like perception, learning, and motivation. The major research method used by these psychologists include controlled experiments. But, as Morgan et al. (1986) put it, experimental method is also used by psychologists other than experimental

psychologists. For instance, social psychologists may do experiments to determine the effects of various group pressures and 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.

Gender Psychology: Does research on differences between males and females, the acquisition of gender identity, and the role of gender throughout life.

Learning Psychology: Studies how and why learning occurs. These psychologists develop theories of learning and apply the laws and principles of learning to solve a variety of human problems.

Personality Psychology: Studies personality traits and dynamics. These psychologists develop theories of personality and tests for assessing personality traits. They also identify the causes of problems related to personality development.

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.

As we know, *Physiological Psychology* is categorised under 'experimental' psychology. That is why some authors called this branch as '*experimental and Physiological Psychology*'. On the other hand, some authors have categorized '*experimental Psychology*' as a separate branch of psychology.

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

2.3.3 Applied Fields

Social Psychology: Investigates human social behaviour, including attitudes, conformity, persuasion, prejudice, friendship, aggression, helping and so forth. 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.

This field has developed by the joint contribution of sociologies 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 up on the individual.

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

Self Assessment Questions

- 1) Experimental psychology is distinguished from other sub-fields, because:
 - a) It studies the fundamental psychological processes
 - b) The experimental method is used by these psychologists
- 2) The field that studies memory, thinking, problem solving etc. is known as;
 - a) Comparative psychology b) Personality psychology c) Cognitive psychology

Answers

1. b) 2. c)

Clinical Psychology: Does psychotherapy; investigates clinical problems; develops methods of treatment. 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 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. Also, whenever there is a possibility of medical disorder, a patient should be examined by a psychiatrist or other physician. Moreover, mostly, only a psychiatrist can refer a patient to a hospital for treatment and care. 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. Also, they cannot refer a patient to a hospital, for care and treatment. Whenever there is a possibility of a medical disorder, a patient should be examined by a psychiatrist or other physician.

Community Psychology: Promotes 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.

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.

Consumer Psychology: Researches packaging, advertising, marketing methods, and characteristics of consumers. This field is an offshoot of social psychology.

Counseling Psychology: Does psychotherapy and personal counseling; researches emotional disturbances and counseling methods. 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 many specialised fields within the counseling psychology and experts are working as marriage counselors, family counselors, school counselors etc.

The work of the counseling psychologist is quite similar to that of the clinical psychologist. The difference between them is that counseling psychologists generally work with people who have milder emotional and personal problems. They may use psychotherapy in an attempt to help with these problems. Counseling psychologists are often consulted by people with specific questions, such as a choice of career or educational program.

Educational Psychology: Investigates classroom dynamics, teaching styles, and learning; develops educational tests, 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.

Engineering Psychology: Does applied research on the design of machinery, computers, airplanes, automobiles, and so on, for business, industry, and the

military. Psychologists working in this field also write instruction manual in such a manner that can be understood by laypersons so that they can operate complex machinery and home appliances.

Forensic Psychology: Investigates problems of crime and crime prevention, rehabilitation programs, prisons, courtroom dynamics; selects candidates for police work. Forensic psychologists mostly work within the judicial system in such areas as assessing emotional and psychological state of under trials and victims, evaluation of rehabilitation programmes; eyewitness testimony and evidence; jury selection; and police training etc.

Industrial/Organisational Psychology: Investigates all aspects of behaviour in work setting ranging from selection and recruitment of employees, performance appraisal, work motivation to 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 days, a 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*.

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.

School Psychology: These psychologists do psychological testing, referrals, emotional and vocational counseling of students; detect and treat learning disabilities, and help improve classroom learning. The job of school psychologists include diagnosing learning difficulties and trying to remedy them.

Educational psychology may include school psychology, but educational psychologists, as such, are usually involved with more general, less immediate problems. Educational psychologists are especially concerned with increasing the efficiency of learning in school by applying their psychological knowledge about learning and motivation to the curriculum.

Self Assessment Questions

- 1) 'Child Psychology' comprises a large part of:
 - a) School psychology
 - b) Counseling psychology
 - c) Developmental psychology
 - d) All of them
- 2) Psychologists, who deal with mild emotional troubles, work in the following field:
 - a) Health psychology
 - b) Child psychology
 - c)) Counseling psychology
 - d) All of them

Answers

- 1) c 2) b

2.3.4 Both Basic and Applied Fields

There are some fields which are categorised under both basic and applied fields, as per Feldman (Coon & Mitterer, 2007). These are described below.

Developmental Psychology: Conducts research on infant, child, adolescent, and adult development; does clinical work with disturbed children; acts as consultant to parents and schools. Emphasises on how people change physically, cognitively and socially over the entire life span. Developmental psychologists try to understand complex behaviours by studying their beginnings and the orderly ways in which they change with time. If we can trace the origin and developmental sequence of a certain behaviour, we will have a better understanding of it. Child psychology, the study of children's behaviour, consists of a large part of developmental psychology, because changes in behaviour occurs in an accelerated manner. But developmental changes also occur in adolescence, adulthood, and old age; and so the study of these changes is also a part of developmental psychology.

Developmental psychology has both research and applied aspects. For instance, a great deal of research has been done on the development of thinking in children. Progressive and systematic changes take place in their thinking during the first few years of life. On the applied side, developmental psychologists are often concerned with children who have behaviour problems or psychological disorders. The kinds of behaviours found in disturbed children are frequently quite different from the behaviours found in disturbed adults, and different methods are used to treat them.

Environmental Psychology: Studies the effects of urban noise, crowding, attitudes toward the environment, and human use of space. These psychologists act as consultants on environmental issues.

Health Psychology: Studies the relationship between behaviour and health; uses psychological principles to promote health and prevent illness.

Positive psychology: This is an emerging field of 21st century. This field is defined as the science of happiness and human strengths. Psychologists working in this field are concerned with the positive aspects of human nature such as hope, optimism, passion, love, gratitude, forgiveness, humility etc. They try to find out what makes a good life. The work of these psychologists overlaps with that of *humanistic psychologists* who have similar viewpoints.

Self Assessment Questions

- 1) To start with, 'Developmental psychology' was categorised under the following field:
 - a) Physiological psychology
 - b) Basic psychology
 - c) Applied psychology
 - d) Educational psychology
- 2) Emerging field of 21st century is:
 - a) Health psychology
 - b) Child psychology
 - c) Counseling psychology
 - d) All of them

Answers

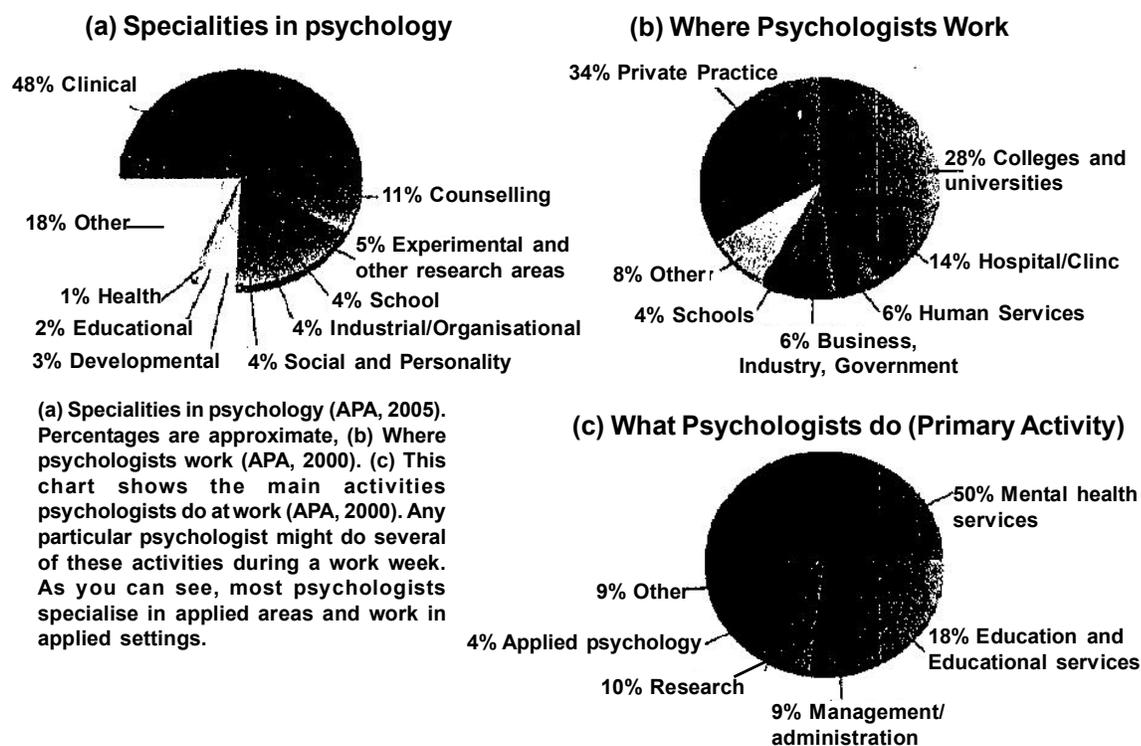
- 1) b 2) a

2.4 PSYCHOLOGISTS: WHAT DO THEY DO?

It is evident from the above that the work of psychologists are varied, as there are many specialties within the field. Psychologists are highly trained in the knowledge, methods, and theories of psychology. They usually have a master's degree or a doctorate. These degrees typically require several years of postgraduate training. Psychologists may teach, do research, give psychological tests, or serve as consultants to business, industry, government or the military. (Coon & Mitterer, 2007).

In addition to their basic interest in research, many psychologists are engaged in applying this knowledge, to solve a variety of human problems.

Approximate percentages of psychologists working in different areas, as given by Coon and Mitterer (2008), referring APA (2000), are depicted in the figure given below:



2.5 LET US SUM UP

We have discussed various branches of psychology. Some of them fall under the basic fields, and others, under applied field. We have also seen how psychologists are working and applying the knowledge of psychology in a variety of situations, be it in business, industry, community, hospital, school, or society.

This unit provides you important information regarding whom (the expert who has specialised knowledge and training in a particular field) to consult for a particular problem.

2.6 UNIT END QUESTIONS

- 1) Discuss the relation of psychology to other academic disciplines.
- 2) What are the basic branches of psychology?

- 3) Explain various applied fields of psychology.
- 4) Identify the branches which fall under both basic and the applied fields of psychology.
- 5) Distinguish between a psychologist and a psychiatrist.

2.7 SUGGESTED READINGS

Baron, R.A.(1999). *Essentials of Psychology* (2nd edition). USA: Allyn and Bacon.

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